CITY COUNCIL WORK SESSION
CITY COUNCIL CHAMBER CONFERENCE ROOM
1005 BAKER AVENUE
MONDAY, SEPTEMBER 21, 2015, 5:30 PM

1. Call to order

2. Parks and Recreation Department and Park Board decision to contract out operation of the Stumptown Ice Den for the 2015-2016 season and review of the proposed Management Agreement

3. Public Comment

4. Suggestions or direction to City Manager on above topic

5. Adjourn

September 14, 2015

MAYOR MUHLFELD AND WHITEFISH CITY COUNCIL
CITY OF WHITEFISH
WHITEFISH, MONTANA

MAYOR MUHLFELD AND MEMBERS OF WHITEFISH CITY COUNCIL:

INFORMATIONAL WORK SESSION TO DISCUSS MANAGEMENT AGREEMENT OF STUMPTOWN ICE DEN

HISTORY

The City of Whitefish Parks and Recreation Department has managed operations at the Stumptown Ice Den since it was built in October of 2003. Throughout this time, user groups and the department have developed programming, resulting in ample use of the facility. As interest in the use of the facility increased, the demands for higher levels of management and greater availability of use have also increased. User groups, in the past year, have repeatedly requested the City provide the opportunity for a management agreement. User groups have been actively involved in the mechanical system upgrades, budgeting process, and development of policies and procedures through their representatives on the Ice Rink Advisory Committee. User groups have also successfully fundraised in the past for some of the funds required to build the facility, as well as for the repair, replacement, and purchase of new mechanical components and facility upgrades.

On August 28, 2015 I received the resignation of Shannon Holmes, Recreation Business Manager. In consideration of this resignation and the process of hiring a replacement, it was necessary that the future management of the facility be evaluated and consideration be made as to the past requests of the user groups. On September 9, 2015, the Ice Rink Advisory Committee moved unanimously to recommend to the Park Board of Commissioners that they advertise and solicit requests for qualifications for a management agreement for the Stumptown Ice Den. During the September 9, 2015 Park Board of Commissioners meeting, the Park Board moved unanimously to advertise and solicit requests for qualifications for a management agreement for the Stumptown Ice Den.

CURRENT REPORT

The Parks and Recreation Department advertised for a request for qualifications both in the Daily Interlake and the Whitefish Pilot, as well as on the City website and department Facebook page. The deadline for written notification of interest is September 18, 2015, and the deadline for statements of qualifications is September 21, 2015. Interviews of successful applicants will take place before a committee of two Park Board members, the Council representative for the Park Board, and two Council members the week of September 21st, and the management agreement is anticipated to be awarded the same week.

FINANCIAL REQUIREMENT

Although there is no financial consideration to be made by the Council, the department, while working within the approved 2016 fiscal budget, will allow for $70,000 in utility allowance, $25,000 in repair and maintenance allowance, and $10,000 in ice contract contingencies.

Sincerely,
Maria Butts
Director of Parks, Recreation and Community Services

The City of Whitefish Parks and Recreation Department is seeking qualifications from applicants for a management agreement for the Stumptown Ice Den. Request for Qualification packets can be obtained at the Parks and Recreation Office at 510 Railway St. in Whitefish. The deadline for written notification of interest is Friday, September 18, 2015 at 4pm. Presentations of qualifications will be scheduled the week of September 21, 2015. For further information, please contact Parks and Recreation at 863-2470.

Request for Qualifications for Management of the Stumptown Ice Den
City of Whitefish Parks and Recreation

Written Notification of Interest Deadline: September 18, 2015, 5 pm

Location: Parks and Recreation Office
510 Railway Street
Whitefish, MT 59937

Contact Person:

<u>Questions regarding this Request for Qualifications</u>:

Maria Butts
Director of Parks, Recreation, and Community Services
PO Box 158
Whitefish, MT 59937
(406)863-2470
parksadm@cityofwhitefish.org

GENERAL INFORMATION

A. PURPOSE

The purpose of this Request for Qualifications (RFQ) is to solicit management services of Stumptown Ice Den for the 2015-2016 season. The successful applicant shall provide management services at the facility for the benefit of the general public and user groups during agreed upon times with the Director of Parks, Recreation, and Community Services and Operator.

B. BACKGROUND

Stumptown Ice Den is very well attended in the winter season. The 2015-2016 extended season dates are August 31-October 4, 2015 and March 21-April 17, 2016 making the regular season October 5, 2015-March 20, 2015. The City of Whitefish Parks and Recreation Department is currently responsible for all aspects of management but has received requests from multiple parties expressing interest in taking over the management of the Ice Den. The City of Whitefish Parks and Recreation Department is looking to enter into a seasonal contract with one operator to serve Ice Den patrons during the 2015-2016 regular and extended seasons. This period will be considered a "trial period" to allow the department to evaluate if the service is desired to be continued for future years.

C. TERMS OF AGREEMENT

Anticipated term of the management contract would be for a period time from October 5, 2015-April 30, 2016.

D. PROVISION OF SERVICES

Under the terms and conditions of the management agreement, the selected operator shall be responsible for the procurement, installation, operation and maintenance of the equipment and supplies necessary for service provision including but not limited to the management of revenue collection, maintenance/cleaning of the facility and equipment. The selected operator shall possess all licenses, permits, insurance, and be responsible for the hiring, compensation, insurance, supervision and termination of operator employees. The selected operator agrees to comply with applicable city, state and federal ordinances, statues, laws, rules, regulations and best business practices governing management services.

E. OPERATION

The successful applicant will be required to provide a level of service including routine maintenance/cleaning equal to the standards set by the City at all other City recreation facilities, areas and parks. The City shall not be liable for any cost incurred by the selected proposer to commence and maintain operations of Stumptown Ice Den excluding the contracted funds agreed upon by both parties in the management agreement. The City is not liable for any losses incurred by the selected proposer during the term of any executed agreement. The City makes no promise of total sales amounts nor does the City guarantee the selected proposer a set number of potential patrons. The selected proposer shall adhere to the schedule and public use of Stumptown Ice Den as set forth in the management agreement.

The selected proposer shall not transfer or assign the management agreement to any other party. City shall have the option to terminate this agreement based on a request to transfer or assign.

INSTRUCTIONS FOR APPLICANTS

A. MINIMUM REQUIREMENTS FOR RESPONSIVE RFP:

1. **MINIMUM QUALIFICATIONS:** In order to be deemed minimally qualified for consideration in the award of the management agreement for the subject facility, a proposer must:

a. Possess the necessary line of credit or equity to manage a public operation of this nature.

2. In order to be deemed fully responsive to this RFQ, applicant must complete and submit the following:
a. Proposal Forms/Proposed Operation Plan
b. City Business License or a Statement of Intent to Obtain a City Business License

3. Proposers must present evidence, satisfactory to the City, indicative of their ability to operate and maintain the specified equipment. To this end, each proposer must attach the following:

a. Proof of Insurance: Applicants shall submit a Certificate of Insurance for the operations involved. In the absence of such certificate, proposers may submit a Letter-of-Commitment from an acceptable insurance company setting forth that the required insurance coverage, as described in the Management Agreement, will be available to the applicant at the time/term of contract commencement.

Commercial General Liability: Bodily injury and property damage liability as shall protect the operator and any subcontractor performing work under this contract from claims of bodily injury and property damage which arise from operation of this contract whether such operations are performed by the operator. Such insurance coverage name the City of Whitefish, its managers, directors and employees as additional insureds and protect the same from and against any negligent acts whether by commission or omission of the operator, operator's employees and any subcontractor and employees of the subcontractor. The amounts of such insurance shall not be less than ONE MILLION FIVE HUNDRED DOLLARS ($1,500,000.00) bodily injury each occurrence/aggregate and ONE MILLION FIVE HUNDRED DOLLARS ($1,500,000.00) property damage each occurrence/aggregate, or ONE MILLION FIVE HUNDRED DOLLARS ($1,500,000.00) bodily injury and property damage combined single limits each occurrence/aggregate. This insurance shall include coverage for products/completed operations, personal injury liability and contractual liability.

b. Proof of Financial Capability: Applicants shall submit a letter of commitment to secure a bond or line of credit in the amount of $100,000 from a financial institution. Documentation of the bond must be provided at the time of signature of the management agreement.

B. PREPARATION OF THE STATEMENT OF QUALIFICATIONS

1. All statements of qualification must be **typed** for submission.

2. If the statement of qualifications is made by a partnership, it shall be signed with the partnership name and by an authorized general partner, and the full names and current mailing addresses of each general and limited partner shall be supplied.

If the statement of qualifications is made by a joint venture, it shall be signed with the full name and current mailing address of each participant of the "joint venture."

In all cases, each signature must have the proper acknowledgment of execution attached to the proposal form.

3. The City may request additional information.

C. SUBMISSION OF STATEMENT OF QUALIFICATIONS

1. A written notification of interest must be submitted to the Whitefish Parks and Recreation Department, 510 Railway Street, PO BOX 158, Whitefish, MT 59937, on or before September 18, 2015 prior to 4pm local time.

2. The statement of qualifications and three (5) additional copies must be submitted on or before 12pm, September 21, 2015. The envelope shall be plainly marked with the name, current mailing address and telephone number of the proposer. The envelope shall further state:
"Statement of Qualifications for City of Whitefish 2015-2016 Stumptown Ice Den Management."

3. It is the sole responsibility of the applicant to see that the statement of qualifications is received before the submission deadline. An applicant shall bear all risks associated with delays in mail, courier services or those being hand delivered.

D. DEADLINE FOR RECEIPT OF STATEMENT OF QUALIFICATIONS

The City will receive proposals at the location indicated below:

Maria Butts
Director of Parks and Recreation
510 Railway St.
PO Box 158
Whitefish, MT 59937
On or before **September 21, 2015 prior to 12 pm local time.**
Proposals received after the above assigned date and time shall not be considered.

SUBMITTAL SUMMARY AND FORMAT

A. SUMMARY

Statement of Qualifications should be provided in 5 identical copies and include the following items, along with other materials to demonstrate applicant's expertise and capabilities.

1. A brief written description of the applicant's expertise and capability.
2. The expertise of the team assembled by the applicant to carry out the work.
3. A list of comparable management experiences undertaken by the applicant and/or team members.

B. RECOMMENDED FORMAT FOR STATEMENT OF QUALIFICATIONS

1. Description of Approach: Brief description of the applicant's management style and plan to address all aspects of management of an ice rink, including staffing, a repair and maintenance plan, and conflict resolution.

2. Team Expertise: Brief description of general qualifications, the multi-disciplinary nature of the team assembled for this project, specific evidence of relevant experience, and a list of key personnel involved in the management of the facility.

3. Comparable Projects: Summary of other comparable management experiences undertaken by the applicant and his/her team.

SELECTION PROCESS AND EVALUATION CRITERIA

A. SELECTION PROCESS

The City reserves the right to act as sole judge of the content of the submittals for the City's evaluation/selection.

B. EVALUATION CRITERIA

Selection of the best, responsible applicant will be based upon the following considerations/criteria:

1. Applicant's Experience and Capability

a. Demonstrated financial status and ability to provide the proposed management services.

b. Demonstrated operation plan detailing the ability to provide/maintain management services.

2. Service Program

a. The level of service to be provided at Stumptown Ice Den and to the general public.

b. The level of **program support** provided for department facilities, programs, and operations.

c. Demonstrated ability to provide equipment, supplies, materials, staff and sustain quality management services.

3. Concepts and Approach

a. Demonstration of the applicant's understanding of the City of Whitefish Parks and Recreation Department's facilities and operations, future growth potential, the local business community and residential population, current social issues affecting services, and the local City political environment.

C. EVALUATION PROCESS

The evaluation of applicants will be conducted by a selection panel. The panel will be comprised of representatives from the Park Board of Commissioners and Whitefish City Council. In all cases, the panel as a whole will have the appropriate experience in the conduct, administration and evaluation of projects, proposals, agreements and operations similar to the subject of the RFQ. The City is not required to conduct interviews of any proposers and may award solely on the basis of written submission. The panel will employ the applicable criteria and their expertise in evaluating all proposals, and thereafter shall create a prioritized ranking of highest to lowest of all selected submittals. Those submittals ranked in the top five may be requested to provide a best and final offer before a final award is made.

D. APPROVAL OF CONTRACT

Subsequent to the aforementioned process, panel will recommend and seek authority from the Park Board of Commissioners to award a contract with the successful proposers maintaining the highest rankings by the panel.

Written Notifications of Interest Form

Name of Applicant: Date:

A STATEMENT OF INTEREST FOR THE PROVISION OF MANAGEMENT SERVICES AT STUMPTOWN ICE DEN

I propose to provide the required management services, as well as required maintenance and upkeep of the facilities and grounds as related to my services.

I am personally acquainted with the City of Whitefish Parks and Recreation Department and am familiar with the privileges to be granted thereon. I have read the related information in this RFQ. Furthermore, I feel qualified to submit a statement of qualification.

The undersigned hereby respectfully submits this notification. I understand that a formal statement of qualification is due to the City Parks and Recreation Department by September 21, 2015 at 12pm..

Signature	**Signature**
Address	**Address**
( )	***( )***
Telephone	**Telephone**

FOR OFFICE USE ONLY

( ) Proposal Form
( ) Operation Plan
( ) Proof of Financial Capability
( ) Authorization to Release Information
( ) Proof of Insurability

MANAGEMENT AGREEMENT

THIS AGREEMENT is entered into this _____ day of _____, 2015, by and between the City of Whitefish, herein referred to as the "City", whose mailing address is PO Box 158, Whitefish, Montana 59937, and _____, herein referred to as the "Operator," whose mailing address is _____.

WHEREAS, the City is the owner of the facility described in this Agreement and desires to contract with the Operator to manage and operate the facility in order to benefit the public's recreational opportunities, to minimize the City's operational costs, and to maximize the facility's profit potential.

NOW, THEREFORE, in consideration of the terms set forth in this agreement, the parties agree as follows:

1. **Description:** This Agreement governs the operation and management of the Stumptown Ice Den, referred to in this Agreement as the "Facility", located at 725 Wisconsin Ave, Whitefish, Montana, and owned by the City.

2. **Scope of Services:** Subject to all policies and guidelines that the City may establish, the Operator shall provide the following operation and management services in compliance with all applicable federal, state and municipal laws:

   - Operate, maintain and use the Facility, its equipment, materials and supplies in accordance with the terms of this agreement.
   - Staff the Facility with its own employees and supervise their conduct and performance in the operation of the Facility.

3. **Term:** The term of this Agreement shall begin upon the date of its execution and will terminate on April 30, 2016, unless renewed as set forth herein.

4. **Consideration:** As consideration for the Operator's agreement to operate and manage the Facility:

   - The City will pay all utilities for the Facility (electricity, natural gas, water, sewer, refuse, internet) up to and not to exceed the amount of $70,000. The City will deposit said funds in a utility fund. All utility accounts will remain in the City's name, and utility invoices will be mailed to, signed by, and paid for through City accounts and procedures. The City will provide the Operator monthly statements of the utility fund, including copies of utility invoices. All utility costs incurred by the Operator in excess of $70,000 will be the sole responsibility of Operator and required to be remitted to the City in full within thirty (30) days of termination or expiration of this agreement.

   - The City will make available to the Operator funds up to and not to exceed $25,000 for repair and maintenance costs associated with the Facility. The Operator must submit copies of invoices of costs incurred for repair and maintenance of the Facility to the City within one month of invoice date along with the Operator's invoice to be entitled to reimbursement of incurred costs.

- The City will hold $10,000 in a fund to help offset loss of user group contracted ice time revenue, as described in paragraph 5 below. If loss of user group contracted ice time revenue does not meet $10,000 by the termination or expiration of this agreement, the City is entitled to retain all remaining funds. If loss of user group contracted ice time revenue exceeds $10,000, the Operator agrees to reimburse the City for the difference in full within thirty (30) days of termination or expiration of this agreement.

- All user group contract ice revenue payments in the amount of $308,716.25 shall be retained by the City. All other revenue generated by the Operator in association with the management and operation of the Facility shall be retained by the Operator.

  Other than set forth above, all associated operational costs of the Facility are the responsibility of the Operator. The Operator will not be permitted to utilize or access City accounts for purchases of supplies, services or other expenditures. The City will not assign City staff duties and City staff may not be utilized by the Operator for services required to be performed by the Operator at the Facility.

5. <u>Responsibilities of the Parties</u>:

The Operator shall have and discharge the following responsibilities during the term of this agreement:

- Assume operational duties including, but not limited to, opening and closing the Facility, collecting and depositing all revenues generated by the Facility, cleaning and maintaining the inside of the Facility, leasing ice time and space within the existing schedule, and remove snow on all sidewalks and pedestrian pathways, in accordance with City policies and ordinances.
- Hire, fire and supervise all operating personnel and independent contractors. All operating personnel shall be employees or independent contractors of the Operator and not of the City. All wages, employee insurance and benefits will be paid by Operator and all appropriate payroll withholding and reporting shall be performed by the Operator.
- Maintain, repair and replace the Facility and its related improvements and equipment in a prudent manner with the goal of preserving use by the public and maintaining an attractive, safe, and convenient facility. The Operator shall identify and maintain sufficient reserve funds (as determined by its Board of Directors) to ensure that it will be able to adequately operate, maintain, repair and replace the Facility and its related improvements and equipment at all times.
- Permit the City Parks and Recreation Department free use of the Facility in recognition of the City's fundamental role in the creation of the Facility. The City's Parks and Recreation Department shall be entitled to use the Facility at times that are useful and meaningful to the provision of recreational programs as long as such use does not interfere with other contracted ice time.
- Maintain all prices, hours, contracted ice times, and advertising contracts that have been established by the City prior to this agreement.
- Maintain all Public Skate times (including Stick and Puck sessions) that have been established by the City. Public Skate may not be cancelled or replaced by another program at any time.

- Assist the City in working with the Whitefish School District to continue all school group sessions, as established in the schedule.
- Notify the City in writing within five (5) days if contracted ice time is cancelled or changed by any user group. If contracted ice time is cancelled or changed by any user group, the Operator will be required to compensate the City for the loss of revenue as set forth in Paragraph 4.
- At all times make emergencies supplies, including but not limited to first aid kits and defibrillators, available to user groups during contracted ice time.
- Hold community members, organizations, and user groups accountable for following all City, County, State and Federal policies, ordinances, regulations and laws.
- Hold user groups accountable for rules, policies and regulations established in user group contracted ice time agreements.
- Conduct the operation of the Facility in a sound and prudent financial manner, in order to ensure that all of the Facility's payables and debts are current.
- Keep books, accounts and records that reflect all revenues and all expenditures incurred in connection with the management and operation of the Facility. The books, accounts and records shall be made available to the City for examination and audit within one (1) days' prior notice.
- Furnish to the City a detailed statement of all revenues and expenditures within twelve (12) days after the close of the month.
- To the extent that damage or destruction occurs to any portion of the Premises (including all refrigeration and personal property located therein) for which the City maintains fire or property damage insurance, and such damage or destruction is caused by the negligence or intentional action of the Operator, its agents, volunteers, independent contractors, or employees, pay the deductible with respect to such insurance coverage.

The City shall have and discharge the following responsibilities during the term of this agreement:

- Provide the consideration set forth in Paragraph 4.
- Remove snow in parking lots and drives, in accordance with all City policies and ordinances.
- Maintain and repair the original Saddle Club building, the Warming Hut and Mountain Trails Park.
- Work with the Whitefish School District to continue all group sessions, as established in the schedule.

6. **Premises:** The Operator agrees that the Premises is in an "AS IS" condition. At the expiration of this agreement, the Operator shall return the Premises in the same condition as it was at the date of this agreement, reasonable wear and tear excluded. The City reserves the right to access and enter the Premises at any time for any purpose.

The original Saddle Club building, the Warming Hut, and Mountain Trails Park are specifically excluded from this agreement. The Operator has no right to use, and no obligation to maintain, the original Saddle Club building, the Warming Hut and Mountain Trails Park.

7. **Bond.** Prior to the signing of this agreement, the Operator shall secure a bond in the amount of $100,000, in favor of and protecting the City against damage to the Facility building or

associated equipment or mechanical systems. The cost of the bond shall be borne by the Operator.

8. **User Group Committee:** The Operator agrees that it currently has a nine member Ice Rink Advisory Committee ("IRAC") and shall not increase the number of members without the prior written consent of the Whitefish Park Board of Commissioners. The Operator shall not delegate to an Executive Committee/Board or any other entity or individual substantial decision-making power of its IRAC without prior written consent of the Whitefish Park Board of Commissioners. Members of the IRAC shall not be compensated. Official meetings of IRAC shall be open to the public. The IRAC shall remain in place for the duration of this agreement. The Park Board of Commissioners shall make all appointments to the IRAC, and no committee member may be replaced without approval of the Whitefish Park Board of Commissioners. No City staff will be required to attend IRAC meetings but any may attend as a member of the public.

9. **Vending of Food and Wares and the Sale and Use of Alcoholic Beverages:** The vending of food and wares and the sale of alcoholic beverages in the Facility by users other than the Operator shall be permitted on a case-by-case basis, and subject to the terms of this paragraph. If a community member or organization proposes to vend food or wares or sell alcoholic beverages in connection with its use of the Facility, it shall be entitled to do so only if it has obtained prior written approval from the City Parks and Recreation Director, after having first submitted a written application, describing the nature of the use, the extent of the proposed sale of food, wares or alcoholic beverages, and after providing documented proof of compliance with all City and State laws, regulations and ordinances regulating the sale of food, wares, and the provision and use of alcoholic beverages.

   The use and sale of alcoholic beverages and the sale of food or wares by the Operator shall be permitted without the need to obtain prior approval by the City Parks and Recreation Director. The use of alcoholic beverages, without sale, by a community member or organization may be permitted by the Operator on a case-by-case basis. The Operator is responsible for ensuring that any community member or organization proposing to use alcoholic beverages in connection with its use of the Facility executes an agreement to comply with all City and State laws, regulations and ordinances regulating the provision and use of alcoholic beverages.

10. **Alterations or Improvements:** Prior to making alterations or improvements to the Facility, the Operator shall first notify the City, in writing, of the proposed changes, and shall provide sufficient detail in order to permit the City to evaluate the proposed changes. The City may require additional information concerning the proposed changes. The City shall, within thirty (30) days of receipt of all necessary information, indicate its approval or disapproval of the proposed changes. The City shall not unreasonably withhold its approval.

11. **Nondiscrimination:** The Operator agrees that all hiring by the Operator of persons performing this Agreement will be on the basis of merit and qualification and will not discriminate on the basis of race, color, religion, creed, political ideas, sex, age, marital status, physical or mental disability or national origin.

12. **Compliance with Laws:** The Operator shall at all times comply with all applicable ordinances, laws, policies, and regulations with respect to the operation and management of the Premises and shall apply for and obtain all required City permits in a timely manner.

13. **Indemnity Agreement:** The Operator shall protect, indemnify, defend, and save harmless the City and its officers, employees, and agents, and each of them, of and from any and all claims, demands, causes of action, damages, costs, expenses, losses, and liabilities of every kind and nature, whatsoever, including attorneys' fees and other legal expenses incurred by the City, arising out of or in any manner directly or indirectly, in whole or in part, out of the occupancy, operation, and activities of Operator and of any person attending or making use of Premises. This indemnity obligation shall apply regardless of whether the act or omission giving rise to indemnity was intentional or negligent. Provided, however, that this indemnity obligation shall not apply to injury, damage, loss, or claim of any kind caused by the sole negligence or willful misconduct of the City, its officers, employees, or agents.

14. **Insurance:**

- The Operator shall comply with the applicable requirements of the Montana Workers' Compensation Act and shall maintain, at no cost or expense to the City, workers' compensation coverage for all employees.
- The Operator shall maintain, at no expense or cost to the City, commercial general liability insurance insuring against claims for injury, death or property damage occurring on, in or about the Facility in an amount not less than $1.5 million for each occurrence. Such policy shall be written with an insurance company satisfactory to the City and provide that it shall not be cancelled without at least sixty (60) days prior written notice to the City. All insurance policies shall be insured in the name of the Operator with the City and its designees named as additional insureds on a primary and non-contributory basis. The Operator shall provide the City with proof of its liability insurance within ten (10) days following execution of this Agreement.

15. **Assignability:** This agreement is not assignable without prior written approval of the Whitefish Park Board of Commissioners.

16. **Option to Renew:** The City grants to the Operator an option to renew this agreement for a term of five (5) years after the expiration of the term of this agreement, upon a review of Operator's performance during this the term of this agreement and with approval by the Park Board of Commissioners.

17. **Default and Termination:** When a party fails to make a timely payment due hereunder or otherwise breaches the terms of this agreement, such party shall be deemed in default. Upon thirty (30) days written notice following any default, the non-defaulting party may terminate this agreement if the default is not cured. Notices shall be provided in writing and hand-delivered or mailed to the parties at the addresses set forth in the first paragraph of this Agreement. Upon termination of this agreement, the non-defaulting party may pursue all remedies available to it under any applicable law.

18. **Partial Invalidity:** Each term, covenant, condition or provisions of this agreement shall be viewed as separate and distinct, and in the event that any such term, covenant, condition or provisions shall be held by a court of competent jurisdiction to be invalid, the remaining provisions shall continue in full force and effect.

19. **Governing Law, Venue and Attorney Fees:** The construction of this agreement, and the rights and liabilities of the parties hereto, shall be governed by the laws of the State of Montana. If a party brings legal action to interpret or enforce any of the terms or provisions of this agreement, the prevailing party in such action shall be entitled to recover reasonable attorney fees and costs. Venue and jurisdiction for any such action shall be in Flathead County, Montana.

20. **Time of Essence:** Time is of the essence in the performance of all obligations under this agreement.

21. **Necessary Acts:** Each party to this agreement agrees to perform any further acts and execute and deliver any further documents that may be reasonably necessary to carry out the provisions of this agreement.

22. **Non-Waiver:** The failure of the City to insist on strict performance of any of the terms and provisions of this agreement shall not be deemed as a waiver or relinquishment of any such terms or conditions, or of any other term or condition, but the same shall remain in full force and effect.

23. **Liaison and Notice:** The City's designated representative with the Operator is the Director of Parks and Recreation, and the Operator's designated liaison with the City is _____. Any notice required or given pursuant to this agreement shall be deemed effective on the day the notice is deposited in the United States Mail, Certified Mail, Return Receipt Requested, postage prepaid and addressed to the party at the above address set forth herein.

24. **Entire Agreement:** This agreement contains the entire agreement of the parties hereto, and supersedes any prior written or oral agreements between them concerning the subject matter contained herein. There are no representations, agreements, arrangements, or understandings, oral or written, between the parties hereto relating to the subject matter contained in this agreement which are not fully expressed herein. The provisions of this agreement may be waived, altered, amended or repealed in whole or in part only upon the written consent of all parties to this agreement.

IN WITNESS WHEREOF, the parties hereto have executed this Lease the day and year first above written.

CITY OF WHITEFISH _____

By: _____ By: _____
Charles C. Stearns, City Manager

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CITY COUNCIL REGULAR MEETING AGENDA

The following is a summary of the items to come before the City Council at its regular session to be held on Monday, September 21, 2015, at **7:10 p.m.** at Interim City Hall, 1005 Baker Avenue.

Ordinance numbers start with 15-16. Resolution numbers start with 15-41.

1) CALL TO ORDER

2) PLEDGE OF ALLEGIANCE

3) PRESENTATIONS
   a) Update on City Hall/Parking Structure construction project – Mike Cronquist, Owner's Representative

4) COMMUNICATIONS FROM THE PUBLIC – (This time is set aside for the public to comment on items that are either on the agenda, but not a public hearing or on items not on the agenda. City officials do not respond during these comments, but may respond or follow-up later on the agenda or at another time. The Mayor has the option of limiting such communications to three minutes depending on the number of citizens who want to comment and the length of the meeting agenda)

5) COMMUNICATIONS FROM VOLUNTEER BOARDS

6) CONSENT AGENDA (The consent agenda is a means of expediting routine matters that require the Council's action. Debate does not typically occur on consent agenda items. Any member of the Council may remove any item for debate. Such items will typically be debated and acted upon prior to proceeding to the rest of the agenda. Ordinances require 4 votes for passage – Section 1-6-2 (E)(3) WCC)
   a) Minutes from the September 8, 2015 City Council special session (p.33)
   b) Consideration of approving an application from Dan Jacobson for the final plat of Subdivision #291 – a two lot subdivision at 221 and 225 Texas Avenue (p. 34)
   c) Consideration of approving an application from Robert Pero for the final plat of an amended plat of Lot 2, Whitefish Cottages – a 2lot subdivision at on both Waverly Place and Texas Avenue (p. 69)

7) PUBLIC HEARINGS (Items will be considered for action after public hearings) (Resolution No. 07-33 establishes a 30 minute time limit for applicant's land use presentations. Ordinances require 4 votes for passage – Section 1-6-2 (E)(3) WCC))
   a) Resolution No. 15-___; A Resolution to change the name of Third Street west of State Park Road in Patton's Subdivision to Salmon Run (p.94)
   b) Ordinance No. 15-___; An Ordinance amending Title 14, Flood Control, of the Whitefish City Code (1st Reading) (p.100)
   c) Ordinance No. 15-___; An Ordinance adopting new Flood Insurance Rate Maps for the City of Whitefish (1st Reading) (p.291)

8) COMMUNICATIONS FROM PUBLIC WORKS DIRECTOR
   a) Consideration of allowing annual, inflationary rate increases for water, sewer, and solid waste rates to go into effect (p. 469)

9) COMMUNICATIONS FROM CITY MANAGER
   a) Written report enclosed with the packet. Questions from Mayor or Council? (p.480)
   b) Other items arising between September 16th and September 21st
   c) FY15 Year-end financial report – June 30, 2015 (p. 486)

10) COMMUNICATIONS FROM MAYOR AND CITY COUNCILORS
   a) Letter from Jeff Mow, Superintendent of Glacier National Park, requesting either a Resolution or letter of support for Glacier National Park's application for designation as an International Transboundary Dark Sky Preserve (p. 500)
   b) Resolution No. 15-___; A Resolution accepting and approving the Whitefish Community Wastewater Management Program as prepared by the Whitefish Community Wastewater Committee (p. 502)
   c) Letter from Richard Young of San Diego complaining about the MDT Whitefish West Project on Hwy. 93 North (p.609)

11) ADJOURNMENT (Resolution 08-10 establishes 11:00 p.m. as end of meeting unless extended to 11:30 by majority)

The following Principles for Civil Dialogue are adopted on 2/20/2007 for use by the City Council and by all boards, committees and personnel of the City of Whitefish:

- We provide a safe environment where individual perspectives are respected, heard, and acknowledged.

- We are responsible for respectful and courteous dialogue and participation.

- We respect diverse opinions as a means to find solutions based on common ground.

- We encourage and value broad community participation.

- We encourage creative approaches to engage public participation.

- We value informed decision-making and take personal responsibility to educate and be educated.

- We believe that respectful public dialogue fosters healthy community relationships, understanding, and problem-solving.

- We acknowledge, consider and respect the natural tensions created by collaboration, change and transition.

- We follow the rules and guidelines established for each meeting.

Adopted by Resolution 07-09
February 20, 2007

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September 16, 2015

The Honorable Mayor Muhlfeld and City Councilors
City of Whitefish
Whitefish, Montana

Mayor Muhlfeld and City Councilors:

Monday, September 21, 2015 City Council Agenda Report

There will be a work session on Monday at 5:30 p.m. on the Parks and Recreation Department and Park Board decision to contract out operation of the Stumptown Ice Den for the 2015-2016 season and a review of the proposed Management Agreement. Food will be provided.

The regular Council meeting will begin at 7:10 p.m.

CONSENT AGENDA (The consent agenda is a means of expediting routine matters that require the Council's action. Debate does not typically occur on consent agenda items. Any member of the Council may remove any item for debate. Such items will typically be debated and acted upon prior to proceeding to the rest of the agenda. Ordinances require 4 votes for passage – Section 1-6-2 (E)(3) WCC)

a) Minutes from the September 8, 2015 City Council special session (p.33)
b) Consideration of approving an application from Dan Jacobson for the final plat of Subdivision #291 – a two lot subdivision at 221 and 225 Texas Avenue (p.34)
c) Consideration of approving an application from Robert Pero for the final plat of an amended plat of Lot 2, Whitefish Cottages – a 2lot subdivision at on both Waverly Place and Texas Avenue (p.69)

RECOMMENDATION: Staff respectfully recommends the City Council approve the Consent Agenda.

Item a is an administrative matter; items b and c are quasi-judicial matters.

PUBLIC HEARINGS (Items will be considered for action after public hearings) (Resolution No. 07-33 establishes a 30 minute time limit for applicant's land use presentations. Ordinances require 4 votes for passage – Section 1-6-2 (E)(3) WCC))

a) Resolution No. 15-___; A Resolution to change the name of Third Street west of State Park Road in Patton's Subdivision to Salmon Run (p.94)

From Administrative Services Director and City Clerk Necile Lorang's staff report:

Patton's Subdivision was recorded in 1949, and gave names to the public roads including First Street, Second Street and Third Street. Overtime, First Street was renamed State Park Road, Second Street was renamed Patton Lane, but no changes have been made to the street called Third Street. The City has received a request from one of the owners of adjacent property, Jay Snowden of Triple S Land Group, to rename Third Street to "Salmon Run", as using the address of Third Street, as platted in 1949, on land west of the Golf Course could easily cause confusion with our established East and West 3rd Streets that run through downtown Whitefish.

The Council acted on the request to change the road name by its adoption of Resolution No. 15-24; a resolution of intent to change the name of Third Street in Patton's Subdivision to Salmon Run at their regular meeting on August 17, 2015. Notification of the Council's intent was mailed to adjacent landowners inviting public comment. As of the date of writing this staff report, no comments have been received. A public hearing has been noticed for tonight's meeting, September 21, 2015.

The Public Works Department estimates the cost to be $130 for one sign, hardware and labor. This project will require 4 street signs, for a total estimated cost of $520. A small amount is budgeted annually in the regular Public Works' budget for sign replacement and this amount can be covered within that line item.

RECOMMENDATION: Staff respectfully recommends the City Council, after considering testimony at the public hearing and the staff report, approve a Resolution to change the name of Third Street west of State Park Road in Patton's Subdivision to Salmon Run.

This item is a legislative matter.

b) Ordinance No. 15-___; An Ordinance amending Title 14, Flood Control, of the Whitefish City Code (1st Reading) (p.100)

From Planner II Bailey Minnich's staff report:

BACKGROUND

The City of Whitefish Floodplain Regulations under Title 14 Flood Control consists of local requirements for development in the Regulated Flood Hazard Area that are adopted in conformance with Montana state law, the National Flood Insurance Program (NFIP), and the Federal Emergency Management Agency (FEMA) code of federal

regulations (CFR). The floodplain regulations also reference the Flood Insurance Study (FIS) and Flood Insurance Rate Maps (FIRMs) which are provided to the community from FEMA. The City of Whitefish has a total of 8 FIRM panels in its jurisdiction. The original floodplain regulations were adopted in 1984, with the last amendments occurring in 2007 in conjunction with revisions to the 8 FIRM panels as part of the Digital Flood Insurance Rate Map (DFIRM) adoption process.

A new mapping update project through FEMA and the Montana Department of Natural Resources and Conservation (DNRC) began back in 2011, and has recently been completed. On December 6, 2011, the DNRC held a 'kick-off' meeting to inform Flathead County and the surrounding cities about a map maintenance project called 'Risk Map' that was being undertaken using funding from FEMA to improve the accuracy of the floodplain boundaries. Flathead County was selected by the DNRC for the project because of the already acquired high-quality 'LIDAR' topographic data for much of the Flathead Valley in 2009. The Risk Map project performed new detailed studies on seven areas of Flathead County and refined the boundaries of many existing approximate A zones. The areas studied around the City of Whitefish included:

1. 1.6 miles of Cow Creek upstream from the confluence with the Whitefish River;
2. 4 miles of Whitefish River from Highway 40 upstream to Spokane Avenue; and
3. Refinement of Zone A in surrounding areas such as Lost Coon Lake, Blanchard Lake, and smaller tributaries.

In September of 2013, the City of Whitefish was informed that draft preliminary maps and flood data were completed and would be available for review by local officials starting in December 2013. A public information meeting was scheduled for October 30, 2013 and approximately 350 postcards were mailed to all landowners within or touching areas affected by the seven detailed studies. The information meeting included presentations made by representatives of DNRC and FEMA to 14 members of the public in attendance.

The formal release of preliminary revised DFIRMs and FIS occurred on April 22, 2014. Of the 8 panels within the City's jurisdiction, only 4 are affected by the revisions. Links to copies of the preliminary revised FIRM panels and FIS as well as an interactive mapping website created by FEMA was posted to the City of Whitefish webpage under the Planning and Building Department. Public open houses hosted by officials from FEMA, DNRC, Flathead County, Whitefish, and Kalispell were scheduled for May 21st in Whitefish and May 22nd in Kalispell. Approximately 2,606 postcards with notifications of the open house meeting were mailed to all impacted landowners. The open house in Whitefish was attended by 9 members of the public and the open house in Kalispell was attended by 15 members of the public. Presentations were made and questions were answered by local officials and representatives of DNRC and FEMA. Additionally, a separate meeting was held for Whitefish City Officials during the afternoon May 21st.

On July 28, 2014 official notice of 'proposed flood hazard determinations' appeared in the *Federal Register*, and notice of the revised FIRM panels and FIS and information

about the appeal process appeared in *The Daily Interlake* on September 7, 2014 and September 14, 2014. The second date of publication started a 90-day appeal period. During the formal appeal period, no appeals were received.

On April 22, 2015, the DNRC sent a letter to the City of Whitefish stating that FEMA would soon be issuing a 'Letter of Final Determination' establishing the effective date of the revised FIRM panels and FIS. The letter also stated that both FEMA and DNRC must review and approve revisions to the City's Title 14 Flood Control regulations adopting the revised FIRM panels and FIS. On May 4, 2015 FEMA issued a 'Letter of Final Determination' and 'Summary of Map Actions' to the City of Whitefish informing the City that "the modified flood hazards and revised map panel…will be effective as of November 4, 2015, and revise the FRIM that was in effect prior to that date." In the same letter FEMA informed the City that as a condition of continued participation in the National Flood Insurance Program (NFIP), the City of Whitefish is required to adopt the revised FIRM panels and FIS, as well as updated floodplain regulations which comply with the minimum standards set forth in the NFIP, the federal regulations (CFR) and the Montana state code (MCA) prior to the effective date of November 4, 2015.

Adoption of the new regulations by the effective date of November 4th is critical. If not adopted, the City of Whitefish would be suspended from the NFIP, and the community becomes ineligible for flood insurance, new insurance policies cannot be sold, and existing policies cannot be renewed.

PROPOSED AMENDMENTS

The outlined amendments to Title 14 in the attached Exhibit 'A' are proposed to bring the City of Whitefish's regulations into compliance with the minimum criteria established by the National Flood Insurance Program's Floodplain Management Regulations at Title 44 Code of Federal Regulations (CFR), the state of Montana's minimum floodplain requirements under Montana Code Annotated (MCA) Title 76 Chapter 5 Flood Plain and Floodway Management, and the Administrative Rules of Montana (ARM) Chapter 15 Floodplain Management Engineering Bureau. Staff utilized the Montana DNRC's 2014 Model Regulations to complete the required code amendments. The Model Regulations were created to provide a template for local land use regulations for communities participating in the NFIP. Staff utilized the Model's language but maintained the current City code formatting. Substantial adherence to the Model assists in facilitating reviews by the DNRC and FEMA. Both agencies must find the local regulations adequate and acceptable before local adoption. Currently, the proposed amendments are still under review by the DNRC and FEMA. However, comments have been submitted to staff through multiple checklists and emails, and it is anticipated that a letter of acceptance by the DNRC and FEMA will be provided shortly. Staff is proposing a new Chapter 6 which will allow the waiver of a Floodplain Development Permit for certain activities within the Lake and Lakeshore Protection Zone. Additionally, staff is proposing a new Appendix B which lists the current

effective FIRM panels and FIS study. This will allow future map adoptions to be approved without having to re-adopt the entire Title 14.

RECOMMENDATION – Staff respectfully recommends the City Council, after considering the testimony at the public hearing and the staff recommendation, adopt an Ordinance amending Title 14, Flood Control, of the Whitefish City Code and adopt the Findings of Fact. (1st Reading)

FINDINGS OF FACT

1. Whereas, legal public notice according to the Whitefish City Code was published in *The Daily Interlake* on September 6, 2015 and the *Whitefish Pilot* on September 16, 2015;

2. Whereas, our local floodplain regulations need to be consistent with the M.C.A., the A.R.M., and the Code of Federal Regulations as reviewed and accepted by the DNRC and FEMA;

3. Whereas the proposed amendments are required to meet the minimum requirements of the National Flood Insurance Program and the State of Montana;

4. Whereas, as a condition of continued participation in the National Flood Insurance Program, the City of Whitefish is required to adopt the revised FIRM panels and FIS by November 4, 2015.

We find it is in the best interest of the City of Whitefish to amend Title 14: Flood Control.

This item is a legislative matter.

c) Ordinance No. 15-___; An Ordinance adopting new Flood Insurance Rate Maps for the City of Whitefish (1st Reading) (p.291)

See staff report above.

RECOMMENDATION: Staff respectfully recommends the City Council, after considering the testimony at the public hearing and the staff recommendation, adopt an Ordinance adopting new Flood Insurance Rate Maps for the City of Whitefish (1st Reading).

This item is a quasi-judicial matter.

COMMUNICATIONS FROM PUBLIC WORKS DIRECTOR

a) Consideration of allowing annual, inflationary rate increases for water, sewer, and solid waste rates to go into effect (p.469)

From Public Works Director Craig Workman's staff report:

Introduction/History

The City Council adopted Resolution 13-29 on October 7, 2013. This resolution stipulates that water and sewer rates shall be automatically adjusted on October 1st of each year based on the Consumer Price Index for Water, Sewer and Trash Collection Services. These numbers are reported by the U.S. Department of Labor each December for the twelve-month period ending December 31 of the preceding year.

Resolution 13-29 also stipulates that solid waste collection fees shall be automatically increased by 3% on October 1st each year through 2016, corresponding with our current service contract with North Valley Refuse. A copy of Resolution 13-29 is attached.

Current Report

Annual inflationary rate adjustments allow revenues to keep pace with steadily rising costs for many items such as labor, equipment, and materials. Relatively small periodic increases help mitigate the impact of abrupt rate hikes that might otherwise be necessary to catch up with inflation or to finance major capital projects.

A table from the Bureau of Labor Statistics' report on the Consumer Price Index for All Urban Customers is attached, indicating the CPI for Water, Sewer and Trash Collection Services for the 12 month period ending December 2014 was **4.6%**. Based on the language set forth in Resolution 13-29, water and wastewater services rates and charges shall therefore be increased by 4.6%, as shown on the attached rate schedule, which becomes effective October 1, 2015.

These water and sewer rate increases will result an additional charge of approximately $3.98 per month for a typical residential customer and are estimated to generate additional annual revenues of $132,250 and $110,400 for the Water and Wastewater Funds, respectively.

Also in accordance with Resolution 13-29, garbage collection services rates and charges will be increased by 3.0%, as shown on the attached rate schedule, which becomes effective October 1, 2015. It should be noted that there was a formula error in the rate matrix which resulted in some of the rates shown on the previous year's rate table being slightly off. These discrepancies only affected a small percentage of customers who had multiple containers. The rate table for 2015-2016 has been corrected and any customers who were overcharged based on the previous rate table will be credited accordingly.

This annual 3% increase will result in an additional charge of approximately $0.27 per month for a typical residential customer and generate roughly $24,147 in additional annual revenue for the Solid Waste Fund.

A copy of the FY 16 Budget Summary is attached for reference purposes. Please note, the beginning cash, revenue, and ending cash values for the Water, Wastewater, and Solid Waste Funds do not reflect these increased rates and fees.

Financial Requirement

This matter does not involve a financial requirement for the Water or Wastewater Funds, although significant consequences could result if effective revenues were allowed to decline due to inflation.

Likewise, this matter does not involve a financial requirement for the Solid Waste Fund, although the 3% increase in user fees, corresponding to the 3% increase in payments to our contract hauler, will allow us to maintain cash reserves.

RECOMMENDATION – Staff respectfully recommends the City Council consider the financial performance of the water, wastewater, and solid waste funds and decide if a 4.6% rate increase in water and wastewater rates are justified along with a 3% rate increase in solid waste collection fees. In accordance with Resolution 13-29, should City Council accept these automatic rate and fee increases for the Water, Wastewater and Solid Waste Funds, no action is necessary. If the Council chooses to reduce or forego any of these changes, they can so direct staff and a new resolution can be prepared for consideration at the October 5, 2015 City Council meeting.

COMMUNICATIONS FROM CITY MANAGER

a) Written report enclosed with the packet. Questions from Mayor or Council? (p.480)
b) Other items arising between September 16th and September 21st
c) FY15 Year-end financial report – June 30, 2015 (p.486)

Finance Director Dana Smith has a comprehensive, year-end financial report in the packet.

COMMUNICATIONS FROM MAYOR AND CITY COUNCILORS

a) Letter from Jeff Mow, Superintendent of Glacier National Park, requesting either a Resolution or letter of support for Glacier National Park's application for designation as an International Transboundary Dark Sky Preserve (p.500)
b) Resolution No. 15-___; A Resolution accepting and approving the Whitefish Community Wastewater Management Program as prepared by the Whitefish Community Wastewater Committee (p.502)
c) Letter from Richard Young of San Diego complaining about the MDT Whitefish West Project on Hwy. 93 North (p.609)

ADJOURNMENT

Sincerely,

Chuck

Chuck Stearns, City Manager

"Cheat Sheet" for Robert's Rules						
Motion	In Order When Another has the Floor?	Second Required?	Debatable?	Amendable?	Vote Required for Adoption	Can be reconsidered?
Main Motion	N	Y	Y	Y	Majority unless other spec'd by Bylaws	Y
Adjournment	N	Y	N	Y	Majority	N
Recess (no question before the body)	N	Y	N	Y	Majority	N
Recess (question before the body)	N	Y	Y	Y	Majority	N
Accept Report	N	Y	Y	Y	Majority	Y
Amend Pending Motion	N	Y	If motion to be amended is debatable	Y	Majority	Y
Amend an Amendment of Pending Motion	N	Y	See above	N	Majority	Y
Change from Agenda to Take a Matter out of Order	N	Y	N	N	Two-thirds	N
Limit Debate Previous Question / Question	N	Y	N	Y	Two-thirds	Yes, but not if vote taken on pending motion.
Limit Debate or extend limits for duration of meeting	N	Y	Y	Y	Two-thirds	Y
Division of Assembly (Roll Call)	Y	N	N	N	Demand by a single member compels division	N
Division of Ques/ Motion	N	Y	N	Y	Majority	N
Point of Information	Y	N	N	N	Vote is not taken	N
Point of Order / Procedure	Y	N	N	N	Vote is not taken	N
Lay on Table	N	Y	N	N	Majority	N
Take from Table	N	Y	N	N	Majority	N
Suspend the Rules as applied to rules of order or, take motion out of order	N	Y	N	N	Two-thirds	N
Refer (Commit)	N	Y	Y	N	Majority	Neg. vote only

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WHITEFISH CITY COUNCIL MINUTES
SEPTEMBER 8, 2015
SPECIAL SESSION, 5:15 PM

1. Call to Order

Deputy Mayor Hildner called the meeting to order. Councilors present were Fitzgerald, Frandsen, Barberis and Sweeney. City Staff present were City Manager Stearns and City Clerk Lorang.

2. Interviews

Deputy Mayor Hildner and Council interviewed applicant Donna Emerson, applicant for a Member at Large on the Lakeshore Protection Committee.

3. Public Comment – None.

4. Appointments

Councilor Frandsen made a motion, second by Councilor Fitzgerald, to appoint Donna Emerson as a Member at Large on the Lakeshore Protection Committee for a term expiring on December 31, 2017. The motion passed unanimously.

5. Adjournment – Deputy Mayor Hildner adjourned the Special Session at 5:29 p.m.

_____
Deputy Mayor Richard S. Hildner

Attest:

_____
Necile Lorang, City Clerk

PLANNING & BUILDING DEPARTMENT
510 Railway Street, PO Box 158, Whitefish, MT 59937
(406) 863-2410 Fax (406) 863-2409

September 15, 2015

Mayor and City Council
City of Whitefish
PO Box 158
Whitefish, MT 59937

Re: Final Plat for Subdivision #291; WFP 15-03

Honorable Mayor and Councilors:

This office is in receipt of a final plat application from Dan E. Jacobson for a 2-lot subdivision located on Texas Avenue. The property is zoned WLR (Lone-Family Limited Residential District). The preliminary plat was approved by the Whitefish Planning Department as Preliminary Plat Waiver as it met the criteria in §12-3-7. This approval was granted on June 19, 2015, subject to eleven (11) conditions of approval.

Following is a list of the conditions of approval and a discussion of how they have been met.

COMPLIANCE WITH PRELIMINARY PLAT CONDITIONS OF APPROVAL:

Condition 1. The Subdivision shall comply with Chapter 12-4 of the Whitefish Subdivision Regulations.

- Condition met. The final plat conforms to applicable City Codes and the approval granted.

Condition 2. Street addresses shall be placed on the face of the plat. (Subdivision Regulations, §12-4-20C).

- Condition met. See notes on face of plat.

Condition 3. All easements shall be shown on the face of the plat including the private water line on Lot 2. (Whitefish Subdivision Regulations, §12-3-11)

- Condition met. See easements on face of plat.

Condition 4. The Montana Department of Environmental Quality and Whitefish Public Works Department shall approve the water and sewer facilities.(Whitefish Engineering Standards, Section 4)

- Condition met. See letter from MDEQ EQ#16-1085 dated 7-29-15. In addition, city water and sewer are located in Texas Avenue and will be extended with service lines.

Condition 5. A separate water & sewer service shall be provided to each lot in accordance with the City of Whitefish's policies and design standards. (Whitefish Engineering Standards, Section 4)

- Condition met. See MFE signed by the Public Works Department.

Condition 6. An engineered stormwater plan shall be submitted to the Public Works Department for review and approval, if impervious area exceeds 5,000 square feet. (Whitefish Engineering Standards, Section 5)

- Condition met. No development is proposed at this time. At the time of development, the Public Works Department will review the plans and require an engineered stormwater plan, if needed.

Condition 7. A fee in lieu of installing sidewalks shall be paid prior to final plat. The fee shall be based on a 5-foot wide sidewalk for the Texas Avenue frontage. Contact the Public Works Department for the most recent fee. (Whitefish Engineering Standards, Section 8)

- Condition met. See copy of receipt for sidewalks along the frontage of the project.

Condition 8. Recommendations in the CMG letter dated 5-19-15 shall be adhered to for further development within the subdivision. (Whitefish Engineering Standards, Section 5)

- Condition met. See attached letter from CMG dated 5-19-15.

Condition 9. That a common off-street mail facility shall be provided by the developer and approved by the local post office. (Whitefish Subdivision Regulations, §12-4-24)

- Condition met. See letter from USPS dated 8-6-15.

Condition 10. The following notes shall be placed on the face of the plat:

a. All house numbers will be visible from the road, either at the driveway entrance or on the house and shall conform to the current Fire Code, as adopted by the City Council.

b. All noxious weeds, as described by the Whitefish City Code, shall be removed throughout the life of the development from the recorded property owner.

- Condition met. See notes on face of plat.

Condition 11. The preliminary plat approval is valid for three years and shall expire on June 19, 2018. (Whitefish Subdivision Regulations, §12-3-8)

- Condition met. The final plat applicant was received prior to its expiration.

Please be advised that the Council should act on this application within 30-days following receipt of this recommendation.

Sincerely,

Wendy Compton-Ring, AICP
Senior Planner

Attachments: 2 reproducible mylars of final plat
Final plat application, received 8-25-15
Letter, applicant, 8-25-15
Approval Letter, Whitefish Planning Department, 3-24-15
Treasurer's Certification, 7-15-15
Letter, DEQ, EQ#16-1085, 7-29-15
MFE, Public Works Department
Title Report, Stewart Title; File No. 61811; Guarantee #G-2222-000065194 Dated 4-9-15, updated 7-14-15
Consent to Plat, Valley Bank, 9-1-15
Letter, USPS, 8-6-15
Letter, CMG, 5-19-15
Copy of Receipt for Fee in Lieu of Sidewalks

c/w/att: Necile Lorang, Whitefish City Clerk

c/wo/att: Dan E Jacobson 225 Texas Avenue Whitefish, MT 59937
Eric Mulcahy, Sands Surveying 2 Village Loop Kalispell, MT 59901
Brett Walcheck, 48 North PC 151 Business Center Loop, suite A Kalispell, MT 59901

Whitefish Planning & Building Dept.
1055 C Baker Ave.
Whitefish, MT 59937
Phone: (406) 863-2410 Fax: (406) 863-2409

FINAL PLAT APPLICATION

Project /Subdivision Name: Subdivision #291

Contact Person:

Name: Sands Surveying, Inc
Address: 2 Village Loop
Kalispell, MT 59901
Phone No.: (406) 755-6481
E-mail: eric@sandssurveying.com

Owner & Mailing Address:

Dan E. Jacobson
225 Texas Avenue
Whitefish, MT 59937

Date of Preliminary Plat Approval: Waiver of Preliminary Plat was granted on June 19, 2015.

Type of Subdivision: Residential X Industrial ___ Commercial ___ PUD ___ Other ___

Total Number of Lots in Subdivision 2 Lots

Land in Project (acres) 4.092 Acres

Parkland (acres) N/A Cash-in-Lieu $ N/A Exempt Yes

No. of Lots by Type:

Single Family 2-Lots Townhouse ___ Mobile Home Park ___
Duplex ___ Apartment ___ Recreational Vehicle Park ___
Commercial ___ Industrial ___ Planned Unit Development ___
Condominium ___ Multi-Family ___

Legal Description of the Property An amended plat of Lot 1B of the Amended Plat of Lot 1, Block12 of the 1st Addition to Whitefish Townsite Company's Five Acre Tracts.

FILING FEE ATTACHED $ 2380.00

Minor Subdivision with approved preliminary plat	$1,056 + $200/lot
Major Subdivision with approved preliminary plat	$2,574 + $200/lot
Subdivisions with Waiver of Preliminary Plat	$1,980 + $200/lot
Subdivision Improvements Agreement	$ 330

Attached	Not Applicable	(**MUST CHECK ONE**)
X		Health Department Certification (Original)
X		Title Report (Original, not more than 90 days old)
X		Tax Certification (Property taxes must be paid)
	X	Consent(s) to Plat (Originals and notarized)
	X	Subdivision Improvements Agreement (Attach collateral)
	X	Parkland Cash-in-Lieu (Check attached)
	X	Maintenance Agreement
X		**Plats:** 1 opaque **OR** 2 mylars 1 mylar copy 1 signed blueline 4 bluelines 4 bluelines, ***unsigned*** 11X17 Copy 11X17 Copy

**The plat must be signed by all owners of record, the surveyor and the examining land surveyor.

Attach a letter, which lists each condition of preliminary plat approval, and individually state how each condition has specifically been met. In cases where documentation is required, such as an engineer's certification, State Department of Health certification, etc., original letters shall be submitted. Blanket statements stating, for example, "all improvements are in place" are not acceptable.

A complete final plat application must be submitted no less than **60 days** prior to expiration date of the preliminary plat.

When all application materials are submitted to the Planning & Building Department, and the staff finds the application is complete, the staff will submit a report to the City Council. The Council must act within 30 days of receipt of the revised preliminary plat application and staff report. Incomplete submittals will not be accepted and will not be forwarded to the Council for approval. Changes to the approved preliminary plat may necessitate reconsideration by the Planning Board.

I certify that all information submitted is true, accurate and complete. I understand that incomplete information will not be accepted and that false information will delay the application and may invalidate any approval. The signing of this application signifies approval for Planning & Building staff to be present on the property for routine monitoring and inspection during the approval and development process.

****NOTE: Please be advised that the County Clerk & Recorder and the City of Whitefish request that all subdivision final plat applications be accompanied with digital copies.**

Owner(s) Signature

8/20/15
Date

**A digital copy of the final plat in a Drawing Interchange File (DXF) format or an AutoCAD file format, consisting of the following layers:

1. Exterior boundary of subdivision
2. Lot or park boundaries
3. Easements
4. Roads or rights-of-way
5. A tie to either an existing subdivision corner or a corner of the public land survey system

WFP 15-03

SANDS SURVEYING, INC.
2 Village Loop Road
Kalispell, MT 59901
406-755-6481
Fax 406-755-6488

August 27, 2015

AUG 25 2015

City of Whitefish Planning and Building Department
P.O. Box 158
Whitefish, MT 59937

RE: Final Plat submittal for Subdivision #291.

Dear Planning Office:

This cover letter is intended to give an overview of the conditions of approval and the supporting documentation for meeting the conditions Subdivision #291 for Dan Jacobson. The Whitefish Planning Office granted a waiver preliminary plat approval of the subdivision on June 19, 2015 as the subdivision met the City's Requirements for a waiver as outline in Section 12-3-7 of the Whitefish Subdivision Regulations.

Preliminary Plat Conditions

Condition #1: The subdivision shall comply with Chapter 12-4 of the Whitefish Subdivision Regulations..

This condition is met. The Subdivision complies with Title 12-4.

Condition #2: Street addresses shall be placed on the face of the plat

This condition is met. Addresses appear on the face of the final plat.

Condition #3: All easements shall be shown on the face of the final plat including the private waterline on Lot 2

This condition is met. The easements are shown of the face of the plat.

Condition #4: The Montana Department of Environmental Quality and Whitefish Public Works Department shall approve the water and sewer facilities

This condition is met. See MDEQ EQ#16-1085

Condition #5: A separate water and sewer service shall be provided to each lot in accordance with the City of Whitefish's policies and design standards

This condition is met. (See MFE approval from Whitefish Public Works Department

Condition #6: An engineered stormwater plan shall be submitted to the public works Department for review and approval, if impervious areas exceed 5,000 square feet.

This condition is met. The impervious surface does not exceed 5,000 square feet and no construction is proposed at this time. At the time someone constructs a home on Lot 2 the square footage can be verified with the building permit.

Condition #7: A fee in lieu of installing sidewalks shall be paid prior to final plat. The fee shall be based on a five foot sidewalk for Texas Avenue Footage. Contact the Public Works Department for the most recent fee..

This condition is met. The Public Works Department provided a figure of $6.00 per square foot (four inches thick). There is 237.7 feet of frontage minus 24 feet for a driveway to lot 2 equals 213.7 feet of frontage. 213.7' x 5' x $6 = $6411 for a five foot wide sidewalk. The applicant has provided a check for this amount with the final plat application.

Condition #8: Recommendations of the CMG letter dated 5/19/15 shall be adhered to for further development within the subdivision.

This condition is met.

Condition #9: That a common off-street mail facility shall be provided by the developer and approved by the local post office

This condition is met. See attached letter from the USPS

Condition #10: The following notes shall be placed on the face of the final plat:

a. All house numbers will be visible from the road, either at the driveway entrance or on the house and shall conform to fire code, as adopted by the City Council.
b. All noxious weeds, as described by the Whitefish City Code, shall be removed throughout the life of the development from the recorded property owner.

This condition is met. The notes appear on the face of the final plat.

Condition #11: The preliminary plat approval is valid for three years and shall expire on June 19, 2018.

This condition is met.

A title report is included with this application. Taxes are paid in full. Should you have any questions regarding this final plat application, please contact me at 755-6481.

Sincerely,

Eric H. Mulcahy, AICP
Sands Surveying Inc.

Attachments: Final Plat Application
Cash in Lieu of Sidewalk $6,411.00
MFE – Whitefish Public Works Department
MDEQ approvals EQ# 16-1085, dated 7/29/15
Letter – USPS
Title Report – Stewart Title; File #: 61811; Guarantee #: G-2222-000065194 Dated; April 9, 2015 and Update: July 14, 2015
Tax Certification (7/15/15)

PLANNING & BUILDING DEPARTMENT
510 Railway Street, PO Box 158, Whitefish, MT 59937
(406) 863-2410 Fax (406) 863-2409

June 19, 2015

Dan E Jacobson
225 Texas Avenue
Whitefish, MT 59937

RE: 221 & 225 Texas Avenue (Lot 1B, Block 12 of Amended Plat of Lot 1, Block 12, 1st Addition to Whitefish Townsite Company Five Acre Tracts in S25 T31N R22W); Subdivision #291 – Waiver of Preliminary Plat; WPP 15-03

Dear Mr. Jacobson:

This is in response to your application for a preliminary plat waiver for a residential subdivision at the above described property. The request would create two lots for single family home development. Lot 1, with the existing home, is proposed to be 1.162 acres and Lot 2 is proposed to be 2.930 acres. Access will be from Texas Avenue. The properties are zoned WLR (One-Family Limited Residential District) with a minimum lot area of 15,000 square feet (0.344 acres) and a minimum lot width of 80-feet (§11-2E-4).

Our office finds that the proposed subdivision substantially meets the preliminary plat waiver criteria outlined in §12-3-7 of the Whitefish Subdivision Regulations which includes the following:

- The plat contains three (3) or fewer lots;
- There is no public dedication of streets or other public infrastructure;
- All lots have legal and physical access conforming to these Regulations;
- Each lot has a suitable building site and there are no environmental hazards present;
- Municipal sewer, water and other utilities are adequate and in place;
- The subdivision complies with these Regulations and current zoning regulations; and
- No significant effects are anticipated on agriculture and agricultural water user facilities, local services, the natural environment, wildlife and wildlife habitat and the public health and safety.

Due to the relatively minor impacts that this subdivision poses, this office grants preliminary plat waiver approval subject to the following conditions:

1. The Subdivision shall comply with Chapter 12-4 of the Whitefish Subdivision Regulations.

2. Street addresses shall be placed on the face of the plat. (Subdivision Regulations, §12-4-20C)

3. All easements shall be shown on the face of the plat including the private water line on Lot 2. (Whitefish Subdivision Regulations, §12-3-11)

4. The Montana Department of Environmental Quality and Whitefish Public Works Department shall approve the water and sewer facilities.(Whitefish Engineering Standards, Section 4)

5. A separate water & sewer service shall be provided to each lot in accordance with the City of Whitefish's policies and design standards. (Whitefish Engineering Standards, Section 4)

6. An engineered stormwater plan shall be submitted to the Public Works Department for review and approval, if impervious area exceeds 5,000 square feet. (Whitefish Engineering Standards, Section 5)

7. A fee in lieu of installing sidewalks shall be paid prior to final plat. The fee shall be based on a 5-foot wide sidewalk for the Texas Avenue frontage. Contact the Public Works Department for the most recent fee. (Whitefish Engineering Standards, Section 8)

8. Recommendations in the CMG letter dated 5-19-15 shall be adhered to for further development within the subdivision. (Whitefish Engineering Standards, Section 5)

9. That a common off-street mail facility shall be provided by the developer and approved by the local post office. (Whitefish Subdivision Regulations, §12-4-24)

10. The following notes shall be placed on the face of the plat:

    a. All house numbers will be visible from the road, either at the driveway entrance or on the house and shall conform to the current Fire Code, as adopted by the City Council.

    b. All noxious weeds, as described by the Whitefish City Code, shall be removed throughout the life of the development from the recorded property owner.

11. The preliminary plat approval is valid for three years and shall expire on June 19, 2018. (Whitefish Subdivision Regulations, §12-3-8)

Please note that, for final plat approval, all requirements must be met per §12-3-11 (Final Plat) of the Whitefish Subdivision Regulations.

Sincerely,

Wendy Compton-Ring, AICP
Senior Planner

C: Public Works, City of Whitefish
Fire Department, City of Whitefish
Eric Mulcahy, Sands Surveying 2 Village Loop Kalispell, MT 59901

Plat Room
Flathead County, Montana
800 S. Main St.
Kalispell, MT 59901
(406) 758-5510

This Form is for Subdivisions Only

BY : SANDS

FOR : JACOBSON

DATE : 7/15/15

DESCP : SUB NO 291
(L.1B Wfsh. Tste. Co. 5 Ac. Tr.
Add. 1 Amd L.1 Blk. 12 ~ 25-31-22)

PURPOSE : SUB.

YEARS	ASSESSOR #
2011 THRU 2013	0447000
2014 ONLY	0506018

I hereby certify that there are no outstanding taxes on the property assigned the assessor numbers listed above, for the years indicated for each assessor number.

Deputy Treasurer
(seal)

DEQ
Montana Department
of Environmental Quality

RECEIVED
AUG 03 2015
BY:

July 29, 2015

Brett Walcheck PE
48 North PC
151 Business Center Loop Suite A
Kalispell MT 59901

RE: Subdivision #291
Municipal Facilities Exclusion
EQ#16-1085
City of Whitefish
Flathead County

Dear Mr. Walcheck

This is to certify that the information and fees received by the Department of Environmental Quality relating to this subdivision are in compliance with 76-4-127, MCA and ARM 17.36.602. Under 76-4-125(2)(d), MCA, this subdivision is not subject to review, and the plat can be filed with the county clerk and recorder.

Plans and specifications must be submitted when extensions of municipal facilities for the supply of water or disposal of sewage are proposed {76-4-111 (3), MCA}. Construction of water or sewer extensions prior to DEQ, Public Water Supply Section's approval is prohibited, and is subject to penalty as prescribed in Title 75, Chapter 6 and Title 76, Chapter 4.

Sincerely,

Leata English

Leata English
Subdivision Section
(406) 444-4224
email lenglish@mt.gov

cc: City Engineer
County Sanitarian
file

MUNICIPAL FACILITIES EXCLUSION CHECKLIST
(formerly called master plan exclusion)

Below, please find the information required under § 76-4-127 MCA regarding a municipal facilities exclusion for this subdivision within a growth policy area or first-class or second-class municipality.

1. Is this subdivision exempt from the Montana Platting and Subdivision Act §76-3 MCA ?
   Yes ___ No X
   If yes, then you may not use the Municipal Facilities Exclusion for this subdivision
2. Does this subdivision affect property with a Title 76-4 Approval? Yes _____ No X
   If yes, then you may not use the Municipal Facilities Exclusion for this subdivision
3. Name of Subdivision: #291
4. Name and address of the applicant: DAN & DAWN JACOBSON
   225 TEXAS AVENUE
   WHITEFISH, MONTANA 59937
5. Name and address of engineer: BRETT WALCHECK
   151 BUSINESS CENTER LOOP, STE. A
   KALISPELL, MT 59901
6. Copy of the preliminary or final plat: Attached X, Number of parcels in the subdivision: 2
7. A copy of any applicable zoning ordinances in effect: WLR, ATTACHED
8. How construction of the sewage disposal and water supply systems or extensions will be financed (method of financing): BY APPLICANT
9. Certification that the subdivision is within a jurisdictional area that has adopted a growth policy or within a first-class or second-class municipality: WHITEFISH CITY-COUNTY GROWTH POLICY
10. Copy of Growth Policy: On file X Attached: _____
11. Location of the subdivision to the city or town, vicinity map attached: Yes X No _____
12. Are adequate municipal facilities, as defined in §76-4-102 MCA, for the supply of water and disposal of sewage and solid waste available or will they be provided within the time provided allowed under§76-3-610, MCA Yes X No _____
13. Has the governing body has reviewed and approved plans to ensure adequate storm water drainage Yes X No _____.
14. Will an extension of the existing sewer main(s) be necessary to serve this subdivision? Yes _____ No X
15. Will an extension of the existing water main(s) be necessary to serve this subdivision? Yes _____ No X
16. Exclusion Checklist review fee, ($100) included: Yes X No _____
17. I certify that adequate municipal facilities for the supply of water and disposal of sewage and solid waste are available or will be provided within the time allowed under§76-3-610, MCA , and I certify that the governing body has reviewed and approved plans to ensure adequate storm water drainage. I further certify that I am authorized to sign this form on behalf of the governing body.

Name KARIN HILDING Signature _____

Dept PUBLIC WORKS Title Interim Public Works Director

City Whitefish Zip 59937 Phone 863-2450

Please sign and send with the $100.00 review fee to:

MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY
SUBDIVISION REVIEW SECTION, PERMITTING AND COMPLIANCE DIVISION
PO BOX 200901
HELENA, MT 59620

Revised 04/27/15

ENDORSEMENT

ATTACHED TO POLICY NUMBER G-2222-000065194
ISSUED BY

STEWART TITLE GUARANTY COMPANY

File No.: 61811

Charge: $0.00

1. Schedule A of the Policy is amended in the following particulars:

   a. The effective Date of Policy is hereby extended to: July 14, 2015

2. Schedule B of the above Policy is hereby amended in the following particulars:
   a. The following numbered exceptions are hereby deleted:

      None

   b. The following numbered exceptions are hereby added:

      For informational purposes only, do not rely upon for a tax payment. Flathead County records indicate the taxes for the year 2014 are:

FIRST HALF:	$1,946.16 PAID
SECOND HALF:	$1,946.13 PAID
TOTAL:	$3,892.29
Assessor No.:	74-0506018
Tax Roll No.:	43964

This endorsement is made a part of the policy and is subject to all of the terms and provisions thereof and of any prior endorsements thereto. Except to the extent expressly stated, it neither modifies any of the terms and provisions of the policy and any prior endorsements, nor does it extend the effective date of the policy and any prior endorsements, nor does it increase the face amount thereof.

Signed under seal for the Company, but this endorsement is to be valid only when it bears an authorized countersignature.

Countersigned by:

Authorized Countersignature

stewart
title guaranty company

Matt Morris
President and CEO

Main Office
211 South Main Street
Kalispell, MT 59901
Agent ID: 260052
Prepared by Nick Vernon

STEWART TITLE GUARANTY CO. INCORPORATED 1908 TEXAS

Denise Carraux
Secretary

Endorsement Serial No. **E-9648-000065194**

Guarantee (CLTA Form) Rev. 6-6-92

GUARANTEE

SUBJECT TO THE EXCLUSIONS FROM COVERAGE, THE LIMITS OF LIABILITY AND OTHER PROVISIONS OF THE CONDITIONS AND STIPULATIONS HERETO ANNEXED AND MADE A PART OF THIS GUARANTEE, AND SUBJECT TO THE FURTHER EXCLUSION AND LIMITATION THAT NO GUARANTEE IS GIVEN NOR LIABILITY ASSUMED WITH RESPECT TO THE IDENTITY OF ANY PARTY NAMED OR REFERRED TO IN SCHEDULE A OR WITH RESPECT TO THE VALIDITY, LEGAL EFFECT OR PRIORITY OF ANY MATTER SHOWN THEREIN.

ISSUED BY

STEWART TITLE GUARANTY COMPANY

a corporation, herein called the Company,
GUARANTEES

the Assured named in Schedule A against actual monetary loss or damage not exceeding the liability amount stated in Schedule A which the Assured shall sustain by reason of any incorrectness in the assurances set forth in Schedule A.

Countersigned by:

Authorized Countersignature

stewart
title guaranty company

Matt Morris
President and CEO

Main Office
211 South Main Street
Kalispell, MT 59901
Agent ID: 260052

STEWART TITLE GUARANTY CO. INCORPORATED 1908 TEXAS

Denise Carraux
Secretary

Page 1 of
Serial No. **G-2222-000065194**

GUARANTEE CONDITIONS AND STIPULATIONS

1. **Definition of Terms** – The following terms when used in this Guarantee mean:
   (a) "the Assured": the party or parties named as the Assured in this Guarantee, or on a supplemental writing executed by the Company.
   (b) "land": the land described or referred to in Schedule (A)(C) or in Part 2, and improvements affixed thereto which by law constitute real property. The term "land" does not include any property beyond the lines of the area described or referred to in Schedule (A)(C) or in Part 2, nor any right, title, interest, estate or easement in abutting streets, roads, avenues, alleys, lanes, ways or waterways.
   (c) "mortgage": mortgage, deed of trust, trust deed, or other security instrument.
   (d) "public records": records established under state statutes at Date of Guarantee for the purpose of imparting constructive notice of matters relating to real property to purchasers for value and without knowledge.
   (e) "date": the effective date;
2. **Exclusions from Coverage of this Guarantee** – The Company assumes no liability for loss or damage by reason of the following:
   (a) Taxes or assessments which are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the public records.
   (b) (1) Unpatented mining claims; (2) reservations or exceptions in patents or in Acts authorizing the issuance thereof; (3) water rights, claims or title to water: whether or not the matters excluded by (1), (2) or (3) are shown by the public records.
   (c) Assurances to title to any property beyond the lines of the land expressly described in the description set forth in Schedule (A)(C) or in Part 2 of this Guarantee, or title to streets, roads, avenues, lanes, ways or waterways on which such land abuts, or the right to maintain therein vaults, tunnels, ramps or any other structure or improvement; or any rights or easements therein unless such property, rights or easements are expressly and specifically set forth in said description.
   (d) (1) Defects, liens, encumbrances, or adverse claims against the title, if assurances are provided as to such title, and as limited by such assurances. (2) Defects, liens, encumbrances, adverse claims or other matters (a) whether or not shown by the public records, and which are created, suffered, assumed or agreed to by one or more of the Assureds; (b) which result in no loss to the Assured; or (c) which do not result in the invalidity or potential invalidity of any judicial or non-judicial proceeding which is within the scope and purpose of assurances provided.
3. **Notice of Claims to be Given by Assured Claimant** – An Assured shall notify the Company promptly in writing in case knowledge shall come to an Assured hereunder of any claim of title or interest which is adverse to the title to the estate or interest, as stated herein, and which might cause loss or damage for which the Company may be liable by virtue of this Guarantee. If prompt notice shall not be given to the Company, then all liability of the Company shall terminate with regard to the matter or matters for which prompt notice is required, provided, however, that failure to notify the Company shall in no case prejudice the rights of any Assured under this Guarantee unless the Company shall be prejudiced by the failure and then only to the extent of the prejudice.
4. **No Duty to Defend or Prosecute** – The Company shall have no duty to defend or prosecute any action or proceeding to which the Assured is a party, notwithstanding the nature of any allegation in such action or proceeding.
5. **Company's Option to Defend or Prosecute Actions; Duty of Assured Claimant to Cooperate** – Even though the Company has no duty to defend or prosecute as set forth in Paragraph 4 above:
   (a) The Company shall have the right, at its sole option and cost, to institute and prosecute any action or proceeding, interpose a defense, as limited in (b), or to do any other act which in its opinion may be necessary or desirable to establish the title to the estate or interest as stated herein, or to establish the lien rights of the Assured, or to prevent or reduce loss or damage to the Assured. The Company may take any appropriate action under the terms of this Guarantee, whether or not it shall be liable hereunder, and shall not thereby concede liability or waive any provision of this Guarantee. If the Company shall exercise its rights under this paragraph, it shall do so diligently.
   (b) If the Company elects to exercise its options as stated in Paragraph 5(a) the Company shall have the right to select counsel of its choice (subject to the right of such Assured to object for reasonable cause) to represent the Assured and shall not be liable for and will not pay the fees of any other counsel, nor will the Company pay any fees, costs or expenses incurred by an Assured in the defense of those causes of action which allege matters not covered by this Guarantee.
   (c) Whenever the Company shall have brought an action or interposed a defense as permitted by the provisions of this Guarantee, the Company may pursue any litigation to final determination by a court of competent jurisdiction and expressly reserves the right, in its sole discretion, to appeal from an adverse judgment or order.
   (d) In all cases where this Guarantee permits the Company to prosecute or provide for the defense of any action or proceeding, an Assured shall secure to the Company the right to so prosecute or provide for the defense of any action or proceeding, and all appeals therein, and permit the Company to use, at its option, the name of such Assured for this purpose. Whenever requested by the Company, an Assured, at the Company's expense, shall give the Company all reasonable aid in any action or proceeding, securing evidence, obtaining witnesses, prosecuting or defending the action or lawful act which in the opinion of the Company may be necessary or desirable to establish the title to the estate or interest as stated herein, or to establish the lien rights of the Assured. If the Company is prejudiced by the failure of the Assured to furnish the required cooperation, the Company's obligations to the Assured under the Guarantee shall terminate.
6. **Proof of Loss or Damage** – In addition to and after the notices required under Section 3 of these Conditions and Stipulations have been provided to the Company, a proof of loss or damage signed and sworn to by the Assured shall be furnished to the Company within ninety (90) days after the Assured shall ascertain the facts giving rise to the loss or damage. The proof of loss or damage shall describe the matters covered by this Guarantee which constitute the basis of loss or damage and shall state, to the extent possible, the basis of calculating the amount of the loss or damage. If the Company is prejudiced by the failure of the Assured to provide the required proof of loss or damage, the Company's obligation to such Assured under the Guarantee shall terminate. In addition, the Assured may reasonably be required to submit to examination under oath by any authorized representative of the Company and shall produce for examination, inspection and copying, at such reasonable times and places as may be designated by any authorized representative of the Company, all records, books, ledgers, checks, correspondence and memoranda, whether bearing a date before or after Date of Guarantee, which reasonably pertain to the loss or damage. Further, if requested by any authorized representative of the Company, the Assured shall grant its permission, in writing, for any authorized representative of the Company to examine, inspect and copy all records, books, ledgers, checks, correspondence and memoranda in the custody or control of a third party, which reasonably pertain to the loss or damage. All information designated as confidential by the Assured provided to the Company pursuant to this Section shall not be disclosed to others unless, in the reasonable judgment of the Company, it is necessary in the administration of the claim. Failure of the Assured to submit for examination under oath, produce other reasonably requested information or grant permission to secure reasonably necessary information from third parties as required in the above paragraph, unless prohibited by law or governmental regulation, shall terminate any liability of the Company under this Guarantee to the Assured for that claim.
7. **Options to Pay or Otherwise Settle Claims; Termination of Liability** – In case of a claim under this Guarantee, the Company shall have the following additional options:
   (a) To Pay or Tender Payment of the Amount of Liability or to Purchase the Indebtedness.

The Company shall have the option to pay or settle or compromise for or in the name of the Assured any claim which could result in loss to the Assured within the coverage of this Guarantee, or to pay the full amount of this Guarantee or, if this Guarantee is issued for the benefit of a holder of a mortgage or a lienholder, the Company shall have the option to purchase the indebtedness secured by said mortgage or said lien for the amount owing thereon, together with any costs, reasonable attorneys' fees and expenses incurred by the Assured claimant which were authorized by the Company up to the time of purchase.

Such Purchase, payment or tender of payment of the full amount of the Guarantee shall terminate all liability of the Company hereunder. In the event after notice of claim has been given to the Company by the Assured the Company offers to purchase said indebtedness, the owner of the indebtedness shall transfer and assign said indebtedness, together with any collateral security, to the Company upon payment of the purchase price.

Upon the exercise by the Company of the option provided for in Paragraph (a) the Company's obligation to the Assured under this Guarantee for the claimed loss or damage, other than to make the payment required in that paragraph, shall terminate, including any obligation to continue the defense or prosecution of any litigation for which the Company has exercised its option under Paragraph 5, and the Guarantee shall be surrendered to the Company for cancellation.

(b) To Pay or Otherwise Settle With Parties Other Than the Assured or With the Assured Claimant.

To Pay or otherwise settle with other parties for or in the name of an Assured claimant any claim assured against under this Guarantee, together with any costs, attorneys' fees and expenses incurred by the Assured claimant which were authorized by the Company up to the time of payment and which the Company is obligated to pay.

Upon the exercise by the Company of the option provided for in Paragraph (b) the Company's obligation to the Assured under this Guarantee for the claimed loss or damage, other than to make the payment required in that paragraph, shall terminate, including any obligation to continue the defense or prosecution of any litigation for which the Company has exercised its options under Paragraph 5.

8. **Determination and Extent of Liability** – This Guarantee is a contract of Indemnity against actual monetary loss or damage sustained or incurred by the Assured claimant who has suffered loss or damage by reason of reliance upon the assurances set forth in this Guarantee and only to the extent herein described, and subject to the exclusions stated in Paragraph 2.

The liability of the Company under this Guarantee to the Assured shall not exceed the least of:

(a) the amount of liability stated in Schedule A;

(b) the amount of the unpaid principal indebtedness secured by the mortgage of an Assured mortgagee, as limited or provided under Section 7 of these Conditions and Stipulations or as reduced under Section 10 of these Conditions and Stipulations, at the time the loss or damage assured against by this Guarantee occurs, together with interest thereon; or

(c) the difference between the value of the estate or interest covered hereby as sated herein and the value of the estate or interest subject to any defect, lien or encumbrance assured against by this Guarantee.

9. **Limitation of Liability** –

(a) If the Company establishes the title or removes the alleged defect, lien or encumbrance, or cures any other matter assured against by this Guarantee in a reasonably diligent manner by any method, including litigation and the completion of any appeals therefrom, it shall have fully performed its obligations with respect to that matter and shall not be liable for any loss or damage caused thereby.

(b) In the event of any litigation by the Company or with the Company's consent, the Company shall have no liability for loss or damage until there has been a final determination by a court of competent jurisdiction, and disposition of all appeals therefrom, adverse to the title, as stated herein.

(c) The Company shall not be liable for loss or damage to any Assured for liability voluntarily assumed by the Assured in settling any claim or suit without the prior written consent of the Company.

10. **Reduction of Liability or Termination of Liability** – All payments under this Guarantee, except payments made for costs, attorneys' fees and expenses pursuant to Paragraph 5 shall reduce the amount of liability pro tanto.

11. **Payment of Loss**

(a) No payment shall be made without producing this Guarantee for endorsement of the payment unless the Guarantee has been lost or destroyed, in which case proof of loss or destruction shall be furnished to the satisfaction of the Company.

(b) When liability and the extent of loss or damage has been definitely fixed in accordance with these Conditions and Stipulations, the loss or damage shall be payable within thirty (30) days thereafter.

12. **Subrogation Upon Payment or Settlement** – Whenever the Company shall have settled and paid a claim under this Guarantee, all right of subrogation shall vest in the Company unaffected by any act of the Assured claimant.

The Company shall be subrogated to and be entitled to all rights and remedies which the Assured would have had against any person or property in respect to the claim had this Guarantee not been issued. If requested by the Company, the Assured shall transfer to the Company all rights and remedies against any person or property necessary in order to perfect this right of subrogation. The Assured shall permit the Company to sue, compromise or settle in the name of the Assured and to use the name of the assured in any transaction or litigation involving these rights or remedies.

If a payment on account of a claim does not fully cover the loss of the Assured the Company shall be subrogated to all rights and remedies of the Assured after the Assured shall have recovered its principal, interest and costs of collection.

13. **Arbitration** – Unless prohibited by applicable law, either the Company or the Assured may demand arbitration pursuant to the Title Insurance Arbitration Rules of the American Arbitration Association. Arbitrable matters may include, but are not limited to, any controversy or claim between the Company and the Assured arising out of or relating to this Guarantee, any service of the Company in connection with its issuance or the breach of a Guarantee provision or other obligation. All arbitrable matters when the Amount of Liability is $1,000,000 or less shall be arbitrated at the option of either the Company or the Assured. All arbitrable matters when the amount of liability is in excess of $1,000,000 shall be arbitrated only when agreed to by both the Company and the Assured. The Rules in effect at Date of Guarantee shall be binding upon the parties. The award may include attorneys' fees only if the laws of the state in which the land is located permits a court to award attorneys' fees to a prevailing party. Judgment upon the award rendered by the Arbitrator(s) may be entered in any court having jurisdiction thereof. The law of the situs of the land shall apply to an aribitration under the Title Insurance Arbitration Rules. A copy of the Rules may be obtained from the Company upon request.

14. **Liability Limited to This Guarantee; Guarantee Entire Contract** –

(a) This Guarantee together with all endorsements, if any, attached hereto by the Company is the entire Guarantee and contract between the Assured and the Company. In interpreting any provision of this Guarantee, this Guarantee shall be construed as a whole.

(b) Any claim of loss or damage, whether or not based on negligence, or any action asserting such claim, shall be restricted to this Guarantee.

(c) No amendment of or endorsement to this Guarantee can be made except by a writing endorsed hereon or attached hereto signed by either the President, a Vice President, the Secretary, an Assistant Secretary, or validating officer or authorized signatory of the Company.

15. **Notices, Where Sent** – All notices required to be given the Company and any statement in writing required to be furnished the Company shall include the number of this Guarantee and shall be addressed to the Company at P.O. Box 2029, Houston, Texas 77252-2029.

SUBDIVISION GUARANTEE
SCHEDULE A

File No.: 61811 **Guarantee No.:** G-2222-000065194

Date of Guarantee: April 09, 2015 at 5:00 P.M.

Liability: $5,000.00 **Premium:** $125.00

A. Assured:

Sands Surveying, Inc.

B. Assurances:

1. Description of the land:

   A tract of land, situated, lying and being in the Southeast Quarter of the Southeast Quarter of Section 25, Township 31 North, Range 22 West, P.M.M., Flathead County, Montana, and more particularly described as follows to wit:

   Lot 1B of the Amended Plat of Lot 1, Block 12 of the First Addition to Whitefish Townsite Company's Five Acre Tracts.

2. Name of Proposed Subdivision Plat or Condominium Map:

   The Amended Plat of Lot 1B of the Amended Plat of Lot 1, Block 12 of 1st Add. to Whitefish Townsite Company's Five Acre Tracts

3. That the only hereafter named parties appear to have an interest showing in the public records affecting the land necessitating their execution of the name proposed plat or map area as follows:

   Dan E. Jacobson

File No.: 61811 **Guarantee No.:** G-2222-000065194

SUBJECT TO:

1. Taxes or assessments which are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the public records. Proceedings by a public agency, which may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by public record.

2. (a) Unpatented mining claims; (b) reservations or exceptions in patents or in Acts authoring the issuance thereof; (c) water rights, claims or title to water; ditch rights; (d) any right, title or interest in any sand and gravel and/or minerals including access to and from to extract minerals, mineral rights, or related matters, including but not limited to oil, gas, coal and other hydrocarbons; whether or not the matters excepted under (a), (b), (c) or (d) are shown by the public records.

3. Any facts, rights, interest or claims which are not shown by the public records but which could be ascertained by an inspection of the land or by making inquiry of persons in possession thereof.

4. Easements, liens or encumbrances, or claims thereof, which are not shown by the public records.

5. Discrepancies, conflicts in boundary lines, shortage in area, encroachments, or any other facts which a correct survey would disclose, and which are not shown by the public records.

6. Any lien, or right to a lien, for services, labor, or material heretofore or hereafter furnished, imposed by law and not shown by the Public Records.

7. Any service, installation or connection charge for any and all utilities, including, but not limited to sewer, gas, water or electricity.

8. County road rights-of-way, not recorded and indexed as a conveyance of record in the office of the Clerk and Recorder pursuant to Title 70, Chapter 21, M. C. A., including, but not limited to any right of the Public and the County of Flathead to use and occupy those certain roads and trails.

9. No liability is assumed for errors, omissions or changes of assessed valuations or amount of taxes assessed by any state, county, city or federal taxing or assessing authority.

10. Real estate taxes or special assessments for the year(s) 2015, that are not yet due or payable.

11. For informational purposes only, do not rely upon for a tax payment. Flathead County records indicate the taxes for the year 2014 are:
    FIRST HALF: $1,946.16 PAID
    SECOND HALF: $1,946.13 NOT PAID
    TOTAL: $3,892.29
    Assessor No.: 74-0506018
    Tax Roll No.: 43964

12. Delinquent water and sewer charges of the City of Whitefish, if any.

13. Grant of Water Easement recorded August 23, 1999 as Document #199923511150, records of Flathead County, Montana.

14. All matters, covenants, conditions, restrictions, easements and any rights, interest or claims which may exist by reason thereof, disclosed by Certificate of Survey No. 16586, but deleting any covenant, conditions or restriction indicating a preference, limitation or discrimination based on race, color, religion, sex, handicap, familial status, or national origin to the extent such covenants, conditions or restrictions violate 42 USC 3604(c).

15. Deed of Trust dated February 6, 2009 to secure payment of $219,500.00, together with interest and any other obligations secured thereby, recorded February 11, 2009 as Document #200900003616, records of Flathead County, Montana.
    Grantor: Dan Jacobson
    ~~Trustee: 1st American Title Co. of Montana~~
    Beneficiary: Valley Bank of Kalispell

16. All matters, covenants, conditions, restrictions, easements and any rights, interest or claims which may exist by reason thereof, disclosed by the plat(s) of the Amended Plat of Lot 1, Block 12 of Whitefish Townsite Company's Five Acre Tracts, but deleting any covenant, conditions or restriction indicating a preference, limitation or discrimination based on race, color, religion, sex, handicap, familial status, or national origin to the extent such covenants, conditions or restrictions violate 42 USC 3604(c).

17. Encroachment Agreement recorded January 20, 2015 as Document #201500001035, records of Flathead County, Montana.

18. All matters, covenants, conditions, restrictions, easements and any rights, interest or claims which may exist by reason thereof, disclosed by the proposed plat(s) of The Amended Plat of Lot 1B of the Amended Plat of Lot 1, Block 12 of 1st Add. to Whitefish Townsite Company's Five Acre Tracts, but deleting any covenant, conditions or restriction indicating a preference, limitation or discrimination based on race, color, religion, sex, handicap, familial status, or national origin to the extent such covenants, conditions or restrictions violate 42 USC 3604(c).

Survey/Plat, when recorded, must be in compliance with the provisions of the Montana Subdivision and Platting Act, 1973, (Sections 76-3-101 M.C.A. through 76-3-614 M.C.A.) and the regulations adopted pursuant thereto.

Easements, conditions and restrictions as disclosed or to be disclosed on proposed Survey/Plat to be recorded prior to or as part of this transaction.

STG Privacy Notice
Stewart Title Companies

WHAT DO THE STEWART TITLE COMPANIES DO WITH YOUR PERSONAL INFORMATION?

Federal and applicable state law and regulations give consumers the right to limit some but not all sharing. Federal and applicable state law regulations also require us to tell you how we collect, share, and protect your personal information. Please read this notice carefully to understand how we use your personal information. This privacy notice is distributed on behalf of the Stewart Title Guaranty Company and its title affiliates (the Stewart Title Companies), pursuant to Title V of the Gramm-Leach-Bliley Act (GLBA).

The types of personal information we collect and share depend on the product or service that you have sought through us. This information can include social security numbers and driver's license number.

All financial companies, such as the Stewart Title Companies, need to share customers' personal information to run their everyday business—to process transactions and maintain customer accounts. In the section below, we list the reasons that we can share customers' personal information; the reasons that we choose to share; and whether you can limit this sharing.

Reasons we can share your personal information.	Do we share	Can you limit this sharing?
For our everyday business purposes— to process your transactions and maintain your account. This may include running the business and managing customer accounts, such as processing transactions, mailing, and auditing services, and responding to court orders and legal investigations.	Yes	No
For our marketing purposes— to offer our products and services to you.	Yes	No
For joint marketing with other financial companies	No	We don't share
For our affiliates' everyday business purposes— information about your transactions and experiences. Affiliates are companies related by common ownership or control. They can be financial and non-financial companies. *Our affiliates may include companies with a Stewart name; financial companies, such as Stewart Title Company*	Yes	No
For our affiliates' everyday business purposes— information about your creditworthiness.	No	We don't share
For our affiliates to market to you — For your convenience, Stewart has developed a means for you to opt out from its affiliates marketing even though such mechanism is not legally required.	Yes	Yes, send your first and last name, the email address used in your transaction, your Stewart file number and the Stewart office location that is handling your transaction by email to optout@stewart.com or fax to 1-800-335-9591.
For non-affiliates to market to you. Non-affiliates are companies not related by common ownership or control. They can be financial and non-financial companies.	No	We don't share

We may disclose your personal information to our affiliates or to non-affiliates as permitted by law. If you request a transaction with a non-affiliate, such as a third party insurance company, we will disclose your personal information to that non-affiliate. [We do not control their subsequent use of information, and suggest you refer to their privacy notices.]

SHARING PRACTICES

How often do the Stewart Title Companies notify me about their practices?	We must notify you about our sharing practices when you request a transaction.
How do the Stewart Title Companies protect my personal information?	To protect your personal information from unauthorized access and use, we use security measures that comply with federal law. These measures include computer, file, and building safeguards.
How do the Stewart Title Companies collect my personal information?	We collect your personal information, for example, when you ▪ request insurance-related services ▪ provide such information to us We also collect your personal information from others, such as the real estate agent or lender involved in your transaction, credit reporting agencies, affiliates or other companies.
What sharing can I limit?	Although federal and state law give you the right to limit sharing (e.g., opt out) in certain instances, we do not share your personal information in those instances.

Contact us: If you have any questions about this privacy notice, please contact us at: **Stewart Title Guaranty Company, 1980 Post Oak Blvd., Privacy Officer, Houston, Texas 77056**

STG Privacy Notice 2 (Rev 01/26/09) Independent Agencies and Unaffiliated Escrow Agents

WHAT DO/DOES THE Sterling Title Services - Kalispell Branch (Main) DO WITH YOUR PERSONAL INFORMATION?

Federal and applicable state law and regulations give consumers the right to limit some but not all sharing. Federal and applicable state law regulations also require us to tell you how we collect, share, and protect your personal information. Please read this notice carefully to understand how we use your personal information. This privacy notice is distributed on behalf of Sterling Title Services - Kalispell Branch (Main), and its affiliates (" N/A "), pursuant to Title V of the Gramm-Leach-Bliley Act (GLBA).

The types of personal information we collect and share depend on the product or service that you have sought through us. This information can include social security numbers and driver's license number.

All financial companies, such as Sterling Title Services - Kalispell Branch (Main), need to share customers' personal information to run their everyday business—to process transactions and maintain customer accounts. In the section below, we list the reasons that we can share customers' personal information; the reasons that we choose to share; and whether you can limit this sharing.

Reasons we can share your personal information	Do we share?	Can you limit this sharing?
For our everyday business purposes— to process your transactions and maintain your account. This may include running the business and managing customer accounts, such as processing transactions, mailing, and auditing services, and responding to court orders and legal investigations.	Yes	No
For our marketing purposes— to offer our products and services to you.	Yes	No
For joint marketing with other financial companies	No	We don't share
For our affiliates' everyday business purposes— information about your transactions and experiences. Affiliates are companies related by common ownership or control. They can be financial and non-financial companies.	Yes	No
For our affiliates' everyday business purposes— information about your creditworthiness.	No	We don't share
For our affiliates to market to you	Yes	No
For non-affiliates to market to you. Non-affiliates are companies not related by common ownership or control. They can be financial and non-financial companies.	No	We don't share

We may disclose your personal information to our affiliates or to non-affiliates as permitted by law. If you request a transaction with a non-affiliate, such as a third party insurance company, we will disclose your personal information to that non-affiliate. [We do not control their subsequent use of information, and suggest you refer to their privacy notices.]

Sharing practices	
How often do/does Sterling Title Services - Kalispell Branch (Main) notify me about their practices?	We must notify you about our sharing practices when you request a transaction.
How do/does Sterling Title Services - Kalispell Branch (Main) protect my personal information?	To protect your personal information from unauthorized access and use, we use security measures that comply with federal and state law. These measures include computer, file, and building safeguards.
How do/does Sterling Title Services - Kalispell Branch (Main) collect my personal information?	We collect your personal information, for example, when you • request insurance-related services • provide such information to us We also collect your personal information from others, such as the real estate agent or lender involved in your transaction, credit reporting agencies, affiliates or other companies.
What sharing can I limit?	Although federal and state law give you the right to limit sharing (e.g., opt out) in certain instances, we do not share your personal information in those instances.

Contact Us	If you have any questions about this privacy notice, please contact us at: Sterling Title Services - Kalispell Branch (Main), 211 South Main Street, Kalispell, MT 59901

Amended Plat Of

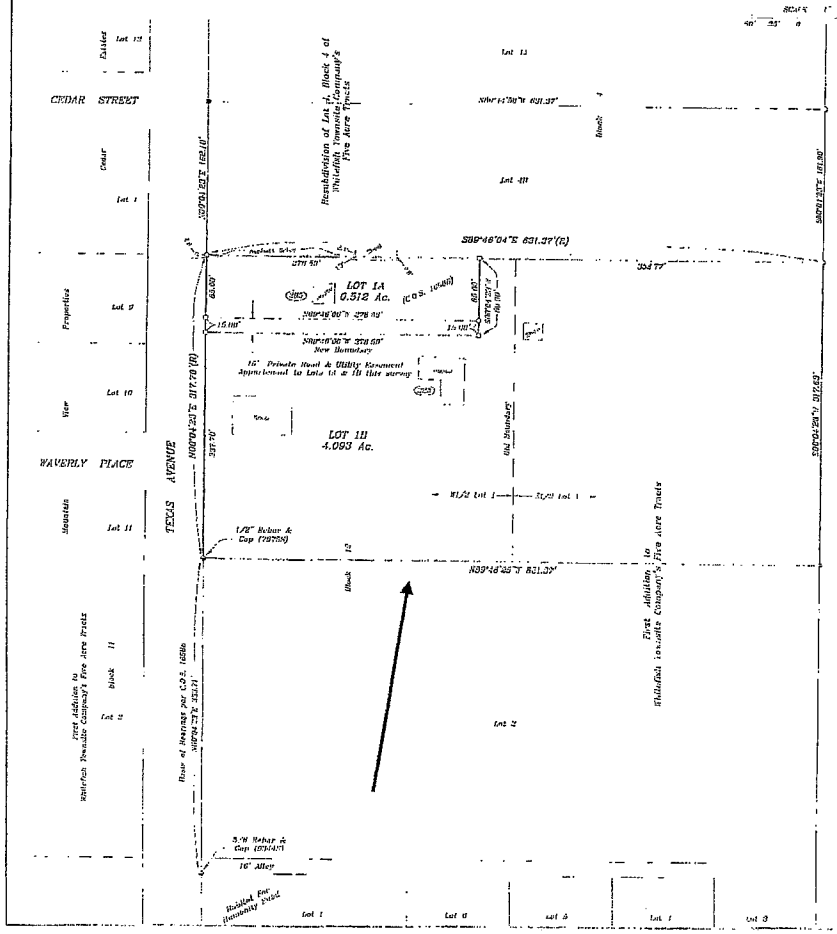
LOT 1, BLOCK 12 of 1st ADD. to WHITEFISH TOWNSITE COMPANY'S FIVE ACRE TRACTS

A Subdivision Located In

in SE1/4SE1/4 SEC. 25, T.31N., R.22W., P.M.M., FLATHEAD COUNTY, MONTANA

By: SANDS SURVEYING, Inc.
2 Village Loop
Kalispell, MT 59901
(406) 755 6481

JOB NO: 2022202 (0022202.dwg)
DRAWING DATE: APRIL 15, 2013
COMPLETED DATE: [illegible]
FOR/OWNER: DAN R. JACOBSON



PURPOSE OF SURVEY: BOUNDARY LINE ADJUSTMENT

A TRACT OF LAND, SITUATED, LYING AND BEING IN THE SOUTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 25, TOWNSHIP 31 NORTH, RANGE 22 WEST P.M.M., FLATHEAD COUNTY, MONTANA AND BEING LOT 1, BLOCK 12 OF THE FIRST ADDITION TO WHITEFISH TOWNSITE COMPANY'S FIVE ACRE TRACTS (records of Flathead County, Montana), more PARTICULARLY described as FOLLOWS to WIT:

Lot 1, Block 12 of the First Addition to Whitefish Townsite Company's Five Acre Tracts (records of Flathead County, Montana), containing 4.605 ACRES. Subject to and together with all appurtenant easements of record.

THE ABOVE DESCRIBED TRACT OF LAND SHALL HEREAFTER BE KNOWN AS:

THE AMENDED PLAT OF LOT 1, BLOCK 12 OF THE FIRST ADDITION TO WHITEFISH TOWNSITE COMPANY'S FIVE ACRE TRACTS

WHITEFISH COUNTY REGULATIONS:

I hereby certify that the purpose of this division of land is to relocate boundary lines of lots of fewer lots within a platted subdivision, and that no additional parcels are hereby created therefore, this relocation of boundaries is exempt from review as a subdivision pursuant to Section 76-3-207 (1)(d), M.C.A.

AND,

Lots 1A and 1B Block 12 are excluded from review by the Department of Environmental Quality pursuant to M.C.A. 76-4-125 (2) (d) in the division is located within jurisdictional areas that have adopted growth policies pursuant to Title 76, Chapter 1 M.C.A. or is within a first class or second class municipalities or which the governing body certifies, pursuant to 76-4-127 M.C.A., that adequate water, sewer, storm, and adequate municipal facilities will be provided." (Note: Municipal Facilities Exemption Checklist must be reviewed and approved by the Montana Department of Environmental Quality, and the original approval letter from MDEQ must be filed with the survey.)

DAN R. JACOBSON

STATE OF MONTANA)
:ss
COUNTY OF FLATHEAD)

On this [illegible] day of [illegible], 2013, before me a Notary Public for the State of Montana, personally appeared DAN R. JACOBSON, and known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that he executed the same.

(Seal)
Notary Public for the State of Montana
Printed Name [illegible]
Residing at [illegible]
My commission expires [illegible]

THIS MAP IS FURNISHED FOR INFORMATION PURPOSES ONLY TO ASSIST IN PROPERTY LOCATION WITH REFERENCE TO STREETS AND OTHER PARCELS. NO REPRESENTATION IS MADE AS TO ACCURACY AND STERLING TITLE SERVICES ASSUMES NO LIABILITY FOR ANY LOSS OCCURRING BY REASON OF RELIANCE THEREON.

LEGEND

- Set 1/2" Rebar & Cap (20000)
- Found 5/8" Rebar & Cap ([illegible])
- Found Cor. Noted
- Street Address

CERTIFICATE OF SURVEYOR

THOMAS R. SANDS [illegible]

APPROVED: [illegible]

EXAMINER LAND REGISTRAR
REG. No. [illegible]

STATE OF MONTANA)
:ss
COUNTY OF FLATHEAD)

FILED THIS [illegible] DAY OF [illegible]
AT [illegible] O'CLOCK [illegible]
[illegible]
CLERK & RECORDER
By [illegible]
[illegible]

SHEET 1 OF 1 SHEETS

Plat # 07-09-49 Abstract # N/A
Acknowledgments [illegible] by Notary Public
Date 9.5.2013 Time [illegible]
Flathead County, Montana

FILE No. [illegible]

CONSENT TO PLATTING

Pursuant to Section 76-3-612, MCA, the undersigned, Valley Bank of Kalispell, as beneficiary of a Deed of Trust dated February 6, 2009 to secure payment in the principle sum of $219,500.00, recorded February 11, 2009 as Document #200900003616, hereby consents to the Platting of a tract of land to be known and named as **Subdivision #291**.

IN WITNESS WHERE OF, said party has caused their name to be subscribed hereto on the 1st day of September, 2015

Barbara Kimbell
Signature:

Barbara J Kimbell, Vice President
Printed Name and Title:

STATE OF Montana)
SS
COUNTY OF Flathead)

On this 1st day of September, 2015, before me a Notary Public for the State of Montana, personally appeared whose name is subscribed to the foregoing instrument and acknowledged to me that they executed the same.

Signature:

REBECCA SHOEMAKER NOTARIAL SEAL STATE OF MONTANA

REBECCA SHOEMAKER
NOTARY PUBLIC for the
State of Montana
Residing at Kalispell, Montana
My Commission Expires
August 28, 2017

Printed Name of Notary Rebecca Shoemaker
Notary Public for State of Montana
Residing at: Kalispell, Flathead County
My Commission Express: 08/28/2017

To Whom it May Concern,

We are writing to verify that the new physical address of 213 Texas Avenue in Whitefish, MT will be able to receive mail delivery by the United States Postal Service in a regular mail box that is set up on the street in front of the property.

Thank you,
Mary Stewart
USPS

WHITEFISH MT 59937
AUG 6 2015
USPS

CMG Engineering, Inc.
P.O.Box 5159
1097 Trumble Creek Road
Kalispell, MT 59903-5159

Office: 406-257-8156
Fax: 406-257-8179
http://www.cmgengineering.com

May 19, 2015

48 North Engineering, Inc.
151 Business Center Loop, Suite A
Kalispell, Montana 59901

Subject: Geotechnical Consultation
Dan and Dawn Jacobson Property - 225 Texas Avenue
Whitefish, Montana

Dear Mr. Brett Walcheck,

At your request, CMG Engineering, Inc. (CMG), is providing Geotechnical Consultation services for the Dan and Dawn Jacobson Property at 225 Texas Avenue, in Whitefish, Montana. Based on conversations with you, CMG understands the property is being subdivided into 2 lots. At this time, CMG is unaware of new construction plans for either lot; however, CMG anticipates residential structures will be proposed on lot 2 in the future.

Site Reconnaissance

CMG visited the site in April 2015 to observe surface and subsurface conditions. The site is relatively flat. Due to the lack of appreciable slopes, the risk of slope stability concerns for future construction on this lot are low. The site is currently vegetated with low lying pasture grass. Previous development of Lot 1 consists of a residential house and a shop. A small shed is present on Lot 2. We understand a waterline was installed along the south edge and a portion of the east edge of the property to provide water service to the lot east of this property. A small swale is present near the south and part of the east property line, above the indicated waterline. CMG anticipates the swale is due to settlement of the backfill soils for the waterline, likely due to the lack of backfill compaction during construction of the waterline. Standing water or wet areas due to groundwater seepage were not observed on the site. Signs of slope instability and slope creep were not present on the site.

Two test pits, were advanced to depths of 8 ft below the ground surface in the approximate locations shown on the attached site plan. The test pits were excavated using a skid steer with an excavator implement that attaches to the front of the unit, provided and operated by the owner. Test pit logs describing the material encountered in the excavations are located on Figures 3 and 4. The test pits indicate 4 to 6 inches of topsoils is present at the ground surface. Previously placed fill material was encountered in Test Pit TP-2 and extends to a depth of 2 ft below the ground surface. Beneath the topsoil and fill, silty clay to lean clay soils were encountered. The clay soils appear relatively stiff and are suitable typical residential construction.

Groundwater was encountered at a depth of 8.0 ft in Test Pit TP-1 and 5.0 ft in Test Pit TP-2. We anticipate groundwater levels fluctuate in response to seasonal runoff and precipitation. In our opinion, groundwater levels can approach the ground surface in this area, so surface drainage plans to route runoff away from planned structures is recommended.

CONCLUSIONS and RECOMMENDATIONS

Based on observations at the site and the subsurface investigation conducted for this project, it appears the proposed lots are suitable for residential construction. Slope stability concerns are negligible for these lots. We understand Lot 1 is substantially developed; however, residential construction will likely occur on Lot 2. Due to the relatively high groundwater levels at this site, the following recommendations should be considered during design and construction on this lot:

1. Care should be taken to protect the underlying subgrade soils during construction. Trafficking over fine grained soils without an adequate gravel section could greatly reduce the strength of the clay soils and induce future settlements if disturbed. The use of track-mounted equipment will assist in reducing the risk of disturbance.

2. Below grade construction should not be planned for this lot. Due to the lack of topography on Lot 2 and the relatively high groundwater table, it will be difficult to provide adequate drainage to below grade structures. Therefore, CMG recommends no basements or crawl spaces be planned for Lot 2. Standard residential construction with footings, frost walls, and a concrete slab-on-grade floor are recommended for this site.

3. Grading shall be established to direct surface flows away from planned structures. We anticipate Structural Fill material will be used to establish finish floor elevations above surrounding grades and unclassified fill will be used in non settlement sensitive areas to establish frost protection and proper grading away from all structures.

In our opinion, Lot 1 has been previously developed and was not evaluated for future construction. The above recommendations are general recommendations for Lot 2 of the planned subdivision. The list of recommendations are primarily design considerations and are by no means a comprehensive list of Geotechnical Recommendations for this lot. In the event Geotechnical Recommendations for site development and construction are desired, please contact CMG when a conceptual design for the planned structures is developed.

LIMITATIONS

CMG Engineering, Inc., has strived to prepare this report in accordance with generally accepted geotechnical engineering practices in this area solely for use by the client for planning purposes and is not intended as a complete design or construction bid document representing subsurface conditions in their entirety. The conclusions and recommendations presented are based on the data obtained during the investigation as applied to typical residential construction for like

lots in this area. The nature and extent of variations may not become evident until construction. If variations are then exposed, it will be necessary to reevaluate the recommendations of this report.

If changes in the concept are planned, the recommendations contained in this report shall not be considered valid unless the changes are reviewed by our geotechnical engineer, and a written response is provided.

Please contact CMG Engineering, Inc., if you have any additional comments or concerns.

Sincerely,

MONTANA
JOSHUA COYNE SMITH
No. 15675 PE
LICENSED PROFESSIONAL ENGINEER

5/19/15

Joshua C. Smith, PE
Senior Geotechnical Engineer

Project:	**225 Texas Avenue** **Whitefish, Montana**	**Job Number:** **Date:**	**15-163** **May 19, 2015**

Vicinity Map

CMG Engineering, Inc.
Kalispell, MT
FIGURE 1

N

Project: 225 Texas Avenue
Whitefish, Montana

Job Number: 15-163
Date: May 19, 2015

Site Plan

CMG Engineering, Inc.
Kalispell, MT
FIGURE 2

TEST PIT LOG

TP-1

File: 15-163 Texas Ave Date Printed: 5/19/2015

PROJECT: 225 Texas Avenue Geotech **PROJECT NO.:** 15-163
CLIENT: 48 North **DATE:** 4-15-15
LOCATION: 175'W & 10'S of NE Property Corner **ELEVATION:**
SUBCONTRACTOR: **LOGGED BY:** Jeff Schmidt
METHOD: Bobcat w/ bucket assembly
GW: ▽ 8.0 ft. 4-15-15

This information pertains only to this test pit and should not be interpreted as being indicitive of the site.

DEPTH (feet)	SAMPLERS	SAMPLE NO.	DEPTH (feet)	SOIL TYPE	MATERIAL DESCRIPTION	TEST RESULTS (Plastic Limit ├─┤ Liquid Limit; Water Content ● (percent) 10 20 30 40 50 60 70 80 90)
0			0.0		Topsoil: SILT; medium stiff, moist, abundant organics, dark brown	
			0.3		~~Silty CLAY/Lean CLAY; stiff to very stiff, moist to very~~ moist, laminated, gray and brown	
2.5						
5						
7.5						
			8.0		Bottom of Test Pit TP-1 @ 8.0 ft.	
10						
12.5						
15						
17.5						

Groundwater seepage encountered @ 8 ft. below the existing ground surface at the time of excavation.

Figure 1A PAGE 1 of 1 **CMG Engineering, Inc.**

TEST PIT LOG

TP-2

File: 15-163 Texas Ave Date Printed: 5/19/2015

PROJECT: 225 Texas Avenue Geotech **PROJECT NO.:** 15-163
CLIENT: 48 North **DATE:** 4-15-15
LOCATION: 100'W & 10'N of SE Property Corner **ELEVATION:**
SUBCONTRACTOR: **LOGGED BY:** Jeff Schmidt
METHOD: Bobcat w/ bucket assembly
GW: ▽ 5.0 ft. 4-15-15

This information pertains only to this test pit and should not be interpreted as being indicitive of the site.

DEPTH (feet)	SAMPLERS	SAMPLE NO.	DEPTH (feet)	SOIL TYPE	MATERIAL DESCRIPTION	TEST RESULTS (Plastic Limit ├─┤ Liquid Limit; Water Content ● (percent) 10 20 30 40 50 60 70 80 90)
0			0.0		Fill: Silty CLAY; medium stiff to stiff, moist to very moist, brown	
					Topsoil to 6 inches	
2.5			2.0		Silty CLAY/Lean CLAY; stiff to very stiff, moist to very moist, laminated, gray and brown	
5						
7.5			8.0		Bottom of Test Pit TP-2 @ 8.0 ft.	
10						
12.5						
15						
17.5						

Groundwater seepage encountered @ 5 ft. below the existing ground surface at the time of excavation.

Figure 2A PAGE 1 of 1 **CMG Engineering, Inc.**

By: **SANDS SURVEYING, Inc.**
2 Village Loop
Kalispell, MT 59901
(406) 755-6481

JOB NO: 262204 (Project 262201)
DRAWING DATE: JUNE 26, 2015
COMPLETED DATE: / /
FOR/OWNER: DAN E. JACOBSON

Plat Of

SUBDIVISION No. 291

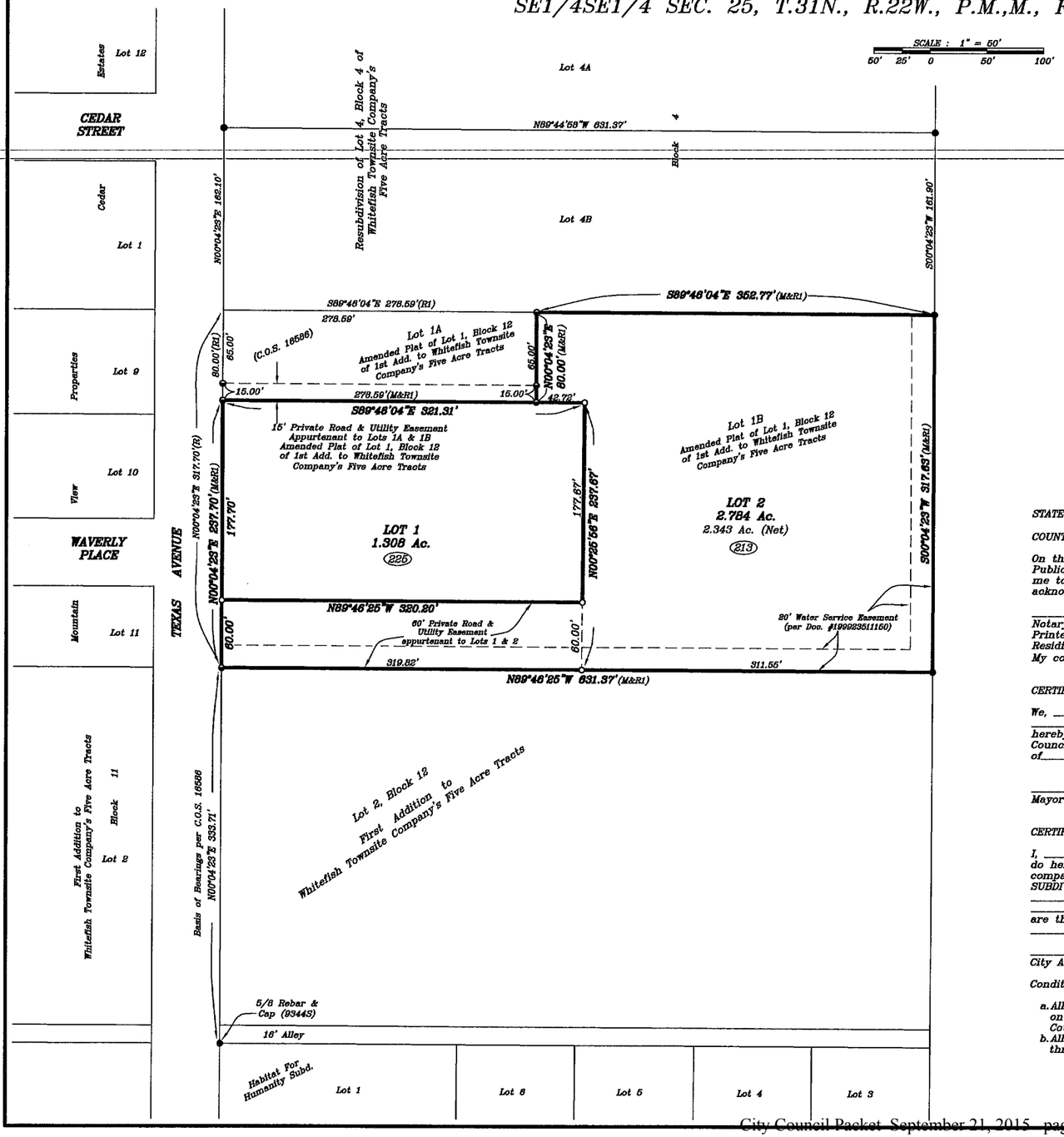
An Amended Plat of Lot 1B of the Amended Plat of Lot 1, Block 12 of 1st Add. to Whitefish Townsite Company's Five Acre Tracts

A Subdivision Located In

SE1/4SE1/4 SEC. 25, T.31N., R.22W., P.M.,M., FLATHEAD COUNTY, MONTANA

Sec. 25

TOTAL AREA: 4.092 AC.



CERTIFICATE OF DEDICATION

WE, THE UNDERSIGNED PROPERTY OWNERS, DO HEREBY CERTIFY THAT WE HAVE CAUSED TO BE SURVEYED AND PLATTED INTO LOTS ALL THE FOLLOWING DESCRIBED PROPERTY AS DESCRIBED IN THE CERTIFICATE OF DEDICATION, AND SHOWN BY THE ANNEXED PLAT OR MAP AND SITUATED IN FLATHEAD COUNTY, MONTANA:

A TRACT OF LAND, SITUATED, LYING, AND BEING IN THE SOUTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 25, TOWNSHIP 31 NORTH, RANGE 22 WEST, P.M.,M., FLATHEAD COUNTY, MONTANA, AND MORE PARTICULARLY DESCRIBED AS FOLLOWS, TO WIT:

Lot 1B of the Amended Plat of Lot 1, Block 12 of the 1st Addition to Whitefish Townsite Company's Five Acre Tracts (records of Flathead County, Montana) and containing 4.092 ACRES; Subject to and together with a 60 foot private road and utility easement as shown hereon; Together with a 15 foot private road and utility easement as shown hereon; Subject to and together with all appurtenant easements of record.

The above described tract of land shall hereafter be known as:
SUBDIVISION No. 291

Lots 1 & 2 are excluded from sanitation review by the Department of Environmental Quality pursuant to MCA 76-4-125 (2) (d) as the division is located within jurisdictional areas that have adopted growth policies pursuant to Title 76, Chapter 1 MCA or is within a first-class or second class municipalities for which the governing body certifies, pursuant to 76-4-127 MCA, that adequate storm water drainage and adequate municipal facilities will be provided. (Note Municipal Facilities Exclusion Checklist must be reviewed and approved by the Montana Department of Environmental Quality, and the original approval letter from MDEQ must be filed with the survey.)

UTILITY EASEMENT CERTIFICATE

The undersigned hereby grants unto each and every person, firm, or corporation, whether public or private, providing or offering to provide telephone, telegraph, electric power, gas, cable television, water or sewer service to the public, the right to the joint use of an easement for the construction, maintenance, repair, and removal of their lines and other facilities, in, over, under and across each area designated on this plat as "UTILITY EASEMENT" to have and to hold forever.

_____
DAN E. JACOBSON

STATE OF MONTANA)
SS
COUNTY OF FLATHEAD)

On this _____, day of _____, 201__, before me a Notary Public for the State of Montana, personally appeared DAN E. JACOBSON, and known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that he executed the same.

_____
Notary Public for the State of Montana
Printed Name of Notary_____
Residing at _____
My commission expires____/____/____

CERTIFICATE OF CITY COUNCIL

We, _____, Mayor for the City of Whitefish, and _____, City Clerk of the City of Whitefish, Montana do hereby certify that the accompanying plat was duly examined and approved by the City Council of the City of Whitefish at its regular meeting held on the____ day of_____, 201__.

_____ _____
Mayor of Whitefish, Montana City Clerk of Whitefish, Montana

CERTIFICATE OF CITY ATTORNEY

I, _____, City Attorney for the City of Whitefish, Montana, do hereby certify that I have examined the Certificate of Title by a licensed title company on the land described in the Certificate of Dedication on the annexed Plat of SUBDIVISION No. 291, and find that _____
_____
_____
are the owners in fee simple of the land so platted. Dated this ____ day of _____, 201__.

_____
City Attorney for the City of Whitefish

Conditions of Approval per Whitefish City Council:

a. All house numbers will be visible from the road, either at the driveway entrance or on the house and shall conform to the current Fire Code, as adopted by the City Council.
b. All noxious weeds, as described by the Whitefish City Code, shall be removed throughout the life of the development by the recorded property owner.

Note: Buyers of property should ensure that they have obtained and reviewed all sheets of the plat and all documents recorded and filed in conjunction with the plat and that buyers of property are strongly encouraged to contact the local planning department and become informed of any limitations on the use of the property prior to closing.

N

LEGEND:
- Section corner (as noted)
- 1/4 Corner (as noted)
- Center section (as noted)
- 1/16 Corner (as noted)
- Set 1/2"x24" Rebar & Cap (7975S)
- Found (as noted)
- Found 5/8" Rebar & Cap (5212S)
- Found 1/2" Rebar & Cap (7975S)
- (M) Measured Information
- (R) Record Information Per C.O.S. 16586
- (R) Record Information Per Amd. Plat of Lot 1, Blk. 12, 1st Add. WFT Co. Five Ac. Tracts
- POB Point of Beginning
- Street Address

CERTIFICATE OF SURVEYOR

_____
THOMAS E. SANDS 7975S

APPROVED: _____, 201__

_____
EXAMINING LAND SURVEYOR
REG. No. 5428S

STATE OF MONTANA)
COUNTY OF FLATHEAD) SS
FILED ON THE ___ DAY OF ____, 201__
AT _____, PAID FEE _____

_____
CLERK & RECORDER

BY _____
DEPUTY

INSTRUMENT REC. No. _____

SHEET 1 OF 1 SHEETS

FILE No. _____

CITY OF WHITEFISH
CASH RECEIPT

Printed 10:10:57 - 08/28/15

Batch:15338
Transaction:27

Reference Number: 15-03

Name: JACOBSON

Address: 225 TEXAS AVE

Item(s) Description:

PLANNING FEES	6411.00
Check # 10679	6411.00
Cash Paid	
Credit Paid	
Less Change Given	( )
TOTAL:	**6411.00**

in lieu of sidewalks

PLANNING & BUILDING DEPARTMENT
510 Railway Street, PO Box 158, Whitefish, MT 59937
(406) 863-2410 Fax (406) 863-2409

September 15, 2015

Mayor and City Council
City of Whitefish
PO Box 158
Whitefish, MT 59937

Re: Final Plat for Amended Plat of Lot 2 of Whitefish Cottages; WFP 15-05

Honorable Mayor and Councilors:

This office is in receipt of a final plat application from Robert W Pero for a 2-lot subdivision located between Waverly Place and Texas Avenue. The property is zoned WR-4 (High-Density Multi-Family Residential District) and WR-2 (Two-Family Residential District). The preliminary plat was approved by the Whitefish Planning Department as Preliminary Plat Waiver as it met the criteria in §12-3-7. This approval was granted on August 6, 2015, subject to nine (9) conditions of approval.

Following is a list of the conditions of approval and a discussion of how they have been met.

COMPLIANCE WITH PRELIMINARY PLAT CONDITIONS OF APPROVAL:

Condition 1. The Subdivision shall comply with Chapter 12-4 of the Whitefish Subdivision Regulations.

- Condition met. The final plat conforms to applicable City Codes and the approval granted.

Condition 2. Street addresses shall be placed on the face of the plat. (Subdivision Regulations, §12-4-20C)

- Condition met. See addresses on face of plat.

Condition 3. All easements shall be shown on the face of the plat. (Whitefish Subdivision Regulations, §12-3-11)

- Condition met. Easements on the face of plat.

Condition 4. The Montana Department of Environmental Quality and Whitefish Public Works Department shall approve the water and sewer facilities. (Whitefish Engineering Standards, Section 4)

- Condition met. See letter from MDEQ dated 8-12-15.

Condition 5. A separate water & sewer service shall be provided to each lot in accordance with the City of Whitefish's policies and design standards. (Whitefish Engineering Standards, Section 4)

- Condition met. See note on face of plat.

Condition 6. An engineered stormwater plan shall be submitted to the Public Works Department for review and approval, if impervious area exceeds 5,000 square feet. (Whitefish Engineering Standards, Section 5)

- Condition met. See note on face of plat.

Condition 7. The alley way along the southern boundary of the project may not be used for ingress or egress for non-emergency purposes unless improved to City standards. (Whitefish Engineering Standards, Section 8)

- Condition met. See note on face of plat.

Condition 8. The following notes shall be placed on the face of the plat:

a. All house numbers will be visible from the road, either at the driveway entrance or on the house and shall conform to the current Fire Code, as adopted by the City Council.

b. All noxious weeds, as described by the Whitefish City Code, shall be removed throughout the life of the development from the recorded property owner.

- Condition met. See notes on face of plat.

Condition 9. The preliminary plat approval is valid for three years and shall expire on August 7, 2018. (Whitefish Subdivision Regulations, §12-3-8)

- Condition met. The final plat applicant was received prior to its expiration.

Please be advised that the Council should act on this application within 30-days following receipt of this recommendation.

Sincerely,

Wendy Compton-Ring, AICP
Senior Planner

Attachments: 2 reproducible mylars of final plat
Final plat application, received 8-27-15
Letter, applicant, 8-27-15
Approval Letter, Whitefish Planning Department, 8-6-15
Treasurer's Certification, 8-26-15
Letter, DEQ, EQ#16-1092, 8-12-15
Subdivision Guarantee, Stewart Title Company, No. G-2222-000065202, 6-15-15

c/w/att: Necile Lorang, Whitefish City Clerk

c/wo/att: Robert W Pero 1290 Birch Point Drive Whitefish, MT 59937
Dawn Marquardt, Marquardt Surveying 201 3rd Ave W Kalispell, MT 59901

City of Whitefish
Planning & Building Department
PO Box 158
510 Railway Street
Whitefish, MT 59937
Phone: 406-863-2410 Fax: 406-863-2409

File #: _____
Date: _____
Intake Staff: _____
Date Complete: _____

FINAL PLAT APPLICATION

FEE ATTACHED $ 2,380.00
(See current fee schedule)

INSTRUCTIONS:

- ☐ Submit the application fee, a complete application, with appropriate attachments, to the Whitefish Planning & Building Department no less than **90 days** prior to expiration date of the preliminary plat.
- ☐ When all application materials are submitted to the Planning & Building Department, and the staff finds the application is complete, the staff will submit a report to the City Council. Incomplete submittals will not be accepted and will not be forwarded to the Council for approval. Changes to the approved preliminary plat may necessitate reconsideration by the Planning Board.
- ☐ The regularly scheduled meetings of the City Council are the first and third Mondays of each month at 7:10PM in the Council Chambers at 402 E 2nd Street.

All applicable items required by *Appendix C: Final Plat Contents* of the Whitefish Subdivision Regulations must be submitted with the application for final plat including the following. Check items attached or not applicable.

Not Applicable	Attached	(MUST CHECK ONE)
	✓	Cover letter listing each condition of approval and individually state how each condition is specifically met. In cases where documentation is required, such as an engineer's certification, State Department of Health certification, etc., original letters shall be submitted. Blanket statements stating, for example, "all improvements are in place" are not acceptable.
	✓	Montana DEQ Health Department Certification (*Original*)
	✓	Title Report, not more than 90 days old
	✓	Tax Certification (*Property taxes must be paid*)
✓		Consent(s) to Plat (*Originals and notarized*)
✓		Engineer's Certification (*Original*)
		Subdivision Improvements Agreement (*Attach collateral*)
✓		Engineering Improvements (*sidewalks, walkways, street lights, street signs, solid waste facilities, utilities*)
✓		Landscaping Improvements (*landscaping, street trees, parkland improvements – trails, park facilities,*)
✓		Parkland Cash-in-Lieu (*Check attached payable to City of Whitefish*)
✓		Maintenance Agreement (*as applicable: stormwater facility, private roads, parks, etc*)

Revised 12-31-13

✓ ___ Articles of Incorporation and Conditions, Covenants & Restrictions

✓ ___ Approach Permit (*when applicable)*

___ ✓ **Plat:** signed mylars: 2, 24" x 36" paper copy: 2, 11" x 17" paper copy: 1 and .pdf The plat must be signed by all owners of record, the surveyor and the examining land surveyor.

Project /Subdivision Name: AMENDED PLAT OF LOT 2 OF WHITEFISH COTTAGES

Date of Preliminary Plat Approval: AUGUST 6, 2015

OWNER(S) OF RECORD:

Name: Robert W. Pero Phone: 406-253-6147

Mailing Address: 1290 Birch Point Drive

City, State, Zip: Whitefish, MT 59937

Email: ___

APPLICANT (if different than above):

Name: ___ Phone: ___

Mailing Address: ___

City, State, Zip: ___

Email: ___

TECHNICAL/PROFESSIONAL:

Name: Marquardt Surveying Phone: 406-755-6285

Mailing Address: 201 3rd Ave W

City, State, Zip: Kalispell, MT 59901

Email: sarah@mmsurvey.net

Name: ___ Phone: ___

Mailing Address: ___

City, State, Zip: ___

Email: ___

PROJECT DESCRIPTION:

Type of Subdivision: Residential [✓] Industrial [ ] Commercial [ ] PUD [ ] Other [ ]

Total Number of Lots in Subdivision 2 Land in Project (acres) 3.53

Parkland (acres) ___ Cash-in-Lieu $___ Exempt [✓]

NUMBER OF LOTS BY TYPE:

Single Family: ___ Townhouse: ___ Mobile Home Park: ___ Duplex: ___ Apartment: ___

Recreational Vehicle Park: ___ Commercial: ___ Industrial: ___ Planned Unit Development: ___

Condominium: ___ Multi-Family: X Other: ___

Legal Description of the Property:

Lot 2 of Whitefish Cottages

I hereby certify that the information contained or accompanied in this application is true and correct to the best of my knowledge. The signing of this application signifies approval for the Whitefish staff to be present on the property for routine monitoring and inspection during the approval and development process.

Owner's Signature[1] — Date: 8/27/15

Robert W. Pero

Print Name

Applicant's Signature — Date

Print Name

Representative's Signature — Date: 8/27/15

Dawn Marquardt

Print Name — Date

****NOTE: Please be advised that the County Clerk & Recorder and the City of Whitefish request that all subdivision final plat applications be accompanied with digital copies.**

**A digital copy of the final plat in a Drawing Interchange File (DXF) format or an AutoCAD file format, consisting of the following layers:

1. Exterior boundary of subdivision
2. Lot or park boundaries
3. Easements
4. Roads or rights-of-way
5. A tie to either an existing subdivision corner or a corner of the public land survey system

[1] May be signed by the applicant or representative, authorization letter from owner must be attached. If there are multiple owners, a letter authorizing one owner to be the authorized representative for all must be included

Marquardt & Marquardt Surveying, Inc.

201 3rd AVENUE WEST
KALISPELL, MONTANA 59901
(406) 755-6285
Fax (406) 755-3055

August 26, 2015

Whitefish Planning & Building Department
PO Box 158
510 Railway Street
Whitefish, MT 59937

Re: AMENDED PLAT OF LOT 2 OF WHITEFISH COTTAGES, Sections 25, Township 31 North, Range 22 West, P.M., M., Flathead County, Montana.

Enclosed is the Final Plat application for AMENDED PLAT OF LOT 2 OF WHITEFISH COTTAGES. A waiver of preliminary plat was granted on August 6, 2015. The conditions of approval have been met as follows:

1. The Subdivision shall comply with Chapter 12-4 of the Whitefish Subdivision Regulations.

   The subdivision complies with Chapter 12-4 of the Whitefish Subdivision Regulations.

2. Street addresses shall be placed on the face of the plat.

   Street addresses have are on the final plat.

3. All easements shall be shown on the face of the plat.

   All easements are shown on the face of the plat.

4. The Montana Department of Environmental Quality and Whitefish Public Works Department shall approve the water and sewer facilities.

   The approval is enclosed.

5. A separate water & sewer service shall be provided to each lot in accordance with the City of Whitefish's policies and design standard

   The condition has been placed on the final plat.

6. An engineered stormwater plan shall be submitted to the Public Works Department for review and approval, if impervious area exceeds 5,000 square feet.

The condition has been placed on the final plat.

7. The alley way along the southern boundary of the project may not be used for ingress or egress for non-emergency purposes unless improved to City standards.

The condition has been placed on the final plat.

8. The following notes shall be placed on the face of the plat:

   A. All house numbers will be visible from the road, wither at the driveway entrance or on the house and shall conform to the current Fire Code, as adopted by the City Council.

   B. All noxious weeds, as described by the Whitefish City Code, shall be removed throughout the life of the development from the recorded property owner.

The condition has been placed on the final plat.

If you have any question please do not hesitate to call our office.

Sincerely,

Sarah Arrigoni
Marquardt & Marquardt Surveying, Inc.

PLANNING & BUILDING DEPARTMENT
510 Railway Street, PO Box 158, Whitefish, MT 59937
(406) 863-2410 Fax (406) 863-2409

August 6, 2015

Robert W Pero
1290 Birch Point Drive
Whitefish, MT 59937

RE: 709 Waverly Place (Lot 2, Whitefish Cottages in S25 T31N R22W); Amended Plat of Lot 2 of Whitefish Cottages – Waiver of Preliminary Plat; WPP 15-05

Dear Mr. Pero:

This is in response to your application for a preliminary plat waiver for a residential subdivision at the above described property. The request would create two lots. Lot 1 is proposed to be 1.61 acres with access off Waverly Place and Lot 2 is proposed to be 1.92 acres with access off Texas Avenue. The properties are zoned WR-4 (High-Density Multi-Family Residential District) and WR-2 (Two-Family Residential District).

Staff noticed adjacent landowners on July 17, 2015 and placed two public notice signs (one on Waverly Place and one on Texas Avenue). Staff received one email from a neighbor with questions about stormwater with future development.

Our office finds that the proposed subdivision substantially meets the preliminary plat waiver criteria outlined in §12-3-7 of the Whitefish Subdivision Regulations which includes the following:

- The plat contains three (3) or fewer lots;
- There is no public dedication of streets or other public infrastructure;
- All lots have legal and physical access conforming to these Regulations;
- Each lot has a suitable building site and there are no environmental hazards present;
- Municipal sewer, water and other utilities are adequate and in place;
- The subdivision complies with these Regulations and current zoning regulations; and

- No significant effects are anticipated on agriculture and agricultural water user facilities, local services, the natural environment, wildlife and wildlife habitat and the public health and safety.

Due to the relatively minor impacts that this subdivision poses, this office grants preliminary plat waiver approval subject to the following conditions:

1. The Subdivision shall comply with Chapter 12-4 of the Whitefish Subdivision Regulations.

2. Street addresses shall be placed on the face of the plat. (Subdivision Regulations, §12-4-20C)

3. All easements shall be shown on the face of the plat. (Whitefish Subdivision Regulations, §12-3-11)

4. The Montana Department of Environmental Quality and Whitefish Public Works Department shall approve the water and sewer facilities.(Whitefish Engineering Standards, Section 4)

5. A separate water & sewer service shall be provided to each lot in accordance with the City of Whitefish's policies and design standards. (Whitefish Engineering Standards, Section 4)

6. An engineered stormwater plan shall be submitted to the Public Works Department for review and approval, if impervious area exceeds 5,000 square feet. (Whitefish Engineering Standards, Section 5)

7. The alley way along the southern boundary of the project may not be used for ingress or egress for non-emergency purposes unless improved to City standards. (Whitefish Engineering Standards, Section 8)

8. The following notes shall be placed on the face of the plat:

    a. All house numbers will be visible from the road, either at the driveway entrance or on the house and shall conform to the current Fire Code, as adopted by the City Council.

    b. All noxious weeds, as described by the Whitefish City Code, shall be removed throughout the life of the development from the recorded property owner.

9. The preliminary plat approval is valid for three years and shall expire on August 7, 2018. (Whitefish Subdivision Regulations, §12-3-8)

Please note that, for final plat approval, all requirements must be met per §12-3-11 (Final Plat) of the Whitefish Subdivision Regulations.

Sincerely,

Wendy Compton-Ring, AICP
Senior Planner

C: Public Works, City of Whitefish
Fire Department, City of Whitefish
Building Department, City of Whitefish
Dawn Marquardt, Marquardt Surveying 201 3rd Ave W Kalispell, MT 59901

Plat Room
Flathead County, Montana
800 S. Main St.
Kalispell, MT 59901
(406) 758-5510

This Form is for Subdivisions Only

BY : MARQUARDT

FOR : PERO

DATE : 8/19/15

DESCP : WHITEFISH COTTAGES AMD L2 (25-31-22)

PURPOSE : SUB

YEARS	ASSESSOR #
2012 THRU 2014	0378635

I hereby certify that there are no outstanding taxes on the property assigned the assessor numbers listed above, for the years indicated for each assessor number.

AUG 2 6 2015

Jody Vorkman
Deputy Treasurer
(seal)

DEQ
Montana Department
of Environmental Quality

August 12, 2015

Sarah Arrigoni
Marquardt & Marquardt Surveying, Inc.
201 3rd Avenue West
Kalispell, MT 59901

RE: Amended Plat of Lot 2 of
Whitefish Cottages
Municipal Facilities Exclusion
EQ#16-1092
City of Whitefish
Flathead County

Dear Sarah Arrigoni

This is to certify that the information and fees received by the Department of Environmental Quality relating to this subdivision are in compliance with 76-4-127, MCA and ARM 17.36.602. Under 76-4-125(2)(d), MCA, this subdivision is not subject to review, and the plat can be filed with the county clerk and recorder.

Plans and specifications must be submitted when extensions of municipal facilities for the supply of water or disposal of sewage are proposed {76-4-111 (3), MCA}. Construction of water or sewer extensions prior to DEQ, Public Water Supply Section's approval is prohibited, and is subject to penalty as prescribed in Title 75, Chapter 6 and Title 76, Chapter 4.

Sincerely,

Leata English

Leata English
Subdivision Section
(406) 444-4224
email lenglish@mt.gov

cc: City Engineer
County Sanitarian
file

Guarantee (CLTA Form) Rev. 6-6-92

GUARANTEE

SUBJECT TO THE EXCLUSIONS FROM COVERAGE, THE LIMITS OF LIABILITY AND OTHER PROVISIONS OF THE CONDITIONS AND STIPULATIONS HERETO ANNEXED AND MADE A PART OF THIS GUARANTEE, AND SUBJECT TO THE FURTHER EXCLUSION AND LIMITATION THAT NO GUARANTEE IS GIVEN NOR LIABILITY ASSUMED WITH RESPECT TO THE IDENTITY OF ANY PARTY NAMED OR REFERRED TO IN SCHEDULE A OR WITH RESPECT TO THE VALIDITY, LEGAL EFFECT OR PRIORITY OF ANY MATTER SHOWN THEREIN.

ISSUED BY

STEWART TITLE GUARANTY COMPANY

a corporation, herein called the Company,
GUARANTEES

the Assured named in Schedule A against actual monetary loss or damage not exceeding the liability amount stated in Schedule A which the Assured shall sustain by reason of any incorrectness in the assurances set forth in Schedule A.

Countersigned by:

Authorized Countersignature

Main Office
211 South Main Street
Kalispell, MT 59901
Agent ID: 260052

stewart
title guaranty company

STEWART TITLE GUARANTY CO. INCORPORATED 1908 TEXAS

Matt Morris
President and CEO

Denise Carraux
Secretary

Page 1 of
Serial No. **G-2222-000065202**

GUARANTEE CONDITIONS AND STIPULATIONS

1. **Definition of Terms** – The following terms when used in this Guarantee mean:
   (a) "the Assured": the party or parties named as the Assured in this Guarantee, or on a supplemental writing executed by the Company.
   (b) "land": the land described or referred to in Schedule (A)(C) or in Part 2, and improvements affixed thereto which by law constitute real property. The term "land" does not include any property beyond the lines of the area described or referred to in Schedule (A)(C) or in Part 2, nor any right, title, interest, estate or easement in abutting streets, roads, avenues, alleys, lanes, ways or waterways.
   (c) "mortgage": mortgage, deed of trust, trust deed, or other security instrument.
   (d) "public records": records established under state statutes at Date of Guarantee for the purpose of imparting constructive notice of matters relating to real property to purchasers for value and without knowledge.
   (e) "date": the effective date;
2. **Exclusions from Coverage of this Guarantee** – The Company assumes no liability for loss or damage by reason of the following:
   (a) Taxes or assessments which are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the public records.
   (b) (1) Unpatented mining claims; (2) reservations or exceptions in patents or in Acts authorizing the issuance thereof; (3) water rights, claims or title to water: whether or not the matters excluded by (1), (2) or (3) are shown by the public records.
   (c) Assurances to title to any property beyond the lines of the land expressly described in the description set forth in Schedule (A)(C) or in Part 2 of this Guarantee, or title to streets, roads, avenues, lanes, ways or waterways on which such land abuts, or the right to maintain therein vaults, tunnels, ramps or any other structure or improvement; or any rights or easements therein unless such property, rights or easements are expressly and specifically set forth in said description.
   (d) (1) Defects, liens, encumbrances, or adverse claims against the title, if assurances are provided as to such title, and as limited by such assurances. (2) Defects, liens, encumbrances, adverse claims or other matters (a) whether or not shown by the public records, and which are created, suffered, assumed or agreed to by one or more of the Assureds; (b) which result in no loss to the Assured; or (c) which do not result in the invalidity or potential invalidity of any judicial or non-judicial proceeding which is within the scope and purpose of assurances provided.
3. **Notice of Claims to be Given by Assured Claimant** – An Assured shall notify the Company promptly in writing in case knowledge shall come to an Assured hereunder of any claim of title or interest which is adverse to the title to the estate or interest, as stated herein, and which might cause loss or damage for which the Company may be liable by virtue of this Guarantee. If prompt notice shall not be given to the Company, then all liability of the Company shall terminate with regard to the matter or matters for which prompt notice is required, provided, however, that failure to notify the Company shall in no case prejudice the rights of any Assured under this Guarantee unless the Company shall be prejudiced by the failure and then only to the extent of the prejudice.
4. **No Duty to Defend or Prosecute** – The Company shall have no duty to defend or prosecute any action or proceeding to which the Assured is a party, notwithstanding the nature of any allegation in such action or proceeding.
5. **Company's Option to Defend or Prosecute Actions; Duty of Assured Claimant to Cooperate** – Even though the Company has no duty to defend or prosecute as set forth in Paragraph 4 above:
   (a) The Company shall have the right, at its sole option and cost, to institute and prosecute any action or proceeding, interpose a defense, as limited in (b), or to do any other act which in its opinion may be necessary or desirable to establish the title to the estate or interest as stated herein, or to establish the lien rights of the Assured, or to prevent or reduce loss or damage to the Assured. The Company may take any appropriate action under the terms of this Guarantee, whether or not it shall be liable hereunder, and shall not thereby concede liability or waive any provision of this Guarantee. If the Company shall exercise its rights under this paragraph, it shall do so diligently.
   (b) If the Company elects to exercise its options as stated in Paragraph 5(a) the Company shall have the right to select counsel of its choice (subject to the right of such Assured to object for reasonable cause) to represent the Assured and shall not be liable for and will not pay the fees of any other counsel, nor will the Company pay any fees, costs or expenses incurred by an Assured in the defense of those causes of action which allege matters not covered by this Guarantee.
   (c) Whenever the Company shall have brought an action or interposed a defense as permitted by the provisions of this Guarantee, the Company may pursue any litigation to final determination by a court of competent jurisdiction and expressly reserves the right, in its sole discretion, to appeal from an adverse judgment or order.
   (d) In all cases where this Guarantee permits the Company to prosecute or provide for the defense of any action or proceeding, an Assured shall secure to the Company the right to so prosecute or provide for the defense of any action or proceeding, and all appeals therein, and permit the Company to use, at its option, the name of such Assured for this purpose. Whenever requested by the Company, an Assured, at the Company's expense, shall give the Company all reasonable aid in any action or proceeding, securing evidence, obtaining witnesses, prosecuting or defending the action or lawful act which in the opinion of the Company may be necessary or desirable to establish the title to the estate or interest as stated herein, or to establish the lien rights of the Assured. If the Company is prejudiced by the failure of the Assured to furnish the required cooperation, the Company's obligations to the Assured under the Guarantee shall terminate.
6. **Proof of Loss or Damage** – In addition to and after the notices required under Section 3 of these Conditions and Stipulations have been provided to the Company, a proof of loss or damage signed and sworn to by the Assured shall be furnished to the Company within ninety (90) days after the Assured shall ascertain the facts giving rise to the loss or damage. The proof of loss or damage shall describe the matters covered by this Guarantee which constitute the basis of loss or damage and shall state, to the extent possible, the basis of calculating the amount of the loss or damage. If the Company is prejudiced by the failure of the Assured to provide the required proof of loss or damage, the Company's obligation to such Assured under the Guarantee shall terminate. In addition, the Assured may reasonably be required to submit to examination under oath by any authorized representative of the Company and shall produce for examination, inspection and copying, at such reasonable times and places as may be designated by any authorized representative of the Company, all records, books, ledgers, checks, correspondence and memoranda, whether bearing a date before or after Date of Guarantee, which reasonably pertain to the loss or damage. Further, if requested by any authorized representative of the Company, the Assured shall grant its permission, in writing, for any authorized representative of the Company to examine, inspect and copy all records, books, ledgers, checks, correspondence and memoranda in the custody or control of a third party, which reasonably pertain to the loss or damage. All information designated as confidential by the Assured provided to the Company pursuant to this Section shall not be disclosed to others unless, in the reasonable judgment of the Company, it is necessary in the administration of the claim. Failure of the Assured to submit for examination under oath, produce other reasonably requested information or grant permission to secure reasonably necessary information from third parties as required in the above paragraph, unless prohibited by law or governmental regulation, shall terminate any liability of the Company under this Guarantee to the Assured for that claim.
7. **Options to Pay or Otherwise Settle Claims; Termination of Liability** – In case of a claim under this Guarantee, the Company shall have the following additional options:
   (a) To Pay or Tender Payment of the Amount of Liability or to Purchase the Indebtedness.

The Company shall have the option to pay or settle or compromise for or in the name of the Assured any claim which could result in loss to the Assured within the coverage of this Guarantee, or to pay the full amount of this Guarantee or, if this Guarantee is issued for the benefit of a holder of a mortgage or a lienholder, the Company shall have the option to purchase the indebtedness secured by said mortgage or said lien for the amount owing thereon, together with any costs, reasonable attorneys' fees and expenses incurred by the Assured claimant which were authorized by the Company up to the time of purchase.

Such Purchase, payment or tender of payment of the full amount of the Guarantee shall terminate all liability of the Company hereunder. In the event after notice of claim has been given to the Company by the Assured the Company offers to purchase said indebtedness, the owner of the indebtedness shall transfer and assign said indebtedness, together with any collateral security, to the Company upon payment of the purchase price.

Upon the exercise by the Company of the option provided for in Paragraph (a) the Company's obligation to the Assured under this Guarantee for the claimed loss or damage, other than to make the payment required in that paragraph, shall terminate, including any obligation to continue the defense or prosecution of any litigation for which the Company has exercised its option under Paragraph 5, and the Guarantee shall be surrendered to the Company for cancellation.

(b) To Pay or Otherwise Settle With Parties Other Than the Assured or With the Assured Claimant.

To Pay or otherwise settle with other parties for or in the name of an Assured claimant any claim assured against under this Guarantee, together with any costs, attorneys' fees and expenses incurred by the Assured claimant which were authorized by the Company up to the time of payment and which the Company is obligated to pay.

Upon the exercise by the Company of the option provided for in Paragraph (b) the Company's obligation to the Assured under this Guarantee for the claimed loss or damage, other than to make the payment required in that paragraph, shall terminate, including any obligation to continue the defense or prosecution of any litigation for which the Company has exercised its options under Paragraph 5.

8. **Determination and Extent of Liability –** This Guarantee is a contract of Indemnity against actual monetary loss or damage sustained or incurred by the Assured claimant who has suffered loss or damage by reason of reliance upon the assurances set forth in this Guarantee and only to the extent herein described, and subject to the exclusions stated in Paragraph 2.

The liability of the Company under this Guarantee to the Assured shall not exceed the least of:

(a) the amount of liability stated in Schedule A;

(b) the amount of the unpaid principal indebtedness secured by the mortgage of an Assured mortgagee, as limited or provided under Section 7 of these Conditions and Stipulations or as reduced under Section 10 of these Conditions and Stipulations, at the time the loss or damage assured against by this Guarantee occurs, together with interest thereon; or

(c) the difference between the value of the estate or interest covered hereby as sated herein and the value of the estate or interest subject to any defect, lien or encumbrance assured against by this Guarantee.

9. **Limitation of Liability –**

(a) If the Company establishes the title or removes the alleged defect, lien or encumbrance, or cures any other matter assured against by this Guarantee in a reasonably diligent manner by any method, including litigation and the completion of any appeals therefrom, it shall have fully performed its obligations with respect to that matter and shall not be liable for any loss or damage caused thereby.

(b) In the event of any litigation by the Company or with the Company's consent, the Company shall have no liability for loss or damage until there has been a final determination by a court of competent jurisdiction, and disposition of all appeals therefrom, adverse to the title, as stated herein.

(c) The Company shall not be liable for loss or damage to any Assured for liability voluntarily assumed by the Assured in settling any claim or suit without the prior written consent of the Company.

10. **Reduction of Liability or Termination of Liability –** All payments under this Guarantee, except payments made for costs, attorneys' fees and expenses pursuant to Paragraph 5 shall reduce the amount of liability pro tanto.

11. **Payment of Loss**

(a) No payment shall be made without producing this Guarantee for endorsement of the payment unless the Guarantee has been lost or destroyed, in which case proof of loss or destruction shall be furnished to the satisfaction of the Company.

(b) When liability and the extent of loss or damage has been definitely fixed in accordance with these Conditions and Stipulations, the loss or damage shall be payable within thirty (30) days thereafter.

12. **Subrogation Upon Payment or Settlement –** Whenever the Company shall have settled and paid a claim under this Guarantee, all right of subrogation shall vest in the Company unaffected by any act of the Assured claimant.

The Company shall be subrogated to and be entitled to all rights and remedies which the Assured would have had against any person or property in respect to the claim had this Guarantee not been issued. If requested by the Company, the Assured shall transfer to the Company all rights and remedies against any person or property necessary in order to perfect this right of subrogation. The Assured shall permit the Company to sue, compromise or settle in the name of the Assured and to use the name of the assured in any transaction or litigation involving these rights or remedies.

If a payment on account of a claim does not fully cover the loss of the Assured the Company shall be subrogated to all rights and remedies of the Assured after the Assured shall have recovered its principal, interest and costs of collection.

13. **Arbitration –** Unless prohibited by applicable law, either the Company or the Assured may demand arbitration pursuant to the Title Insurance Arbitration Rules of the American Arbitration Association. Arbitrable matters may include, but are not limited to, any controversy or claim between the Company and the Assured arising out of or relating to this Guarantee, any service of the Company in connection with its issuance or the breach of a Guarantee provision or other obligation. All arbitrable matters when the Amount of Liability is $1,000,000 or less shall be arbitrated at the option of either the Company or the Assured. All arbitrable matters when the amount of liability is in excess of $1,000,000 shall be arbitrated only when agreed to by both the Company and the Assured. The Rules in effect at Date of Guarantee shall be binding upon the parties. The award may include attorneys' fees only if the laws of the state in which the land is located permits a court to award attorneys' fees to a prevailing party. Judgment upon the award rendered by the Arbitrator(s) may be entered in any court having jurisdiction thereof. The law of the situs of the land shall apply to an aribitration under the Title Insurance Arbitration Rules. A copy of the Rules may be obtained from the Company upon request.

14. **Liability Limited to This Guarantee; Guarantee Entire Contract –**

(a) This Guarantee together with all endorsements, if any, attached hereto by the Company is the entire Guarantee and contract between the Assured and the Company. In interpreting any provision of this Guarantee, this Guarantee shall be construed as a whole.

(b) Any claim of loss or damage, whether or not based on negligence, or any action asserting such claim, shall be restricted to this Guarantee.

(c) No amendment of or endorsement to this Guarantee can be made except by a writing endorsed hereon or attached hereto signed by either the President, a Vice President, the Secretary, an Assistant Secretary, or validating officer or authorized signatory of the Company.

15. **Notices, Where Sent –** All notices required to be given the Company and any statement in writing required to be furnished the Company shall include the number of this Guarantee and shall be addressed to the Company at P.O. Box 2029, Houston, Texas 77252-2029.

SUBDIVISION GUARANTEE
SCHEDULE A

File No.: 61991 **Guarantee No.:** G-2222-000065202

Date of Guarantee: June 10, 2015 at 5:00 P.M.

Liability: $1,000.00 **Premium:** $150.00

A. Assured:

Marquardt and Marquardt Surveying and Robert W. Pero

B. Assurances:

1. Description of the land:

   Lot 2 of Whitefish Cottages, according to the map or plat thereof on file and of record in the office of the Clerk and Recorder of Flathead County, Montana.

2. Name of Proposed Subdivision Plat or Condominium Map:

   Amended Plat of Lot 2 of Whitefish Cottages

3. That the only hereafter named parties appear to have an interest showing in the public records affecting the land necessitating their execution of the name proposed plat or map area as follows:

   Robert W. Pero
   Robert W, Pero Revocable Trust

File No.: 61991 **Guarantee No.:** G-2222-000065202

SUBJECT TO:

1. Taxes or assessments which are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the public records. Proceedings by a public agency, which may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by public record.

2. Any facts, rights, interest or claims which are not shown by the public records but which could be ascertained by an inspection of the land or by making inquiry of persons in possession thereof.

3. Easements, liens or encumbrances, or claims thereof, which are not shown by the public records.

4. Discrepancies, conflicts in boundary lines, shortage in area, encroachments, or any other facts which a correct survey would disclose, and which are not shown by the public records.

5. Any lien, or right to a lien, for services, labor, or material heretofore or hereafter furnished, imposed by law and not shown by the Public Records.

6. Any service, installation or connection charge for any and all utilities, including, but not limited to sewer, gas, water or electricity.

7. County road rights-of-way, not recorded and indexed as a conveyance of record in the office of the Clerk and Recorder pursuant to Title 70, Chapter 21, M. C. A., including, but not limited to any right of the Public and the County of Flathead to use and occupy those certain roads and trails.

8. No liability is assumed for errors, omissions or changes of assessed valuations or amount of taxes assessed by any state, county, city or federal taxing or assessing authority.

9. (a) Unpatented mining claims; (b) reservations or exceptions in patents or in Acts authoring the issuance thereof; (c) water rights, claims or title to water; ditch rights; (d) any right, title or interest in any sand and gravel and/or minerals including access to and from to extract minerals, mineral rights, or related matters, including but not limited to oil, gas, coal and other hydrocarbons; whether or not the matters excepted under (a), (b), (c) or (d) are shown by the public records.

10. Real estate taxes or special assessments for the year(s) 2015, that are not yet due or payable.

11. For informational purposes only, do not rely upon for a tax payment. Flathead County records indicate the taxes for the year 2014 are:
    FIRST HALF: $676.32 PAID
    SECOND HALF: $676.30 PAID
    TOTAL: $1,352.62
    Assessor No.: 74-0378635
    Tax Roll No.: 42982

12. Delinquent water and sewer charges of the City of Whitefish, if any.

13. Easement granted to Mountain States Power Company by instrument recorded May 31, 1929 as Document # 1908 in Book 202, page 244 records of Flathead County, Montana.

14. All matters, covenants, conditions, restrictions, easements and any rights, interest or claims which may exist by reason thereof, disclosed by the plat(s) of First Addition to Whitefish Townsite Company's Five acre Tracts, but deleting any covenant, conditions or restriction indicating a preference, limitation or discrimination based on race, color, religion, sex, handicap, familial status, or national origin to the extent such covenants, conditions or restrictions violate 42 USC 3604(c).

15. Easement for transmission line and related purposes granted Pacific Power & Light Company, a corporation, recorded December 8, 1958 as Document #7573, in Book 425, page 514, records of Flathead County, Montana.

16. Easement for transmission line and related purposes granted Pacific Power & Light Company, a corporation, recorded November 11, 1969 as Document #7847, in Book 509, page 737, records of Flathead County, Montana.

17. Easement for transmission line and related purposes granted Pacific Power & Light Company, a corporation, recorded March 4, 1976 as Document #2086, in Book 594, page 206, records of Flathead County, Montana.

18. All matters, covenants, conditions, restrictions, easements and any rights, interest or claims which may exist by reason thereof, disclosed by the plat(s) of Big Mountain Apartments, but deleting any covenant, conditions or restriction indicating a preference, limitation or discrimination based on race, color, religion, sex, handicap, familial status, or national origin to the extent such covenants, conditions or restrictions violate 42 USC 3604(c).

19. All matters, covenants, conditions, restrictions, easements and any rights, interest or claims which may exist by reason thereof, disclosed by the plat(s) of Colorado Homesites No. 2, but deleting any covenant, conditions or restriction indicating a preference, limitation or discrimination based on race, color, religion, sex, handicap, familial status, or national origin to the extent such covenants, conditions or restrictions violate 42 USC 3604(c).

20. Declaration of Conditions, Covenants, and Restrictions and any rights, provisions, powers, obligations, liens or charges as provided therein, but omitting covenants or restrictions, if any, based upon race, color, religion, sex, sexual orientation, familial status, marital status, disability, handicap, national origin, ancestry, or source of income, as set forth in applicable state or federal laws, except to the extent that said covenant or restriction is permitted by applicable law, recorded May 31, 1978 as Document #4103, in Book 639, page 288, records of Flathead County, Montana, and any amendments thereto, including but not limited to the following amendments:

    Amendment recorded May 31, 1978 as Document #7708, in Book 642, page 705, records of Flathead County, Montana.

    Amendment recorded November 5, 1980 as Document #15861, in Book 705, page 206, records of Flathead County, Montana.

21. All matters, covenants, conditions, restrictions, easements and any rights, interest or claims which may exist by reason thereof, disclosed by the plat(s) of Whitefish Cottages, but deleting any covenant, conditions or restriction indicating a preference, limitation or discrimination based on race, color, religion, sex, handicap, familial status, or national origin to the extent such covenants, conditions or restrictions violate 42 USC 3604(c).

Survey/Plat, when recorded, must be in compliance with the provisions of the Montana Subdivision and Platting Act, 1973, (Sections 76-3-101 M.C.A. through 76-3-614 M.C.A.) and the regulations adopted pursuant thereto.

Easements, conditions and restrictions as disclosed or to be disclosed on proposed Survey/Plat to be recorded prior to or as part of this transaction.

STG Privacy Notice
Stewart Title Companies

WHAT DO THE STEWART TITLE COMPANIES DO WITH YOUR PERSONAL INFORMATION?

Federal and applicable state law and regulations give consumers the right to limit some but not all sharing. Federal and applicable state law regulations also require us to tell you how we collect, share, and protect your personal information. Please read this notice carefully to understand how we use your personal information. This privacy notice is distributed on behalf of the Stewart Title Guaranty Company and its title affiliates (the Stewart Title Companies), pursuant to Title V of the Gramm-Leach-Bliley Act (GLBA).

The types of personal information we collect and share depend on the product or service that you have sought through us. This information can include social security numbers and driver's license number.

All financial companies, such as the Stewart Title Companies, need to share customers' personal information to run their everyday business—to process transactions and maintain customer accounts. In the section below, we list the reasons that we can share customers' personal information; the reasons that we choose to share; and whether you can limit this sharing.

Reasons we can share your personal information.	Do we share	Can you limit this sharing?
For our everyday business purposes— to process your transactions and maintain your account. This may include running the business and managing customer accounts, such as processing transactions, mailing, and auditing services, and responding to court orders and legal investigations.	Yes	No
For our marketing purposes— to offer our products and services to you.	Yes	No
For joint marketing with other financial companies	No	We don't share
For our affiliates' everyday business purposes— information about your transactions and experiences. Affiliates are companies related by common ownership or control. They can be financial and non-financial companies. *Our affiliates may include companies with a Stewart name; financial companies, such as Stewart Title Company*	Yes	No
For our affiliates' everyday business purposes— information about your creditworthiness.	No	We don't share
For our affiliates to market to you — For your convenience, Stewart has developed a means for you to opt out from its affiliates marketing even though such mechanism is not legally required.	Yes	Yes, send your first and last name, the email address used in your transaction, your Stewart file number and the Stewart office location that is handling your transaction by email to optout@stewart.com or fax to 1-800-335-9591.
For non-affiliates to market to you. Non-affiliates are companies not related by common ownership or control. They can be financial and non-financial companies.	No	We don't share

We may disclose your personal information to our affiliates or to non-affiliates as permitted by law. If you request a transaction with a non-affiliate, such as a third party insurance company, we will disclose your personal information to that non-affiliate. [We do not control their subsequent use of information, and suggest you refer to their privacy notices.]

SHARING PRACTICES

How often do the Stewart Title Companies notify me about their practices?	We must notify you about our sharing practices when you request a transaction.
How do the Stewart Title Companies protect my personal information?	To protect your personal information from unauthorized access and use, we use security measures that comply with federal law. These measures include computer, file, and building safeguards.
How do the Stewart Title Companies collect my personal information?	We collect your personal information, for example, when you ▪ request insurance-related services ▪ provide such information to us We also collect your personal information from others, such as the real estate agent or lender involved in your transaction, credit reporting agencies, affiliates or other companies.
What sharing can I limit?	Although federal and state law give you the right to limit sharing (e.g., opt out) in certain instances, we do not share your personal information in those instances.

Contact us: If you have any questions about this privacy notice, please contact us at: **Stewart Title Guaranty Company, 1980 Post Oak Blvd., Privacy Officer, Houston, Texas 77056**

STG Privacy Notice 2 (Rev 01/26/09) Independent Agencies and Unaffiliated Escrow Agents

WHAT DO/DOES THE Sterling Title Services - Whitefish Branch DO
WITH YOUR PERSONAL INFORMATION?

Federal and applicable state law and regulations give consumers the right to limit some but not all sharing. Federal and applicable state law regulations also require us to tell you how we collect, share, and protect your personal information. Please read this notice carefully to understand how we use your personal information. This privacy notice is distributed on behalf of Sterling Title Services - Whitefish Branch, and its affiliates (" N/A "), pursuant to Title V of the Gramm-Leach-Bliley Act (GLBA).

The types of personal information we collect and share depend on the product or service that you have sought through us. This information can include social security numbers and driver's license number.

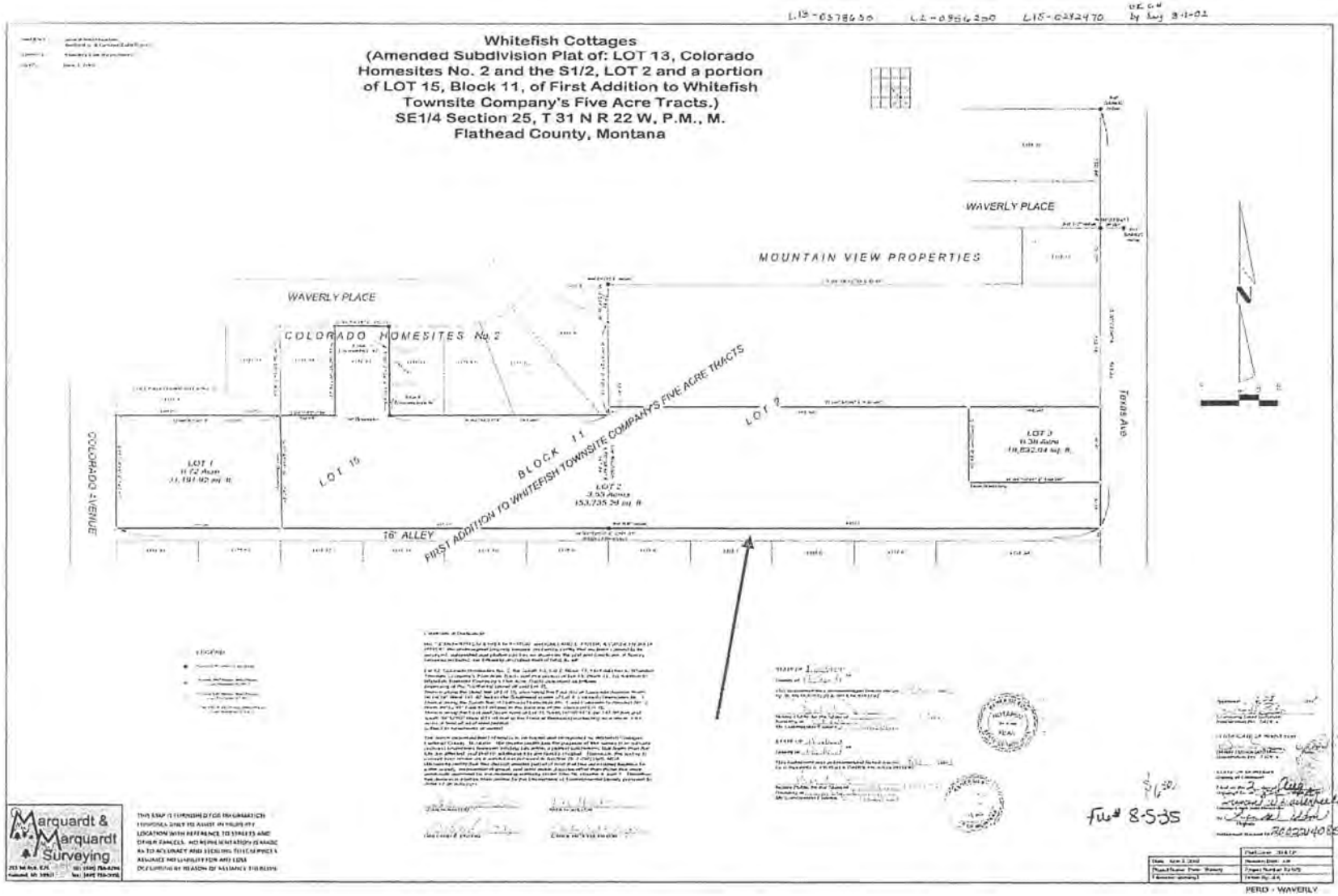
All financial companies, such as Sterling Title Services - Whitefish Branch, need to share customers' personal information to run their everyday business—to process transactions and maintain customer accounts. In the section below, we list the reasons that we can share customers' personal information; the reasons that we choose to share; and whether you can limit this sharing.

Reasons we can share your personal information	Do we share?	Can you limit this sharing?
For our everyday business purposes— to process your transactions and maintain your account. This may include running the business and managing customer accounts, such as processing transactions, mailing, and auditing services, and responding to court orders and legal investigations.	Yes	No
For our marketing purposes— to offer our products and services to you.	Yes	No
For joint marketing with other financial companies	No	We don't share
For our affiliates' everyday business purposes— information about your transactions and experiences. Affiliates are companies related by common ownership or control. They can be financial and non-financial companies.	Yes	No
For our affiliates' everyday business purposes— information about your creditworthiness.	No	We don't share
For our affiliates to market to you	Yes	No
For non-affiliates to market to you. Non-affiliates are companies not related by common ownership or control. They can be financial and non-financial companies.	No	We don't share

We may disclose your personal information to our affiliates or to non-affiliates as permitted by law. If you request a transaction with a non-affiliate, such as a third party insurance company, we will disclose your personal information to that non-affiliate. [We do not control their subsequent use of information, and suggest you refer to their privacy notices.]

Sharing practices	
How often do/does Sterling Title Services - Whitefish Branch notify me about their practices?	We must notify you about our sharing practices when you request a transaction.
How do/does Sterling Title Services - Whitefish Branch protect my personal information?	To protect your personal information from unauthorized access and use, we use security measures that comply with federal and state law. These measures include computer, file, and building safeguards.
How do/does Sterling Title Services - Whitefish Branch collect my personal information?	We collect your personal information, for example, when you • request insurance-related services • provide such information to us We also collect your personal information from others, such as the real estate agent or lender involved in your transaction, credit reporting agencies, affiliates or other companies.
What sharing can I limit?	Although federal and state law give you the right to limit sharing (e.g., opt out) in certain instances, we do not share your personal information in those instances.

Contact Us	If you have any questions about this privacy notice, please contact us at: Sterling Title Services - Whitefish Branch, 307 Spokane Ave., Suite 101, Whitefish, MT 59937


Whitefish Cottages
(Amended Subdivision Plat of: LOT 13, Colorado Homesites No. 2 and the S1/2, LOT 2 and a portion of LOT 15, Block 11, of First Addition to Whitefish Townsite Company's Five Acre Tracts.)
SE1/4 Section 25, T 31 N R 22 W, P.M., M.
Flathead County, Montana
WAVERLY PLACE
MOUNTAIN VIEW PROPERTIES
WAVERLY PLACE
COLORADO HOMESITES No. 2
BLOCK 11
FIRST ADDITION TO WHITEFISH TOWNSITE COMPANY'S FIVE ACRE TRACTS
LOT 1
LOT 15
LOT 2
LOT 3
COLORADO AVENUE
16' ALLEY
Texas Ave
Marquardt & Marquardt Surveying

OWNER/ FOR: Robert W. Pero

PURPOSE: Subdivision

DATE: August 11, 2015

Subdivision Plat of

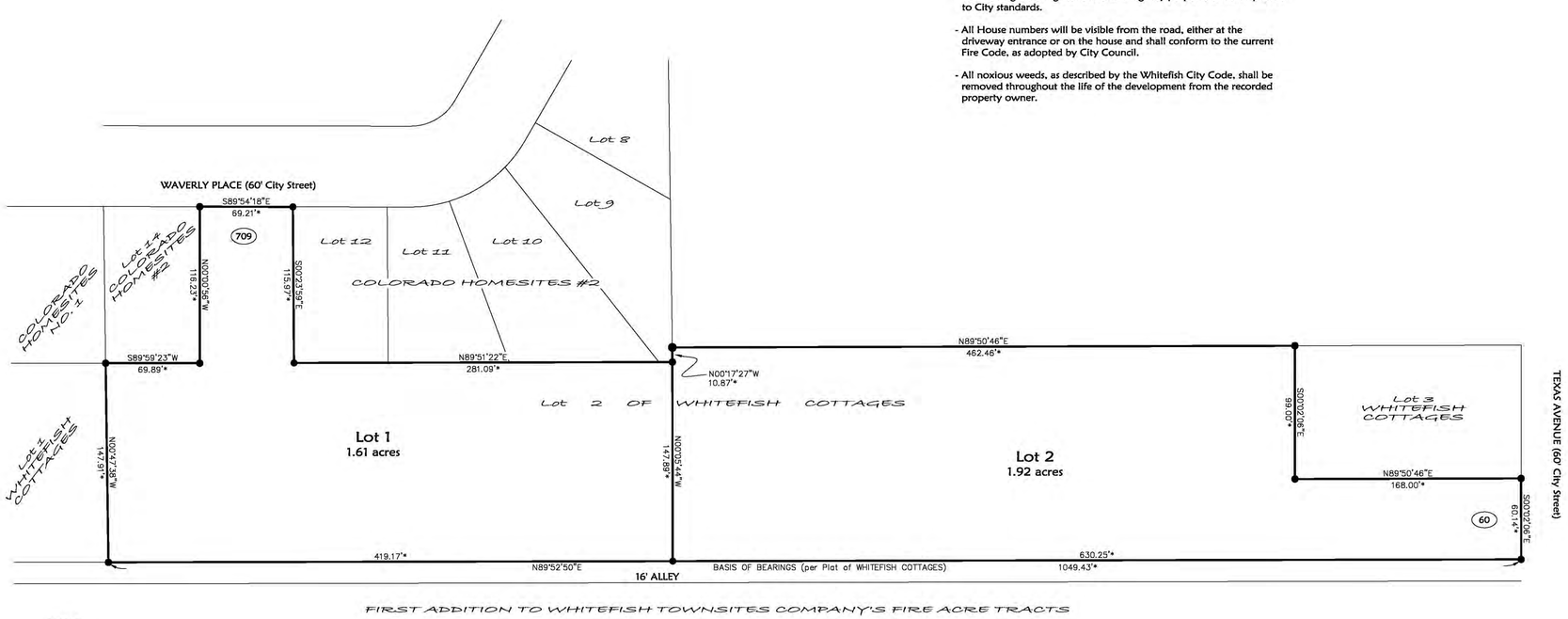
AMENDED PLAT OF LOT 2 OF WHITEFISH COTTAGES

SE1/4, Section 25, T31N R22W, P.M., M.

Flathead County, Montana

NOTES:

- A separate water & sewer service shall be provided to each lot in accordance with the City of Whitefish's policies and design standards.
- An engineered stormwater plan shall be submitted to the Public Works Department for review and approval, if impervious area exceeds 5,000 square feet.
- The alley way along the southern boundary of the project may not be used for ingress or egress for non-emergency purposes unless improved to City standards.
- All House numbers will be visible from the road, either at the driveway entrance or on the house and shall conform to the current Fire Code, as adopted by City Council.
- All noxious weeds, as described by the Whitefish City Code, shall be removed throughout the life of the development from the recorded property owner.



LEGEND

- ● FOUND 5/8" REBAR WITH PLASTIC CAP MARKED "HELPS 4739LS"
- ● FOUND 5/8" REBAR WITH PLASTIC CAP MARKED "MARQUARDT 7328LS"
- ● FOUND 5/8" REBAR WITH PLASTIC CAP MARKED "WALKER 42385"
- ● FOUND 5/8" REBAR (NO CAP)
- * FOUND AND RECORD DIMENSIONS PER PLAT OF WHITEFISH COTTAGES
- (123) PHYSICAL ADDRESS

N

SCALE: 1" = 50'

50' 0 25' 50'

CERTIFICATE OF DEDICATION

I, ROBERT W. PERO, the undersigned property owner, do hereby certify that I have caused to be surveyed, subdivided and platted into lots as shown by the plat hereto annexed, the following described land in the City of Whitefish County, to-wit:

Lot 2 of Whitefish Cottages, in the Southeast ¼ of Section 25, Township 31 North, Range 22 West, P.M., M., Flathead County, Montana, containing 3.53 acres of land all as shown hereon. Subject to and together with easements of record.

The above described tract of land is to be known and designated as AMENDED PLAT OF LOT 2 WHITEFISH COTTAGES.

The above described tract of land is to be known and designated as AMENDED PLAT OF LOT 2 WHITEFISH COTTAGES , Flathead County, Montana. I hereby certify that the tracts are within first-class or second-class municipalities for which the governing body certifies, pursuant to 76-4-127, that adequate storm water drainage and adequate municipal facilities will be provided to said tracts of land; therefore, these tracts of land are exempt from review by the Department of Environmental Quality pursuant to 76-4-125 (2)(d)
(to be used with newly created subdivision only- The water and sewage easements as shown hereon are hereby dedicated to the city of WHITEFISH. All new utilities shall be installed underground.)

Dated this _____ day of _____, 201__

_____
ROBERT W. PERO

STATE OF _____)
: ss.
County of _____)

This instrument was signed and acknowledged before me on _____, 20___,
by ROBERT W. PERO.

_____
Printed Name: _____
Notary Public for the State of _____
Residing at _____
My Commission Expires _____

CERTIFICATE OF PUBLIC WORKS DIRECTOR

I, KARIN HILDING, for the City of Whitefish, Montana, do hereby certify that the accompanying subdivision plat has been duly examined and has found the same that the required improvements have been reviewed and approved for compliance with the Whitefish Standards for Design and Construction, and hereby accepts the dedication of those improvements to the City of Whitefish for the public use of any and all lands shown on the plat subject to any and all maintenance warranties and guarantees.

Dated this ___day of _____, 20 _____.

_____
KARIN HILDING
Director of Public Work / City Engineer
City of Whitefish, Montana

CERTIFICATE OF FINAL PLAT APPROVAL-CITY:
The City Council of the City of Whitefish, Montana, does hereby certify that it has examined this subdivision plat and, having found the same to conform to law, approves it, and hereby accepts the dedication to public use of any and all lands shown on this plat as being dedicated to such use, this ___ day of _____, 20___ at _____ o'clock.
Parkland Dedication is exempt per Section 76-3-621(3)(d), MCA.

_____ _____
JOHN MUHLFELD, Mayor NECILE LORANG, City Clerk
City of Whitefish, Montana City of Whitefish, Montana

CERTIFICATE OF CITY ATTORNEY:
I, MARY VANBUSKIRK, City Attorney for the City of Whitefish, Montana, do hereby certify that I have examined the Certificate of Title, issued by a licensed title company, attached hereto, of land described in the Certificate of Dedication of the annexed plat of AMENDED PLAT OF LOT 2 WHITEFISH COTTAGES, of Whitefish, Montana, in the city of Whitefish, Montana and find that the owners in fee simple of record have consented to platting of said subdivision.
Dated this __ day of _____, 20___.

_____
MARY VANBUSKIRK, City Attorney
City of Whitefish, Montana

CERTIFICATE OF PLANNING DIRECTOR

I, DAVID TAYLOR, for the City of Whitefish, Montana do hereby certify that the accompanying Subdivision Plat, AMENDED PLAT OF LOT 2 WHITEFISH COTTAGES, has been duly reviewed, and has been found to conform to the requirements of the Whitefish Zoning Regulations and the Whitefish Subdivision Regulations.

DATED this ___ day of _____, _____.

_____
DAVID TAYLOR
Planning Director
City of Whitefish, Montana

Approved: _____, 201__

_____
Examining Land Surveyor
Registration No. 54285

CERTIFICATE OF SURVEYOR

_____ _____
DAWN MARQUARDT Date
Registration No. 73285

STATE OF MONTANA
County of Flathead

Filed on the ____ day of _____, 201__, A.D., at _____o'clock ___m.

_____
County Clerk and Recorder

By: _____
Deputy

Instrument Record No. _____

Marquardt Surveying
201 3rd Ave. West (406) 755-6285
Kalispell, MT 59901 info@mmsurvey.net

NOTE:
NO SEARCH HAS BEEN MADE FOR EASEMENTS AFFECTING THIS PROPERTY AND THIS SURVEY DOES NOT PURPORT TO SHOW ALL APPURTENANT EASEMENTS.

	Field Crew: BP TB
Date: August 11, 2015	Revision Date: n/a
Project Name: Pero Whitefish Cott.	Project Number: 15-067
Filename: FinalPlat.dwg	Drawn By: SA

PERO - WHITEFISH COTTAGES

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Return to: Necile Lorang, City Clerk
City of Whitefish
PO Box 158
Whitefish, MT 59937-0158

RESOLUTION NO. 15-___

A Resolution of the City Council of the City of Whitefish, Montana, to change the name of Third Street west of State Park Road in Patton's Subdivision to Salmon Run.

WHEREAS, the City of Whitefish is a charter city with self-government powers; and

WHEREAS, Section 7-14-4112, MCA, provides that a City Council may, by resolution, change the name of a street unless fifty-one percent (51%) of the property owners object; and

WHEREAS, the City Council received a request from Jay Snowden of Triple S Land Group, to rename Third Street west of State Park Road in Patton's Subdivision to "Salmon Run"; and

WHEREAS, as an item on the Consent Agenda at a regular City Council meeting on August 17, 2015, the City Council adopted Resolution No. 15-24 to rename Third Street west of State Park Road in Patton's Subdivision to "Salmon Run" unless fifty-one percent (51%) or more of the property owners object and directed City staff to notify adjacent property owners of its intent to rename Third Street west of State Park Road in Patton's Subdivision to "Salmon Run"; and

WHEREAS, the City Clerk mailed notices to all adjacent property owners, and received no objections; and

WHEREAS, at a lawfully noticed public hearing on September 21, 2015, the City Council reviewed the request from Jay Snowden of Triple S Land Group to rename Third Street west of State Park Road in Patton's Subdivision to "Salmon Run", invited public comment, and thereafter determined the proposed name change would be in the best interests of the City and its inhabitants.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Whitefish, Montana, as follows:

Section 1: All of the recitals set forth above are hereby adopted as Findings of Fact.

Section 2: The name of Third Street west of State Park Road located in Whitefish, Montana, is changed to "Salmon Run", as shown on Exhibit "A," attached hereto and incorporated herein by reference.

Section 3: The City Clerk is authorized and directed to forward a certified copy of this Resolution to the Flathead County Clerk and Recorder so that all records maintained by the Clerk and Recorder's Office may be corrected to reflect the change in the name of Third Street west of State Park Road to "Salmon Run".

Section 4: This Resolution shall take effect immediately upon its adoption by the City Council, and signing by the Mayor thereof.

PASSED AND ADOPTED BY THE CITY COUNCIL OF THE CITY OF WHITEFISH, MONTANA, ON THIS _____ DAY OF _____, 2015.

_____
John M. Muhlfeld, Mayor

ATTEST:

_____
Necile Lorang, City Clerk

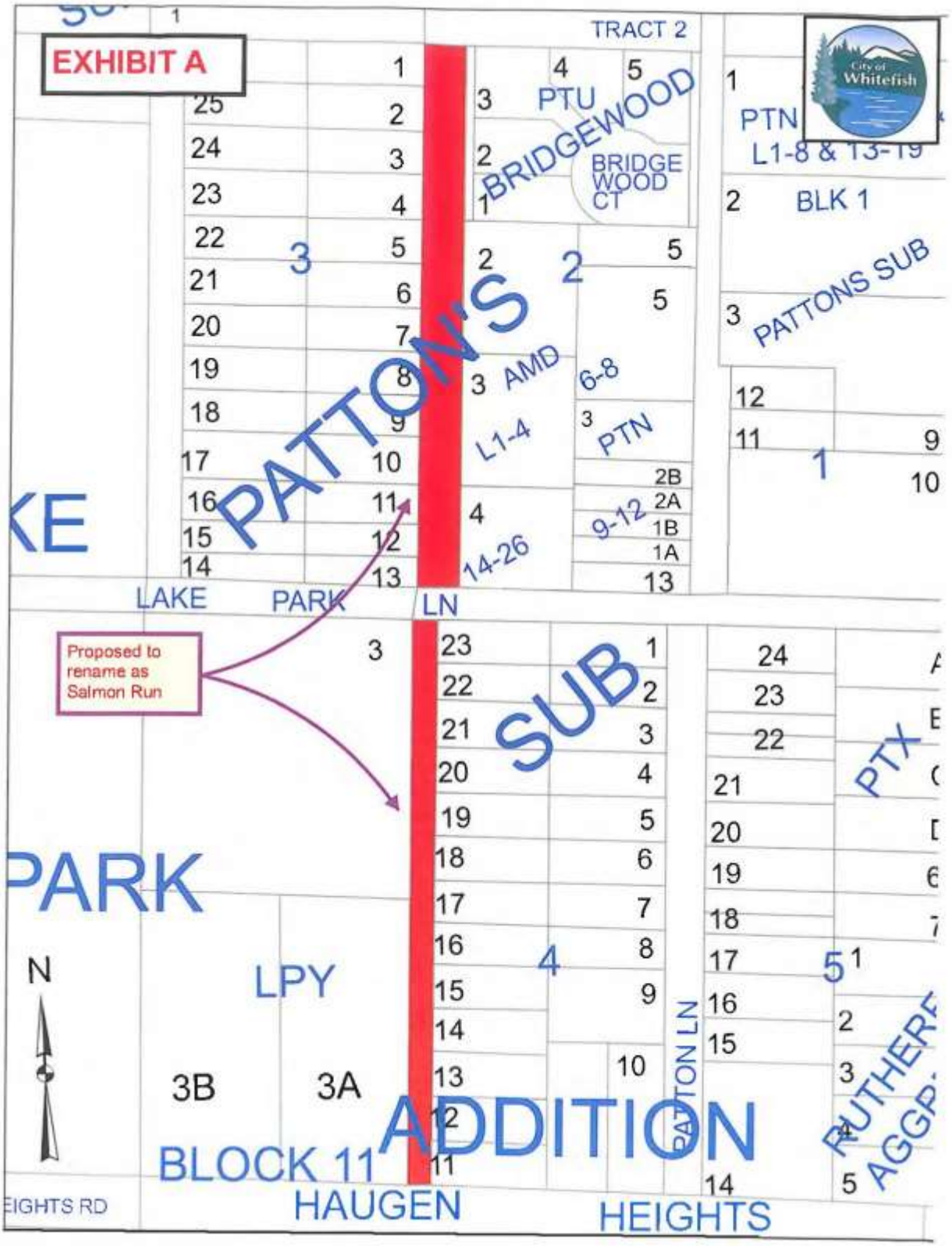
EXHIBIT A
TRACT 2
PTU
BRIDGEWOOD
BRIDGE WOOD CT
PTN
L1-8 & 13-19
BLK 1
PATTONS SUB
PATTON'S
AMD
L1-4
6-8
PTN
9-12
14-26
LAKE PARK LN
Proposed to rename as Salmon Run
SUB
PTX
PARK
LPY
N
3B
3A
BLOCK 11
ADDITION
PATTON LN
RUTHERF
AGGP
HAUGEN HEIGHTS
EIGHTS RD

September 15, 2015

Mayor Muhlfeld and City Councilors
City of Whitefish
Whitefish, Montana

Mayor Muhlfeld and City Councilors

Recommendation to Approve Resolution renaming Third Street (in Patton's Subdivision) to "Salmon Run"

Introduction/History

Patton's Subdivision was recorded in 1949, and gave names to the public roads including First Street, Second Street and Third Street. Overtime, First Street was renamed State Park Road, Second Street was renamed Patton Lane, but no changes have been made to the street called Third Street. The City has received a request from one of the owners of adjacent property, Jay Snowden of Triple S Land Group, to rename Third Street to "Salmon Run", as using the address of Third Street, as platted in 1949, on land west of the Golf Course could easily cause confusion with our established East and West 3rd Streets that run through downtown Whitefish.

Current Report

The Council acted on the request to change the road name by its adoption of Resolution No. 15-24; a resolution of intent to change the name of Third Street in Patton's Subdivision to Salmon Run at their regular meeting on August 17, 2015. Notification of the Council's intent was mailed to adjacent landowners inviting public comment. As of the date of writing this staff report, no comments have been received. A public hearing has been noticed for tonight's meeting, September 21, 2015.

Financial Requirement

The Public Works Department estimates the cost to be $130 for one sign, hardware and labor. This project will require 4 street signs, for a total estimated cost of $520. A small amount is budgeted annually in the regular Public Works' budget for sign replacement and this amount can be covered within that line item.

Recommendation

City staff respectfully recommends the City Council, following receiving public testimony at the public hearing, adopt the proposed resolution renaming Third Street in Patton's Subdivision to "Salmon Run".

Sincerely,

Necile Lorang

Necile Lorang
City Clerk

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ORDINANCE NO. 15-___

An Ordinance of the City Council of the City of Whitefish, Montana, amending Title 14, Flood Control, of the Whitefish City Code.

WHEREAS, in response to new Flood Insurance Rate Maps (FIRMs), the Federal Emergency Management Agency (FEMA) requires the adoption of updated floodplain management regulations which meet the minimum criteria of the National Flood Insurance Program (NFIP). The City of Whitefish's participation in the NFIP is based upon a mutual agreement with FEMA. In return for the local adoption and enforcement of compliant floodplain management regulations that meet the minimum criteria, FEMA provides the availability of flood insurance coverage within the City of Whitefish. The City of Whitefish is responsible for administering and enforcing these local floodplain management requirements pursuant to the City's own authority and procedures. FEMA periodically evaluates the administration and enforcement of the floodplain management program in relation to the NFIP regulations and has the authority to impose the penalties of probation and/or suspension for the City of Whitefish and surrounding areas if the overall floodplain management program is found to be inadequately administered or enforced; and

WHEREAS, the Montana Department of Natural Resources and Conservation (DNRC) supports the National Flood Insurance Program and serves as the state liaison with FEMA to coordinate activities and provide support, technical assistance, training, and outreach to City and County officials in the execution of their duties to identify, prevent, and resolve floodplain management issues; and

WHEREAS, it is the intent of these regulations to provide for the safety of the residents living or working along the rivers, streams and drainages in the City of Whitefish by adopting land uses and common sense building practices. FIRM panels showing the established and/or documented floodplains in the City of Whitefish are available in Whitefish Planning and Building Department Office; and

WHEREAS, at a lawfully noticed public hearing on September 21, 2015, the Whitefish City Council received an oral report, reviewed Staff Report WFTA 15-01, invited public input, and approved text amendments, as amended, attached as Exhibit "A"; and

WHEREAS, it will be in the best interests of the City of Whitefish and its inhabitants to adopt the proposed text amendments.

NOW, THEREFORE, BE IT ORDAINED by the City Council of the City of Whitefish, Montana, as follows:

Section 1: All of the recitals set forth above are hereby adopted as Findings of Fact.

Section 2: Staff Report WFTA 15-01 dated September 15, 2015 from the Whitefish Planning & Building Department, is hereby adopted as Findings of Fact.

Section 3: An amendment to Whitefish City Code Title 14 amending the language as provided in the attached Exhibit "A", with insertions shown in red and underlined, is hereby adopted.

Section 4: In the event any word, phrase, clause, sentence, paragraph, section or other part of the Ordinance set forth herein is held invalid by a court of competent jurisdiction, such judgment shall affect only that part held invalid, and the remaining provisions thereof shall continue in full force and effect.

Section 5: This Ordinance shall take effect thirty (30) days after its adoption by the City Council of the City of Whitefish, Montana, and signing by the Mayor thereof.

PASSED AND ADOPTED BY THE CITY COUNCIL OF THE CITY OF WHITEFISH, MONTANA, THIS _____ DAY OF _____, 2015.

_____
John M. Muhlfeld, Mayor

ATTEST:

_____
Necile Lorang, City Clerk

Title 14

FLOOD CONTROL

Subject	Chapter
General Floodplain Regulations……..	1
Definitions……	2
General Provisions……...	3
Administration……	4
Specific Standards……	5
Lakeshore Protection Zone Regulations……	6
Flood proofing Requirements……	7
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CHAPTER 1

GENERAL FLOODPLAIN REGULATIONS

Section:

14-1-1: Title
14-1-2: Findings of Fact
14-1-3: Purpose
14-1-4: Methods of Reducing Flood Losses
14-1-5: Intent
14-1-6: Statutory Authority

14-1-1 TITLE: These regulations shall be known and cited as the *WHITEFISH FLOODPLAIN ORDINANCE.* These regulations are in accordance with and exercising the authority of laws of the state of Montana, chapter 5, floodplain and floodway management, 76-5-101 through 76-5-406, Montana Code Annotated, and following the guidance of the code of federal regulations administered by the Federal Emergency Management Agency (FEMA).

Deleted: , 2003

14-1-2 FINDINGS OF FACT:

A. The flood hazard areas of Whitefish are subject to periodic inundation, which results in loss of life and property, health and safety hazards, disruption of commerce and governmental services, and extraordinary public expenditures for flood protection and relief, all of which adversely affect the public health, safety and general welfare.

B. These flood losses are created by the cumulative effect of obstructions in floodplains which cause an increase in flood heights and velocities, and by the occupancy of flood hazard areas by uses vulnerable to floods and hazardous to other lands because they are inadequately elevated, flood proofed or otherwise protected from flood damage.

C. Flood hazard areas specifically adopted herein as Regulated Flood Hazard Areas have been delineated and designated by order or determination of the Department of Natural Resources and Conservation (DNRC) pursuant to MCA 76-5-201et.seq.

D. These regulations have been reviewed by Montana Department of Natural Resources and Conservation and the Federal Emergency Management Agency (FEMA). The Montana DNRC has found the regulations acceptable in meeting the Department minimum standards. FEMA finds that these regulations are adequate and consistent with the comprehensive criteria for land management and use pursuant to the standards established in 44 CFR 60.3.

14-1-3: PURPOSE: It is the purpose of this title to promote the public health, safety and general welfare and to minimize public and private losses due to flood conditions in specific areas by provisions designed to:

A. Protect human life and health;

B. Minimize expenditure of public money for costly flood control projects;

C. Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;

D. Minimize prolonged business and public service interruptions;

E. Minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets and bridges located in floodplains;

F. Help maintain a stable tax base by providing for the sound use and development of flood prone areas in such a manner as to minimize future flood disruptions;

G. Ensure that potential buyers are notified that property is in a flood area; and

H. Ensure compliance with the minimum standards for the continued participation in the National Flood Insurance Program for the benefit of the residents.

14-1-4: METHODS OF REDUCING FLOOD LOSSES: In order to accomplish its purposes, this title uses the following methods:

A. Restrict or prohibit uses that are dangerous to health, safety or property in times of flood, or cause excessive increases in flood heights or velocities;

B. Require that uses vulnerable to floods, including public facilities which serve such uses, be developed or constructed to at least minimum standards or to otherwise minimum flood damage;

C. Control the alteration of natural floodplains, stream channels, and natural protective barriers, which are involved in the accommodation of floodwaters;

D. Control filling, grading, dredging and other development which may increase flood damage;

E. Prevent or regulate the construction of flood barriers which will unnaturally divert floodwaters or which may increase flood hazards to other lands.

Deleted: blight areas

Deleted: and

Deleted: protected against flood damage at the time of initial construction

F. Distinguish between the land use regulations applied to the floodway within the regulated Flood Hazard Area and those applied to that portion of the Regulated Flood Hazard Area not contained in the floodway.

G. Apply more restrictive land use regulations within the floodway of the Regulated Flood Hazard Area; and

H. Ensure that regulations and minimum standards balance the greatest public good with the least private injury.

14-1-5: INTENT: The ordinance codified herein is passed in order to comply with the Montana Floodplain and Floodway Management Act[1] and to ensure compliance with the requirements for the continued participation by the City of Whitefish in the National Flood Insurance Program. Land Use regulations which are hereby adopted are to be applied to all identified Regulated Flood Hazard Areas within the local jurisdiction.

Deleted: special flood hazard area

14-1-6: STATUTORY AUTHORITY: Municipalities have authority to adopt ordinances as provided for in section 7-1-4123, Montana Code Annotated to promote the general public health and welfare. Other authority for municipalities and counties to adopt floodplain management regulations appears in sections 76-5-101 through 406, Montana Code Annotated and is further described in Montana Administrative Rule (ARM) 36, Chapter 15. The authority to regulate development in specifically identified flood hazard areas has been accepted pursuant to 76-5-301, MCA.

1. MCA title 76, ch. 5.

CHAPTER 2

DEFINITIONS

SECTION:

14-2-1: Words Defined

14-2-1: WORDS DEFINED: Unless specifically defined below, words or phrases used in this title shall be interpreted to give them the meaning they have in common usage and to give these regulations the most reasonable application:

100-YEAR FLOOD: One percent (1%) annual change flood. A 100-year flood has nearly a twenty three percent (23%) chance of occurring in a 25-year period. A 100-year flood is the same as a base flood. See Base Flood.

ACCESSORY STRUCTURE: A structure that is accessory to, or in addition to, any use that is permitted in this title (e.g., a picnic shelter would be accessory to a camp- ground). An accessory structure is secondary to the primary use that is permitted and complies with all other conditions imposed by this title and otherwise provided for by law. Accessory structures are also referred to as appurtenant structures. An accessory structure is a structure which is in the same property ownership as a principal structure and the use which is incidental to the use of the principal structure. For example, a residential structure may have a detached garage or storage shed for garden tools as accessory structures. Other examples of accessory structures include gazebos, picnic pavilions, boathouses, small pole barns, storage sheds, and similar buildings.

ACT: The statutes authorizing the national flood insurance program that are incorporated in 42 USC 4001-4128, or Montana floodplain and floodway management act, Montana code title 76, chapter 5.

ALTERATION: Any change or addition to a structure that either increases its external dimensions or increases its potential flood hazard.

APPEAL: A request for a review of the city of Whitefish floodplain administrator's interpretation of any provisions of this title or a request for a variance.

Moved (insertion) [1]

Deleted: NFIP regulations for new construction generally apply to new and substantially improved accessory structures.

Deleted: ACTUARIAL RATES: See definition of Risk Premium Rates.¶

Deleted: ¶
AREA OF FUTURE The land area that would be inundated by the one ¶
CONDITIONS FLOOD HAZARD: percent (1%) annual chance (100-year) flood based on¶
future conditions hydrology.¶
¶
AREA OF SHALLOW FLOODING: A designated zone on the digital flood insurance rate map (DFIRM) with a one percent (1%) or greater annual chance of flooding to an average depth of one to three feet (3') where a clearly defined channel does not exist, where the path of flooding is unpredictable, and where velocity flow may be evident. Such flooding is characterized by ponding or sheet flow.

AREA OF SPECIAL FLOOD HAZARD: The land in the floodplain within the community subject to inundation by a one percent (1%) or greater chance of flooding in any given year; also commonly referred to as the 100-year floodplain. The area may be designated as zone A on the DFIRM. After detailed ratemaking has been completed in preparation for publication of the flood insurance rate map, zone A usually is refined into zones A, AO, AH, A 1-30, AE, A99, AR, AR/A 1-30, AR/AE, AR/AO, AR/AH, AR/A, VO, or V1-30, VE, or V. For purposes of this title the term "Regulated Flood Hazard Area" is synonymous in meaning with the phrase "area of special flood hazard" and "special flood hazard area".

Deleted: special flood hazard area

ARTIFICIAL OBSTRUCTION/ DEVELOPMENT: Any obstruction which is not natural and includes any dam, diversion, wall, riprap, embankment, levee, dike, pile, abutment, projection, revetment, excavation, channel rectification, road, bridge, conduit, culvert, building, refuse, automobile body, fill or other analogous structure or matter in, along, across or projecting into any Regulated Flood Hazard Area which may impede, retard or alter the pattern of flow of water, either in itself or by catching or collecting debris carried by the water, or that is placed where the natural flow of water would carry the same downstream to the damage or detriment of either life or property.

Deleted: AREA OF SPECIAL . . . The land which is most likely to be subject to ¶
FLOOD RELATED . . . severe flood related erosion losses. The area may be¶
EROSION HAZARD: . . . designated as zone E on the digital flood insurance ¶
rate maps (DFIRM). After the detailed evaluation of the special flood related erosion hazard area in preparation for publication of the DFIRM, zone E may be further refined.¶
¶

Deleted: special flood hazard area

BASE FLOOD (FLOOD OF 100-YEAR FREQUENCY): A flood having a one percent (1%) chance of being equaled or exceeded in any given year. A base flood may also be referred to as a 100-year flood. A 100-year flood has nearly a twenty three percent (23%) chance of occurring in a twenty five (25) year period.

BASE FLOOD ELEVATION (BFE): The elevation above sea level of the base flood in relation to the North American vertical datum of 1988 (NAVD 88). Previous FIRMs may have been published in the national geodetic vertical datum of 1929 (NGVD 29).

Deleted: unless otherwise specified in the flood chapter 24 floodplain regulations, October 2006, hazard study

BASEMENT: Any area of the building, except a crawl space, having its lowest floor subgrade (below ground level) on all sides.

BUILDING: Any walled and roofed enclosure, including a gas or liquid storage tank that is principally above ground, as well as a manufactured home.

Deleted: . See also definition of Structure.

CHANNEL: The geographical area within either the natural or artificial banks of a watercourse or drainway.

CHANNELIZATION PROJECT:	The excavation and/or construction of an artificial channel for the purpose of diverting the entire flow of a stream from its established course.
COMMUNITY:	Any state or area or political subdivision thereof, or any Indian tribe or authorized tribal organization or authorized native organization, which has authority to adopt and enforce floodplain management regulations for the areas within its jurisdiction.
CRAWL SPACE:	An enclosure that has its interior floor no more than five feet (5') below the top of the next highest floor.
CRITICAL FACILITY:	An activity or facility where, even a slight chance of flooding is too great a threat. Typical critical facilities include hospitals, retirement facilities, nursing homes, fire stations, police stations, storage of critical records, and similar facilities.
DESIGNATED FLOODPLAIN:	A floodplain whose limits have been delineated and designated by order of the Department of Natural Resources and Conservation, pursuant to MCA 76-5-201et.seq.
DESIGNATED FLOODWAY:	A floodway whose limits have been delineated and designated by order of the Department of Natural Resources and Conservation, pursuant to MCA 76-5-201et.seq.
DEVELOPMENT:	Any manmade change to improved or unimproved real estate, including, but not limited to, buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations or storage of equipment or materials.
DIGITAL FLOOD INSURANCE RATE MAP (DFIRM):	The map on which FEMA has delineated the special flood hazard areas, the base flood elevations (BFE) and the risk premium zones.
DNRC:	Montana Department of Natural Resources and Conservation
DRAINWAY:	Any depression two feet (2') or more below the surrounding land serving to give direction to a current of water less than nine (9) months of the year and having a bed and well defined banks.
DWELLING:	A permanent building for human habitation, a place for living purposes.

Deleted: CHARGEABLE RATES: The insurance rates established by the federal insurance administrator pursuant to section 1308 of the act for first layer limits of flood insurance on existing structures.¶
¶

Deleted: CONTENTS COVERAGE: The insurance on personal property within an enclosed structure, including the cost of debris removal, and the reasonable cost of removal of contents to minimize damage. Personal property may be household goods usual or incidental to residential occupancy, or merchandise, furniture, fixtures, machinery, equipment and supplies usual to other than residential occupancies.¶
¶

Deleted: An enclosed area below the BFE. To meet the definition of a crawl space, an enclosed area must meet all of the following criteria:¶
¶
A. Interior Grade:

Deleted: Interior grade is

Deleted: two

Deleted: 2'

Deleted: exterior lowest adjacent grade (LAG

Deleted:) and height of crawl space foundation wall can be no greater than four feet (4')

Deleted: ¶
¶
B. Openings: Location/elevation, frequency, square area, automatic floodwater entry/exit design of opening cover. Crawl spaces that have their floors ...

Deleted: CURVILINEAR LINE: The border on either a FHBM, DFIRM or FIRM that delineates the special flood, mudslide ...

Deleted: and established

Deleted: state of Montana

Deleted: and established

Deleted: state of Montana

Deleted: DEVELOPED AREA: An area of a community that is:¶
¶ ...

Deleted: . A community without a DFIRM or FHBM must require a permit for all proposed construction or other ...

ELEVATED BUILDING:	A building that has no basement and that has its lowest elevated floor raised above ground level by foundation walls, shear walls, posts, piers, pilings, or columns. A building on a crawlspace is considered an elevated building.
ELIGIBLE COMMUNITY OR PARTICIPATING COMMUNITY:	A community for which the federal insurance administrator has authorized the sale of flood insurance under the national flood insurance program.
ENCLOSURE:	That portion of an elevated building below the lowest elevated floor that is either partially or fully shut in by rigid walls including a crawlspace, sub grade crawlspace, stairwell, elevator or a garage below or attached.
ENCROACHMENT:	Activities or construction within the Regulated Flood Hazard Area including fill, new construction, substantial improvements, or other development.
ENCROACHMENT ANALYSIS:	A hydrologic and hydraulic analysis performed by an engineer to assess the effects of the proposed artificial obstruction or nonconforming use on Base Flood Elevation, flood flows and flood velocities.
EROSION:	The process of the gradual wearing away of land masses. This peril is not per se covered under the flood insurance program.
ESTABLISH:	To construct, place, insert or excavate.
EXISTING ARTIFICIAL OBSTRUTION OR NON-CONFORMING USE:	An artificial obstruction or non-conforming use that was established before land use regulations were adopted pursuant to Section 76-5-301(1), MCA.
EXISTING MANUFACTURED HOME PARK OR SUBDIVISION:	A manufactured home park or subdivision where the construction of facilities for servicing the manufactured home lots is completed before the effective date of the floodplain management regulations. This includes, at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads.
EXISTING STRUCTURES:	See definition of Existing Construction.
EXPANSION TO AN EXISTING MANUFACTURED HOME PARK OR SUBDIVISION:	The preparation of additional sites by the construction of facilities for servicing the lots on which the manufacturing homes are to be affixed (including the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads).

Deleted: For insurance purposes, a

Deleted: non-basement

Deleted: which

Deleted: EXISTING

Deleted: For the purposes of determining rates, structures for ¶
CONSTRUCTION: which the "start of construction" commenced on or before the effective date of the floodplain management regulations. "Existing construction" may also be ¶
referred to as "existing structures".

FEDERAL AGENCY:	Any department, agency, corporation, or other entity or instrumentality of the executive branch of the federal government, and includes the Federal National Mortgage Association and the Federal Home Loan Mortgage Corporation.
FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA):	The agency that manages compliance with the national flood insurance program (NFIP) and provides flood hazard studies and maps.
FINISHED (HABITABLE) AREA:	An enclosed area having more than twenty (20) linear feet of finished walls (paneling, etc.) or used for any purpose other than solely for parking of vehicles, building access, or storage.
FLOOD FRINGE:	The identified portion of the Floodplain of the Regulated Flood Hazard Area outside the limits of the Floodway.
FLOOD INSURANCE:	The insurance coverage provided under the national flood insurance program.
FLOOD INSURANCE RATE MAP (FIRM):	See definition of Digital Flood Insurance Rate Map (DFIRM).
FLOOD INSURANCE STUDY:	The report in which FEMA has provided flood profiles, as well as the flood boundary/floodway map and the water surface profiles.
FLOOD OF 100-YEAR FREQUENCY (BASE FLOOD):	A flood magnitude expected to recur on the average of once every 100-years or a flood magnitude that has a one percent (1%) chance of occurring in any given year; commonly referred to as the base flood.
FLOOD OR FLOODING:	A. A general and temporary condition of partial or complete inundation of normally dry land areas from: 1. The overflow of inland or tidal waters. 2. The unusual and rapid accumulation or runoff of surface waters from any source. 3. Mudslides (i.e., mudflows) which are proximately caused by flooding as defined in subsection A2 of this definition and are akin to a river of liquid and flowing mud on the surfaces of normally dry land areas, as when earth is carried by a current of water and deposited along the path of the current.

Deleted: That portion of the floodplain outside the limits of the floodway

B. The collapse or subsidence of land along the shore of a lake or other body of water as a result of erosion or undermining caused by waves or currents of water exceeding anticipated cyclical levels or suddenly caused by an unusually high water level in a natural body of water, accompanied by a severe storm, or by an unanticipated force of nature, such as flash flood or an abnormal tidal surge, or by some similarly unusual and unforeseeable event which results in flooding as defined in subsection A 1 of this definition.

FLOOD PRONE AREA: The area of special flood hazard as identified on FEMA's Flood Insurance Rate Maps and Flood Insurance Study.

Deleted: the United States geological survey maps

FLOOD PROTECTION SYSTEM: Those physical structural works for which funds have been authorized, appropriated, and expended and which have been constructed specifically to modify flooding in order to reduce the extent of the area within a community subject to a "special flood hazard" and the extent of the depths of associated flooding. Such a system typically includes tidal barriers, dams, reservoirs, levees or dikes. These specialized flood modifying works are those constructed in conformance with sound engineering standards.

FLOOD RELATED EROSION: The collapse or subsidence of land along the shore of a lake or other body of water as a result of undermining caused by waves or currents of water exceeding anticipated cyclical levels or suddenly caused by an unusually high water level in a natural body of water, accompanied by a severe storm, or by an unanticipated force of nature, such as a flash flood or an abnormal tidal surge, or by some similarly unusual and unforeseeable event which results in flooding.

FLOOD RELATED EROSION AREA MANAGEMENT: The operation of an overall program of corrective and preventive measures for reducing flood related erosion damage, including, but not limited to, emergency preparedness plans, flood related erosion control works, and floodplain management regulations.

FLOOD RELATED EROSION AREA OR FLOOD RELATED EROSION PRONE AREA: A land area adjoining the shore of a lake or other body of water, which due to the composition of the shoreline or bank and high water levels or wind driven currents, is likely to suffer flood related erosion damage.

FLOODPLAIN: The areas subject to this title, generally the channel of a river or stream and the area adjoining a river or stream, which would be covered by floodwater of a

base flood except for designated shallow flooding areas that receive less than one foot (1') of water per occurrence. The floodplain consists of a floodway and flood fringe where specifically designated. See Regulated Flood Hazard Area.

FLOODPLAIN ADMINISTRATOR: Community official or representative appointed to administer and implement the provisions of this title.

FLOODPLAIN DEVELOPMENT PERMIT: A permit that is required before construction or development begins within any Regulated Flood Hazard Area. Permits are required to ensure that proposed development projects meet the requirements of the NFIP and the community's floodplain management ordinance.

FLOODPLAIN MANAGEMENT: The operation of an overall program of corrective and preventive measures for reducing flood damage, including, but not limited to, emergency preparedness plans, flood control works and floodplain management regulations.

FLOODPLAIN MANAGEMENT REGULATIONS: The term describes such state or local regulations, in any combination thereof, which provide standards for the purpose of flood damage prevention and reduction.

FLOODPROOFING: Any combination of structural and nonstructural additions, changes, or adjustments to structures which reduce or eliminate flood damage to real estate or improved real property, water and sanitary facilities, HVAC systems, structures and their contents (e.g., elevating a furnace and/or electrical outlets within a structure 2 feet or more above the BFE). The term includes wet flood proofing, dry flood proofing and elevation of structures.

FLOODWAY: The identified portion of the Floodplain of the Regulated Flood Hazard Area that is the channel and the area adjoining the channel that is reasonably required to carry the discharge of the Base Flood without cumulatively increasing the water surface by more than one half foot.

FLOODWAY ENCROACHMENT LINES: The lines marking the limits of floodways on federal, state and local floodplain maps.

FREEBOARD: A factor of safety usually expressed in feet above a flood level for purposes of floodplain management. "Freeboard" tends to compensate for the many unknown factors that could contribute to flood heights greater than the height calculated for a selected size

Deleted: special flood hazard area

Deleted: (SFHA)

Deleted: If FEMA has not defined the SFHA within a community, the community shall require permits for all proposed construction or other development in the community including the placement of manufactured homes, so that it may determine whether such construction or other development is proposed within flood prone areas.

Deleted: The community must also review all proposed developments to assure that all necessary permits have been received from those govern- mental agencies from which approval is required by federal or state law.¶
¶

Deleted: Zoning ordinances, subdivision regulations, building ¶
REGULATIONS: codes, health regulations, special purpose ordinances (such as a floodplain ordinance, grading ordinance and erosion control ordinance) and other applications of police power.

Deleted: FLOODPLAIN OR Any land area susceptible to being inundated by water ¶
FLOOD PRONE AREA: from any source (see definition of Flood or Flooding). The floodplain consists of a floodway and a flood fringe.¶
¶

Deleted: See definition of Regulatory Floodway.

flood and floodway conditions, such as wave action, bridge openings, and the hydrological effect of urbanization of the watershed.

HIGHEST ADJACENT GRADE (HAG): The highest natural elevation of the ground surface prior to construction next to the proposed walls of a structure.

HYDRAULICS: The depth of water (elevation) in a drainage- way, watercourse, river or stream channel.

HYDROLOGY: The discharge in cubic feet per second (CFS) of water in a drainageway, watercourse, river or stream channel.

LETTER OF MAP AMENDMENT (LOMA): A LOMA is an official amendment, by letter, issued by FEMA to an effective NFIP map. A LOMA establishes a property's location in relation to the Regulated Flood Hazard Area. LOMAs are usually issued because a property has been inadvertently mapped as being in the floodplain. The material submitted and response from FEMA may be considered by the Floodplain Administrator for determining if a property or structure is within the Regulated Flood Hazard Area and subject to this title.

LETTER OF MAP CHANGE (LOMC): An official response from FEMA that amends or revises the FEMA Special Flood Hazard Area and FEMA Flood Insurance Study for flood insurance purposes and/or flood risk hazard. They include letter of map amendment (LOMA), letter of map revision (LOMR), letter of map revision based on fill (LOMR-F), and Conditional letter of map revision (CLOMR).

LETTER OF MAP REVISION (LOMR): An official FEMA amendment to the currently effective FEMA Flood Insurance Rate Map based on a physical change to the floodplain of the Regulated Flood Hazard Area. It is issued by FEMA and changes flood zones, delineations, and elevations on the FEMA Flood Insurance Rate Map and may amend the FEMA Flood Insurance Study. It must be preceded by an approved alteration of the designated floodplain from DNRC and subsequently an amendment to the Regulated Flood Hazard Area.

LETTER OF MAP REVISION BASED ON FILL (LOMR-F): A letter of approval from FEMA removing the mandatory requirement for flood insurance on property based on placement of fill or an addition. Placement of fill or an addition must be preceded by a permit pursuant to these regulations. Placement of fill does

Deleted: HVAC: Heating, ventilating and air conditioning.¶
¶

Deleted: HISTORIC STRUCTURE: Any structure that is:¶
¶
A. Listed individually in the National Register of Historic Places (a listing maintained by the department of the interior) or preliminarily determined by the secretary of the interior as meeting the requirements for individual listing on the national register;¶
¶
B. Certified or preliminarily determined by the secretary of the interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the secretary to qualify as a registered historic district;¶
¶
C. Individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the secretary of the interior; or¶
¶
D. Individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either:¶
¶
1. By an approved state program as determined by the secretary of the interior; or¶ ...

Deleted: INDEPENDENT A nonfederal technical or scientific organization ¶
SCIENTIFIC BODY: involved in the study of land use planning, floodplain management, hydrology, geology ...

Deleted: An amendment to the currently effective FEMA map ¶
AMENDMENT (LOMA): which establishes that a property is not located in a special flood hazard area.

Deleted: issued only by FEMA. A letter of map amendment (LOMA) is

Deleted: special flood hazard area

Deleted: (SFHA)

Deleted: , but is actually on natural high ground above the base flood elevation

Deleted: A general term used to refer to the several types of ¶
CHANGE (LOMC): revisions and amendments to FEMA maps that can be accomplished by letter.

Deleted: and

Deleted: MAP REVISION (LOMR):An official amendment to the currently effective FEMA map

Deleted: FEMA's modification of the special flood hazard area ¶
REVISION BASED (SFHA) shown on the flood insurance rate map ¶ ...

not remove the development from the Regulated Flood Hazard Area or these regulations.

Deleted: All requests for changes to effective maps, other than those initiated by FEMA, must be made in writing through the floodplain administrator of the community.

LETTER OF MAP REVISION CONDITIONAL (CLOMR): A FEMA letter of approval for a proposed physical change that when completed would propose to change the flood zones, delineation or elevations on the FEMA Flood Insurance Rate Maps and may amend the FEMA Flood Insurance Study through a subsequent LOMR. The CLOMR may be considered in an evaluation by DNRC and the Floodplain Administrator during consideration of a proposed alteration to the Regulated Flood Hazard Area.

LEVEE: A manmade embankment, usually earthen, designed and constructed in accordance with sound engineering practices to contain, control or divert the flow of water to provide protection from temporary flooding. For a levee structure to be reflected on the FEMA DFIRMs as providing flood protection, the levee structure must meet the requirements set forth in 44 CFR 65.10.

LEVEE SYSTEM: A flood protection system that consists of a levee, or levees, and associated structures, such as drainage and closure devices, which are constructed and operated in accordance with sound engineering practices.

LOWEST ADJACENT GRADE (LAG): Required on the elevation certificate showing the elevation of the lowest grade adjacent to an existing or proposed development for flood insurance purposes.

LOWEST FLOOR: The lowest floor of the lowest enclosed area (including basement) used for living purposes which includes working, storage, sleeping, cooking and eating, or recreation or any combination thereof. This includes any floor that could be converted to such a use such as a basement or crawl space. (An unfinished or flood resistant enclosure, usable solely for parking of vehicles, building access or storage in an area other than a basement area is not considered a building's lowest floor.)

Deleted: . Any floor

Deleted: The lowest floor is a determinate for the flood insurance premium for a building, home or business.

LOWEST FLOOR ELEVATION (LFE): The measured distance of a building's lowest floor above the North American Vertical Datum (NAVD) or other datum specified on the FIRM for that location.

Deleted: national geodetic

MTDEQ: Montana department of environmental quality.

MANUFACTURED OR MOBILE HOME: A structure that may be residential or non-residential, that is transportable in one or more sections, built on a permanent chassis, and designed to be used with or

	without a permanent foundation when connected to the required utilities. This includes park trailers, travel trailers, and other similar vehicles placed on a site for greater than 180 consecutive days.
MANUFACTURED HOME PARK OR SUBDIVISION:	A parcel or contiguous parcels of land divided into two (2) or more manufactured home lots for rent or sale. Includes the construction of facilities for servicing the manufactured home lots and at a minimum includes the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads.
MEAN SEA LEVEL:	The North American vertical datum of 1988 (NAVD 88) or other datum to which base flood elevations are referenced.
MONTANA DEPARTMENT OF NATURAL RESOURCES AND CONSERVATI ON (MTDNRC):	The department responsible for the comprehensive program for the delineation of designated floodplains and designated floodways for each watercourse and drainway in the state.
MUDSLIDE (MUDFLOW):	A condition where there is a river, flow or inundation of liquid mud down a hillside usually as a result of a dual condition of loss of brush cover, and the subsequent accumulation of water on the ground preceded by a period of unusually heavy or sustained rain. A mudslide (i.e., mudflow) may occur as a distinct phenomenon while a landslide is in progress, and will be recognized as such by the administrator only if the mudflow, and not the landslide, is the proximate cause of damage that occurs.
NATIONAL FLOOD INSURANCE PROGRAM (NFIP):	44 CFR chapter I parts 59-79. The NFIP is a federal program enabling property owners in participating communities to purchase insurance as a protection against flood losses in exchange for state and community floodplain management regulations that reduce future flood damages. Participation in the NFIP is based on an agreement between communities and the federal government. If a community adopts and enforces a floodplain management ordinance to reduce future flood risk to new construction in floodplains, the federal government will make flood insurance available within the community as a financial protection against flood losses. This insurance is designed to provide an insurance alternative to disaster assistance to reduce the escalating costs of repairing damage to buildings and their contents caused by floods.

Deleted: does not include recreational vehicles

Deleted: MUDSLIDE (MUDFLOW) The operation of an overall program of corrective and ¶
AREA MANAGEMENT: preventive measures for reducing mudslide (i.e., mudflow) damage, including, but not limited to, emergency preparedness plans, mudslide control works, and floodplain management regulations.¶
¶
MUDSLIDE (MUDFLOW) An area with land surfaces and slopes of ¶
PRONE AREA: unconsolidated material where the history, geology and climate indicate a potential for mudflow.¶
¶

NATIONAL GEODETIC VERTICAL DATUM OF 1929 (NGVD 29):	Formerly the official vertical datum for the United States; has been replaced with NAVD 88.
NEW CONSTRUCTION:	For floodplain management purposes, new construction means structures for which the start of construction (including clearing, grading, filling, or excavating to prepare the site for construction) commenced on or after the effective date of these regulations and includes any subsequent improvements to such structures. Structures include, new "stick built", manufactured homes, mobile homes, or "moved onto site" structures.
NEW MANUFACTURED HOME PARK OR SUBDIVISION:	A manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed on or after the effective date of floodplain management regulations adopted by the community.
NON-RESIDENTIAL:	Buildings including manufactured homes that are not residential including commercial, agricultural, industrial buildings and accessory buildings. See Residential.
NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88):	The official vertical datum for the United States.
OFFICIAL FLOODPLAIN MAPS:	The flood insurance rate maps (DFIRMs) and flood boundary/floodway maps adopted and provided by the federal emergency management agency (FEMA) and/or MTDNRC for the city of Whitefish.
OWNER:	Any person who has dominion over, control of, or title to an artificial obstruction.
PERMIT ISSUING AUTHORITY:	The city council of the city of Whitefish.
PERSON:	Includes any individual or group of individuals, corporation, partnership, association, or any other entity, including state and local governments and agencies.
REASONABLY SAFE FROM FLOODING:	The community must review all permit applications to determine whether the proposed building sites will be reasonably safe from flooding as one of the minimum NFIP floodplain management requirements established

Deleted: For the purposes of determining insurance rates, structures for which the "start of construction" commenced on or after the effective date of an initial FIRM or after December 31, 1974, whichever is later, and includes any subsequent improvements to such structures.

Deleted: a floodplain management

Deleted: adopted by a community

Deleted: 100-YEAR FLOOD: A flood having a one percent (1%) chance of occurring in any given year. A 100-year flood has nearly a twenty three percent (23%) chance of occurring in a 25-year period. A 100-year flood is the same as a base flood.PARTICIPATING COMMUNITY A community for which the federal insurance ¶
(Also Known As administrator has authorized the sale of flood ¶
An ELIGIBLE COMMUNITY): insurance under the national flood insurance program.¶
¶

Moved up [1]: A 100-year flood has nearly a twenty three percent (23%) chance of occurring in a 25-year period. A 100-year flood is the same as a base flood.

Deleted: POLICY: The standard flood insurance policy.¶
¶
POST-FIRM BUILDING: A building for which construction or substantial improvement occurred after December 31, 1974, or on or after the effective date of an initial flood insurance rate map (FIRM), which- ever is later.¶
¶
PRE-FIRM BUILDING: A building for which construction or substantial improvement occurred on or before December 31, 1974, or before the effective date of an initial flood insurance rate map (FIRM).¶
¶
PREMIUM: The total premium payable by the insured for the coverage or coverages provided under the policy. The calculation of the premium may be based upon either chargeable rates or risk premium rates, or a combination of both.¶
¶
PRINCIPALLY At least fifty one percent (51%) of the actual cash value ¶
ABOVEGROUND: of the structure, less land value, is aboveground.¶
¶
PROGRAM: The national flood insurance program authorized by 42 USC 4001 through 4128.¶
¶
PROPER OPENINGS; All enclosures below the lowest elevated floor must be ¶
ENCLOSURES: designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. A minimum of two (2) openings, with positioning on at least two (2) walls, having a total net area of not less than one ...

by NFIP regulations. If the community determines that a site is not reasonably safe from flooding, it must require mitigation actions be undertaken to reduce the structure's flood damage potential.

RECREATIONAL VEHICLE: A park trailer, travel trailer, or other similar vehicle which is: a) built on a single chassis; b) four hundred (400) square feet or less when measured at the largest horizontal projections; c) designed to be self-propelled or permanently towable by a light duty truck; and d) designed primarily for use as temporary living quarters for recreation, camping, travel or seasonal use, not for use as a permanent dwelling.

REGULATED FLOOD HAZARD AREA: A Floodplain whose limits have been designated pursuant to Part 2, Chapter 5 of Title 76, MCA, and is determined to be the area adjoining the watercourse that would be covered by the floodwater of a Base Flood. The Regulated Flood Hazard Area consists of the Floodway and Flood Fringe where specifically designated. For purposes of this title the term "Regulated Flood Hazard Area" is synonymous in meaning with the phrase "area of special flood hazard" and "special flood hazard area".

RESIDENTIAL BUIDLING: A dwelling or building for living purposes or places of assembly or permanent use by human beings and including any mixed use of residential and non-residential use. All other buildings are non-residential.

RESIDENTIAL STRUCTURE TYPES:

A. Nonresidential: Includes, but is not limited to: small business concerns, churches, schools, farm buildings (including grain bins and silos), pool houses, clubhouses, recreational buildings, mercantile structures, agricultural and industrial structures, warehouses, hotels and motels with normal room rentals for less than six (6) months' duration, and nursing homes.

B. Single-Family Residence: A residential single-family dwelling. Incidental office, professional, private school, or studio occupancies, including a small service operation, are permitted if such incidental occupancies are limited to less than fifty percent (50%) of the building's total floor area as per zoning regulations.

C. Two-To Four-Family Residence: A residential building (excluding hotels and motels with normal room rentals for less than 6 months' duration) containing no more than four (4) dwelling units. Incidental occupancies such as office, professional, private

Deleted: When an individual applies for a letter of map revision based on fill (LOMR-F), the community will be required to determine that the filled area is reasonably safe from flooding before the LOMR-F will be issued. As indicated in the LOMR-F requirement "reasonably safe from flooding" means base floodwaters will not inundate the land or damage structures to be removed from the SFHA and that any subsurface waters related to the base flood will not damage existing or proposed buildings.¶
¶

Deleted: REGULATORY FLOODWAY: The channel of a river, stream, or other water- course and the adjacent land areas that must be reserved in order to discharge a base flood without cumulatively increasing the water surface elevation more than one-half foot (0.5').

school, or studio space are permitted if the total area of such occupancies is limited to less than twenty five percent (25%) of the total floor area within the building per the zoning regulations.

D. Other Residential: Hotels or motels where the normal occupancy of a guest is six (6) months or more; a tourist home or rooming house which has more than four (4) roomers. A residential building (excluding hotels and motels with normal room rentals for less than 6 months' duration) containing more than four (4) dwelling units. Incidental occupancies such as office, professional private school, or studio occupancy, are permitted if the total area of such incidental occupancies is limited to less than twenty five percent (25%) of the total floor area within the building.

RIPRAP: Stone, rocks, concrete blocks or analogous material that is placed along the banks or bed of a stream to alleviate erosion.

RIVERINE: Relating to, formed by, or resembling a river (including tributaries), stream, brook, etc.

SCOUR DEPTH: The maximum depth of streambed scour caused by erosive forces of the Base Flood.

SECTION 1316: Section of the national flood insurance act of 1968, as amended, which states that no new flood insurance coverage shall be provided for any property that FEMA finds has been declared by a duly constituted state or local zoning authority or other authorized public body to be in violation of state or local laws, regulations, or ordinances that are intended to discourage or otherwise restrict land development or occupancy in flood prone areas.

SETBACK: The amount of distance between the stream bank of the river or stream and the proposed use, where the stream bank is the 100-year flood boundary.

SHEET FLOW AREA: See definition of Area of Shallow Flooding.

SHEET FLOW HAZARD: A type of flood hazard with flooding depths of one to three feet (3') that occurs in areas of sloping land. The sheet flow hazard is represented by the zone designation AO on the FIRM.

SINGLE STRUCTURE (SINGLE BUILDING): A building that is separated from other structures by intervening clear spell or solid, vertical, load bearing division walls.

Deleted: RISK PREMIUM RATES: Those rates established by the administrator pursuant to individual community studies and investigations which are undertaken to provide flood insurance in accordance with section 1307 of the act and the accepted actuarial principles. "Risk premium rates" include provisions for operating costs and allowances.¶
¶
¶

Deleted: SCIENTIFICALLY INCORRECT: The methodology(ies) and/or assumptions which have been utilized are inappropriate for the physical processes being evaluated or are otherwise erroneous.¶

SOLID PERIMETER FOUNDATION WALLS: Walls that are used as a means of elevating a building in A zones and that must contain sufficient openings to allow for the unimpeded flow of floodwaters more than one foot (1') deep.

SPECIAL FLOOD HAZARD AREA: Land area which has been specifically identified by FEMA as the floodplain within a community subject to a 1% or greater chance of flooding in any given year. It is useful for the purposes of identifying flood hazards by local governments for regulatory purposes as well as use by the NFIP for establishing risk zones and flood insurance premium rates. The FEMA flood hazard area zone designation or flood risk potential is illustrated on FEMA's Flood Insurance Rate Map. For purposes of this title the term "Regulated Flood Hazard Area" is synonymous in meaning with the phrase "area of special flood hazard" and "special flood hazard area".

Deleted: See definition of Area of Special Flood Hazard.

START OF CONSTRUCTION: Commencement of clearing, grading, filling, or excavating to prepare a site for construction. It includes substantial improvement, and means the date the building permit was issued pro- vided the actual start of construction, repair, reconstruction, rehabilitation, addition placement, or other improvement was within one hundred eighty (180) days of the permit date. The actual start means either the first placement of permanent construction of a structure on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation; or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading and filling; nor does it include the installation of streets and/or walkways; nor does it include excavation for a basement, footings, piers, or foundations or the erection of temporary forms; nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure. For a substantial improvement, the actual start of construction means the first alteration of any wall, ceiling, floor, or other structural part of a building, whether or not that alteration affects the external dimensions of the building. In those jurisdictional areas not requiring a building permit these regulations shall apply as to the date to the actual start of either the first placement of permanent construction or placement of a manufactured home on a foundation as described above.

SUBGRADE CRAWLSPACE: A crawlspace foundation enclosure that has its interior floor no more than 5 feet below the top of the next highest floor and no more than 2 feet below the lowest adjacent grade on all sides. A foundation exceeding either dimension is a basement.

SUBSTANTIAL DAMAGE: Damage sustained by a structure where the cost of restoring the structure to its condition before damage would equal or exceed fifty percent (50%) of the market value of the structure before the damage occurred.

SUBSTANTIAL IMPROVEMENT: Any repair, reconstruction or improvement of a structure, the cost of which equals or exceeds fifty percent (50%) of the market value of the structure either: a) before the improvement or repair is started; or b) if the structure has been damaged, and is being restored, before the damage occurred. For the purposes of this definition, substantial improvement is considered to occur when the first construction to any wall, ceiling, floor or other structural part of the building commences. The term does not include: a) any project for improvement of a structure to comply with existing state or local health, sanitary or safety code specifications which are solely necessary to assure safe living conditions; or b) any alteration of a structure listed on the National Register of Historic Places or State Inventory of Historic Places.

SUITABLE FILL: Fill material which is stable, compacted, well graded, pervious, generally unaffected by water and frost, devoid of trash or similar foreign matter, devoid of tree stumps, or other organic material; and is fitting for the purpose of supporting the intended use and/or permanent structure.

UNITED STATES GEOLOGICAL SURVEY (USGS): The agency which developed the maps of the "flood prone areas".

UTILITIES: If a proposed building site is in a Regulated Flood Hazard Area, the building support utility systems for all new construction and substantial improvements shall:

A. Be constructed with electrical, heating, ventilation, plumbing, and air conditioning equipment and other service facilities that are designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding;

Deleted: STRUCTURE: For floodplain management purposes, a walled and roofed building, including a gas or liquid storage tank, that is principally aboveground, as well as a manufactured home. "Structure", for insurance purposes, means:¶
¶
A. A building with two (2) or more outside rigid walls and a fully secured roof that is affixed to a permanent site;¶
¶
B. A manufactured home ("a manufactured home", also known as a mobile home, is a structure built on a permanent chassis, trans- ported to its site in 1 or more sections, and affixed to a permanent foundation); or¶
¶
C. A travel trailer without wheels built on a chassis and affixed to a permanent foundation, that is regulated under the community's flood- plain management and building ordinances or laws. For the latter purpose, "structure" does not mean a recreational vehicle, or a parked trailer or other similar vehicle, except as described in subsection C of this definition, or a gas or liquid storage tank. A walled and roofed building, manufactured home, a gas or liquid storage tank, bridge, culvert, dam, diversion, wall, revetment, dike or other projection that may impede, retard or alter the pattern of flow of water.¶

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TECHNICALLY INCORRECT: The methodology(ies) utilized has been erroneously applied due to mathematical or measurement error, changed physical conditions, or insufficient quantity or quality of input data.¶

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B. Require within flood prone areas new and replacement water supply systems to be designed to minimize or eliminate infiltration of floodwaters into the systems;

C. Require within flood prone areas new and replacement sewage systems be designed to minimize or eliminate infiltration of floodwaters into the systems and discharges from the systems into floodwaters; and

D. Require on site water disposal systems be located to avoid impairment to them or contamination from them during flooding.

If a subdivision proposal or other proposed new development is in a flood prone area, any such proposals shall be reviewed to assure that all public utilities and facilities, such as sewer, gas, electrical, and water systems are located and constructed to minimize or eliminate flooding.

VARIANCE: A grant of relief from the development requirements of this title that would permit construction in a manner otherwise prohibited by this title.

VIOLATION: The failure of a structure or other development to be fully compliant with this title or the floodplain permit issued. A structure or other development without a floodplain permit, an elevation certificate, certification by a licensed engineer or architect of compliance with this title, or other evidence of compliance is presumed to be in violation until such time as documentation is provided.

WATER SURFACE ELEVATION: The height, in relation to the North American Vertical Datum of 1988 (NAVD88) (or other datum, where specified), of floods of various magnitudes and frequencies in the floodplains of riverine areas.

CHAPTER 3

GENERAL PROVISIONS

SECTION:

14-3-1: Jurisdictional Area
14-3-2: Regulated Flood Hazard Areas
14-3-3: Rules for Interpretation of Floodplain Boundaries
14-3-4: Compliance
14-3-5: Abrogation and Greater Responsibility
14-3-6: Regulation Interpretation
14-3-7: Warning and Disclaimer of Liability
14-3-8 Severability
14-3-9: Disclosure Provision
14-3-10: Authority to Enter and Investigate Lands or Waters
14-3-11: Amendment of Regulations
14-3-12: Public Records
14-3-13: Disaster Recovery
14-3-14: Alteration of Regulated Flood Hazard Area

14-3-1: JURISDICTIONAL AREA: This title shall apply only to the flood hazard areas specifically adopted herein as Regulated Flood Hazard Areas which are more fully and specifically described in this Chapter. Requirements and approvals for alterations to the Regulated Flood Hazard Area are specified in Section 14-3-14. The Regulated Flood Hazard Area includes areas specifically identified, labeled, and illustrated on maps such as Floodplain, Floodway, or Flood Fringe that have differing uses allowed and minimum building standards that apply. The Regulated Flood Hazard Area is the geographic area inundated by the Flood of 100-year Frequency illustrated and depicted in the referenced studies and maps.

The Regulated Flood Hazard Area supporting study and maps illustrating the regulatory area are based on studies and maps that have been specifically adopted pursuant to 76-5-201 et.seq. The maps and accompanying study become the Regulated Flood Hazard Area only when formally adopted by DNRC and subsequently by the participating community. The original source of studies and data may be from a Flood Insurance Study by FEMA, or other studies by Corps of Engineers, Soil Conservation, United States Geological Service or other federal or state agency.

14-3-2: REGULATED FLOOD HAZARD AREAS: This title applies to the Regulated Flood Hazard Areas within the jurisdiction of the City of Whitefish, which are identified by FEMA on the most recent "The Flood Insurance Study For Flathead County, Montana, And Incorporated Areas" and includes the most recent effective Flood Insurance Rate Maps. See Appendix B for a list of the current effective FIS and FIRM panels with accompanying effective dates. The Regulated Flood Hazard Areas specifically described or illustrated in the above referenced studies and maps have been delineated, designated and

Deleted: Basis for Establishing the Areas of Special Flood Hazard

Deleted: to all areas of special flood hazard within the jurisdiction of the city and those areas outside of the city of Whitefish but within the extraterritorial zoning jurisdiction. (Ord. 07-26, 8-6-2007)

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Deleted: BASIS FOR ESTABLISHING THE AREAS OF SPECIAL FLOOD HAZARD

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Commented [BM2]: Created a list of current FIRMS in Appendix B. This can be updated after new maps are formally adopted and that Appendix could be adopted independently of the entire regulations making it easier to change.

Deleted: and/or flood boundary-floodway maps (DFIRM and/or FBFM) dated September 28, 2007

established by order or determination by the DNRC pursuant to 76-5-201, MCA. Permits are required for all proposed construction and other development within Regulated Flood Hazard Areas. Use allowances, design and construction requirements specifically outlined in this title vary by the specific floodplain areas, including areas identified as Floodway and/or Flood Fringe within the Regulated Flood Hazard Area.

Deleted: special flood hazard area

14-3-3: RULES FOR INTERPRETATION OF FLOODPLAIN BOUNDARIES: The mapped boundaries of the floodplain illustrated in the referenced studies and maps in this Section are a guide for determining whether property is located within the Regulated Flood Hazard Area. A determination of the outer limits and boundaries of the Regulated Flood Hazard Area, Flood Fringe or Floodway includes an evaluation of the maps as well as the particular study data referenced in this Section. Supporting study material for Base Flood Elevations takes precedence over any map illustrations if it exists.

Deleted: 100-year floodway

The Regulated Flood Hazard Area boundary is delineated by the Base Flood Elevation. The physical field regulatory boundary of the Regulated Flood Hazard Area is the actual intersection of the applicable study Base Flood Elevation with the existing adjacent terrain of the watercourse or drainway. The Floodway boundary where identified within the Floodplain is as illustrated on the referenced maps and studies. Since the Floodway boundary is a study feature, the location of the boundary may be physically located by referencing the study data to a ground feature.

Deleted: shall be determined by scaling distances on the official floodplain maps and using the floodway data table contained in the flood insurance study report. The maps may be used as a guide for determining the special flood hazard area boundary, but the exact

For A zone floodplains, where there is a conflict between a mapped floodplain boundary and actual field conditions, the Floodplain Administrator may interpret the location of the Regulated Flood Hazard Area boundary based on field conditions or available historical flood information. The Floodplain Administrator's interpretation of the boundary and decision may be appealed as set forth in Chapter 4.

Deleted: location of the floodplain boundary shall be determined where the base flood elevation intersects the natural ground.

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The Floodplain Administrator may request additional information described below to determine whether or not the proposed development is within the Regulated Flood Hazard Area:

A. Where Base Flood Elevations exist, the property owner may provide additional information which may include elevation information provided by an engineer or land surveyor in order to determine if the proposed development is subject to these regulations.

B. Where Base Flood Elevations do not exist, the property owner may provide additional information to be considered to determine the location of the regulatory boundary or alternatively provide a computed Base Flood Elevation provided by an engineer.

Any owner or lessee of property who believes his property has been inadvertently included in the Regulated Flood Hazard Area including the Floodway or Flood Fringe may submit scientific and/or technical information to the Floodplain Administrator for a determination if the property is appropriately located. Scientific or technical information submitted to FEMA

Deleted: Where the surveyed elevation provides greater elevation information than the floodplain map and indicates that the land/structure may be determined to be out of the floodplain, the homeowner/landowner needs to advise the floodplain administrator and may submit a letter of map change (LOMC) to FEMA. (Ord. 07-26, 8-6-2007)

by an owner to affect the insurance rating for insurance purposes (e.g. Letters of Map Changes) may be considered by the Floodplain Administrator. A determination by the Floodplain Administrator is independent of any determination by FEMA regarding Letters of Map Changes (LOMC).

14-3-4: COMPLIANCE: No development, new construction, alteration, or substantial improvement may commence within the Regulated Flood Hazard Area without full compliance with the provisions of this title and other applicable regulations. This title meets the minimum requirements as set forth by the Montana Department of Natural Resources and Conservation, and the National Flood Insurance Program.

Deleted: No land us shall be developed, and no structure shall be located, extended, converted, or structurally altered

Deleted: special flood hazard area

14-3-5: ABROGATION AND GREATER RESPONSIBILITY: It is not intended by this chapter to repeal, abrogate, or impair any existing easements, covenants, deed restrictions, underlying zoning, or other regulations in effect. However, where this title imposes greater restrictions, the provision of this title shall prevail.

Deleted: or

14-3-6: REGULATION INTERPRETATION: In the interpretation and application of this title, all provisions shall be: a) considered as minimum requirements; b) liberally construed in favor of the governing body; and c) deemed neither to limit nor repeal any other powers granted under state statutes.

14-3-7: WARNING AND DISCLAIMER OF LIABILITY: The degree of flood protection required by this title is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. On rare occasions greater floods can and will occur and flood heights may be increased by manmade or natural causes. This title does not imply that land outside the Regulated Flood Hazard Areas or uses permitted within such areas will be free from flooding or flood damages. This title shall not create liability on the part of the community or any official or employee thereof for any flood damages that result from reliance on this title or any administrative decision lawfully made hereunder.

Deleted: areas of special flood hazards

14-3-8 SEVERABILITY: If any section, clause, sentence, or phrase of these regulations is held to be invalid or unconstitutional by any court of competent jurisdiction, then said holding will in no way affect the validity of the remaining portions of these regulations.

14-3-9: DISCLOSURE PROVISION: All property owners or realtors and developers representing property owners in a Regulated Flood Hazard Area must notify potential buyers or their agents that such property is located within the Floodplain or Floodway and is subject to regulation. Information regarding floodplain areas or the repository for floodplain maps is available in the Floodplain Administrator's office.

Deleted: special flood hazard area

Deleted: or floodway

14-3-10: AUTHORITY TO ENTER AND INVESITGATE LANDS OR WATERS: The Floodplain Administrator may make reasonable entry upon any lands and waters in the City of Whitefish and its zoning jurisdiction for the purpose of making an investigation, inspection or survey to verify compliance with this title. The Floodplain Administrator shall provide notice of entry by mail,

electronic mail, phone call, personal delivery to the owner, owner's agent, lessee, or lessee's agent whose lands will be entered. If none of these persons can be found, the Floodplain Administrator shall affix a copy of the notice to one or more conspicuous places on the property. If the owners do not respond, cannot be located or refuse entry to the Floodplain Administrator, the Floodplain Administrator may only enter the property through a search warrant.

Deleted: for five (5) days

An investigation of a natural or artificial obstruction or nonconforming use shall be made by the Floodplain Administrator, either on his own initiative, or at the request of three titleholders of land abutting the watercourse or drainway involved, or on the written request of a governing body or permitting agency. The names and addresses of the persons requesting the investigation shall be released if requested. (MCA 76-5-105)

14-3-11 AMENDMENT OF REGULATIONS: These regulations may be amended after notice and public hearing in regard to the amendments to these regulations. The amendments must be found adequate and acceptable by DNRC and FEMA to be effective and must be submitted for review at least 30 days prior to official adoption.

14-3-12 PUBLIC RECORDS: Records, including permits and applications, elevation and flood proofing certificates, certificates of compliance, fee receipts, and other matters relating to these regulations must be maintained by the Floodplain Administrator and are public records and must be made available for inspection and for copies upon reasonable request. A reasonable copying cost for copying documents for members of the public may be charged and may require payments of the costs before providing the copies.

14-3-13 DISASTER RECOVERY: In the event of a natural or man-made disaster, the Floodplain Administrator should participate in the coordination of assistance and provide information to structure owners concerning Hazard Mitigation and Recovery measures with FEMA, Montana Disaster Emergency Services, and Montana DNRC, and other state, local, and private emergency service organizations.

Upon completion of cursory street view structure condition survey within the Regulated Flood Hazard Area, the Floodplain Administrator shall notify owners that a permit may be necessary for an alteration or substantial improvement before repair or reconstruction commences on damaged structures because of damages caused by natural or man-made disasters such as floods, fires, or winds.

Owners should be advised that structures that have suffered substantial damage and will undergo substantial improvements require a Floodplain Development Permit and must be upgraded to meet the minimum building standards herein during repair or reconstruction.

14-3-14 ALTERATION OF REGULATED FLOOD HAZARD AREA: Revisions or updates to the specific maps and data that alter the established Floodplains or Floodway of the Regulated Flood Hazard Area requires DNRC approval pursuant to 75-5-

203 MCA. An alteration of the Regulated Flood Hazard Area is a DNRC approved amendment to the DNRC order that originally delineated and designated the 100-year floodplain and is the basis of the Regulated Flood Hazard Area referenced in Section 14-3-2 of this title. A DNRC approved alteration consists of revisions or updates to the specific maps and data of the referenced studies of this title and forms the basis for an amendment to the Regulated Flood Hazard Area. Any change to the Regulated Flood Hazard Area as a result of a DNRC alteration is effective upon amendment to the Regulated Flood Hazard Area described in Section 14-3-2.

Commented [BM3]: Reference Check

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Substantial natural physical change or new technical or scientific flood data showing that the Base Flood Elevation has or may be changed or was erroneously established shall be brought to the attention of DNRC and FEMA. Any floodplain permit application for a proposed development or artificial obstruction must be denied until a DNRC alteration pursuant to 76-5-203, MCA is approved if it causes an increase of 0.5 feet or more to the Base Flood Elevation of a Regulated Flood Hazard Area without a Floodway or an increase of more than 0.00 feet to the Base Flood Elevation of a Floodway.

To propose an alteration a petition must be submitted to DNRC and must include the following information:

A. Certification that no buildings are located in the areas which would be impacted by the increased Base Flood Elevation;

B. Evidence of notice to all property and land owners of the proposed impacts to their properties explaining the proposed impact on their property;

C. Information that demonstrates that alternatives are not feasible;

D. Information that demonstrates that development is for a public use or benefit; and

E. Any other supporting information and data as needed for approvals.

The Floodplain Administrator may represent the permit authority for any necessary applications, approvals or endorsements such as the FEMA Community Acknowledgement Form to FEMA where affecting the FEMA Special Flood Hazard Area.

A determination by the Floodplain Administrator that land areas located within the Regulated Flood Hazard Area are above the Base Flood Elevation as proven by a certified elevation survey does not constitute or require an alteration or an amendment of the Regulated Flood Hazard Area and may be maintained as a public record that more explicitly defines the Regulated Flood Hazard Area boundary. Elevating with suitable full as permitted does not alter the Regulated Flood Hazard Area or remove the elevated area from the Regulated Flood Hazard Area. A floodplain permit implementing the physical change cannot be approved until a CLOMR has been issued by FEMA.

CHAPTER 4

ADMINISTRATION

SECTION:

14-4-1: Floodplain Administrator
14-4-2: Duties and Responsibilities of the Floodplain Administrator
14-4-3 Forms
14-4-4: Fees
14-4-5: Floodplain Permit Application Review
14-4-6: Emergency Repair and Replacement
14-4-7: Appeals
14-4-8 Variances
14-4-9: Enforcement
14-4-10: Penalties

14-4-1: FLOODPLAIN ADMINISTRATOR: The Floodplain Administrator is appointed by the City of Whitefish Planning and Building department to administer and implement the provisions of this title and other appropriate sections of 44 CFR (emergency management and assistance - national flood insurance program regulations) pertaining to floodplain management. The Floodplain Administrator must serve to meet and maintain the commitments pursuant to 44 CFR 59.22(a) to FEMA to remain eligible for National Flood Insurance for individuals and businesses with the participating community.

14-4-2: DUTIES AND RESPONSIBILITIES OF THE FLOODPLAIN ADMINISTRATOR: Duties and responsibilities of the Floodplain Administrator shall include, but not be limited to, the following:

A. Maintain Records: Maintain and hold open for public inspection all records pertaining to the provisions of this title and those that may be necessary to document nonconforming uses. Where BFE data are utilized in zone A, obtain and maintain records of the lowest floor and flood proofing elevations for new and substantially improved construction.

B. Review Floodplain Permit Applications: Review permit applications to ensure that the proposed building site project, including the placement of manufactured homes, will be reasonably safe from flooding. Assure that the applicant has acquired all necessary permits from those federal, state or local governmental agencies including 310 permits from the Flathead County Conservation District, 318 permits from the Montana Department of Environmental Quality, and 404 permits from the U.S. Army Corps of Engineers from which prior approval is required. It is the responsibility of the applicant to determine all other necessary permits.

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C. Review Floodplain Permits: Review floodplain permits for proposed development to

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C. Boundary Interpretation: Where interpretation is needed as to the exact location of the boundaries of the areas of special flood hazards (for example, where there appears to be a conflict between a mapped boundary and actual field conditions) the Floodplain Administrator shall make the necessary interpretation.

D. Notification To Other Communities: Notify, in riverine situations, adjacent communities and the state coordinating agency, which is Montana department of natural resources and conservation prior to any alteration or relocation of a watercourse, and submit evidence of such notification to FEMA.

E. Maintenance Of Flood Carrying Capacity: Assure that the flood carrying capacity within the altered or relocated portion of any watercourse is maintained.

F. Obtain Data: When BFE data has not been provided in accordance with section 14-3-3 of this title, the Floodplain Administrator shall obtain, review and reasonably utilize any BFE data and floodway data available from a federal, state or other source, in order to administer the provisions of chapter 5 of this title.

G. Procedure When Floodway Not Designated: When a regulatory floodway has not been designated, the floodplain administrator must require that no new construction, substantial improvements, or other development (including fill) shall be permitted within zones A and AE on the community's FIRM, unless it is demonstrated that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation of the base flood more than one-half foot (0.5') at any point, or significantly increases the base flood velocity, within the community.

H. Approval Of Certain Developments: The community may approve certain development in zones A, AE, AO, on the community's FIRM which will cause an increase of more than 0.00 feet to the BFE of the Floodway or more than 0.50 feet to the BFE of the Regulated Flood Hazard Area without a Floodway if an Alteration pursuant to Section 14-3-14 has been approved, the Regulated Flood Hazard Area is amended and a FEMA CLOMR where required is issued.

I. Approval of Floodplain Development Permits: Permits shall be granted or denied by the Floodplain Administrator on the basis of whether the proposed establishment, development, alteration, or substantial improvement of an artificial obstruction meets the requirements of these regulations.

14-4-3: FORMS: The following forms may be required by the Floodplain Administrator:

A. Floodplain Permit Application Form: The 'Joint Application for

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Deleted: Where BFE data are utilized in zone A, obtain and maintain records of the lowest floor and floodproofing elevations for new and substantially improved construction.

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Deleted: Under the provisions of 44 CFR chapter 1, part 65.12, of the national flood insurance program regulations, a

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Deleted: increases the water surface elevation of the base flood by more than one-half foot (112'}, provided that the community first completes all of the provisions required by section 65.12

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¶
1. The danger to life and property due to increased flood heights, increased floodwater velocities, backwater or alterations in the pattern of flood flow caused by the obstruction or encroachment;¶
¶
2. The danger that the obstruction or encroachment may be swept onto other lands or downstream to the injury of others;¶
¶
3. The ability of the proposed water supply and/or sanitation system to prevent disease, contamination, and unsanitary conditions;¶
¶
4. The susceptibility of the proposed facility and its contents to flood damage and the effects of such damage on the individual owner;¶
¶
5. The construction or alteration of the obstruction or encroachment in such manner as to lessen the flooding danger;¶
¶
6. The importance of the services provided by the facility to the community;¶
¶
7. The requirement of the facility for a waterfront location;¶
¶
8. The availability of alternative locations not subject to flooding for the proposed use;¶
¶
...

Proposed Work in Montana's Streams, Wetlands, Regulated Flood Hazard Areas, and Other Water Bodies', or other designated application form. A completed FEMA MT-1 form may be required to accompany the application when required by the Floodplain Administrator.

B. Floodplain Permit Compliance Report: A report required to be submitted by the applicant to the Floodplain Administrator once the permitted project in the Regulated Flood Hazard Area is completed or within the designated time stipulated on the Floodplain permit. A compliance report including an elevation and/or flood proofing certificate may be required where specified for the purpose of documenting compliance with the requirements of the permit.

C. Floodplain Variance Application Form: An application submitted by the applicant to the Floodplain Administrator to initiate a proposed variance from the requirements of this title as described in this Chapter.

D. Floodplain Appeal Notice Form: A form submitted by the applicant or an aggrieved party to initiate the appeal process described in this Chapter.

E. Floodplain Emergency Notification Form: A written notification form required pursuant to this Chapter.

F. Official Complaint Form: A form that may be used by any person to notify the Floodplain Administrator of an activity taking place that appears to be noncompliant with the requirements of these regulations.

14-4-4: FEES: A nonrefundable processing fee pursuant to the adopted fee schedule for the city of Whitefish shall be submitted with each permit and/or variance application. This fee will cover the administrative cost of processing the permit and/or variance, providing public notice and performing sufficient field inspections to ensure compliance with this title.

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14-4-5: FLOODPLAIN PERMIT APPLICATION REVIEW:

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A. Application for a Floodplain Development Permit shall be presented to the Floodplain Administrator on forms furnished by the City of Whitefish and may include, but not be limited to:

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1. A completed and signed Floodplain Permit Application;

2. The required review fee;

3. Plans in duplicate drawn to scale showing the location, dimensions, and elevation of the proposed project including landscape alterations, existing and proposed structures (including the placement of manufactured homes), hydraulic calculations assessing the impact on base flood elevations or

velocities, level survey or certification by a registered land surveyor, professional engineer or licensed architect that the requirements of this title are satisfied and the location of the foregoing in relation to the Regulated Flood Hazard Area and if applicable the Floodway boundary.

4. A copy of other applicable permits or pending applications required by Federal or State law as submitted which may include but are not limited to a 310 permit, SPA 124 permit, Section 404 permit, 318 Authorization, 401 Certification or a Navigable Rivers Land Use License or Easement for the proposed project; and the applicant must show that the Floodplain Development Permit application is not in conflict with the relevant and applicable permits.

5. Additional information related to the specific use or activity including: elevation or flood proofing certificates, a level survey and/or hydraulic and hydrology calculations by a registered land surveyor, engineer, or licensed architect to assess the impact of the volume of water, determination of the base flood elevation, water velocities, and/or ground elevations.

6. Additional information related to the specific use or activity that demonstrates the design criteria and construction standards are met or exceeded as specified in Chapter 5 of this title and may include:

a. Elevation (in relation to mean sea level), of the lowest floor (including basement) of all new and substantially improved structures;

b. Elevation in relation to mean sea level to which any nonresidential structure shall be flood proofed;

c. A certificate from a registered professional engineer or architect that the nonresidential flood proofed structure shall meet the flood proofing criteria of subsection Chapter 7 of this title;

d. Description of the extent to which any watercourse or natural drainage will be altered or relocated as a result of proposed development; and

B. The Floodplain Administrator shall determine whether the Floodplain Development Permit application contains the applicable elements required by these regulations and shall notify the applicant of any deficiencies within sixty (60) days.

C. If the Floodplain Development Permit application is found to be missing any required elements as identified above, but not limited to, the Floodplain Administrator may deem an application incomplete.

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5. Maintain a record of all such information in accordance with subsection 14-4-2A of this chapter.

1. The Floodplain Administrator shall identify in writing, the specific required information missing from the application materials. No further action shall be taken on the application until the required material is submitted.

2. If the applicant provides the required additional information, the Floodplain Administrator shall have fifteen (15) working days from the date of submittal to notify the applicant whether the information provided contains adequate detailed information sufficient for review under these regulations.

3. This process shall be repeated until the applicant submits adequate detailed information sufficient for review of the proposed application under the provisions of these regulations.

D. If after a reasonable effort the Floodplain Administrator determines the Floodplain Development Permit application remains incomplete, the Floodplain Administrator shall deny the Floodplain Development Permit application and notify the applicant of missing elements. No further action shall be taken by the Floodplain Administrator until a new application is resubmitted.

E. A determination that a Floodplain Development Permit application is correct and complete for review does not ensure that the application will be approved or conditionally approved and does not limit the ability of the Floodplain Administrator to request additional information during the review process.

F. Upon receipt of a complete application for a Floodplain Development Permit, the Floodplain Administrator shall prepare a notice containing the facts pertinent to the application and shall:

1. Publish the notice at least once in a newspaper of general circulation in the area.

2. Serve notice by first class mail upon adjacent property owners.

3. Serve notice to the State NFIP Coordinator located in DNRC by the most efficient method. Notice to other permitting agencies or other impacted property owners may also be provided.

4. The notice shall provide a reasonable period of time, not less than fifteen (15) days, for interested parties to submit comments on the proposed activity.

G. Approval or denial of a Floodplain Development Permit by the Floodplain Administrator shall be based on all of the provisions of this title, including, but not limited to the specific standards outlined in Chapter 5 and consideration of the following relevant factors:

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1. The danger to life and property due to increased flood heights, increased floodwater velocities, backwater or alterations in the pattern of flood flow caused by the obstruction or encroachment, flooding or erosion damage;

2. The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;

3. The danger that the obstruction, encroachment, or materials may be swept onto other lands or downstream to the injury of others;

4. The availability of alternative locations, not subject to flooding or erosion damage, for the proposed use.

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5. The construction or alteration of the obstruction or encroachment in such manner as to lessen the flooding danger;

6. The permanence of the obstruction or use and is reasonably safe from flooding;

7. The compatibility of the proposed use with existing development and anticipated development in the foreseeable future;

8. The ability of the proposed water supply and/or sanitation system to prevent disease, contamination, and unsanitary conditions;

9. Relevant and related permits for the project have been obtained;

10. The safety of access to the property in times of flood for ordinary and emergency vehicles;

11. The importance of the services provided by the facility to the community;

12. The costs of providing governmental services during and after flood conditions including maintenance and repair of streets and bridges, and public utilities and facilities such as sewer, gas, electrical and water systems;

13. The expected heights, velocity, duration, rate of rise and sediment transport of the floodwaters and the effects of wave action, if applicable, expected at the site;

14. The requirement of the facility for a waterfront location, where applicable;

15. The relationship of the proposed use to the comprehensive plan and floodplain management program for the area;

16. The proposed use shall comply with the existing zoning designation;

17. The request for fill for a residential or commercial building is not followed by a request for a basement for the same residential or commercial building, which would put the finished floor of the building below the BFE, which would negate the purpose of the fill;

18. For projects involving bank stabilization, channelization, levees, floodwalls and/or diversions, off property impacts including increased flood peaks, flood stage, flood velocity, erosion and sedimentation, should be considered and found to be nonexistent, neutral or able to be mitigated; and

19. Such other factors as are in harmony with the purposes of this title, the Montana Floodplain and Floodway Management Act, the National Flood Insurance Program, and the Administrative Rules of Montana.

H. Decision: A Floodplain Development Permit application shall be approved, conditionally approved, or denied by the Floodplain Administrator.

1. The Floodplain Administrator shall notify the applicant of their actions and the reasons thereof within 60 days of receipt of a correct and complete Floodplain Development Permit application unless otherwise specified.

2. All approved applications will be signed by the Floodplain Administrator.

3. Denied applications may be resubmitted if additional information is provided to support a change in development.

4. A copy of the approved Floodplain Development Permit must be provided to the DNRC.

5. The approval of a Floodplain Development Permit does not affect any other type of approval required by any other statute or ordinance of the state or any political subdivision of the United States, but is an added requirement.

I. Floodplain Permit Conditions and Requirements: Upon approval or conditional approval of the Floodplain Development Permit, the

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Floodplain Administrator shall provide the applicant with a Floodplain Development Permit with applicable specific requirement and conditions including but not limited to the following:

1. The Floodplain Development Permit will become valid when all other necessary permits required by Federal or State law are in place.

2. Completion of the development pursuant to the Floodplain Development Permit shall be completed within one year from the date of issuance or a time limit commensurate with the project construction time line for completion of the project or development.

3. The applicant may request an extension for up to one additional year. The request must be made at least 30 days prior to the permitted completion deadline.

4. The applicant shall notify subsequent property owners and their agents and potential buyers of the Floodplain Development Permit issued on the property and that such property is located within a Regulated Flood Hazard Area and shall record the notice with the Floodplain Administrator.

5. The applicant shall maintain the artificial obstruction or use to comply with the conditions and specifications of the permit.

6. The applicant shall allow the Floodplain Administrator to perform on-site inspections at select intervals during construction or completion.

7. The applicant shall provide periodic engineering oversight and/or interim reports during the construction period to be submitted to the Floodplain Administrator to confirm constructed elevations and other project elements.

8. The applicant shall submit a compliance report including certifications were required and applicable including flood proofing, elevation, surface drainage, proper enclosure openings and materials to the Floodplain Administrator within 30 days of completion or other time as specified.

9. The applicant shall submit an annual performance and maintenance report on bank stabilization or other projects utilizing maturing vegetation components to the Floodplain Administrator for a period of 5 years or a time specified in the permit.

10. The applicant shall submit evidence of a submittal of a Letter of Map Revision to FEMA with required fees, if applicable, within 6 months of project completion and proceed with due

diligence for acceptance of the document and necessary supporting materials by FEMA.

14-4-6: EMERGENCY REPAIR AND REPLACEMENT: Emergency repair and replacement of severely damaged artificial obstructions and development in the Regulated Flood Hazard Area, including public transportation facilities, public water and sewer facilities, flood control works, and private projects are subject to the permitting requirements of these regulations, and may be authorized by the Floodplain Administrator. The provisions of these regulations are not intended to affect other actions that are necessary to safeguard life or structures during periods of emergency.

A. The property owner and or the person responsible for taking emergency action must notify the Floodplain Administrator prior to initiating any emergency action in a Regulated Flood Hazard Area normally requiring a Floodplain Development Permit The floodplain administrator must determine that an emergency condition exists warranting immediate action and agree upon the nature and type of proposed emergency repair and/or replacement. An Emergency Notification Form must be submitted to the Floodplain Administrator within five (5) days of the action taken as a result of the emergency.

B. Authorization to undertake emergency repair and replacement work may be given verbally if the Floodplain Administrator feels that such a written authorization would unduly delay the emergency work. Such verbal authorization must be followed by a written authorization describing the emergency condition, the type of emergency work agreed upon, and stating that a verbal authorization had been previously given.

C. Unless otherwise specified by the Floodplain Administrator, within 30 days of initiating the emergency action, a person who has undertaken an emergency action must submit a Floodplain Permit Application that describes what action has taken place during the emergency and describe any additional work that may be required to bring the project in compliance with these regulations.

D. A person who has undertaken an emergency action may be required to modify or remove the project in order to meet the permit requirements.

14-4-7: APPEALS:

A. General:

1. There is hereby created a local floodplain management board of adjustment, the membership, administration, and rules of procedure of which are the zoning board of adjustment.

2. The zoning board of adjustment shall hear and render judgment on an appeal only when it is alleged there is an error

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Moved up [4]: Upon notification and prior to the emergency repair and/or replacement, the floodplain administrator determines that an emergency condition exists warranting immediate action; and

Moved up [5]: B. The floodplain administrator agrees upon the nature and type of proposed emergency repair and/or replacement.

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in the Floodplain Administrator's order, decision to grant, condition or deny a Floodplain Development Permit, or interpretation of the Regulated Flood Hazard Area boundary.

3. The Floodplain Administrator shall maintain a record of all actions involving an appeal and shall report appeals to the federal emergency management agency upon request.

4. Appeals of any decision(s) of the zoning board of adjustment may be taken by an aggrieved person or persons, jointly or separately, to a court of record, provided that the appellant has exhausted all administrative remedies.

B. Appeal Requirements:

1. An appeal shall include the basis of the appeal and supporting information including specific findings and conclusions of the Floodplain Administrator's decision being appealed;

2. An appeal may be submitted by an applicant and/or anyone who may be aggrieved by the Floodplain Administrator's decision or order;

3. Appeals must be filed within thirty (30) days from the date of the written decision, interpretation or determination by the Floodplain Administrator;

4. Additional information specific to the appeal request may be requested by the zoning board of adjustment.

C. Evaluation of Appeal:

1. Notice of the pending appeal and hearing shall be provided pursuant to Section 14-4-5(F). The Floodplain Administrator shall notify DNRC and FEMA of pending appeals.

2. A public hearing on the appeal must be held within 30 days of the Notice unless set otherwise.

3. A judgment on an appeal shall be made within 30 days of the hearing unless set otherwise. The decision may affirm, modify, or overturn the Floodplain Administrator's decision. A decision on an appeal of a permit cannot grant or issue a variance. A decision may support, reverse or remand an order or determination of a boundary of the Regulated Flood Hazard Area by the Floodplain Administrator.

14-4-8 VARIANCES: A variance from the minimum development standards of these regulations may be allowed. An approved variance would permit construction in a manner otherwise as required or prohibited by these regulations.

Deleted: in any requirement, decision, or determination made by the floodplain administrator in the enforcement or administration of this title

Moved down [6]: Appeals must be filed within thirty (30) days from the time the officer charged with enforcement of this title has made a written interpretation or determination of this title.

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Deleted: C. Any person or persons aggrieved by the decision of the board of adjustment may appeal such decision in the courts of competent jurisdiction.¶
¶

Moved up [7]: D. The floodplain administrator shall maintain a record of all actions involving an appeal and shall report variances to the federal emergency management agency upon request.¶

Deleted: K. Appeals of any decision(s) of the zoning board of adjustment or the city of Whitefish city council may be taken by an aggrieved person or persons, jointly or separately, to a court of record, provided that the appellant has exhausted all administrative remedies. (Ord. 07-26, 8-6-2007)¶
¶

A. General:

1. There is hereby created a local floodplain management board of adjustment, the membership, administration, and rules of procedure of which are the zoning board of adjustment.

2. The zoning board of adjustment shall:

a. Evaluate the Floodplain Development Permit application and Variance application using the criteria in Section 14-4-8, and the application requirements and minimum development standards of this Title.

b. Make findings, and approve, conditionally approve, or deny a Floodplain Development Permit and variance within 60 days of a complete application.

c. Upon consideration of the factors noted in this section and the intent of this title, the zoning board of adjustment may attach such conditions to the granting of a variance as it deems necessary to further the purpose and objectives of this title, including a project completion date and inspections during and after construction.

d. Notify the applicant that the issuance of a Floodplain Development Permit and Variance to construct a structure not meeting the minimum building requirements in these regulations may result in increased premium rates for flood insurance and that flood insurance premiums are determined by actuarial risk and will not be modified by the granting of a variance.

e. Submit to the Floodplain Administrator a record of all actions involving a Floodplain Development Permit and Variance, including the findings and decision and send a copy of each variance granted to the DNRC.

3. Any person or persons aggrieved by the decision of the board of adjustment may appeal such decision in a court of competent jurisdiction.

B. Variance Application Requirements:

1. Prior to any consideration of a variance from any development standard in these regulations, a completed Floodplain Development Permit application and required supporting material must be submitted.

2. Additionally, supporting materials in a Variance application specific to the variance request including facts and information addressing the criteria in this section must be submitted.

3. If the Floodplain Development Permit application and Variance application is deemed not correct and complete, the Floodplain Administrator shall notify the applicant of deficiencies within a reasonable time not to exceed 30 days. Under no circumstances should it be assumed that the variance is automatically granted.

C. Evaluation of Variance Application:

1. A Floodplain Development Permit and Variance shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief from these regulations.

2. Public notice of the Floodplain Development Permit and Variance application shall be given pursuant to Section 14-4-5(F).

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3. Variances shall only be issued upon:

a. Showing a good and sufficient cause. Financial hardship is not a good and sufficient cause;

b. A determination that failure to grant the variance would result in exceptional hardship to the applicant;

c. Residential and nonresidential building are not in the Floodway except for alterations or substantial improvement to existing buildings. Residential dwellings including basement and attached garages do not have the lowest floor elevation below the Base Flood Elevation;

d. Any enclosure including a crawl space must meet the requirements of Section 14-7-2(D), Wet Flood Proofing if the enclosure interior grade is at or below the Base Flood Elevation.

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e. A determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, create nuisances, cause fraud on or victimization of the public, or conflict with existing local laws or ordinances;

f. The proposed use is adequately flood proofed;

g. The variance is the minimum necessary, considering the flood hazard, to afford relief;

h. Reasonable alternative locations outside the designated floodplain are not available;

i. An encroachment does not cause an increase to the Base Flood Elevation that is beyond that allowed in these regulations or an increase in velocities during the base flood discharge within any designated floodway;

j. All other criteria for a Floodplain Development Permit besides the specific development standard requested by the variance are met.

4. An exception to the variance criteria in this section may be allowed as follows:

a. Variances may be issued for new construction and substantial improvements to be erected on a lot of one-half (1/2) acre or less in size that is outside the floodway and is contiguous to and surrounded by lots with existing structures constructed below the base flood level, providing the relevant factors in subsection 14-4-5(G) of this chapter have been fully considered;

b. Variances may be issued for the repair or rehabilitation of historic structures upon a determination that the proposed repair or rehabilitation will not preclude the structure's continued designation as a historic structure and the variance is the minimum necessary to preserve the historic character and design of the structure. The historic nature of the building must be designated as a preliminary or historic structure by U.S. Secretary of Interior or an approved state or local government historic preservation program.

14-4-9: ENFORCEMENT: The Floodplain Administrator shall bring any violation of these regulations to the attention of the local governing body, its legal counsel, and the Montana DNRC.

A. Any use, alteration, or construction not in compliance with that authorized shall be deemed a violation of this title and punishable as provided in section 14-4-10 of this chapter or enforced as provided in 76-5-105, Montana Code Annotated.

B. An investigation to determine compliance with these regulations for an artificial obstruction or nonconforming use within the Regulated Flood Hazard Area may be made either on the initiative of the Floodplain Administrator or on the written request from a public citizen affected by the activity. The written request shall be submitted to the

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Deleted: F. Upon consideration of the factors noted above and the intent of this title, the zoning board of adjustment may attach such conditions to the granting of variances as it deems necessary to further the purpose and objectives of this title (section 14-1-3 of this title).¶
¶
G. Variances shall not be issued within any designated floodway if any increase in flood levels or velocities, during the base flood discharge, would result.¶
¶

Moved up [2]: 14-4-6: FEES: A nonrefundable processing fee pursuant to the adopted fee schedule for the city of Whitefish shall be submitted with each permit and/or variance application. This fee will cover the administrative cost of processing the permit and/or variance, providing public notice and performing sufficient field inspections to ensure compliance with this title. (Ord. 07-26, 8-6-2007)

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14-4-8: COMPLIANCE:

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Floodplain Administrator on the Official Complaint Form. The names and addresses of the person(s) requesting the investigation shall be released if requested.

C. The Floodplain Administrator may make reasonable entry upon any lands and waters for the purpose of making an investigation, inspection, or survey to verify compliance with these regulations.

1. The Floodplain Administrator shall provide notice of entry by mail, electronic mail, phone call, or personal delivery to the owner, owner's agent, lessee, or lessee's agent whose lands will be entered.

2. If none of these persons can be found, the Floodplain Administrator shall affix a copy of the notice to one or more conspicuous places on the property.

3. If the owners do not respond, cannot be located, or refuse entry to the Floodplain Administrator, the Floodplain Administrator may initiate a Search Warrant.

D. When the Floodplain Administrator determines that a violation may have occurred, the Floodplain Administrator may issue written notice to the owner or an agent of the owner, either personally or by certified mail. Such notice shall cite the regulatory offense and include an order to take corrective action within a reasonable time or to respond by requesting and administrative review by the Floodplain Administrator. An owner may be required to submit certification by a registered professional engineer, architect, or other qualified person designated by the Floodplain Administrator, that finished fill, building floor elevations, flood proofing, hydraulic design, or other flood protection measures have been accomplished in compliance with this title.

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E. The order to take corrective action is final, unless within five (5) working days or any granted extension, after the order is received, the owner submits a written request for an administrative review by the Floodplain Administrator. A request for an administrative review does not stay the order.

F. Within ten (10) working days or any granted extension of receipt of the Floodplain Administrator's decision concluding the administrative review, the property owner or owner's agent may appeal the decision pursuant to Section 14-4-7 of this title.

G. If the owner fails to comply with the order for corrective action, remedies may include administrative or legal actions, or penalties through court. This section does not prevent efforts to obtain voluntary compliance through warning, conference, or any other appropriate means. Action under this section shall not bar

enforcement of these regulations by injunction or other appropriate remedy.

14-4-10: PENALTIES: Violation of the provisions of this title or failure to comply with any of the requirements, including failure to obtain permit approval prior to development in the Regulated Flood Hazard Area, except for an emergency, shall constitute a misdemeanor and may be treated as a public nuisance.

A. Any person who violates this title or fails to comply with any of its requirements shall, upon conviction thereof, be fined not more than one hundred dollars ($100.00) or imprisoned in jail for not more than ten (10) days or both. Each day's continuance of a violation shall be deemed a separate and distinct offense.

B. In addition, any such violation of this title or failure to comply with any of its requirements shall constitute a municipal infraction, the penalty for which is set forth in section 1-4-4 of this code. For each separate incident, the city shall elect to treat the violation as a misdemeanor or a municipal infraction, but not both. If a violation is repeated, the city may treat the initial violation as a misdemeanor and the repeat violation as a municipal infraction, or vice versa.

C. Upon finding of a violation and failure of the owner to take corrective action as ordered, the Floodplain Administrator may submit notice and request a 1316 Violation Declaration to the Federal Insurance Administrator. The Federal Insurance Administrator has the authority to deny new and renewal flood insurance for a structure upon finding a valid violation declaration.

1. The Floodplain Administrator shall provide the Federal Insurance Administrator the following:

a. The name(s) of the property owner(s) and address or legal description of the property sufficient to confirm its identity and location;

b. A clear and unequivocal declaration that the property is in violation of a cited State or local law, regulation or ordinance;

c. A clear statement that the public body making the declaration had authority to do so and a citation to that authority;

d. Evidence that the property owner has been provided notice of the violation and the prospective denial of insurance; and

e. A clear statement that the declaration is being submitted pursuant to section 1316 of the National Flood Insurance Act of 1968, as amended.

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CHAPTER 5

SPECIFIC STANDARDS

SECTION:

14-5-1: Application
14-5-2: General Standards
14-5-3: Prohibited Uses, Activities, and Structures
14-5-4: Uses Allowed Without a Permit
14-5-5: Development Requirements in the Floodway
14-5-6: Development Requirement in the Flood Fringe
14-5-7: Standards for Subdivision Proposals
14-5-8: Shallow Flooding (AO Zones)

14-5-1: APPLICATION: The minimum floodplain development standards listed in this chapter and title 76, chapter 5, Montana Code Annotated, apply to the Regulated Flood Hazard Area referenced in Section 14-3-2 and best available information.

Deleted: all the floodplains referenced on the flood insurance rate maps or community accepted areas using the best and newest information available

14-5-2: GENERAL STANDARDS:

A. A Floodplain Development Permit is required for a person to establish, alter, or substantially improve an artificial obstruction, nonconforming use or development within the Regulated Flood Hazard Area.

B. A Floodplain Development Permit is required for artificial obstructions, developments, and uses not specifically listed in Sections 14-5-5 and 14-5-6, except as allowed without a Floodplain Development Permit in Section 14-5-4, or as prohibited as specified in Section 14-5-3, within the Regulated Flood Hazard Area.

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C. Artificial obstructions and nonconforming uses in Regulated Flood Hazard Area not exempt under Section 14-5-4 are public nuisances unless a Floodplain Development Permit has been obtained.

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D. A Floodplain Development Permit is required for an alteration of an existing artificial obstruction or nonconforming use that increases the external size or increases its potential flood hazard and not exempt under Section 14-5-4.

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E. A Floodplain Development Permit is required to reconstruct or repair an existing artificial obstruction that has experienced substantial damage and will undergo substantial improvement.

F. Maintenance of an existing artificial obstruction or use that is a substantial improvement or an alteration requires a Floodplain Development Permit.

G. In all Regulated Flood Hazard Areas the following provisions are required for all new construction and substantial improvements:

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1. All new construction or substantial improvements shall be designed (or modified) and adequately anchored to prevent flotation, collapse or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy;

2. All new construction or substantial improvements shall be constructed by methods and practices that minimize flood damage;

3. All new construction or substantial improvements shall be constructed with materials resistant to flood damage;

4. All new construction or substantial improvements shall be constructed with electrical, heating, ventilation, plumbing, and air conditioning equipment and other service facilities that are designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding;

5. All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of floodwaters into the system;

6. New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of floodwaters into the system and discharge from the systems into floodwaters; and

7. On site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding.

14-5-3: PROHIBITED USES, ACTIVITIES, AND STRUCTURES:

A. Floodway: The following artificial obstructions and nonconforming uses are prohibited in the Floodway of the Regulated Flood Hazard Area, except for those established before land use regulations pursuant to Section 76-5-301, MCA have been adopted:

1. A structure for residential or non-residential living purposes, place of assembly or permanent use by human beings.

2. Cemeteries, mausoleums, or any other places of burial of human remains.

3. Encroachments, including fill, new construction, buildings, substantial improvements, excavations and other development

that would cause water to be diverted from the established floodway, erosion, obstruction of the natural flow of waters, or reduce the carrying capacity of the floodway. Exceptions to these requirements include excavation or fill which may be allowed when it is a component to a permitted use allowed in these regulations.

4. Solid and hazardous waste disposal and individual and multiple family sewage disposal systems unless the systems meet the local health and sanitation regulations and when permitted pursuant to these regulations and are designed to minimize or eliminate infiltration of flood waters and avoid impairment or contamination.

5. Storage and disposal of solid waste, hazardous waste, toxic, flammable, or explosive materials.

6. The construction or permanent storage of an object or artificial obstruction subject to flotation or movement during flood level periods.

B. Flood Fringe or Regulated Flood Hazard Area without a Floodway: The following artificial obstructions and non-conforming uses are prohibited within the Flood Fringe or Regulated Flood Hazard Area without a Floodway, except for those established before land use regulations have been adopted:

1. Cemeteries, mausoleums, or any other places of burial of human remains.

2. Solid and hazardous waste disposal and individual and multiple family sewage disposal systems unless the systems meet the local health and sanitation regulations and when permitted pursuant to these regulations and are designed to minimize or eliminate infiltration of flood waters and avoid impairment or contamination.

3. Storage and disposal of solid waste, hazardous waste, toxic, flammable, or explosive materials.

4. The construction or storage of an artificial obstruction subject to flotation or movement during flood level periods.

5. Critical facilities, including buildings and associated structures that provide essential community care and emergency operation functions such as schools, hospitals, nursing home facilities, fire stations, and police stations.

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Deleted: Only those wastewater disposal systems that meet the requirements and separation distances under ARM 17.36.101-116 and ARM 17.36.301-345 are allowed

14-5-4: USES ALLOWED WITHOUT A PERMIT:

A. Existing artificial obstructions or nonconforming uses established before land use regulations pursuant to Section 76-5-301 MCA were effective, are allowed without a permit. However, alteration or substantial improvement of an existing artificial obstruction or nonconforming use requires a floodplain permit. Maintenance of an existing artificial obstruction or nonconforming use does not require a floodplain permit if it does not cause an alteration or substantial improvement.

B. The following open space uses shall be allowed without a permit in the Regulated Flood Hazard Area (either Floodway, Flood Fringe, or Flood Hazard Area without a Floodway), provided that such uses are not prohibited by any other resolution or statute, do not require structures, do not require alteration of the floodplain such as fill, grading, excavation or storage of materials or equipment, do not require large scale cleaning of the riparian vegetation within fifty feet (50') of the mean high water mark, will not cause flood losses on other land or to the public:

1. Accessory uses, not including structures, such as loading and parking areas, or emergency landing strips associated with industrial and commercial facilities.

2. Agricultural uses, not including related structures, such as tilling, farming, irrigation, harvesting, grazing, etc.

3. Fences that have a low impact to the flow of water such as barbed wire fences and wood rail fences, and not including permanent fences crossing channels. Fences that have the potential to stop or impede flow or debris such as a chain link or privacy fence requires a Floodplain Development Permit and meet the requirements of Section 14-5-5(L).

4. Forestry, including processing of forest products with portable equipment.

5. Irrigation and livestock supply wells, provided that they are located at least five hundred feet (500') from domestic water supply wells and with the top of casing 18 inches above the Base Flood Elevation.

6. Private and public recreational uses not requiring structures such as golf courses, driving ranges, archery ranges, picnic grounds, boat launching ramps, swimming areas, parks, wildlife management and natural areas, game farms, fish hatcheries, shooting preserves, target ranges, trap and skeet ranges, hunting and fishing areas and hiking or horseback riding trails.

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7. Recreational vehicle use provided that the vehicle is on the site for fewer than one hundred eighty (180) consecutive days and is fully licensed and ready for highway use. A recreational vehicle is ready for highway use if it is on its wheels or jacking system with wheels intact, is attached to the site only by quick disconnect type utilities and security devices, and has no permanently attached additions.

8. Residential uses such as lawns, gardens, parking areas, and play areas.

9. Maintenance of the existing state of an existing open space use including preventive maintenance activities such as bridge deck rehabilitation and roadway pavement preservation activities. Maintenance cannot increase the external size or increase the hazard potential of the existing open space use.

10. Addition of highway guard rail, signing and utility poles that have a low impact to the flow of water along an existing roadway.

11. Floating docks that do not have permanent structures, do not require fill or excavation, have been issued a 310 permit, and meet the following standards:

    a. Only one (1) dock is allowed per common waterfront property ownership unless an individual dwelling is constructed on each separate and legally defined lot with independent water and sewage disposal, in which case one dock is allowed per independent dwelling unit/lot. "Common waterfront property ownership" shall be defined as multiple contiguous lots under one family or related ownership, including fractional ownership in a corporation, partnership or other legal entity

    b. Docks shall not exceed twenty (20) feet in length, including the access ramp (gangway);

    c. The width of the deck on a dock shall not be greater than eight (8) feet;

    d. The maximum length of the wing section on a dock, whether a T, F, 4, or L shaped dock, must not exceed the lesser of thirty (30) feet or thirty (30) percent of the lot frontage;

    e. If foam or similar easily damaged flotation systems are incorporated into the dock design, the material shall be completely encased in solid wood or a suitable impervious, noncorrosive material such as

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aluminum or galvanized sheet metal so as to avoid the breakup or scattering of materials. Plywood, particleboard, etc., shall not be used. Boards may be spaced up to one-half inch (1/2) apart on the bottom or drain holes may be incorporated into other materials to aid in drainage;

f. All floating docks shall be suitably anchored to the river bottom or bank to avoid drift. Anchoring methods are limited to cable, galvanized chain or nylon or polypropylene rope attached to a suitable clean weight such as solid clean concrete, rock or steel blocks or a temporary pipe and post system which allows the dock sections to slide up and down. In addition, the end of the floating dock may be secured by cable, anchor, or post to keep the end of the dock stable;

g. Docks which have deteriorated to the extent that they may contaminate the river, such as having exposed white Styrofoam, shall be immediately repaired as necessary to eliminate the risk of contamination or shall be removed entirely from the water;

h. It is a violation of these regulations to abandon docks or to otherwise allow docks or dock remnants to float out into the river unsecured.

14-5-5: DEVELOPMENT REQUIREMENTS IN THE FLOODWAY:

A. Artificial obstructions including alterations and substantial improvements specifically listed in this Section may be permitted by the Floodplain Administrator within the Floodway through an approved Floodplain Development Permit, provided the General Requirements and specific standards within this Section and Section 14-4-5(G) are met.

B. General Requirements: An application for a Floodplain Development Permit shall meet the following requirements:

1. All projects shall be designed and constructed to ensure that they do not adversely affect the flood hazard on other properties and are reasonably safe from flooding.

2. All projects shall assure that the carrying capacity of the Floodway is not reduced. All projects shall meet the following:

a. Demonstrate that the project does not increase the Base Flood Elevation by conducting an encroachment analysis certified by an engineer. A minimal or

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Moved up [10]: A. . Uses Allowed Without Permit: The following open space uses shall be allowed without a permit anywhere within the floodway, provided that such are not prohibited by any other resolution or statute, do not require structures other than portable structures, do not require alteration of the floodplain such as fill, excavation or permanent storage of materials or equipment, do not require large scale cleaning of the riparian vegetation within fifty feet (50') of the mean high water mark, will not cause flood losses on other land or to the public:Residential uses such as lawns, gardens, parking areas, and play areas.

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qualitative encroachment analysis may be accepted when the project or development does not require a structure, alteration of the Floodway, involve fill, grading, excavation or storage of materials or equipment but is also certified by an engineer to not exceed the allowable encroachment to the Base Flood Elevation.

b. The allowable encroachment to the Base Flood Elevation is 0.00 feet and no significant increase to the velocity or flow of the stream or water course unless approval of an alteration of the Regulated Flood Hazard Area pursuant to Section 14-3-14 and an approved FEMA Conditional Letter of Map Revision occurs before permit issuance.

C. Excavation of material from pits, pools, or stormwater ponds provided that:

1. A buffer strip of undisturbed land of sufficient width as determined by an engineer, but in no case less than twenty feet (20'), to prevent flood flows from channeling into the excavation is left between the edge of the channel and the edge of the excavation;

2. The excavation meets all applicable laws and regulations of other local and state agencies; and

3. Excavated material is stockpiled outside the designated floodway.

D. Railroad, highway, street, stream, and other transportation related crossings provided that:

1. The crossings are designed to offer minimal obstructions to the flood flow;

2. Where failure or interruption of public transportation facilities would result in danger to public health or safety and where practicable and in consideration of FHWA Federal-Aid Policy Guide 23 CFR 650A:

a. Bridge lower chords shall have a freeboard of at least two feet (2') above the BFE to pass ice flows, the Base Flood discharge and any debris associated with the discharge;

b. Culverts shall be designed to pass the Base Flood discharge and maintain at least two feet (2') freeboard on the crossing surface;

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3. If possible, normal overflow channels are preserved to allow passage of sediments to prevent aggradations;

4. Midstream supports for bridges, if necessary, must have footings buried below the maximum scour depth; and

E. Limited filling for road and railroad embankments, including other transportation related embankments not associated with stream crossings and bridges provided that:

1. The fill is suitable fill material;

2. Reasonable alternate transportation routes outside the designated floodway are not available;

3. The encroachment is located as far from the stream channel as possible;

4. Measures are provided to mitigate the impact to property owners and the natural stream function; and

F. Buried or suspended utility transmission lines, provided that:

1. Suspended utility transmission lines are designed such that the lowest point of the suspended line is at least six feet (6') higher than the Base Flood Elevation;

2. Towers and other appurtenant structures are designed and placed to withstand and offer minimal obstruction to flood flows;

3. When technically feasible, the crossing will not disturb the bed and banks of the stream, alternatives such as alternative routes, directional drilling, and aerial crossings are considered; and

4. Utility transmission lines carrying toxic or flammable materials are buried to a depth of at least twice the calculated maximum depth of scour determined by an engineer for the Base Flood. The maximum depth of scour may be determined from any of the accepted hydraulic engineering methods, but the final calculated figures shall be subject to approval by the Floodplain Administrator.

G. Storage of materials and equipment provided that:

1. The material or equipment is not subject to major damage by flooding and is properly anchored to prevent flotation or downstream movement; and

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e. Stream crossings shall not increase the elevation of the 100-year flood more than one-half foot (1/2') nor cause a significant increase in flood velocities. The applicant shall provide a "no rise" certification signed by a registered professional engineer.

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d. The encroachment shall not result in a cumulative increase exceeding one-half foot (1/2') in base flood elevation, after the allowable encroachment into the floodway. A "no rise" certification signed by a registered professional engineer shall be provided by the applicant.

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2. The material or equipment is readily removable within the limited time available after flood warning. Storage of flammable, toxic or explosive materials shall not be permitted.

H. Domestic water supply wells, provided that:

1. They are driven or drilled wells located on ground higher than surrounding ground to assure positive drainage from the well;

2. They require no other structures (e.g., a well house);

3. Well casings are watertight to a distance of at least twenty five feet (25') below the ground surface and the well casing height is a minimum of two (2) feet above the Base Flood Elevation or capped with a watertight seal and vented two (2) feet above the Base Flood Elevation;

4. Water supply and electrical lines have a watertight seal where the lines enter the casing;

5. All pumps and electrical lines and equipment are either of the submersible type or are adequately flood proofed;

6. Check valves are installed on main water lines at wells and at all building entry locations; and

I. Buried and sealed vaults for sewage disposal in campgrounds and recreations areas provided, in addition to the requirements of Section 14-5-5(B), demonstrate approval by the Montana Department of Environmental Quality and local health and sanitation permits or approvals.

J. Only those solid and hazardous waste disposal and individual and multiple family sewage disposal systems that meet the local health and sanitation regulations and when permitted pursuant to these regulations and are designed to minimize or eliminate infiltration of flood waters and avoid impairment or contamination.

K. Fences crossing channels that have the potential to stop or impede flow or debris such as a chain link or privacy fence require a Floodplain Development Permit and meet the requirements of Section M.

L. Public or private campgrounds provided that:

1. Access roads require only limited fill and do not obstruct or divert floodwaters;

2. Any proposed structures shall meet the requirements of Section L;

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Deleted: 9. Residential uses not requiring buildings such as lawns, gardens, parking areas and play areas.¶
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3. No dwellings or permanent mobile homes are allowed;

4. Off property impacts have been considered and found to be nonexistent, neutral or can be mitigated;

5. There is no large scale clearing of riparian vegetation within fifty feet (50') of the mean annual high water mark; and

6. Recreational vehicles and travel trailers are licensed and ready for highway use with wheels intact, with only quick disconnect type utilities and securing devices, and have no permanently attached additions.

M. Structures accessory or appurtenant to the uses permitted in this section, such as permanent non-floating boat docks, floating docks which exceed the standards outlined in Section 14-5-4(B)(11), loading and parking areas, marinas, sheds, emergency airstrips, permanent fences crossing channels, picnic shelters and tables and lavatories, that are incidental to a principal structure or use, provided that:

1. The structures are not intended for human habitation or supportive of human habitation;

2. The structures will have low flood damage potential;

3. The structures will, insofar as possible, be located on ground higher than the surrounding ground and as far from the channel as possible;

4. Only those wastewater disposal systems that are approved under health and sanitation regulations are allowed;

5. Service facilities within these structures such as electrical, heating and plumbing are flood proofed in accordance with chapter 6 of this title;

6. The structures will be constructed and placed so as to offer a minimal obstruction to flood flows and are firmly anchored to prevent flotation;

7. The structures do not require fill and/or substantial excavation;

8. The structures or use cannot be changed or altered without permit approval; and

9. The use does not require the large scale clearing of riparian vegetation within fifty feet (50') of the mean annual high water mark.

N. New surface water diversions and changes in place of diversion, provided that, in addition to the requirements of Section 14-5-5(B), the

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Deleted: 12. Replacement of manufactured homes in an existing manufactured home park, sites outside of a park or subdivision, or subdivision on a developed site of the same dimensions with servicing utilities. (Previous home could have been destroyed by fire, flood, etc.) The replacement home must be elevated on a permanent foundation so the lowest floor is two feet (2') above the base flood elevation. The foundation must be reinforced concrete, reinforced mortared block, reinforced piers, or other foundation elements of equal strength. The mobile home chassis must be securely anchored to the foundation system so that it will resist flotation, collapse or lateral movement. Methods of anchoring may include, but are not limited to:¶
¶
a. Over the top ties to ground anchors be provided at each of the four (4) corners of the mobile home, with two (2) additional ties per side at intermediate locations for mobile homes less than fifty feet (50') long;¶
¶
b. Frame ties to ground anchors be provided at each corner of the home with five (5) additional ties per side at intermediate points, for mobile homes more than fifty feet (50') long;¶
¶
c. All components of the anchoring system be capable of carrying a force of four thousand eight hundred (4,800) pounds;¶
¶
d. Any additions to the mobile home must be similarly anchored; and¶
¶
e. Adequate surface drainage and access for a hauler are provided.¶

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design is reviewed and approved by a registered engineer and includes:

1. The proper permits or documentation have been obtained from DNRC water rights bureau for new surface water diversions and changes in place of diversion;

2. The proposed diversion is designed and constructed to minimize potential erosion from a Base Flood;

3. The structure is designed and constructed to withstand up to a Base Flood considering the forces associated with hydrodynamic and hydrostatic pressures including flood depths, velocities, impact, ice buoyancy, and uplift forces associated with the Base Flood; and

O. The following flood control and stream bank stabilization measures provided that the design is reviewed and certified by a registered professional engineer and constructed to substantially resist or withstand the forces associated with hydrodynamic and hydrostatic pressures, including flood depths, velocities, impact, ice, buoyancy, and uplift associated with the Base Flood. The design must also show compliance with the conditions set forth:

1. Levee and floodwall construction or alteration that meet the following:

   a. The proposed levee or floodwall must be designed and constructed with suitable fill to safely convey a Base Flood;

   b. The proposed levee or floodwall, except those to protect agricultural land, must be constructed at least three feet (3') higher than the Base Flood elevation.

   c. Must meet state and federal levee engineering and construction standards and be publically owned and maintained if it protects structures of more than one landowner;

   d. For an increase in the elevation of the Base Flood, an alteration of the Regulated Flood Hazard Area requires approvals pursuant to Section 14-3-14; and

2. Stream bank stabilization, pier and abutment protection projects that meet the following:

   a. Designed and constructed using methods and materials that are the least environmentally damaging yet practicable, and should be designed to withstand a Base Flood once the project's vegetative components

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are mature within a period of up to 5 years or other time as required by the Floodplain Administrator. Once vegetation is mature and established it should not require substantial yearly maintenance after the initial period;

b. Materials for the project may be designed to erode over time but not fail catastrophically and impact others. Erosion, sedimentation, and transport of the materials may be designed to be at least similar in amount and rate of existing stable natural stream banks during the Base Flood;

c. Must not increase erosion upstream, downstream, across from or adjacent to the site in excess of the existing stable natural stream bank during the Base Flood;

d. Materials for the project may include but are not limited to riprap, root wads, brush mattresses, willow wattles, natural woody debris or combinations of analogous materials.

3. Channelization projects where the excavation and/or construction of a channel is for the purpose of diverting the entire or a portion of the flow of a stream from its established course, that meet the following:

a. Do not increase the magnitude, velocity, or Base Flood elevation; and

b. Meets the requirements for stream bank stabilization listed above.

4. Dams provided that:

a. They are designed and constructed in accordance with the Montana Dam Safety Act and applicable safety standards; and

b. They will not increase flood hazards downstream either through operational procedures or improper hydrologic/ hydraulic design.

P. Stream and bank restoration projects intended to reestablish the terrestrial and aquatic attributes of a natural stream and not for protection of a structure or development provided that:

1. The project will not increase velocity or erosion upstream, downstream, across from or adjacent to the site;

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2. Materials may include but are not limited to boulders, rock cobble, gravel, native stream bed materials, root wads, brush mattresses, willow wattles, natural woody debris or combinations of analogous materials and that reasonably replicates the bed and bank of the natural stream;

3. Erosion, sedimentation, and transport of the materials are not more than the amount and rate of existing natural stream banks during the Base Flood; and

4. The project may be designed to allow vegetative materials to mature within a period of 5 years or other time as required by the Floodplain Administrator. Once vegetation is mature and established it should not require substantial yearly maintenance after the initial period.

Q. Any alteration or substantial improvement to an existing building in the Floodway that meets the General Requirements of this section and applicable requirements for residential and non-residential buildings in Section 14-5-6.

14-5-6: DEVELOPMENT REQUIREMENTS IN THE FLOOD FRINGE OR REGULATED FLOOD HAZARD AREW WITH NO FLOOWAY:

A. All uses allowed by issuance of a Floodplain Development Permit in the Floodway shall also be allowed by permit within the Flood Fringe or Regulated Flood Hazard Area with no Floodway. Such uses are subject to the requirements of this Chapter, with the exception of the encroachment limit of Section 14-5-5(B)(2). Instead, such uses are subject to the encroachment limits of Section 14-5-6(C)(10).

B. Except for prohibited artificial obstructions listed in Section 14-5-3(B), all other artificial obstructions including new construction, substantial improvements, alterations to residential and nonresidential structures (including, but not limited to, manufactured homes, commercial, agricultural and industrial), and related suitable fill or excavation shall be allowed by issuance of a Floodplain Development Permit subject to the General Requirements and specific standards within this Section and Section 14-4-5(G).

C. General Requirements: An application for a Floodplain Development Permit must demonstrate or meet the following requirements, if applicable.

1. Structures, excavation or fill must not be prohibited by any other statute, regulation, ordinance, or resolution; and must be compatible with subdivision, zoning and any other land use regulations, if any;

2. Structures, excavation or fill must be compatible with local comprehensive plans, if any;

Deleted: 16. All other artificial obstructions, substantial improvements, or non-conforming uses not specifically listed in or prohibited by these regulations.¶
¶
C. Prohibited Uses: The following artificial obstructions and non-conforming uses are prohibited within the floodway:¶
¶
A building, dwelling or structure for living purposes, place of assembly or permanent use by human beings.¶
¶
Cemeteries, mausoleums, or any other places of burial of human remains.¶
¶
Encroachments, including fill, new construction, buildings, substantial improvements, excavations and other development that would cause water to be diverted from the established floodway, erosion of embankment, obstruction of the natural flow of waters, reduce the carrying capacity of the floodway or increase flood levels within the community during the occurrence of the 100-year flood.¶
¶
Mobile homes and manufactured homes.¶
¶
New construction of any residential dwelling, commercial or industrial building.¶
¶
Only those wastewater disposal systems that meet the requirements and separation distances under ARM 17.36.101-116 and ARM 17.36.301-345 are allowed.¶
¶
Storage and disposal of solid waste, hazardous waste, toxic, flammable, or explosive materials ...

Deleted: A. Uses Allowed Without Permits: All uses allowed in the floodway without permit according to the provisions of this title, shall ...

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3. Where necessary to meet the appropriate elevation requirement in these regulations, the Base Flood Elevation(s) must be determined by an engineer and utilized in the design and layout of the project demonstrating the design and construction criteria herein are met. For Regulated Flood Hazard Areas that do not have a computed and published Base Flood Elevations in the most recently adopted Flood Insurance Study, a Base Flood Elevation must be determined or obtained from a reliable source, utilizing appropriate engineering methods and analyses;

4. Structure must be constructed by methods and practices that minimize flood damage and structures must be reasonably safe from flooding;

5. Adequate surface drainage must be provided around structures;

6. Structure must be constructed with material resistant to flood damage;

7. All construction and substantial improvements must be designed and adequately anchored to prevent floatation, collapse, or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy;

8. Certification by an engineer, architect, land surveyor, or other qualified person must accompany the application where required including for an encroachment analysis, adequacy of structural elevations, Base Flood Elevation determinations, flood proofing, enclosure flood openings and design and construction to withstand the hydrodynamic forces and hydrostatic pressures of flood depths, velocities, impact, buoyancy, uplift forces associated with the Base Flood and surface drainage. A certification is not intended to constitute a warranty or guarantee of performance, expressed or implied;

9. Structures must have safe access during times of flooding up to the Base Flood for ordinary and emergency services provided there are no reasonable alternate locations for structures. For manufactured homes, access for a manufactured home hauler is also provided.

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10. All applications in the Regulated Flood Hazard Area without a Floodway must be supported by an encroachment analysis of the proposed use, a thorough hydrologic and hydraulic analysis except as provided in following sections, prepared by an engineer to demonstrate the effect of the structure on flood flows, velocities, and the Base Flood Elevation;

a. The maximum allowable encroachment is certified to be at or less than 0.5 feet increase to the Base Flood Elevation unless approval of an alteration of the Regulated Flood Hazard Area pursuant to Section 14-3-14 and an approved FEMA Conditional Letter of Map Revision occurs before permit issuance;

b. An encroachment analysis is not required for any development in the Flood Fringe where an accompanying Floodway has been designated within the Regulated Flood Hazard Area; and

c. Although all other development standards herein apply, a minimal or qualitative encroachment analysis may be accepted when the project or development does not require a structure, alteration of the Floodplain, involve fill, grading, excavation or storage of materials or equipment and also is certified by an engineer to not exceed the allowable encroachment.

11. Elevating the lowest floor may be by either suitable fill, foundation wall enclosure, stem walls, pilings, posts, piers, columns or other acceptable means;

12. Crawl space foundation enclosures including sub-grade crawl space enclosures below the lowest floor must meet the wet flood proofing requirements of Chapter 6 of this Title and be designed so that the crawl space floor is at or above the Base Flood Elevation. Crawl space foundations must have an inside dimension of not more than five (5) feet from the ground to the top of the living floor level and a sub-grade crawl space must also have the interior ground surface no more than two (2) feet below the exterior lowest adjacent ground surface on all sides. A sub-grade foundation exceeding either dimension is a basement.

D. New construction, alterations, and substantial improvements of residential buildings including manufactured homes and the replacement of manufactured homes, must be constructed such that:

1. The lowest floor elevation of the building including an attached garage or basement must be two feet (2') or more above the Base Flood Elevation.

2. The general requirements of for all applications outlined in Section 14-5-6(C) are met.

3. Enclosures of elevated buildings cannot be dry flood proofed. Use for an enclosure is limited to facilitating building component access. The enclosure including a crawl space

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must be wet flood proofed and the enclosure floor must be at or above the Base Flood Elevation. An attached garage floor must be two (2) feet or more above the Base Flood Elevation;

3. Suitable fill used to elevate a structure shall meet the requirements of Section 14-5-6(G) outlined in this Chapter.

4. Recreational vehicles on site for more than 180 days or not ready for highway use must meet the requirements for manufactured homes for residential use.

E. New construction, alterations, and substantial improvements of nonresidential structures including agricultural, commercial and industrial buildings and residential and nonresidential accessory buildings must be constructed such that:

1. The lowest floor elevation of the building must be elevated two (2) or more feet above the Base Flood Elevation, or the building must be adequately dry flood proofed according to Chapter 7 of this Title. The lowest floor may be wet flood proofed provided the use is limited to only parking, loading and storage of equipment, or materials nots appreciably affected by floodwater.

2. Enclosures below the lowest floor on elevated buildings must be wet flood proofed and the use must be limited to parking, access, loading areas, and storage of equipment or materials not appreciably affected by floodwaters or must be adequately dry flood proofed according to Chapter 7 of this Title.

3. Flood proofing of electrical, heating and plumbing systems shall be accomplished in accordance with Chapter 7 of this Title.

F. For new placement, substantial improvement or replacement of manufactured homes for residential or nonresidential use including additions:

1. The requirements of Section 14-5-6(D) of this Chapter must be met;

2. The chassis must be secure and must resist flotation, collapse, or lateral movement by anchoring with anchoring components capable of carrying a force of 4,800 pounds and as follows:

a. For manufactured homes less than fifty feet (50') long, over-the-top ties to ground anchors are required at each of the four (4) corners of the home, with to additional ties per side at intermediate locations; and

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b. For manufactured homes more than fifty feet (50') long, frame ties to ground anchors are required at each corner of the home with five (5) additional ties per side at intermediate points.

3. Manufactured homes proposed for use as nonresidential building including commercial or industrial, must be elevated and anchored, rather than dry flood proofed.

G. Structural Fill Material used to elevate structures, including but not limited to residential and nonresidential buildings must be certified to meet the following requirements:

1. The filled area must be at or above the Base Flood Elevation and extend at least fifteen feet (15') beyond the structure in all directions;

2. Fill material must be suitable fill that is stable, compacted, well graded, pervious, not adversely affected by water and frost, devoid of trash or similar foreign matter, devoid of tree stumps or other organic material, and is appropriate for the purpose of supporting the intended use and/or permanent structure;

3. The fill must be compacted to minimize the settlement and compacted to ninety-five percent (95%) of the maximum density. Compaction of earthen fill must be certified by an engineer;

4. No portion of the fill is allowed within the Floodway; and

5. The fill slope must not be steeper than 1 ½ horizontal to 1 vertical unless substantiating data justifying a steeper slope is provided and adequate erosion protection is provided for fill slopes exposed to floodwaters.

H. Roads, streets, highways and rail lines shall be designed to minimize any increase in flood heights. Where failure or interruption of transportation facilities would result in danger to the public health or safety, the facility shall be located two feet (2') above the Base Flood elevation;

I. Agricultural structures not intended to be insurable, used solely for agricultural purposes, have a low flood damage potential, used exclusively in connection with the production, harvesting, storage, drying, or raising of agricultural commodities including raising of livestock, and not intended for human habitation such as sheds, barns, shelters, and hay or grain storage structures are exempt from the elevation requirement, dry or wet flood proofing, but shall

1. Be located on higher ground and as far from the channel as possible;

Deleted: Methods of anchoring may include, but are not limited to, over the top or frame ties to ground anchors. This requirement is in addition to applicable state and local anchoring requirements for resisting wind forces. The following conditions also apply:¶
¶
a. . When a manufactured home is: 1) altered, 2) replaced because of substantial damage as a result of a flood or 3) replaced on an individual site, the lowest floor must be elevated two feet (2') above the base flood elevation. The home can be elevated on fill or raised on a permanent foundation of reinforced concrete, reinforced mortared block, reinforced piers, or other foundation elements of at least equivalent strength.¶
¶
b. . Replacement or substantial improvement of manufactured homes in an existing manufactured home park, site outside a manufactured home park or subdivision, or subdivision must be raised on a permanent foundation. The lowest floor must be two feet (2') above the base flood elevation. The foundation must consist of reinforced concrete, reinforced mortared block, reinforced piers, or other foundation elements of at least equivalent strength.¶
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2. Offer minimal obstruction to flood flows;

3. Be adequately anchored to prevent flotation or collapse;

4. Where electrical, heating and plumbing systems are installed, meet the flood proofing requirements located in Chapter 7 of this Title;

5. Meet the elevation or dry flood proofing requirements if the structure is an animal confinement facility.

J. Proposed development shall not have any large scale clearing of riparian vegetation within fifty feet (50') of the mean annual high water mark.

14-5-7: STANDARDS FOR SUBDIVISION PROPOSALS:

A. Within the Regulated Flood Hazard Area subdivisions, including new or expansion of existing manufactured home parks or subdivisions, must be designed to meet the following:

1.. Base flood elevation data and boundary of the Regulated Flood Hazard Area shall be generated for subdivision proposals and other proposed development, if not otherwise provided pursuant to Section 14-3-2 or subsection 14-4-2F of this title.

2. All subdivision proposals including the placement of manufactured home parks and subdivisions shall have adequate drainage provided to reduce exposure to flood hazards.

3. All subdivision proposals including the placement of manufactured home parks and subdivisions shall have public utilities and facilities such as sewer, gas, electrical and water systems located and constructed to minimize or eliminate flood damage.

4. The locations for future structures and development within the subdivision must be reasonably safe from flooding.

5. Floodplain permits must be obtained according to these regulations before development occurs that is within the Regulated Flood Hazard Area.

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¶
a. Be on the site for fewer than one hundred eighty (180) consecutive days, or¶
¶
b. Be fully licensed and ready for highway use, or¶
¶
c. Meet the permit requirements of subsection B5b of this section, and the elevation and anchoring requirements for "manufactured homes" in subsection B5 of this section. A recreational vehicle is ready for highway use if it is on its wheels or jacking system, is attached to the site only by quick disconnect type utilities and security devices, and has no permanently attached additions.¶
¶
10. Enclosures: New construction and substantial improvements, with fully enclosed areas below the lowest floor that are usable solely for parking of vehicles, building access or storage in an area other than a basement and which are subject to flooding shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or meet or exceed the following minimum criteria:¶ ...

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Moved up [9]: C. Prohibited Uses: The following artificial obstructions and non-conforming uses are prohibited within the flood fringe:¶

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CHAPTER 6

Regulated Flood Hazard Areas within the Lake and Lakeshore Protection Zone

SECTION:

14-6-1: Joint Approval

14-6-1 Joint Approval: Projects regulated by the City of Whitefish Lake and Lakeshore Protection Regulations that have been issued a lake and lakeshore construction permit may need to obtain a Floodplain Development Permit for activities that the Floodplain Administrator finds will have a significant impact on the Regulated Flood Hazard Area.

A. Proposed floodplain development projects may be granted a waiver from a Floodplain Development Permit if the Floodplain Administrator find the project twill have no significant impact on the Regulated Flood Hazard Area. Proposed projects include the following:

1. Floating docks;

2. Waterlines;

3. Shore stations;

4. Walkways;

5. Buoys;

6. Floating swim docks;

7. Floating trampolines;

8. Repair, maintenance, and replacement of existing riprap or retaining walls at or above the mean high water elevation; and

9. Small scale projects that do not require excavating, adding fill, or dredging.

CHAPTER 7

FLOOD PROOFING REQUIREMENTS

SECTION:

14-7-1: Certification
14-7-2: Conformance

14-7-1: CERTIFICATION: If the following flood proofing requirements are to be utilized for a particular structure in accordance with these regulations, the methods used must be certified as adequate by a registered professional engineer, architect, or other qualified person.

14-7-2: CONFORMANCE: Permitted flood proofing systems shall conform to the conditions listed below and the flood proofing standards listed in subsection 14-5-6(E) of this title for commercial and industrial buildings:

A. Electrical Systems: All electrical service materials, equipment and installation for uses in a Regulated Flood Hazard Area must be certified to meet the following requirements:

1. All incoming power service equipment, including all metering equipment, control centers, transformers, distribution and lighting panels, and all other stationary equipment must be located at least two feet (2') above the Base Flood Elevation;

2. Portable and movable electrical equipment may be placed below the Base Flood Elevation, provided that the equipment can be disconnected by a single plug and socket assembly of the submersible type;

3. The main power service lines must have automatically operated electrical disconnect equipment or manually operated electrical disconnect equipment located at an accessible remote location outside the Regulated Flood Hazard Area or two feet (2') above the Base Flood Elevation; and

4. All electrical wiring systems installed below the Base Flood Elevation shall be suitable for continuous submergence and may not contain fibrous components.

B. Heating and Cooling Systems: All heating and cooling systems for uses in the Regulated Flood Hazard Area must be certified to meet the following requirements:

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1. Float operated automatic control valves must be installed so that fuel supply is automatically shut off when flood waters reach the floor level where the heating and cooling systems are located;

2. Manually operated gate valves must be installed in gas supply lines. The gate valves must be operable from a location above the Base Flood Elevation;

3. Electric systems must be installed in accordance with the provisions of subsection A of this section; and

4. Furnaces and cooling units must be installed at least two feet (2') above the Base Flood Elevation and the ductwork installed above the Base Flood Elevation.

C. Plumbing Systems: All plumbing systems for uses in the Regulated Flood Hazard Area must be certified to meet the following requirements:

1. Sewer lines, except those to a buried and sealed vault, must have check valves installed to prevent sewage backup into permitted structures; and

2. All toilets, stools, sinks, urinals, vaults, and drains must be located so the lowest point of possible flood water entry is at least two feet (2') above the Base Flood elevation.

D. Wet Flood Proofing: Building designs with an enclosure below the lowest floor must be certified to meet the following:

1. Materials used for walls and floors are resistant to flooding to an elevation two feet (2') or more above the Base Flood Elevation;

2. The enclosure must be designed to equalize hydrostatic forces on walls by allowing for entry and exit of floodwaters. Opening designs must either be certified by an engineer or architect or meet or exceed the following:

a. Automatically allow entry and exit of floodwaters through screens, louvers, valves, and other coverings or devices;

b. Have two (2) or more openings with a total net area of not less than one (1) square inch for every one (1) square foot of enclosed area below the lowest floor, except if the enclosure is partially subgrade, a minimum of 2 openings may be provided on a single wall; and

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c. Have the bottom of all openings no higher than one (1) foot above the higher of the exterior or interior adjacent grade or floor immediately below the openings.

E. Dry Flood Proofing: Building designs that do not allow internal flooding must be certified according to these regulations to meet the following:

1. Building use must be for nonresidential use only and does not include mixed residential and nonresidential use;

2. Be flood proofed to an elevation no lower than two feet (2') above the Base Flood Elevation;

3. Be constructed of impermeable membranes or materials for floors and walls and have water tight enclosures for all windows, doors, and other openings; and

4. Be designed to withstand the hydrostatic pressures and hydrodynamic forces resulting from the Base Flood and the effects of buoyancy.

CHAPTER 8

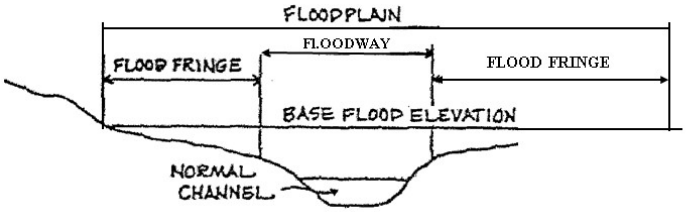
APPENDICES

SECTION:

14-8-1: Appendix A; Sketches of Floodplain Zones
14-8-2: Appendix B; Effective Flood Insurance Studies and Flood Insurance Rate Map

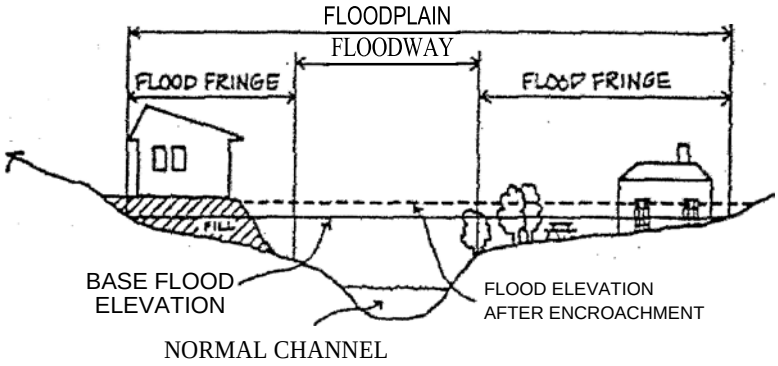
14-8-1: APPENDIX A; SKETCHES OF FLOODPLAIN ZONES:

CROSS SECTIONAL VIEW
WITH NO DEVELOPMENT

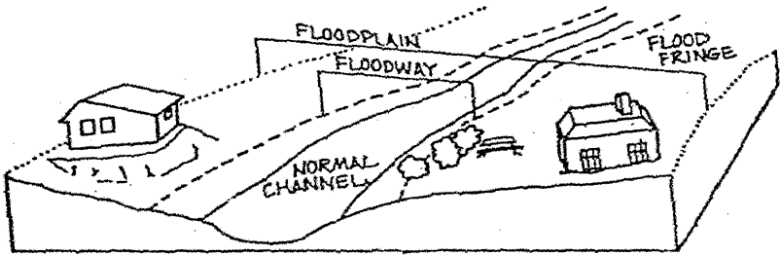


CROSS SECTIONAL VIEW
WITH EXISTING AND NEW DEVELOPMENT

PERSPECTIVE VIEW



NEW DEVELOPMENT SITE REQUIREMENTS



14-8-2: APPENDIX B; EFFECTIVE FLOOD INSURANCE STUDIES AND FLOOD INSURANCE RATE MAPS

City of Whitefish Flood Insurance Study

Study #	Suffix	Effective Date	Description
30029CV001	C	November 4, 2015	Countywide Flood Insurance Study Report, Volume 1
30029CV002	C	November 4, 2015	Countywide Flood Insurance Study Report, Volume 2

City of Whitefish Flood Insurance Rate Maps – Community Number 300026

Panel #	Suffix	Effective Date	Description
30029C1055	G	September 28, 2007	Lazy Creek area
30029C1060	G	September 28, 2007	Lazy Creek, NW Whitefish Lake, NE Whitefish Lake, & Rest Haven area
30029C1070	J	November 4, 2015	SW Whitefish Lake, Beaver Lake, & Skyles Lake
30029C1080	G	September 28, 2007	NE Whitefish Lake & Big Mountain area
30029C1090	J	November 4, 2015	City of Whitefish, Blanchard Lake, portion of Whitefish Lake & Whitefish River
30029C1095	J	November 4, 2015	Walker Creek, Haskill Creek, & Whitefish River
30029C1405	J	November 4, 2015	Blanchard Lake & Lost Coon Lake
30029C1410	G	September 28, 2007	Whitefish River area

EXHIBIT LIST
WFTA 15-01
Title 14: Flood Control Regulations
September 15, 2015

1. Staff Report – WFTA 15-01, 5-15-15
2. Title 14 – Proposed Recommendations, 5-15-15
3. Legal Notice, The Daily Interlake, 9-6-15
4. Legal Notice, The Whitefish Pilot, 9-16-15
5. Current Title 14 Flood Control Regulations
6. DNRC 2014 Model Regulations
7. Flood Insurance Rate Map panels: 1070J, 1090J, 1095J, 1405J
8. Flood Insurance Study, Volume 1 and 2

From Bailey Minnich, Planner II

PROPOSED CODE AMENDMENT
TITLE 14: FLOOD CONTROL REGULATIONS
STAFF REPORT # WFTA 15-01
SEPTEMBER 15, 2015

This is a staff report to the Whitefish City Council regarding code amendments to the Flood Control Regulations. The Whitefish City Council public hearing is scheduled for **September 21, 2015**. Draft regulations are attached for review and recommendation.

BACKGROUND

The City of Whitefish Floodplain Regulations under Title 14 Flood Control consists of local requirements for development in the Regulated Flood Hazard Area that are adopted in conformance with Montana state law, the National Flood Insurance Program (NFIP), and the Federal Emergency Management Agency (FEMA) code of federal regulations (CFR). The floodplain regulations also reference the Flood Insurance Study (FIS) and Flood Insurance Rate Maps (FIRMs) which are provided to the community from FEMA. The City of Whitefish has a total of 8 FIRM panels in its jurisdiction. The original floodplain regulations were adopted in 1984, with the last amendments occurring in 2007 in conjunction with revisions to the 8 FIRM panels as part of the Digital Flood Insurance Rate Map (DFIRM) adoption process.

A new mapping update project through FEMA and the Montana Department of Natural Resources and Conservation (DNRC) began back in 2011, and has recently been completed. On December 6, 2011, the DNRC held a 'kick-off' meeting to inform Flathead County and the surrounding cities about a map maintenance project called 'Risk Map' that was being undertaken using funding from FEMA to improve the accuracy of the floodplain boundaries. Flathead County was selected by the DNRC for the project because of the already acquired high-quality 'LIDAR' topographic data for much of the Flathead Valley in 2009. The Risk Map project performed new detailed studies on seven areas of Flathead County and refined the boundaries of many existing approximate A zones. The areas studied around the City of Whitefish included:

1. 1.6 miles of Cow Creek upstream from the confluence with the Whitefish River;
2. 4 miles of Whitefish River from Highway 40 upstream to Spokane Avenue; and
3. Refinement of Zone A in surrounding areas such as Lost Coon Lake, Blanchard Lake, and smaller tributaries.

In September of 2013, the City of Whitefish was informed that draft preliminary maps and flood data were completed and would be available for review by local officials starting in December 2013. A public information meeting was scheduled for October 30, 2013 and approximately 350 postcards were mailed to all landowners within or touching areas affected by the seven detailed studies. The information meeting included presentations made by representatives of DNRC and FEMA to 14 members of the public in attendance.

The formal release of preliminary revised DFIRMs and FIS occurred on April 22, 2014. Of the 8 panels within the City's jurisdiction, only 4 are affected by the revisions. Links to copies of the preliminary revised FIRM panels and FIS as well as an interactive mapping

website created by FEMA was posted to the City of Whitefish webpage under the Planning and Building Department. Public open houses hosted by officials from FEMA, DNRC, Flathead County, Whitefish, and Kalispell were scheduled for May 21st in Whitefish and May 22nd in Kalispell. Approximately 2,606 postcards with notifications of the open house meeting were mailed to all impacted landowners. The open house in Whitefish was attended by 9 members of the public and the open house in Kalispell was attended by 15 members of the public. Presentations were made and questions were answered by local officials and representatives of DNRC and FEMA. Additionally, a separate meeting was held for Whitefish City Officials during the afternoon May 21st.

On July 28, 2014 official notice of 'proposed flood hazard determinations' appeared in the *Federal Register*, and notice of the revised FIRM panels and FIS and information about the appeal process appeared in *The Daily Interlake* on September 7, 2014 and September 14, 2014. The second date of publication started a 90-day appeal period. During the formal appeal period, no appeals were received.

On April 22, 2015, the DNRC sent a letter to the City of Whitefish stating that FEMA would soon be issuing a 'Letter of Final Determination' establishing the effective date of the revised FIRM panels and FIS. The letter also stated that both FEMA and DNRC must review and approve revisions to the City's Title 14 Flood Control regulations adopting the revised FIRM panels and FIS. On May 4, 2015 FEMA issued a 'Letter of Final Determination' and 'Summary of Map Actions' to the City of Whitefish informing the City that "the modified flood hazards and revised map panel…will be effective as of November 4, 2015, and revise the FRIM that was in effect prior to that date." In the same letter FEMA informed the City that as a condition of continued participation in the National Flood Insurance Program (NFIP), the City of Whitefish is required to adopt the revised FIRM panels and FIS, as well as updated floodplain regulations which comply with the minimum standards set forth in the NFIP, the federal regulations (CFR) and the Montana state code (MCA) prior to the effective date of November 4, 2015.

Adoption of the new regulations by the effective date of November 4th is critical. If not adopted, the City of Whitefish would be suspended from the NFIP, and the community becomes ineligible for flood insurance, new insurance policies cannot be sold, and existing policies cannot be renewed.

PROPOSED AMENDMENTS

The outlined amendments to Title 14 in the attached Exhibit 'A' are proposed to bring the City of Whitefish's regulations into compliance with the minimum criteria established by the National Flood Insurance Program's Floodplain Management Regulations at Title 44 Code of Federal Regulations (CFR), the state of Montana's minimum floodplain requirements under Montana Code Annotated (MCA) Title 76 Chapter 5 Flood Plain and Floodway Management, and the Administrative Rules of Montana (ARM) Chapter 15 Floodplain Management Engineering Bureau. Staff utilized the Montana DNRC's 2014 Model Regulations to complete the required code amendments. The Model Regulations were created to provide a template for local land use regulations for communities

participating in the NFIP. Staff utilized the Model's language but maintained the current City code formatting. Substantial adherence to the Model assists in facilitating reviews by the DNRC and FEMA. Both agencies must find the local regulations adequate and acceptable before local adoption. Currently, the proposed amendments are still under review by the DNRC and FEMA. However, comments have been submitted to staff through multiple checklists and emails, and it is anticipated that a letter of acceptance by the DNRC and FEMA will be provided shortly. Staff is proposing a new Chapter 6 which will allow the waiver of a Floodplain Development Permit for certain activities within the Lake and Lakeshore Protection Zone. Additionally, staff is proposing a new Appendix B which lists the current effective FIRM panels and FIS study. This will allow future map adoptions to be approved without having to re-adopt the entire Title 14.

RECOMMENDATION

Staff recommends that Title 14 be amended to meet the minimum requirements of the NFIP and State of Montana. See exhibit A.

FINDINGS OF FACT

1. Whereas, legal public notice according to the Whitefish City Code was published in *The Daily Interlake* on September 6, 2015 and the *Whitefish Pilot* on September 16, 2015;

2. Whereas, our local floodplain regulations need to be consistent with the M.C.A., the A.R.M., and the Code of Federal Regulations as reviewed and accepted by the DNRC and FEMA;

3. Whereas the proposed amendments are required to meet the minimum requirements of the National Flood Insurance Program and the State of Montana;

4. Whereas, as a condition of continued participation in the National Flood Insurance Program, the City of Whitefish is required to adopt the revised FIRM panels and FIS by November 4, 2015.

We find it is in the best interest of the City of Whitefish to amend Title 14: Flood Control.

OVERALL RECOMMENDATION:

Staff recommends the Whitefish City Council ***approve*** the recommendations set forth in the staff report to amend and update Title 14 of the Flood Control Regulations and adopt the findings of fact.

TO: rrooney@dailyinterlake.com

PLEASE PUBLISH THE FOLLOWING LEGAL NOTICE ONCE ON September 6, 2015 IN THE DAILY INTERLAKE

PLEASE BILL: City of Whitefish

Do not publish above this line

WHITEFISH CITY COUNCIL
NOTICE OF PUBLIC MEETING

The regular meeting of the Whitefish City Council will be held on Monday, September 21, 2015. City Council meetings start at 7:10 pm at **1005 Baker Avenue** in the Whitefish City Council Chambers. A public meeting will be held on the following item.

1. A request by the City of Whitefish for an amendment to Title 14 – Flood Control Regulations to update to the regulations in accordance with Montana State Law and the National Flood Insurance Program, in conjunction with new Flood Insurance Rate Maps and Flood Insurance Study, effective November 4, 2015. WFTA-15-01 (Minnich)

Documents pertaining to these agenda items are available for review at the Whitefish Planning & Building Department, 510 Railway Street during regular business hours. Inquiries are welcomed. Interested parties are invited to attend the meeting and make known their views and concerns. Comments in writing may be forwarded to the Whitefish Planning & Building Department at the above address prior to the meeting or via email: *bminnich@cityofwhitefish.org*. For questions or further information regarding these proposals, phone 406-863-2410.

WHITEFISH PLANNING DEPARTMENT

Dave Taylor, Director

TO: rrooney@dailyinterlake.com

PLEASE PUBLISH THE FOLLOWING LEGAL NOTICE ONCE ON September 16, 2015 IN THE WHITEFISH PILOT

PLEASE BILL: City of Whitefish

Do not publish above this line

WHITEFISH CITY COUNCIL
NOTICE OF PUBLIC HEARING

The regular meeting of the Whitefish City Council will be held on Monday, September 21, 2015. City Council meetings start at 7:10 pm at **1005 Baker Avenue** in the Whitefish City Council Chambers. A public hearing will be held on the following item.

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WHITEFISH PLANNING DEPARTMENT

Dave Taylor, Director

TITLE 14

FLOOD CONTROL

Subject	Chapter
General Floodplain Regulations	1
Definitions	2
General Provisions	3
Administration	4
Specific Standards	5
Floodproofing Requirements	6
Appendices	7

CHAPTER 1

GENERAL FLOODPLAIN REGULATIONS

SECTION:

14-1-1: Title
14-1-2: Findings Of Fact
14-1-3: Purpose
14-1-4: Methods Of Reducing Flood Losses
14-1-5: Intent
14-1-6: Statutory Authority

14-1-1: **TITLE:** These regulations shall be known and cited as the *WHITEFISH FLOODPLAIN ORDINANCE*. These regulations are in accordance with and exercising the authority of laws of the state of Montana, chapter 5, floodplain and floodway management, 76-5-101 through 76-5-406, Montana Code Annotated, 2003, and following the guidance of the code of federal regulations administered by the federal emergency management agency (FEMA). (Ord. 07-26, 8-6-2007)

14-1-2: **FINDINGS OF FACT:**

A. The flood hazard areas of Whitefish are subject to periodic inundation, which results in loss of life and property, health and safety hazards, disruption of commerce and governmental services, and extraordinary public expenditures for flood protection and relief, all of which adversely affect the public health, safety and general welfare.

B. These flood losses are created by the cumulative effect of obstructions in floodplains which cause an increase in flood heights and velocities, and by the occupancy of flood hazard areas by uses vulnerable to floods and hazardous to other lands because they are inadequately elevated, floodproofed or otherwise protected from flood damage. (Ord. 07-26, 8-6-2007)

14-1-3: **PURPOSE:** It is the purpose of this title to promote the public health, safety and general welfare and to minimize public and private losses due to flood conditions in specific areas by provisions designed to:

A. Protect human life and health;

B. Minimize expenditure of public money for costly flood control projects;

C. Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;

D. Minimize prolonged business interruptions;

E. Minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets and bridges located in floodplains;

F. Help maintain a stable tax base by providing for the sound use and development of flood prone areas in such a manner as to minimize future flood blight areas; and

G. Ensure that potential buyers are notified that property is in a flood area. (Ord. 07-26, 8-6-2007)

14-1-4: **METHODS OF REDUCING FLOOD LOSSES:** In order to accomplish its purposes, this title uses the following methods:

A. Restrict or prohibit uses that are dangerous to health, safety or property in times of flood, or cause excessive increases in flood heights or velocities;

B. Require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;

C. Control the alteration of natural floodplains, stream channels, and natural protective barriers, which are involved in the accommodation of floodwaters;

D. Control filling, grading, dredging and other development which may increase flood damage;

E. Prevent or regulate the construction of flood barriers which will unnaturally divert floodwaters or which may increase flood hazards to other lands. (Ord. 07-26, 8-6-2007)

14-1-5: **INTENT:** The ordinance codified herein is passed in order to comply with the Montana floodplain and floodway management act[1] and to ensure compliance with the requirements for the continued participation by the city of Whitefish in the national flood insurance program. Land use regulations which are hereby adopted are to be applied to all identified special flood hazard areas within the local jurisdiction. (Ord. 07-26, 8-6-2007)

14-1-6: **STATUTORY AUTHORITY:** Municipalities have authority to adopt ordinances as provided for in section 7-1-4123, Montana Code Annotated to promote the general public health and welfare. Other authority for municipalities and counties to adopt floodplain management regulations appears in sections 76-5-101 through 406, Montana Code Annotated. (Ord. 07-26, 8-6-2007)

1. MCA title 76, ch. 5.

CHAPTER 2

DEFINITIONS

SECTION:

14-2-1: Words Defined

14-2-1: **WORDS DEFINED:** Unless specifically defined below, words or phrases used in this title shall be interpreted to give them the meaning they have in common usage and to give these regulations the most reasonable application:

ACCESSORY STRUCTURE: A structure that is accessory to, or in addition to, any use that is permitted in this title (e.g., a picnic shelter would be accessory to a campground). An accessory structure is secondary to the primary use that is permitted and complies with all other conditions imposed by this title and otherwise provided for by law. Accessory structures are also referred to as appurtenant structures. An accessory structure is a structure which is in the same property ownership as a principal structure and the use which is incidental to the use of the principal structure. For example, a residential structure may have a detached garage or storage shed for garden tools as accessory structures. Other examples of accessory structures include gazebos, picnic pavilions, boathouses, small pole barns, storage sheds, and similar buildings. NFIP regulations for new construction generally apply to new and substantially improved accessory structures.

ACT: The statutes authorizing the national flood insurance program that are incorporated in 42 USC 4001-4128, or Montana floodplain and floodway management act, Montana code title 76, chapter 5.

ACTUARIAL RATES: See definition of Risk Premium Rates.

ALTERATION: Any change or addition to a structure that either increases its external dimensions or increases its potential flood hazard.

APPEAL: A request for a review of the city of Whitefish floodplain administrator's interpretation of any provisions of this title or a request for a variance.

AREA OF FUTURE CONDITIONS FLOOD HAZARD: The land area that would be inundated by the one percent (1%) annual chance (100-year) flood based on future conditions hydrology.

AREA OF SHALLOW FLOODING: A designated zone on the digital flood insurance rate map (DFIRM) with a one percent (1%) or greater annual chance of flooding to an average depth of one to three feet (3') where a clearly defined channel does not exist, where the path of flooding is unpredictable, and where velocity flow may be evident. Such flooding is characterized by ponding or sheet flow.

AREA OF SPECIAL FLOOD HAZARD: The land in the floodplain within the community subject to inundation by a one percent (1%) or greater chance of flooding in any given year; also commonly referred to as the 100-year floodplain. The area may be designated as zone A on the DFIRM. After detailed ratemaking has been completed in preparation for publication of the flood insurance rate map, zone A usually is refined into zones A, AO, AH, A1-30, AE, A99, AR, AR/A1-30, AR/AE, AR/AO, AR/AH, AR/A, VO, or V1-30, VE, or V. For purposes of this title the term "special flood hazard area" is synonymous in meaning with the phrase "area of special flood hazard".

AREA OF SPECIAL FLOOD RELATED EROSION HAZARD: The land which is most likely to be subject to severe flood related erosion losses. The area may be designated as zone E on the digital flood insurance rate maps (DFIRM). After the detailed evaluation of the special flood related

erosion hazard area in preparation for publication of the DFIRM, zone E may be further refined.

ARTIFICIAL OBSTRUCTION/ DEVELOPMENT: Any obstruction which is not natural and includes any dam, diversion, wall, riprap, embankment, levee, dike, pile, abutment, projection, revetment, excavation, channel rectification, road, bridge, conduit, culvert, building, refuse, automobile body, fill or other analogous structure or matter in, along, across or projecting into any special flood hazard area which may impede, retard or alter the pattern of flow of water, either in itself or by catching or collecting debris carried by the water, or that is placed where the natural flow of water would carry the same downstream to the damage or detriment of either life or property.

BASE FLOOD: A flood having a one percent (1%) chance of being equaled or exceeded in any given year. A base flood may also be referred to as a 100-year flood. A 100-year flood has nearly a twenty three percent (23%) chance of occurring in a twenty five (25) year period.

BASE FLOOD ELEVATION (BFE): The elevation above sea level of the base flood in relation to the North American vertical datum of 1988 (NAVD 88) unless otherwise specified in the flood chapter 24 floodplain regulations, October 2006, hazard study. Previous FIRMs may have been published in the national geodetic vertical datum of 1929 (NGVD 29).

BASEMENT: Any area of the building having its floor subgrade (below ground level) on all sides.

BUILDING: Any walled and roofed enclosure. See also definition of Structure.

CHANNEL: The geographical area within either the natural or artificial banks of a watercourse or drainway.

CHANNELIZATION PROJECT: The excavation and/or construction of an artificial channel for the purpose of diverting the entire flow of a stream from its established course.

CHARGEABLE RATES: The insurance rates established by the federal insurance administrator pursuant to section 1308 of the act for first layer limits of flood insurance on existing structures.

COMMUNITY: Any state or area or political subdivision thereof, or any Indian tribe or authorized tribal organization or authorized native organization, which has authority to adopt and enforce floodplain management regulations for the areas within its jurisdiction.

CONTENTS COVERAGE: The insurance on personal property within an enclosed structure, including the cost of debris removal, and the reasonable cost of removal of contents to minimize damage. Personal property may be household goods usual or incidental to residential occupancy, or merchandise, furniture, fixtures, machinery, equipment and supplies usual to other than residential occupancies.

CRAWL SPACE: An enclosed area below the BFE. To meet the definition of a crawl space, an enclosed area must meet all of the following criteria:

A. Interior Grade: Interior grade is no more than two feet (2') below the exterior lowest adjacent grade (LAG) and height of crawl space foundation wall can be no greater than four feet (4').

B. Openings: Location/elevation, frequency, square area, automatic floodwater entry/exit design of opening cover. Crawl spaces that have their floors below BFE must have openings to allow the equalization of flood forces.

C. Ductwork And Building Utilities: Ductwork and building utilities must be two feet (2') above BFE or floodproofed.

Buildings that have below grade crawl spaces will have higher flood insurance premiums than buildings that have the interior elevation of the crawl space at or above the lowest adjacent exterior grade.

CRITICAL FACILITY: An activity or facility where, even a slight chance of flooding is too great a threat. Typical critical facilities include hospitals, retirement facilities, nursing homes, fire stations, police stations, storage of critical records, and similar facilities.

CURVILINEAR LINE: The border on either a FHBM, DFIRM or FIRM that delineates the special flood, mudslide (i.e., mudflow) and/or flood related erosion hazard areas and consists of a curved or contour line that follows the topography.

DEDUCTIBLE: The fixed amount or percentage of any loss covered by insurance which is borne by the insured prior to the insurer's liability.

DESIGNATED FLOODPLAIN: A floodplain whose limits have been designated and established by order of the department of natural resources and conservation, state of Montana.

DESIGNATED FLOODWAY: A floodway whose limits have been designated and established by order of the department of natural resources and conservation, state of Montana.

DEVELOPED AREA: An area of a community that is:

A. A primarily urbanized, built up area that is a minimum of twenty (20) contiguous acres, has basic urban infrastructure, including roads, utilities, communications, and public facilities, to

sustain industrial, residential, and commercial activities and:

1. Within which seventy five percent (75%) or more of the parcels, tracts, or lots contain commercial, industrial, or residential structures or uses; or

2. Is a single parcel, tract, or lot in which seventy five percent (75%) of the area contains existing commercial or industrial structures or uses; or

3. Is a subdivision developed at a density of at least two (2) residential structures per acre within which seventy five percent (75%) or more of the lots contain existing residential structures at the time the designation is adopted.

B. Undeveloped parcels, tracts, or lots, the combination of which is less than twenty (20) acres and contiguous on at least three (3) sides to areas meeting the criteria of subsection A of this definition at the time the designation is adopted.

C. A subdivision that is a minimum of twenty (20) contiguous acres that has obtained all necessary government approvals, provided that the actual "start of construction" of structures has occurred on at least ten percent (10%) of the lots or remaining lots of a subdivision or ten percent (10%) of the maximum building coverage or remaining building coverage allowed for a single lot subdivision at the time the designation is adopted and construction of structures is underway. Residential subdivisions must meet the density criteria in subsection A3 of this definition.

DEVELOPMENT: Any manmade change to improved or unimproved real estate, including, but not limited to, buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations or storage of equipment or

materials. A community without a DFIRM or FHBM must require a permit for all proposed construction or other development in the community, so that it can determine whether the construction or other development is proposed within a flood prone area. Once a DFIRM or FHBM has been issued for the community, it must require permits within the special flood hazard area.

DIGITAL FLOOD INSURANCE RATE MAP (DFIRM): The map on which FEMA has delineated the special flood hazard areas, the base flood elevations (BFE) and the risk premium zones.

DRAINWAY: Any depression two feet (2') or more below the surrounding land serving to give direction to a current of water less than nine (9) months of the year and having a bed and well defined banks.

DWELLING: A permanent building for human habitation, a place for living purposes.

ELEVATED BUILDING: For insurance purposes, a nonbasement building which has its lowest elevated floor raised above ground level by foundation walls, shear walls, posts, piers, pilings, or columns.

ELIGIBLE COMMUNITY OR PARTICIPATING COMMUNITY: A community for which the federal insurance administrator has authorized the sale of flood insurance under the national flood insurance program.

ENCLOSURE: That portion of an elevated building below the lowest elevated floor that is either partially or fully shut in by rigid walls.

EROSION: The process of the gradual wearing away of land masses. This peril is not per se covered under the flood insurance program.

ESTABLISH: To construct, place, insert or excavate.

EXISTING CONSTRUCTION: For the purposes of determining rates, structures for which the "start of construction"

commenced on or before the effective date of the floodplain management regulations. "Existing construction" may also be referred to as "existing structures".

EXISTING MANUFACTURED HOME PARK OR SUBDIVISION: A manufactured home park or subdivision where the construction of facilities for servicing the manufactured home lots is completed before the effective date of the floodplain management regulations. This includes, at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads.

EXISTING STRUCTURES: See definition of Existing Construction.

EXPANSION TO AN EXISTING MANUFACTURED HOME PARK OR SUBDIVISION: The preparation of additional sites by the construction of facilities for servicing the lots on which the manufacturing homes are to be affixed (including the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads).

FEDERAL AGENCY: Any department, agency, corporation, or other entity or instrumentality of the executive branch of the federal government, and includes the Federal National Mortgage Association and the Federal Home Loan Mortgage Corporation.

FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA): The agency that manages compliance with the national flood insurance program (NFIP) and provides flood hazard studies and maps.

FINISHED (HABITABLE) AREA: An enclosed area having more than twenty (20) linear feet of finished walls (paneling, etc.) or used for any purpose other than solely for parking of vehicles, building access, or storage.

FLOOD FRINGE: That portion of the floodplain outside the limits of the floodway.

FLOOD INSURANCE: The insurance coverage provided under the national flood insurance program.

FLOOD INSURANCE RATE MAP (FIRM): See definition of Digital Flood Insurance Rate Map (DFIRM).

FLOOD INSURANCE STUDY: The report in which FEMA has provided flood profiles, as well as the flood boundary/floodway map and the water surface profiles.

FLOOD OF 100-YEAR FREQUENCY: A flood magnitude that has a one percent (1%) chance of occurring in any given year commonly referred to as the base flood.

FLOOD OR FLOODING: A. A general and temporary condition of partial or complete inundation of normally dry land areas from:

1. The overflow of inland or tidal waters.

2. The unusual and rapid accumulation or runoff of surface waters from any source.

3. Mudslides (i.e., mudflows) which are proximately caused by flooding as defined in subsection A2 of this definition and are akin to a river of liquid and flowing mud on the surfaces of normally dry land areas, as when earth is carried by a current of water and deposited along the path of the current.

B. The collapse or subsidence of land along the shore of a lake or other body of water as a result of erosion or undermining caused by waves or currents of water exceeding anticipated cyclical levels or suddenly caused by an unusually high water level in a natural body of water, accompanied by a severe storm, or by an unanticipated force of nature, such as flash flood or an abnormal tidal surge, or by some similarly unusual and unforeseeable event which results in flooding as defined in subsection A1 of this definition.

FLOOD PRONE AREA: The area of special flood hazard as identified on the United States geological survey maps.

FLOOD PROTECTION SYSTEM:	Those physical structural works for which funds have been authorized, appropriated, and expended and which have been constructed specifically to modify flooding in order to reduce the extent of the area within a community subject to a "special flood hazard" and the extent of the depths of associated flooding. Such a system typically includes tidal barriers, dams, reservoirs, levees or dikes. These specialized flood modifying works are those constructed in conformance with sound engineering standards.
FLOOD RELATED EROSION:	The collapse or subsidence of land along the shore of a lake or other body of water as a result of undermining caused by waves or currents of water exceeding anticipated cyclical levels or suddenly caused by an unusually high water level in a natural body of water, accompanied by a severe storm, or by an unanticipated force of nature, such as a flash flood or an abnormal tidal surge, or by some similarly unusual and unforeseeable event which results in flooding.
FLOOD RELATED EROSION AREA MANAGEMENT:	The operation of an overall program of corrective and preventive measures for reducing flood related erosion damage, including, but not limited to, emergency preparedness plans, flood related erosion control works, and floodplain management regulations.
FLOOD RELATED EROSION AREA OR FLOOD RELATED EROSION PRONE AREA:	A land area adjoining the shore of a lake or other body of water, which due to the composition of the shoreline or bank and high water levels or wind driven currents, is likely to suffer flood related erosion damage.
FLOODPLAIN:	The areas subject to this title, generally the channel of a river or stream and the area adjoining a river or stream, which would be covered by floodwater of a base flood except for designated shallow flooding areas that receive less than one foot (1') of water per occurrence.

The floodplain consists of a floodway and flood fringe.

FLOODPLAIN DEVELOPMENT PERMIT:

A permit that is required before construction or development begins within any special flood hazard area (SFHA). If FEMA has not defined the SFHA within a community, the community shall require permits for all proposed construction or other development in the community including the placement of manufactured homes, so that it may determine whether such construction or other development is proposed within flood prone areas. Permits are required to ensure that proposed development projects meet the requirements of the NFIP and the community's floodplain management ordinance.

The community must also review all proposed developments to assure that all necessary permits have been received from those governmental agencies from which approval is required by federal or state law.

FLOODPLAIN MANAGEMENT:

The operation of an overall program of corrective and preventive measures for reducing flood damage, including, but not limited to, emergency preparedness plans, flood control works and floodplain management regulations.

FLOODPLAIN MANAGEMENT REGULATIONS:

Zoning ordinances, subdivision regulations, building codes, health regulations, special purpose ordinances (such as a floodplain ordinance, grading ordinance and erosion control ordinance) and other applications of police power. The term describes such state or local regulations, in any combination thereof, which provide standards for the purpose of flood damage prevention and reduction.

FLOODPLAIN OR FLOOD PRONE AREA:

Any land area susceptible to being inundated by water from any source (see definition of Flood Or Flooding). The floodplain consists of a floodway and a flood fringe.

FLOODPROOFING:	Any combination of structural and nonstructural additions, changes, or adjustments to structures which reduce or eliminate flood damage to real estate or improved real property, water and sanitary facilities, HVAC systems, structures and their contents (e.g., elevating a furnace and/or electrical outlets within a structure 2 feet or more above the BFE).
FLOODWAY:	See definition of Regulatory Floodway.
FLOODWAY ENCROACHMENT LINES:	The lines marking the limits of floodways on federal, state and local floodplain maps.
FREEBOARD:	A factor of safety usually expressed in feet above a flood level for purposes of floodplain management. "Freeboard" tends to compensate for the many unknown factors that could contribute to flood heights greater than the height calculated for a selected size flood and floodway conditions, such as wave action, bridge openings, and the hydrological effect of urbanization of the watershed.
FUTURE CONDITIONS FLOOD HAZARD AREA OR FUTURE CONDITIONS FLOODPLAIN:	See definition of Area Of Future Conditions Flood Hazard.
FUTURE CONDITIONS HYDROLOGY:	The flood discharges associated with projected land use conditions based on a community's zoning maps and/or comprehensive land use plans and without consideration of projected future construction of flood detention structures or projected future hydraulic modifications within a stream or other waterway, such as bridge and culvert construction, fill, and excavation.
HVAC:	Heating, ventilating and air conditioning.

HIGHEST ADJACENT GRADE (HAG): The highest natural elevation of the ground surface prior to construction next to the proposed walls of a structure.

HISTORIC STRUCTURE: Any structure that is:

A. Listed individually in the National Register of Historic Places (a listing maintained by the department of the interior) or preliminarily determined by the secretary of the interior as meeting the requirements for individual listing on the national register;

B. Certified or preliminarily determined by the secretary of the interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the secretary to qualify as a registered historic district;

C. Individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the secretary of the interior; or

D. Individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either:

1. By an approved state program as determined by the secretary of the interior; or

2. Directly by the secretary of the interior in states without approved programs.

HYDRAULICS: The depth of water (elevation) in a drainageway, watercourse, river or stream channel.

HYDROLOGY: The discharge in cubic feet per second (CFS) of water in a drainageway, watercourse, river or stream channel.

INDEPENDENT SCIENTIFIC BODY: A nonfederal technical or scientific organization involved in the study of land use planning, floodplain management, hydrology, geology, geography, or any other related field of study concerned with flooding.

LETTER OF MAP AMENDMENT (LOMA): An amendment to the currently effective FEMA map which establishes that a property is not located in a special flood hazard area. A LOMA is issued only by FEMA. A letter of map amendment (LOMA) is an official amendment, by letter, to an effective NFIP map. A LOMA establishes a property's location in relation to the special flood hazard area (SFHA). LOMAs are usually issued because a property has been inadvertently mapped as being in the floodplain, but is actually on natural high ground above the base flood elevation.

LETTER OF MAP CHANGE (LOMC): A general term used to refer to the several types of revisions and amendments to FEMA maps that can be accomplished by letter. They include letter of map amendment (LOMA), letter of map revision (LOMR), and letter of map revision based on fill (LOMR-F).

LETTER OF MAP REVISION (LOMR): An official amendment to the currently effective FEMA map. It is issued by FEMA and changes flood zones, delineations, and elevations.

LETTER OF MAP REVISION BASED ON FILL (LOMR-F): FEMA's modification of the special flood hazard area (SFHA) shown on the flood insurance rate map (DFIRM) based on the placement of fill outside the existing regulatory floodway. All requests for changes to effective maps, other than those initiated by FEMA, must be made in writing through the floodplain administrator of the community.

LEVEE: A manmade embankment, usually earthen, designed and constructed in accordance with sound engineering practices to contain, control or divert the flow of water to provide protection from temporary flooding. For a levee structure

to be reflected on the FEMA DFIRMs as providing flood protection, the levee structure must meet the requirements set forth in 44 CFR 65.10.

LEVEE SYSTEM: A flood protection system that consists of a levee, or levees, and associated structures, such as drainage and closure devices, which are constructed and operated in accordance with sound engineering practices.

LOWEST ADJACENT GRADE (LAG): Required on the elevation certificate showing the elevation of the lowest grade adjacent to an existing or proposed development for flood insurance purposes.

LOWEST FLOOR: The lowest floor of the lowest enclosed area (including basement). Any floor used for living purposes which includes working, storage, sleeping, cooking and eating, or recreation or any combination thereof. This includes any floor that could be converted to such a use such as a basement or crawl space. (An unfinished or flood resistant enclosure, usable solely for parking of vehicles, building access or storage in an area other than a basement area is not considered a building's lowest floor.) The lowest floor is a determinate for the flood insurance premium for a building, home or business.

LOWEST FLOOR ELEVATION (LFE): The measured distance of a building's lowest floor above the national geodetic vertical datum (NGVD) or other datum specified on the FIRM for that location.

MTDEQ: Montana department of environmental quality.

MANUFACTURED HOME: A structure that is transportable in one or more sections, built on a permanent chassis, and designed to be used with or without a permanent foundation when connected to the required utilities. This does not include recreational vehicles.

MANUFACTURED HOME PARK OR SUBDIVISION:	A parcel or contiguous parcels of land divided into two (2) or more manufactured home lots for rent or sale.
MEAN SEA LEVEL:	The North American vertical datum of 1988 (NAVD 88) or other datum to which base flood elevations are referenced.
MONTANA DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION (MTDNRC):	The department responsible for the comprehensive program for the delineation of designated floodplains and designated floodways for each watercourse and drainway in the state.
MUDSLIDE (MUDFLOW):	A condition where there is a river, flow or inundation of liquid mud down a hillside usually as a result of a dual condition of loss of brush cover, and the subsequent accumulation of water on the ground preceded by a period of unusually heavy or sustained rain. A mudslide (i.e., mudflow) may occur as a distinct phenomenon while a landslide is in progress, and will be recognized as such by the administrator only if the mudflow, and not the landslide, is the proximate cause of damage that occurs.
MUDSLIDE (MUDFLOW) AREA MANAGEMENT:	The operation of an overall program of corrective and preventive measures for reducing mudslide (i.e., mudflow) damage, including, but not limited to, emergency preparedness plans, mudslide control works, and floodplain management regulations.
MUDSLIDE (MUDFLOW) PRONE AREA:	An area with land surfaces and slopes of unconsolidated material where the history, geology and climate indicate a potential for mudflow.
NATIONAL FLOOD INSURANCE PROGRAM (NFIP):	44 CFR chapter I parts 59-79. The NFIP is a federal program enabling property owners in participating communities to purchase insurance as a protection against flood losses in exchange

for state and community floodplain management regulations that reduce future flood damages. Participation in the NFIP is based on an agreement between communities and the federal government. If a community adopts and enforces a floodplain management ordinance to reduce future flood risk to new construction in floodplains, the federal government will make flood insurance available within the community as a financial protection against flood losses. This insurance is designed to provide an insurance alternative to disaster assistance to reduce the escalating costs of repairing damage to buildings and their contents caused by floods.

NATIONAL GEODETIC VERTICAL DATUM OF 1929 (NGVD 29): Formerly the official vertical datum for the United States; has been replaced with NAVD 88.

NEW CONSTRUCTION: For the purposes of determining insurance rates, structures for which the "start of construction" commenced on or after the effective date of an initial FIRM or after December 31, 1974, whichever is later, and includes any subsequent improvements to such structures. For floodplain management purposes, new construction means structures for which the start of construction commenced on or after the effective date of a floodplain management regulation adopted by a community and includes any subsequent improvements to such structures. Structures include, new "stick built", manufactured homes, mobile homes, or "moved onto site" structures.

NEW MANUFACTURED HOME PARK OR SUBDIVISION: A manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed on or after the effective date of floodplain management regulations adopted by the community.

NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88):	The official vertical datum for the United States.
OFFICIAL FLOODPLAIN MAPS:	The flood insurance rate maps (DFIRMs) and flood boundary/floodway maps adopted and provided by the federal emergency management agency (FEMA) and/or MTDNRC for the city of Whitefish.
100-YEAR FLOOD:	A flood having a one percent (1%) chance of occurring in any given year. A 100-year flood has nearly a twenty three percent (23%) chance of occurring in a 25-year period. A 100-year flood is the same as a base flood.
PARTICIPATING COMMUNITY (Also Known As An ELIGIBLE COMMUNITY):	A community for which the federal insurance administrator has authorized the sale of flood insurance under the national flood insurance program.
PERMIT ISSUING AUTHORITY:	The city council of the city of Whitefish.
PERSON:	Includes any individual or group of individuals, corporation, partnership, association, or any other entity, including state and local governments and agencies.
POLICY:	The standard flood insurance policy.
POST-FIRM BUILDING:	A building for which construction or substantial improvement occurred after December 31, 1974, or on or after the effective date of an initial flood insurance rate map (FIRM), whichever is later.
PRE-FIRM BUILDING:	A building for which construction or substantial improvement occurred on or before December 31, 1974, or before the effective date of an initial flood insurance rate map (FIRM).
PREMIUM:	The total premium payable by the insured for the coverage or coverages provided under the

policy. The calculation of the premium may be based upon either chargeable rates or risk premium rates, or a combination of both.

PRINCIPALLY ABOVEGROUND: At least fifty one percent (51%) of the actual cash value of the structure, less land value, is aboveground.

PROGRAM: The national flood insurance program authorized by 42 USC 4001 through 4128.

PROPER OPENINGS; ENCLOSURES: All enclosures below the lowest elevated floor must be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. A minimum of two (2) openings, with positioning on at least two (2) walls, having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding must be provided. The bottom of all openings must be no higher than one foot (1') above grade.

REASONABLY SAFE FROM FLOODING: The community must review all permit applications to determine whether the proposed building sites will be reasonably safe from flooding as one of the minimum NFIP floodplain management requirements established by NFIP regulations. If the community determines that a site is not reasonably safe from flooding, it must require mitigation actions be undertaken to reduce the structure's flood damage potential.

When an individual applies for a letter of map revision based on fill (LOMR-F), the community will be required to determine that the filled area is reasonably safe from flooding before the LOMR-F will be issued. As indicated in the LOMR-F requirement "reasonably safe from flooding" means base floodwaters will not inundate the land or damage structures to be removed from the SFHA and that any subsurface waters related to the base flood will not damage existing or proposed buildings.

RECREATIONAL VEHICLE: A vehicle which is: a) built on a single chassis; b) four hundred (400) square feet or less when measured at the largest horizontal projections; c) designed to be self-propelled or permanently towable by a light duty truck; and d) designed primarily for use as temporary living quarters for recreation, camping, travel or seasonal use, not for use as a permanent dwelling.

REGULATORY FLOODWAY: The channel of a river, stream, or other water-course and the adjacent land areas that must be reserved in order to discharge a base flood without cumulatively increasing the water surface elevation more than one-half foot (0.5').

RESIDENTIAL STRUCTURE TYPES: A. Nonresidential: Includes, but is not limited to: small business concerns, churches, schools, farm buildings (including grain bins and silos), pool houses, clubhouses, recreational buildings, mercantile structures, agricultural and industrial structures, warehouses, hotels and motels with normal room rentals for less than six (6) months' duration, and nursing homes.

B. Single-Family Residence: A residential single-family dwelling. Incidental office, profes-sional, private school, or studio occupancies, including a small service operation, are permitted if such incidental occupancies are limited to less than fifty percent (50%) of the building's total floor area as per zoning regulations.

C. Two- To Four-Family Residence: A residen-tial building (excluding hotels and motels with normal room rentals for less than 6 months' duration) containing no more than four (4) dwelling units. Incidental occupancies such as office, professional, private school, or studio space are permitted if the total area of such occupancies is limited to less than twenty five percent (25%) of the total floor area within the building per the zoning regulations.

D. Other Residential: Hotels or motels where the normal occupancy of a guest is six (6) months or more; a tourist home or rooming house which has more than four (4) roomers. A residential building (excluding hotels and motels with normal room rentals for less than 6 months' duration) containing more than four (4) dwelling units. Incidental occupancies such as office, professional private school, or studio occupancy, are permitted if the total area of such incidental occupancies is limited to less than twenty five percent (25%) of the total floor area within the building.

RIPRAP: Stone, rocks, concrete blocks or analogous material that is placed along the banks or bed of a stream to alleviate erosion.

RISK PREMIUM RATES: Those rates established by the administrator pursuant to individual community studies and investigations which are undertaken to provide flood insurance in accordance with section 1307 of the act and the accepted actuarial principles. "Risk premium rates" include provisions for operating costs and allowances.

RIVERINE: Relating to, formed by, or resembling a river (including tributaries), stream, brook, etc.

SCIENTIFICALLY INCORRECT: The methodology(ies) and/or assumptions which have been utilized are inappropriate for the physical processes being evaluated or are otherwise erroneous.

SECTION 1316: Section of the national flood insurance act of 1968, as amended, which states that no new flood insurance coverage shall be provided for any property that FEMA finds has been declared by a duly constituted state or local zoning authority or other authorized public body to be in violation of state or local laws, regulations, or ordinances that are intended to discourage or otherwise restrict land development or occupancy in flood prone areas.

SETBACK: The amount of distance between the stream bank of the river or stream and the proposed use, where the stream bank is the 100-year flood boundary.

SHEET FLOW AREA: See definition of Area Of Shallow Flooding.

SHEET FLOW HAZARD: A type of flood hazard with flooding depths of one to three feet (3') that occurs in areas of sloping land. The sheet flow hazard is represented by the zone designation AO on the FIRM.

SINGLE STRUCTURE (SINGLE BUILDING): A building that is separated from other structures by intervening clear spell or solid, vertical, load bearing division walls.

SOLID PERIMETER FOUNDATION WALLS: Walls that are used as a means of elevating a building in A zones and that must contain sufficient openings to allow for the unimpeded flow of floodwaters more than one foot (1') deep.

SPECIAL FLOOD HAZARD AREA: See definition of Area Of Special Flood Hazard.

START OF CONSTRUCTION: Commencement of clearing, grading, filling, or excavating to prepare a site for construction. It includes substantial improvement, and means the date the building permit was issued provided the actual start of construction, repair, reconstruction, rehabilitation, addition placement, or other improvement was within one hundred eighty (180) days of the permit date. The actual start means either the first placement of permanent construction of a structure on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation; or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading and filling; nor does it include the installation of streets and/or

walkways; nor does it include excavation for a basement, footings, piers, or foundations or the erection of temporary forms; nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure. For a substantial improvement, the actual start of construction means the first alteration of any wall, ceiling, floor, or other structural part of a building, whether or not that alteration affects the external dimensions of the building. In those jurisdictional areas not requiring a building permit these regulations shall apply as to the date to the actual start of either the first placement of permanent construction or placement of a manufactured home on a foundation as described above.

STRUCTURE: For floodplain management purposes, a walled and roofed building, including a gas or liquid storage tank, that is principally aboveground, as well as a manufactured home. "Structure", for insurance purposes, means:

A. A building with two (2) or more outside rigid walls and a fully secured roof, that is affixed to a permanent site;

B. A manufactured home ("a manufactured home", also known as a mobile home, is a structure built on a permanent chassis, transported to its site in 1 or more sections, and affixed to a permanent foundation); or

C. A travel trailer without wheels built on a chassis and affixed to a permanent foundation, that is regulated under the community's floodplain management and building ordinances or laws.

For the latter purpose, "structure" does not mean a recreational vehicle, or a parked trailer or other similar vehicle, except as described in subsection C of this definition, or a gas or liquid storage tank.

A walled and roofed building, manufactured home, a gas or liquid storage tank, bridge, culvert, dam, diversion, wall, revetment, dike or other projection that may impede, retard or alter the pattern of flow of water.

SUBSTANTIAL DAMAGE: Damage sustained by a structure where the cost of restoring the structure to its condition before damage would equal or exceed fifty percent (50%) of the market value of the structure before the damage occurred.

SUBSTANTIAL IMPROVEMENT: Any repair, reconstruction or improvement of a structure, the cost of which equals or exceeds fifty percent (50%) of the market value of the structure either: a) before the improvement or repair is started; or b) if the structure has been damaged, and is being restored, before the damage occurred. For the purposes of this definition, substantial improvement is considered to occur when the first construction to any wall, ceiling, floor or other structural part of the building commences. The term does not include: a) any project for improvement of a structure to comply with existing state or local health, sanitary or safety code specifications which are solely necessary to assure safe living conditions; or b) any alteration of a structure listed on the National Register of Historic Places or State Inventory of Historic Places.

SUITABLE FILL: Fill material which is stable, compacted, well graded, pervious, generally unaffected by water and frost, devoid of trash or similar foreign matter, devoid of tree stumps, or other organic material; and is fitting for the purpose of supporting the intended use and/or permanent structure.

TECHNICALLY INCORRECT: The methodology(ies) utilized has been erroneously applied due to mathematical or measurement error, changed physical conditions, or insufficient quantity or quality of input data.

UNITED STATES GEOLOGICAL SURVEY (USGS): The agency which developed the maps of the "flood prone areas".

UTILITIES: If a proposed building site is in a special flood hazard area (SFHA), the building support utility systems for all new construction and substantial improvements shall:

A. Be constructed with electrical, heating, ventilation, plumbing, and air conditioning equipment and other service facilities that are designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding;

B. Require within flood prone areas new and replacement water supply systems to be designed to minimize or eliminate infiltration of floodwaters into the systems;

C. Require within flood prone areas new and replacement sewage systems be designed to minimize or eliminate infiltration of floodwaters into the systems and discharges from the systems into floodwaters; and

D. Require on site water disposal systems be located to avoid impairment to them or contamination from them during flooding.

If a subdivision proposal or other proposed new development is in a flood prone area, any such proposals shall be reviewed to assure that all public utilities and facilities, such as sewer, gas, electrical, and water systems are located and constructed to minimize or eliminate flooding.

VARIANCE: A grant of relief from the requirements of this title that would permit construction in a manner otherwise prohibited by this title.

VIOLATION: The failure of a structure or other development to be fully compliant with this title or the

floodplain permit issued. A structure or other development without a floodplain permit, an elevation certificate, certification by a licensed engineer or architect of compliance with this title, or other evidence of compliance is presumed to be in violation until such time as documentation is provided.

WATER SURFACE ELEVATION: The height, in relation to the North American vertical datum of 1988 (NAVD 88) (or other datum, where specified), of floods of various magnitudes and frequencies in the floodplains of riverine areas. (Ord. 07-26, 8-6-2007)

CHAPTER 3

GENERAL PROVISIONS

SECTION:

14-3-1: Jurisdictional Area
14-3-2: Basis For Establishing The Areas Of Special Flood Hazard
14-3-3: Rules For Interpretation Of Floodplain Boundaries
14-3-4: Compliance
14-3-5: Abrogation And Greater Responsibility
14-3-6: Regulation Interpretation
14-3-7: Warning And Disclaimer Of Liability
14-3-8: Disclosure Provision
14-3-9: Authority To Enter And Investigate Lands Or Waters

14-3-1: **JURISDICTIONAL AREA:** This title shall apply to all areas of special flood hazard within the jurisdiction of the city and those areas outside of the city of Whitefish but within the extraterritorial zoning jurisdiction. (Ord. 07-26, 8-6-2007)

14-3-2: **BASIS FOR ESTABLISHING THE AREAS OF SPECIAL FLOOD HAZARD:** The areas of special flood hazard identified by the federal emergency management agency in the current scientific and engineering report entitled, "The Flood Insurance Study For Flathead County, Montana, And Incorporated Areas", dated September 28, 2007, with the most effective flood insurance rate maps and/or flood boundary-floodway maps (DFIRM and/or FBFM) dated September 28, 2007. Permits are required for all proposed construction and other development within special flood hazard areas. (Ord. 07-26, 8-6-2007)

14-3-3: **RULES FOR INTERPRETATION OF FLOODPLAIN BOUNDARIES:** The boundaries of the 100-year floodway shall be determined by scaling distances on the official floodplain maps and using the floodway data table contained in the flood insurance study report. The maps may be used as a guide for determining the special flood hazard area

boundary, but the exact location of the floodplain boundary shall be determined where the base flood elevation intersects the natural ground. For unnumbered A zone and AO zone floodplains, where there is a conflict between a mapped floodplain boundary and actual field conditions, the floodplain administrator may interpret the location of the special flood hazard area boundary based on field conditions or available historical flood information. Where the surveyed elevation provides greater elevation information than the floodplain map and indicates that the land/structure may be determined to be out of the floodplain, the homeowner/landowner needs to advise the floodplain administrator and may submit a letter of map change (LOMC) to FEMA. (Ord. 07-26, 8-6-2007)

14-3-4: **COMPLIANCE:** No land use shall be developed, and no structure shall be located, extended, converted, or structurally altered within the special flood hazard area without full compliance with the provisions of this title and other applicable regulations. This title meets the minimum requirements as set forth by the Montana department of natural resources and conservation, and the national flood insurance program. (Ord. 07-26, 8-6-2007)

14-3-5: **ABROGATION AND GREATER RESPONSIBILITY:** It is not intended by this chapter to repeal, abrogate, or impair any existing easements, covenants, deed restrictions, or underlying zoning. However, where this title imposes greater restrictions, the provision of this title shall prevail. (Ord. 07-26, 8-6-2007)

14-3-6: **REGULATION INTERPRETATION:** In the interpretation and application of this title, all provisions shall be: a) considered as minimum requirements; b) liberally construed in favor of the governing body; and c) deemed neither to limit nor repeal any other powers granted under state statutes. (Ord. 07-26, 8-6-2007)

14-3-7: **WARNING AND DISCLAIMER OF LIABILITY:** The degree of flood protection required by this title is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. On rare occasions greater floods can and will occur and flood heights may be increased by manmade or natural causes. This title does not imply that land outside the areas of special flood hazards or uses permitted within such areas will be free from flooding or flood damages. This title shall not create liability on the part of the community or

any official or employee thereof for any flood damages that result from reliance on this title or any administrative decision lawfully made hereunder. (Ord. 07-26, 8-6-2007)

14-3-8: **DISCLOSURE PROVISION:** All property owners or realtors and developers representing property owners in a special flood hazard area or floodway must notify potential buyers or their agents that such property is located within the floodplain or floodway and is subject to regulation. Information regarding floodplain areas or the repository for floodplain maps is available in the floodplain administrator's office. (Ord. 07-26, 8-6-2007)

14-3-9: **AUTHORITY TO ENTER AND INVESTIGATE LANDS OR WATERS:** The floodplain administrator may make reasonable entry upon any lands and waters in the city of Whitefish and its zoning jurisdiction for the purpose of making an investigation, inspection or survey to verify compliance with this title. The floodplain administrator shall provide notice of entry by mail, electronic mail, phone call, personal delivery to the owner, owner's agent, lessee, or lessee's agent whose lands will be entered. If none of these persons can be found, the floodplain administrator shall affix a copy of the notice to one or more conspicuous places on the property for five (5) days. If the owners do not respond, cannot be located or refuse entry to the floodplain administrator, the floodplain administrator may only enter the property through a search warrant.

An investigation of a natural or artificial obstruction or nonconforming use shall be made by the floodplain administrator, either on his own initiative, or at the request of titleholders of land abutting the watercourse or drainway involved, or on the written request of a governing body or permitting agency. (Ord. 07-26, 8-6-2007)

CHAPTER 4

ADMINISTRATION

SECTION:

14-4-1: Floodplain Administrator
14-4-2: Duties And Responsibilities Of The Floodplain Administrator
14-4-3: Permit Procedures
14-4-4: Emergency Waiver
14-4-5: Appeals And Variances
14-4-6: Fees
14-4-7: Violation Notice
14-4-8: Compliance
14-4-9: Penalties

14-4-1: **FLOODPLAIN ADMINISTRATOR:** The floodplain administrator is appointed by the city of Whitefish planning and building department to administer and implement the provisions of this title and other appropriate sections of 44 CFR (emergency management and assistance - national flood insurance program regulations) pertaining to floodplain management. (Ord. 07-26, 8-6-2007)

14-4-2: **DUTIES AND RESPONSIBILITIES OF THE FLOODPLAIN ADMINISTRATOR:** Duties and responsibilities of the floodplain administrator shall include, but not be limited to, the following:

A. Maintain Records: Maintain and hold open for public inspection all records pertaining to the provisions of this title and those that may be necessary to document nonconforming uses. Where BFE data are utilized in zone A, obtain and maintain records of the lowest floor and floodproofing elevations for new and substantially improved construction.

B. Review Permit Applications: Review permit applications to ensure that the proposed building site project, including the placement of manufactured homes, will be reasonably safe from flooding.

C. Review Floodplain Permits: Review floodplain permits for proposed development to assure that the applicant has acquired all necessary permits from those federal, state or local governmental agencies (including section 404 of the federal water pollution control act amendments of 1972, 33 USC 1334) from which prior approval is required. It is the responsibility of the applicant to determine the other necessary permits.

D. Boundary Interpretation: Where interpretation is needed as to the exact location of the boundaries of the areas of special flood hazards (for example, where there appears to be a conflict between a mapped boundary and actual field conditions) the floodplain administrator shall make the necessary interpretation.

E. Notification To Other Communities: Notify, in riverine situations, adjacent communities and the state coordinating agency, which is Montana department of natural resources and conservation prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the federal emergency management agency.

F. Maintenance Of Flood Carrying Capacity: Assure that the flood carrying capacity within the altered or relocated portion of any watercourse is maintained.

G. Obtain Data: When base flood elevation data has not been provided in accordance with section 14-3-2 of this title, the floodplain administrator shall obtain, review and reasonably utilize any base flood elevation data and floodway data available from a federal, state or other source, in order to administer the provisions of chapter 5 of this title. Where BFE data are utilized in zone A, obtain and maintain records of the lowest floor and floodproofing elevations for new and substantially improved construction.

H. Procedure When Floodway Not Designated: When a regulatory floodway has not been designated, the floodplain administrator must require that no new construction, substantial improvements, or other development (including fill) shall be permitted within zones A1-30 and AE on the community's FIRM, unless it is demonstrated that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation of the base flood more than one-half foot (0.5') at any point, or significantly increases the base flood velocity, within the community.

I. Approval Of Certain Developments: Under the provisions of 44 CFR chapter 1, part 65.12, of the national flood insurance program regulations, a community may approve certain development in zones A1-30, AE, AH, on the community's FIRM which increases the water surface elevation of the base flood by more than one-half foot ($^1/_2$'), provided that the community first completes all of the provisions required by section 65.12.

J. Additional Factors: Floodplain development permits shall be granted or denied by the floodplain administrator on the basis of whether the proposed establishment, development, alteration, or substantial improvement of an artificial obstruction meets the requirements of these regulations. Additional factors that shall be considered for every permit application are:

1. The danger to life and property due to increased flood heights, increased floodwater velocities, backwater or alterations in the pattern of flood flow caused by the obstruction or encroachment;

2. The danger that the obstruction or encroachment may be swept onto other lands or downstream to the injury of others;

3. The ability of the proposed water supply and/or sanitation system to prevent disease, contamination, and unsanitary conditions;

4. The susceptibility of the proposed facility and its contents to flood damage and the effects of such damage on the individual owner;

5. The construction or alteration of the obstruction or encroachment in such manner as to lessen the flooding danger;

6. The importance of the services provided by the facility to the community;

7. The requirement of the facility for a waterfront location;

8. The availability of alternative locations not subject to flooding for the proposed use;

9. The compatibility of the proposed use with existing development and anticipated development in the foreseeable future;

10. The relationship of the proposed use to the comprehensive plan and floodplain management program for the area;

11. The safety of access to property in times of flooding for ordinary and emergency services;

12. The request for fill for a residential or commercial building is not followed by a request for a basement for the same residential or commercial building, which would put the finished floor of the building below the BFE, which would negate the purpose of the fill;

13. The proposed use shall comply with the existing zoning designation;

14. For projects involving bank stabilization, channelization, levees, floodwalls and/or diversions, off property impacts including increased flood peaks, flood stage, flood velocity, erosion and sedimentation, should be considered and found to be nonexistent, neutral or able to be mitigated; and

15. Such other factors as are in harmony with the purposes of this title, the Montana floodplain and floodway management act, and the national flood insurance program.

K. Approval Or Denial: A floodplain development permit application shall be approved or denied by the floodplain administrator. If the application is deemed incomplete, the floodplain administrator will notify the applicant of deficiencies within sixty (60) days. Under no circumstances should it be assumed that the permit is automatically granted. All approved applications will be signed by the floodplain administrator. Denied applications may be resubmitted if additional information is provided to support a change in development.

L. Incomplete Application: The floodplain administrator may deem an application incomplete based on, but not limited to, the following criteria: elevation or floodproofing certificates, a level survey and/or hydraulic and hydrology calculations by a registered land surveyor, engineer, or licensed architect to assess the impact of the volume of water, determine the base flood elevation, water velocities, and ground elevations.

M. Notice: Upon receipt of a complete application for a permit, the floodplain administrator shall prepare a notice containing the facts pertinent to the application and shall publish the notice at least once in a newspaper of general circulation in the area. Notice shall also be served by first class mail upon adjacent property owners. The state floodplain NFIP coordinator located in DNRC and other permitting agencies shall also receive notice by the most efficient

method. The notice shall provide a reasonable period of time, not less than fifteen (15) days, for interested parties to submit comments on the proposed activity. (Ord. 07-26, 8-6-2007)

14-4-3: PERMIT PROCEDURES:

A. Application for a floodplain development permit shall be presented to the floodplain administrator on forms furnished by him/her and may include, but not be limited to, plans in duplicate drawn to scale showing the location, dimensions, and elevation of proposed landscape alterations, existing and proposed structures, including the placement of manufactured homes, hydraulic calculations assessing the impact on base flood elevations or velocities, level survey or certification by a registered land surveyor, professional engineer or licensed architect that the requirements of this title are satisfied and the location of the foregoing in relation to areas of special flood hazard. Additionally, the following information is required:

1. Elevation (in relation to mean sea level), of the lowest floor (including basement) of all new and substantially improved structures;

2. Elevation in relation to mean sea level to which any nonresidential structure shall be floodproofed;

3. A certificate from a registered professional engineer or architect that the nonresidential floodproofed structure shall meet the floodproofing criteria of subsection 14-5-4B4 of this title;

4. Description of the extent to which any watercourse or natural drainage will be altered or relocated as a result of proposed development; and

5. Maintain a record of all such information in accordance with subsection 14-4-2A of this chapter.

B. Approval or denial of a floodplain development permit by the floodplain administrator shall be based on all of the provisions of this title, including, but not limited to, the factors listed in subsection 14-4-2J of this chapter, and the following relevant factors:

1. The danger to life and property due to flooding or erosion damage;

2. The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;

3. The danger that materials may be swept onto other lands to the injury of others;

4. The compatibility of the proposed use with existing and anticipated development;

5. The safety of access to the property in times of flood for ordinary and emergency vehicles;

6. The costs of providing governmental services during and after flood conditions including maintenance and repair of streets and bridges, and public utilities and facilities such as sewer, gas, electrical and water systems;

7. The expected heights, velocity, duration, rate of rise and sediment transport of the floodwaters and the effects of wave action, if applicable, expected at the site;

8. The necessity to the facility of a waterfront location, where applicable; and

9. The availability of alternative locations, not subject to flooding or erosion damage, for the proposed use. (Ord. 07-26, 8-6-2007)

14-4-4: **EMERGENCY WAIVER:** Emergency repair and replacement of severely damaged public transportation facilities, public water and sewer facilities, and flood control works may be authorized by the floodplain administrator if:

A. Upon notification and prior to the emergency repair and/or replacement, the floodplain administrator determines that an emergency condition exists warranting immediate action; and

B. The floodplain administrator agrees upon the nature and type of proposed emergency repair and/or replacement.

Authorization to undertake emergency repair and replacement work may be given verbally if the floodplain administrator feels that such a written authorization would unduly delay the emergency work. Such verbal authorization must be followed by a written permit describing the emergency condition, the type of emergency work agreed upon, and stating

that a verbal authorization had been previously given. (Ord. 07-26, 8-6-2007)

14-4-5: APPEALS AND VARIANCES:

A. There is hereby created a local floodplain management board of adjustment, the membership, administration, and rules of procedure of which are the zoning board of adjustment.

B. The zoning board of adjustment shall hear and render judgment on an appeal only when it is alleged there is an error in any requirement, decision, or determination made by the floodplain administrator in the enforcement or administration of this title. Appeals must be filed within thirty (30) days from the time the officer charged with enforcement of this title has made a written interpretation or determination of this title.

C. Any person or persons aggrieved by the decision of the board of adjustment may appeal such decision in the courts of competent jurisdiction.

D. The floodplain administrator shall maintain a record of all actions involving an appeal and shall report variances to the federal emergency management agency upon request.

E. Variances may be issued for new construction and substantial improvements to be erected on a lot of one-half ($^1/_2$) acre or less in size contiguous to and surrounded by lots with existing structures constructed below the base flood level, providing the relevant factors in subsection 14-4-3B of this chapter have been fully considered. As the lot size increases beyond the one-half ($^1/_2$) acre, the technical justification required for issuing the variance increases.

F. Upon consideration of the factors noted above and the intent of this title, the zoning board of adjustment may attach such conditions to the granting of variances as it deems necessary to further the purpose and objectives of this title (section 14-1-3 of this title).

G. Variances shall not be issued within any designated floodway if any increase in flood levels or velocities, during the base flood discharge, would result.

H. Variances may be issued for the repair or rehabilitation of historic structures upon a determination that the proposed repair or

rehabilitation will not preclude the structure's continued designation as a historic structure and the variance is the minimum necessary to preserve the historic character and design of the structure.

I. Prerequisites for granting variances:

1. Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.

2. Variances shall only be issued upon:

a. Showing a good and sufficient cause;

b. A determination that failure to grant the variance would result in exceptional hardship to the applicant;

c. A determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, create nuisances, cause fraud on or victimization of the public, or conflict with existing local laws or ordinances;

d. The proposed use is adequately floodproofed; and

e. Reasonable alternative locations outside the designated floodplain are not available.

3. Any application to which a variance is granted shall be given written notice that the structure will be permitted to be built with the lowest floor elevation below the base flood elevation, and that the cost of flood insurance will be commensurate with the increased risk resulting from the reduced lowest floor elevation. It should be noted that variances of this type places the community in violation of the NFIP, and therefore will be carefully considered.

J. Variances may be issued by a community for new construction and substantial improvements and for other development necessary for the conduct of a functionally dependent use provided that: 1) the criteria outlined in this chapter are met, and 2) the structure or other development is protected by methods that minimize flood damages during the base flood and create no additional threats to public safety.

K. Appeals of any decision(s) of the zoning board of adjustment or the city of Whitefish city council may be taken by an aggrieved person or persons, jointly or separately, to a court of record, provided that the appellant has exhausted all administrative remedies. (Ord. 07-26, 8-6-2007)

14-4-6: **FEES:** A nonrefundable processing fee pursuant to the adopted fee schedule for the city of Whitefish shall be submitted with each permit and/or variance application. This fee will cover the administrative cost of processing the permit and/or variance, providing public notice and performing sufficient field inspections to ensure compliance with this title. (Ord. 07-26, 8-6-2007)

14-4-7: **VIOLATION NOTICE:** The floodplain administrator shall bring any violation of these regulations to the attention of the local governing body, its legal counsel, and the Montana department of natural resources and conservation. (Ord. 07-26, 8-6-2007)

14-4-8: **COMPLIANCE:** Any use, alteration, or construction not in compliance with that authorized shall be deemed a violation of this title and punishable as provided in section 14-4-9 of this chapter or enforced as provided in 76-5-109, Montana Code Annotated. An applicant may be required to submit certification by a registered professional engineer, architect, or other qualified person designated by the floodplain administrator, that finished fill, building floor elevations, floodproofing, hydraulic design, or other flood protection measures be accomplished in compliance with this title. (Ord. 07-26, 8-6-2007)

14-4-9: **PENALTIES:** Violation of the provisions of this title or failure to comply with any of the requirements, including failure to obtain permit approval prior to development on the floodplain shall constitute a misdemeanor. Any person who violates this title or fails to comply with any of its requirements (including the conditions and safeguards established in variances) shall, upon conviction thereof, be fined not more than one hundred dollars ($100.00) or imprisoned in jail for not more than ten (10) days or both. Each day's continuance of a violation shall be deemed a separate and distinct offense. In addition, any such violation of this title or failure to comply with any of its requirements, including the conditions and safeguards established in variances, shall constitute a municipal infraction, the penalty for which is set forth in section 1-4-4 of this

code. For each separate incident, the city shall elect to treat the violation as a misdemeanor or a municipal infraction, but not both. If a violation is repeated, the city may treat the initial violation as a misdemeanor and the repeat violation as a municipal infraction, or vice versa. (Ord. 09-20, 10-19-2009)

CHAPTER 5

SPECIFIC STANDARDS

SECTION:

14-5-1: Application
14-5-2: General Standards
14-5-3: Floodway
14-5-4: Flood Fringe
14-5-5: Standards For Subdivision Proposals
14-5-6: Shallow Flooding (AO Zones)

14-5-1: **APPLICATION:** The minimum floodplain development standards listed in this chapter and title 76, chapter 5, Montana Code Annotated, apply to all the floodplains referenced on the flood insurance rate maps or community accepted areas using the best and newest information available. (Ord. 07-26, 8-6-2007)

14-5-2: **GENERAL STANDARDS:** In all areas of special flood hazards the following provisions are required for all new construction and substantial improvements:

A. All new construction or substantial improvements shall be designed (or modified) and adequately anchored to prevent flotation, collapse or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy;

B. All new construction or substantial improvements shall be constructed by methods and practices that minimize flood damage;

C. All new construction or substantial improvements shall be constructed with materials resistant to flood damage;

D. All new construction or substantial improvements shall be constructed with electrical, heating, ventilation, plumbing, and air conditioning equipment and other service facilities that are designed

and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding;

E. All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of floodwaters into the system;

F. New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of floodwaters into the system and discharge from the systems into floodwaters; and

G. On site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding. (Ord. 07-26, 8-6-2007)

14-5-3: FLOODWAY:

A. Uses Allowed Without Permit: The following open space uses shall be allowed without a permit anywhere within the floodway, provided that such are not prohibited by any other resolution or statute, do not require structures other than portable structures, do not require alteration of the floodplain such as fill, excavation or permanent storage of materials or equipment, do not require large scale cleaning of the riparian vegetation within fifty feet (50') of the mean high water mark, will not cause flood losses on other land or to the public:

Accessory uses such as loading and parking areas, or emergency landing strips associated with industrial and commercial facilities.

Agricultural uses such as tilling, farming, irrigation, harvesting, grazing, etc.

Fences, except permanent fences crossing channels.

Forestry, including processing of forest products with portable equipment.

Irrigation and livestock supply wells, provided that they are located at least five hundred feet (500') from domestic water supply wells.

Private and public recreational uses such as golf courses, driving ranges, archery ranges, picnic grounds, boat launch-

ing ramps, swimming areas, parks, wildlife management and natural areas, game farms, fish hatcheries, shooting preserves, target ranges, trap and skeet ranges, hunting and fishing areas and hiking or horseback riding trails.

Recreational vehicles provided that they be on the site for fewer than one hundred eighty (180) consecutive days, or be fully licensed and ready for highway use. A recreational vehicle is ready for highway use if it is on its wheels or jacking system with wheels intact, is attached to the site only by quick disconnect type utilities and security devices, and has no permanently attached additions.

Residential uses such as lawns, gardens, parking areas, and play areas.

B. Uses Requiring Permits: The following nonconforming uses and artificial obstructions may be permitted within the designated floodway, provided that such uses conform to the provisions of subsection 14-4-2J1 of this title and are approved for permit issuance by the floodplain administrator:

1. Excavation of material from pits or pools provided that:

a. A buffer strip of undisturbed land of sufficient width to prevent flood flows from channeling into the excavation is left between the edge of the channel and the edge of the excavation;

b. The excavation meets all applicable laws and regulations of other local and state agencies; and

c. Excavated material is stockpiled outside the designated floodway. (However, for short term gravel mining operations, the floodplain administrator may allow stockpiling in the flood fringe if there is no other alternative and there is no significant [$^1/_2$ foot] rise in the BFE. A "no rise" certification signed by a licensed engineer shall be required.)

2. Railroad, highway, street and stream crossings, provided that:

a. The crossings are designed to offer minimal obstructions to the flood flow;

b. The bottom of bridge spans shall have a freeboard of at least two feet (2') above the BFE to pass ice flows, the 100-year flood discharge and any debris associated with the discharge;

c. If possible, normal overflow channels are preserved to allow passage of sediments to prevent aggradations;

d. Midstream supports for bridges, if necessary, must have footings buried below the maximum scour depth; and

e. Stream crossings shall not increase the elevation of the 100-year flood more than one-half foot ($^1/_2$') nor cause a significant increase in flood velocities. The applicant shall provide a "no rise" certification signed by a registered professional engineer.

3. Limited filling for highway, street, and railroad embankments not associated with stream crossings and bridges provided that:

a. Reasonable alternate transportation routes outside the designated floodway are not available;

b. The encroachment is located as far from the stream channel as possible;

c. Measures are provided to mitigate the impact to property owners and the natural stream function; and

d. The encroachment shall not result in a cumulative increase exceeding one-half foot ($^1/_2$') in base flood elevation, after the allowable encroachment into the floodway. A "no rise" certification signed by a registered professional engineer shall be provided by the applicant.

4. Buried or suspended utility transmission lines, provided that:

a. Suspended utility transmission lines are designed such that the lowest point of the suspended line is at least six feet (6') higher than the elevation of the flood of 100-year frequency;

b. Towers and other appurtenant structures are designed and placed to withstand and offer minimal obstruction to flood flows;

c. When technically feasible, the crossing will not disturb the bed and banks of the stream and alternatives such as alternative routes, directional drilling, and aerial crossings are considered; and

d. Utility transmission lines carrying toxic or flammable materials are buried to a depth of at least twice the calculated maximum depth of scour for a flood of 100-year frequency. The maximum depth of scour may be determined from any of the accepted hydraulic engineering methods, but the final calculated figures shall be subject to approval by the floodplain administrator.

5. Storage of materials and equipment provided that:

a. The material or equipment is not subject to major damage by flooding and is properly anchored to prevent flotation or downstream movement; and

b. The material or equipment is readily removable within the limited time available after flood warning. Storage of flammable, toxic or explosive materials shall not be permitted.

6. Irrigation, livestock and domestic water supply wells, provided that:

a. They are driven or drilled wells located on ground higher than surrounding ground to assure positive drainage from the well;

b. They require no other structures (e.g., a well house);

c. Well casings are watertight to a distance of at least twenty five feet (25') below the ground surface;

d. Water supply and electrical lines have a watertight seal where the lines enter the casing;

e. All pumps and electrical lines and equipment are either of the submersible type or are adequately floodproofed;

f. Check valves are installed on main water lines at wells and at all building entry locations; and

g. Irrigation and livestock supply wells are located at least five hundred feet (500') from domestic water supply wells.

7. Only those wastewater disposal systems that meet the requirements and separation distances under ARM 17.36.101-116 and ARM 17.36.301-345 are allowed.

8. Fences crossing channels.

9. Residential uses not requiring buildings such as lawns, gardens, parking areas and play areas.

10. Public or private recreational uses not requiring structures such as campgrounds, golf courses, driving ranges, archery ranges, wildlife management and natural areas, alternative livestock ranches (game farms), fish hatcheries and shooting preserves provided that:

a. Access roads require only limited fill and do not obstruct or divert floodwaters;

b. There are no dwellings or permanent mobile homes;

c. There is no rise in the BFE;

d. Off property impacts have been considered and found to be nonexistent, neutral or can be mitigated;

e. There is no large scale clearing of riparian vegetation within fifty feet (50') of the mean annual high water mark; and

f. Recreational vehicles and travel trailers are licensed and ready for highway use. They are ready for highway use if on wheels or jacking system with wheels intact, are attached to the site with only quick disconnect type utilities and securing devices, and have no permanently attached additions.

11. Structures accessory to the uses permitted in this section, such as boat docks, loading and parking areas, marinas, emergency airstrips, permanent fences crossing channels, picnic shelters and tables, provided that:

a. The structures are not intended for human habitation or supportive of human habitation;

b. The structures will have low flood damage potential as certified by a registered professional engineer on a "no rise" certificate;

c. The structures will, insofar as possible, be located on ground higher than the surrounding ground and as far from the channel as possible;

d. Only those wastewater disposal systems that meet the requirements and separation distances under ARM 17.36.101-116 and ARM 17.36.301-345 are allowed;

e. Service facilities within these structures such as electrical, heating and plumbing are floodproofed in accordance with chapter 6 of this title;

f. The structure will be constructed and placed so as to offer a minimal obstruction to flood flows and is firmly anchored to prevent flotation;

g. The use does not require fill and/or substantial excavation; and

h. The use does not require the large scale clearing of riparian vegetation within fifty feet (50') of the mean annual high water mark.

12. Replacement of manufactured homes in an existing manufactured home park, sites outside of a park or subdivision, or subdivision on a developed site of the same dimensions with servicing utilities. (Previous home could have been destroyed by fire, flood, etc.) The replacement home must be elevated on a permanent foundation so the lowest floor is two feet (2') above the base flood elevation. The foundation must be reinforced concrete, reinforced mortared block, reinforced piers, or other foundation elements of equal strength. The mobile home chassis must be securely anchored to the foundation system so that it will resist flotation, collapse or lateral movement. Methods of anchoring may include, but are not limited to:

a. Over the top ties to ground anchors be provided at each of the four (4) corners of the mobile home, with two (2) additional ties per side at intermediate locations for mobile homes less than fifty feet (50') long;

b. Frame ties to ground anchors be provided at each corner of the home with five (5) additional ties per side at intermediate points, for mobile homes more than fifty feet (50') long;

c. All components of the anchoring system be capable of carrying a force of four thousand eight hundred (4,800) pounds;

d. Any additions to the mobile home must be similarly anchored; and

e. Adequate surface drainage and access for a hauler are provided.

13. Agricultural structures (except buildings, dwellings and fuel storage) that will have low flood damage potential, or be located on higher ground and as far from the channel as possible, and meet the floodproofing requirements of chapter 6 of this title.

14. New surface water diversions and changes in place of diversion for agricultural uses and other uses, with certification by a registered engineer if:

a. The proper permits or documentation have been obtained from DNRC water rights bureau for new surface water diversions and changes in place of diversion;

b. The proposed diversion or change in place of diversion will not increase the upstream elevation of the base flood one-half foot ($^1/_2$') or more or to the detriment of a neighboring property;

c. The proposed diversion is designed and constructed to minimize potential erosion from a base flood;

d. For a permanent diversion structure crossing the full width of the stream channel:

(1) All other options should be studied and considered first;

(2) The structure is designed and constructed to withstand up to a base flood; and

(3) The diversion is not an obstruction to the passage of watercraft or fish.

15. The following flood control measures certified by a registered professional engineer to comply with the conditions set forth (structural flood control works often significantly obstruct and affect floodway flow capacity):

a. Levees and floodwalls (new, reconstruction and/or maintenance) if:

(1) The proposed levee or floodwall is designed and constructed to safely convey a 100-year flood; and

(2) The cumulative effect of the levee or floodwall combined with allowable flood fringe encroachments does not increase the unobstructed base flood elevation more than one-half foot ($^1/_2$'). The floodplain administrator may establish either a lower or higher permissible increase in the base flood elevation for individual levee projects only with concurrence from the Montana department of natural resources and conservation and the federal emergency management agency based upon consideration of the following criteria:

(A) The estimated cumulative effect of any anticipated future permissible uses; and

(B) The type and amount of existing development in the affected area.

(3) The proposed levee or floodwall, except those to protect agricultural land, is constructed at least three feet (3') higher than the base flood elevation.

(4) For levee structures to be recognized on a FEMA map as providing flood protection, the structure must meet the criteria outlined in 44 CFR 65.10. Without the criteria being met, the area behind the uncertified structure will be shown to be in the floodplain of the flood source (river).

b. Bank stabilization projects, such as hand placed riprap, native revetments, weirs, barbs, etc., if:

(1) It is designed to withstand a 100-year flood;

(2) It does not increase the base flood elevation;

(3) It will not increase erosion upstream, downstream, or adjacent to the site;

(4) Consideration will be given to accommodate the safe passage of watercraft in low flows; and/or

(5) It is preventive maintenance for bridge abutments, roads, industrial uses and public infrastructure.

c. Channelization projects if they do not significantly increase the magnitude, velocity, or base flood elevation in the proximity of the project.

d. Dams provided that:

(1) They are designed and constructed in accordance with the Montana dam safety act and applicable safety standards; and

(2) They will not increase flood hazards downstream either through operational procedures or improper hydrologic/ hydraulic design.

16. All other artificial obstructions, substantial improvements, or non-conforming uses not specifically listed in or prohibited by these regulations.

C. Prohibited Uses: The following artificial obstructions and non-conforming uses are prohibited within the floodway:

A building, dwelling or structure for living purposes, place of assembly or permanent use by human beings.

Cemeteries, mausoleums, or any other places of burial of human remains.

Encroachments, including fill, new construction, buildings, substantial improvements, excavations and other development that would cause water to be diverted from the established floodway, erosion of embankment, obstruction of the natural flow of waters, reduce the carrying capacity of the floodway or increase flood levels within the community during the occurrence of the 100-year flood.

Mobile homes and manufactured homes.

New construction of any residential dwelling, commercial or industrial building.

Only those wastewater disposal systems that meet the requirements and separation distances under ARM 17.36.101-116 and ARM 17.36.301-345 are allowed.

Storage and disposal of solid waste, hazardous waste, toxic, flammable, or explosive materials.

The construction or permanent storage of an object subject to flotation or movement during the 100-year flood. (Ord. 07-26, 8-6-2007)

14-5-4: FLOOD FRINGE:

A. Uses Allowed Without Permits: All uses allowed in the floodway without permit according to the provisions of this title, shall also be allowed without a permit in the flood fringe.

B. Uses Requiring Permits: All uses allowed in the floodway subject to the issuance of a permit according to the provisions of this title shall also be allowed by permit within the designated flood fringe. In addition, new construction, substantial improvements, alterations to structures (including, but not limited to, residential, commercial, agricultural and industrial), and suitable fill shall be allowed subject to the following conditions:

1. Not Be Prohibited: Such structures or fill must not be prohibited by any other statute, regulation, ordinance, or resolution;

2. Compatible With Local Comprehensive Plan: Such structures or fill must be compatible with local comprehensive plans, if any;

3. Residential: The new construction, alterations, and substantial improvements of residential dwellings including manufactured homes must be constructed on suitable fill with a permanent foundation such that the lowest floor elevation (including basement) is two feet (2') or more above the BFE (base flood elevation). The suitable fill shall be at an elevation no lower than the elevation of the 100-year flood and shall extend for at least fifteen feet (15'), at that elevation, beyond the dwelling(s) in all directions. Replacement manufactured and mobile homes in an existing mobile home park or subdivision may, instead of using suitable fill, be elevated on a concrete or mortared block foundation, or other suitable permanent foundation, and anchored to prevent flotation or downstream movement;

4. Nonresidential: The new construction, alteration, and substantial improvement of commercial and industrial buildings must be constructed on suitable fill with a permanent foundation such that the lowest floor elevation (including basement) is two (2) or more feet above the BFE (base flood elevation), or the building must be adequately floodproofed to an elevation no lower than two feet (2') above the elevation of the 100-year flood. Certification is required by registered professional engineer, architect, or other qualified person that floodproofing methods are adequate to withstand the flood depths, hydrodynamic and hydrostatic pressures, velocities, impact, buoyancy, and uplift forces associated with the 100-year flood (see chapter 6 of this title):

a. If the building is designed to allow internal flooding of the lowest floor, use of the lowest floor must be limited to parking, loading areas, and storage of equipment or materials not appreciably affected by floodwaters. The floors and walls shall be designed and constructed of materials resistant to flooding to an elevation no lower than two feet (2') above the BFE. Walls shall be designed to equalize hydrostatic forces by allowing for entry and exit of floodwaters. Openings may be equipped with screens, louvers, valves, and other coverings or devices which permit the automatic entry and exit of floodwaters.

b. Buildings whose lowest floors are used for a purpose other than parking, loading, or storage of materials resistant to flooding shall be waterproofed to an elevation no lower than two feet (2') above the BFE. Floodproofing shall include impermeable membranes or materials for floors and walls and watertight enclosures for all windows, doors and other openings. These buildings shall be designed to withstand the hydrostatic pressures and hydrodynamic forces resulting from the base flood.

c. Floodproofing of electrical, heating and plumbing systems shall be accomplished in accordance with chapter 6 of this title.

5. Manufactured Homes: All manufactured homes placed in the flood fringe shall be installed using methods and practices which minimize flood damage and must have the chassis securely anchored to a foundation system that will resist flotation, collapse, or lateral movement. Methods of anchoring may include, but are not limited to, over the top or frame ties to ground anchors. This requirement is in addition to applicable state and local anchoring requirements for resisting wind forces. The following conditions also apply:

a. When a manufactured home is: 1) altered, 2) replaced because of substantial damage as a result of a flood or 3) replaced on an individual site, the lowest floor must be elevated two feet (2') above the base flood elevation. The home can be elevated on fill or raised on a permanent foundation of reinforced concrete, reinforced mortared block, reinforced piers, or other foundation elements of at least equivalent strength.

b. Replacement or substantial improvement of manufactured homes in an existing manufactured home park, site outside a manufactured home park or subdivision, or subdivision must be raised on a permanent foundation. The lowest floor must be two feet (2') above the base flood elevation. The foundation must consist of reinforced

concrete, reinforced mortared block, reinforced piers, or other foundation elements of at least equivalent strength.

c. Manufactured homes proposed for use as commercial or industrial buildings must be elevated and anchored, rather than floodproofed.

6. Fill Material: Fill material placed in the flood fringe must be stable, compacted, well graded, pervious, generally unaffected by water and frost, devoid of trash or similar foreign matter, devoid of tree stumps or other organic material, and appropriate for the purpose of supporting the intended use and/or permanent structure;

7. Roads, Streets, Highways And Rail Lines: Roads, streets, highways and rail lines shall be designed to minimize any increase in flood heights. Where failure or interruption of transportation facilities would result in danger to the public health or safety, the facility shall be located two feet (2') above the elevation of the 100-year flood;

8. Agricultural Buildings: Agricultural buildings that have a low damage potential, such as sheds, barns, shelters, and hay or grain storage structures must be adequately anchored to prevent flotation or collapse and all electrical facilities shall be placed two feet (2') above the base flood elevation;

9. Recreational Vehicles: Recreational vehicles must meet the following requirements:

a. Be on the site for fewer than one hundred eighty (180) consecutive days, or

b. Be fully licensed and ready for highway use, or

c. Meet the permit requirements of subsection B5b of this section, and the elevation and anchoring requirements for "manufactured homes" in subsection B5 of this section. A recreational vehicle is ready for highway use if it is on its wheels or jacking system, is attached to the site only by quick disconnect type utilities and security devices, and has no permanently attached additions.

10. Enclosures: New construction and substantial improvements, with fully enclosed areas below the lowest floor that are usable solely for parking of vehicles, building access or storage in an area other than a basement and which are subject to flooding shall be designed to automatically equalize hydrostatic flood forces on

exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or meet or exceed the following minimum criteria:

a. A minimum of two (2) openings on separate walls having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided.

b. The bottom of all openings shall be no higher than one foot (1') above grade.

c. Openings may be equipped with screens, louvers, valves, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.

11. No Large Scale Clearing: Proposed development shall not have a large scale clearing of riparian vegetation within fifty feet (50') of the mean annual high water mark.

C. Prohibited Uses: The following artificial obstructions and non-conforming uses are prohibited within the flood fringe:

Cemeteries, mausoleums, or any other places of burial of human remains.

Only those wastewater disposal systems that meet the requirements and separation distances under ARM 17.36.101-116 and ARM 17.36.301-345 are allowed.

Storage and disposal of solid waste, hazardous waste, toxic, flammable, or explosive materials. (Ord. 07-26, 8-6-2007)

14-5-5: STANDARDS FOR SUBDIVISION PROPOSALS:

A. Review subdivision proposals and other development, including manufactured home parks or subdivisions, to determine whether such proposals will be reasonably safe from flooding. If a subdivision or other development proposal is in a flood prone area, assure that such proposals minimize flood damage.

B. Base flood elevation data shall be generated for subdivision proposals and other proposed development including the placement of manufactured home parks and subdivisions which is greater than

fifty (50) lots or five (5) acres, whichever is less, if not otherwise provided pursuant to section 14-3-2 or subsection 14-4-2G of this title.

C. All subdivision proposals including the placement of manufactured home parks and subdivisions shall have adequate drainage provided to reduce exposure to flood hazards.

D. All subdivision proposals including the placement of manufactured home parks and subdivisions shall have public utilities and facilities such as sewer, gas, electrical and water systems located and constructed to minimize or eliminate flood damage. (Ord. 07-26, 8-6-2007)

14-5-6: SHALLOW FLOODING (AO ZONES):

A. Delineation: Shallow flooding areas are delineated as "AO zone" floodplains on the flood insurance rate maps. The provisions of section 14-5-4, "Flood Fringe", of this chapter shall apply to any AO zone floodplains. The depth of the 100-year flood is indicated as the depth number on the flood insurance rate maps. The 100-year flood depth shall be referenced to the highest adjacent grade or stream flow line in determining which fill or floodproofing heights to use in applying the provisions of section 14-5-4 of this chapter. In the absence of depth or elevation information, a minimum two foot (2') flood depth shall be used.

B. Floodplain Boundary Interpretation: The floodplain administrator shall make interpretations where needed as to the exact location of an AO zone floodplain boundary when there is a conflict between a mapped boundary and actual field conditions. (Ord. 07-26, 8-6-2007)

CHAPTER 6

FLOODPROOFING REQUIREMENTS

SECTION:

14-6-1: Certification
14-6-2: Conformance

14-6-1: **CERTIFICATION:** If the following floodproofing requirements are to be utilized for a particular structure in accordance with these regulations, the methods used must be certified as adequate by a registered professional engineer, architect, or other qualified person. (Ord. 07-26, 8-6-2007)

14-6-2: **CONFORMANCE:** Permitted floodproofing systems shall conform to the conditions listed below and the floodproofing standards listed in subsection 14-5-3B4 of this title for commercial and industrial buildings:

A. Electrical Systems:

1. All incoming power service equipment, including all metering equipment, control centers, transformers, distribution and lighting panels, and all other stationary equipment must be located at least two feet (2') above the elevation of the 100-year flood.

2. Portable and movable electrical equipment may be placed below the elevation of the 100-year flood, provided that the equipment can be disconnected by a single plug and socket assembly of the submersible type.

3. The main power service lines shall automatically operate electrical disconnect equipment of manually operated electrical disconnect equipment located at an accessible remote location outside the designated floodplain and above the elevation of the 100-year flood.

4. All electrical wiring systems installed below the elevation of the 100-year flood shall be suitable for continuous submergence and may not contain fibrous components.

B. Heating Systems:

1. Float operated automatic control valves must be installed in gas furnace supply lines so that fuel supply is automatically shut off when floodwaters reach the floor level where the furnace is located.

2. Manually operated gate valves must be installed in gas supply lines. The gate valves must be operable from a location above the elevation of the 100-year flood.

3. Electric heating systems must be installed in accordance with the provisions of subsection A of this section.

C. Plumbing Systems:

1. Sewer lines, except those to be buried and in sealed vaults, must have check valves installed to prevent sewage backup into permitted structures.

2. All toilets, stools, sinks, urinals, and drains must be located so the lowest point of possible entry is at least two feet (2') above the 100-year flood elevation. (Ord. 07-26, 8-6-2007)

CHAPTER 7

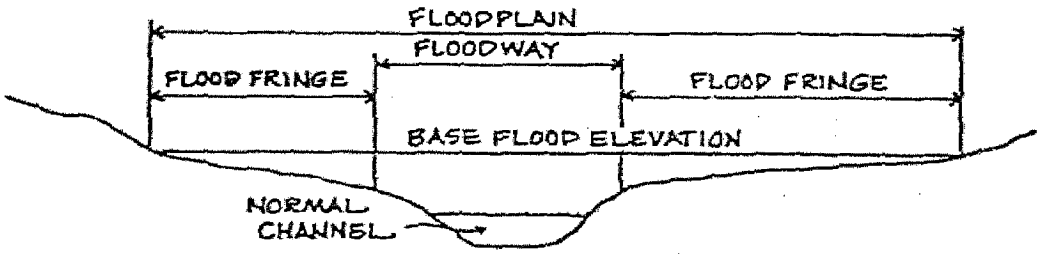
APPENDICES

SECTION:

14-7-1: Appendix A; Sketches Of Floodplain Zones

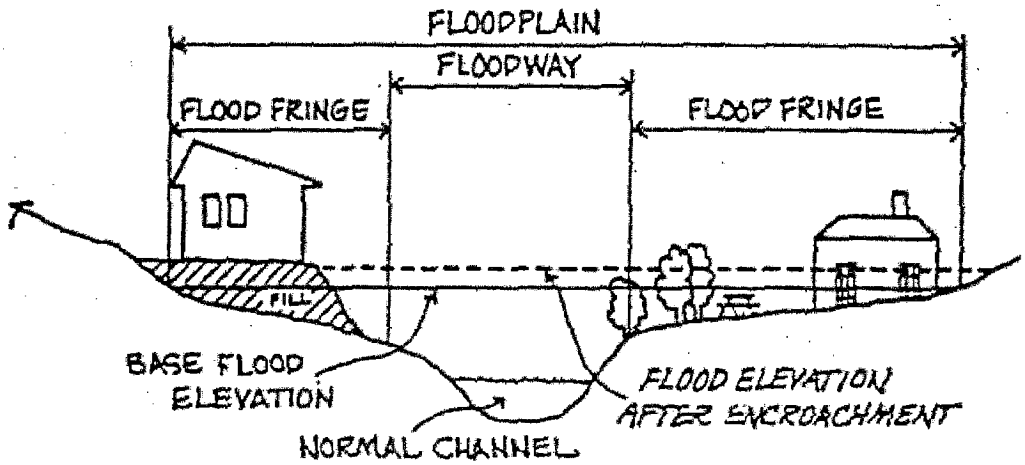
14-7-1: APPENDIX A; SKETCHES OF FLOODPLAIN ZONES:

CROSS SECTIONAL VIEW
NO DEVELOPMENT

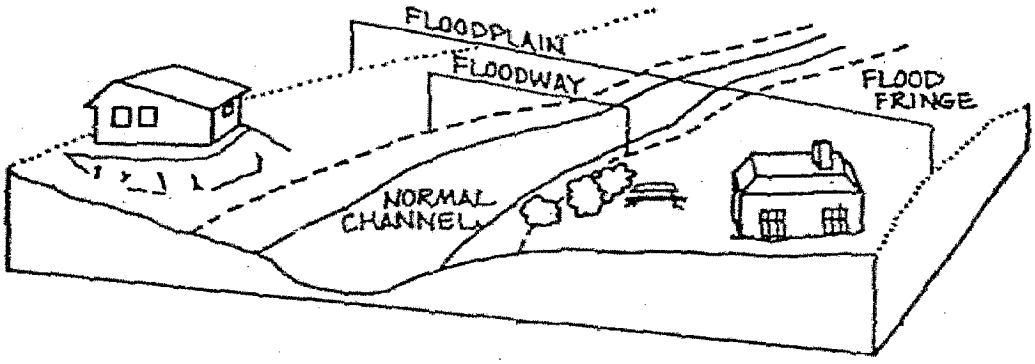


CROSS SECTIONAL VIEW
WITH EXISTING AND NEW DEVELOPMENT

PERSPECTIVE VIEW



NEW DEVELOPMENT SITE REQUIREMENTS



(Ord. 07-26, 8-6-2007)

2014 MODEL REGULATIONS

September 3, 2013
Revision February 20, 2014

FLOODPLAIN HAZARD MANAGEMENT REGULATIONS

MONTANA DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION
WATER RESOURCES DIVISION
1424 9TH Avenue
P.O. Box 201601
Helena, Montana 59620-1601

http://www.mtfloodplain.mt.gov

2014 Model Regulations
Purpose and Considerations

PURPOSE:

- Provide communities with current (2013) Model Regulations; the 1989, 1990, 1992 and 2006 versions are obsolete. Draft versions of the 2014 Model were utilized in 2012 and 2013 by several communities and should be updated.
- Provides a model and template for local land use regulations for local floodplain hazard management.
- Communities participating in the National Flood Insurance Program are required to have up to date floodplain management regulations.
- Includes State and FEMA minimum procedural and development standards.

CONSIDERATIONS:

- Substantial adherence to the Model will facilitate reviews by DNRC and FEMA.
- Legal cites to supporting federal and state statutes and regulations are noted in the Model and are for reference during drafting and should be removed before final adoption. The information within the boxes is informational and should be removed as well.
- Communities may adopt higher standards pursuant to 76-5-301(1), MCA and are denoted as "(Higher Standard)" following the specific regulation in this model. Higher standards as well as those suggested in the Model may have health and safety as well as economic and ecological benefits to the community. Those communities may have to make findings of fact when adopting floodplain management regulations as to why the higher standards are appropriate in their community.
- The Regulated Flood Hazard Area is required to be specifically described and updated if necessary.
- Local regulations require local notice and adoption.
- The special review panel needs to be specified in the Variance and Administrative Appeals Sections.

- DNRC must find the local Floodplain Hazard Mitigation Regulations are adequate before local adoption, allow 30 days for review.
- FEMA Region VIII must find the regulations adequate and acceptable before community adoption as well, allow 30 days for review.
- Local regulations are required to be updated to the current State and FEMA minimum regulatory standards within 6 months of a State or FEMA revision or update to the Regulated Flood Hazard Area.
- Adopting the requirements by regulation, resolution or ordinance as the appropriate vehicle must be determined by the political subdivision.

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SECTION 1. TITLE, PURPOSE, AUTHORITY AND GENERAL PROVISIONS

1.1 FLOODPLAIN HAZARD MANAGEMENT REGULATIONS

These regulations are known and may be cited as the "Floodplain Hazard Management Regulations;" hereinafter referred to as "these regulations."

1.2 STATUTORY AUTHORITY

1. Floodplain and Floodway Management is incorporated in Montana Code Annotated (MCA) Title 76, Chapter 5 and describes the authority, procedures and minimum standards for local regulations and is further described in Montana Administrative Rule (ARM) 36, Chapter 15.

2. The authority to regulate development in specifically identified flood hazard areas has been accepted pursuant to 76-5-301, MCA.

1.3 FINDINGS OF FACT

1. Flood hazard areas specifically adopted herein as Regulated Flood Hazard Areas have been delineated and designated by order or determination of the Department of Natural Resources and Conservation (DNRC) pursuant to MCA 76-5-201 et.seq.
2. These regulations have been reviewed by Montana Department of Natural Resources and Conservation and the Federal Emergency Management Agency. The Montana Department of Natural Resources and Conservation has found the regulations acceptable in meeting the Department minimum standards. The Federal Emergency Management Agency finds that these regulations are adequate and consistent with the comprehensive criteria for land management and use pursuant to the standards established in 44 CFR 60.3. (76-5-302, MCA, ARM 36.15.202, 44 CFR60.1(b), 42USC 4022)

1.4 PURPOSE

The purpose of these regulations is to promote public health, safety and general welfare of the residents and minimize public and private losses due to flood conditions in Regulated Flood Hazard Areas. These Regulations are intended to:

1. Protect human life and health;

2. Minimize expenditure of public money for costly flood control projects;

3. Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;

4. Minimize prolonged business and public service interruptions;

5. Minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets and bridges;

6. Help maintain a stable tax base by providing for the sound use and development of flood-prone areas in such a manner as to minimize future flood disruptions; and to

7. Ensure compliance with the minimum standards for the continued participation in the National Flood Insurance Program for the benefit of the residents.

1.5 METHODS TO REDUCE LOSSES

In accordance with 76-5-102, MCA, these regulations are intended to reduce flood losses through the following methods:

1. Restrict or prohibit uses that are dangerous to health, safety or property in times of flooding or that may cause excessive increases in flood heights or velocities;
2. Require that uses of land vulnerable to floods, including public facilities, be developed or constructed to at least minimum standards or to otherwise minimize flood damage;
3. Regulate the alteration of natural floodplains, stream channels, and natural protective barriers which are needed to accommodate floodwaters;
4. Regulate filling, grading, dredging and other development which may increase flood damage;
5. Prevent or regulate the construction of flood barriers which will impact other land, flood water depth or velocity of floodwaters;
6. Distinguish between the land use regulations applied to the floodway within the Regulated Flood Hazard Area and those applied to that portion of the Regulated Flood Hazard Area not contained in the floodway;
7. Apply more restrictive land use regulations within the floodway of the Regulated Flood Hazard Area; and
8. Ensure that regulations and minimum standards balance the greatest public good with the least private injury.

1.6 REGULATED AREA

These regulations apply only to the flood hazard areas specifically adopted herein as Regulated Flood Hazard Areas which are more fully and specifically described in Section 4. Requirements and approvals for alterations to the Regulated Flood Hazard Area are specified in Section 4. The Regulated Flood Hazard Area includes areas specifically identified, labeled and illustrated on maps such as Floodplain, Floodway, or Flood Fringe that have differing uses allowed and minimum building standards that apply. The Regulated Flood Hazard Area is the geographic area inundated by the Flood of 100-year Frequency illustrated and depicted in the referenced studies and maps.

The Regulated Flood Hazard Area supporting study and maps illustrating the regulatory area are based on studies and maps that have been specifically adopted pursuant to 76-5-201et.seq. The maps and accompanying study become the Regulated Flood

Hazard Area only when formally adopted by DNRC and subsequently by the political subdivision by these regulations. The original source of studies and data may be from a Flood Insurance Study by FEMA, or other studies by Corps of Engineers, Soil Conservation, United States Geological Service or other federal or state agency.

1.7 FLOODPLAIN ADMINISTRATOR

A Floodplain Administrator is hereby officially appointed and is the responsibility of the office of _____. The Floodplain Administrator's duty is to administer and implement the provisions of these regulations. The Floodplain Administrator must serve to meet and maintain the commitments pursuant to 44 CFR 59.22(a) to FEMA to remain eligible for National Flood Insurance for individuals and business within the political subdivision. ((44 CFR 59.22(b)(1)) (ARM 36.15.204(2)(h))

1.8 COMPLIANCE Development, New Construction, Alteration or Substantial Improvement may not commence without full compliance with the provisions of these regulations.

1.9 ABROGATION AND GREATER RESPONSIBILITY

It is not intended by these regulations to repeal, abrogate, or impair any existing easements, covenants, deed restrictions, zoning or other regulations in effect. However, where these regulations impose greater restrictions, the provision of these regulations must prevail. (44 CFR 60.1(d))

1.10 REGULATION INTERPRETATION

In the interpretation and application of these regulations, all provisions shall be: (1) considered as minimum requirements; (2) liberally construed in favor of the governing body; and (3) deemed neither to limit nor repeal any other powers granted under state statutes. (44 CFR 60.1)

1.11 WARNING AND DISCLAIMER OF LIABILITY

These regulations do not imply that land outside the Regulated Flood Hazard Areas or uses permitted within such areas will be free from flooding or flood damages. These regulations shall not create liability on the part of the community or any official or employee thereof for any flood damages that result from reliance on these regulations or any administrative decision lawfully made hereunder.

1.12 SEVERABILITY

If any section, clause, sentence, or phrase of these regulations is held to be invalid or unconstitutional by any court of competent jurisdiction, then said holding will in no way affect the validity of the remaining portions of these regulations.

1.13 DISCLOSURE PROVISION

All property owners or their agents in the Regulated Flood Hazard Areas shall notify potential buyers or their agents that such property, including any permitted uses transferred, is located within the Regulated Flood Hazard Area and is subject to regulation and any permitted uses that are transferred. Information regarding

Regulated Flood Hazard Area and the repository for Floodplain maps is available in the Floodplain Administrator's office.
(ARM 36.15.204(2)(g))

1.14 AMENDMENT OF REGULATIONS

These regulations may be amended after notice and public hearing in regard to the amendments to these regulations. The amendments must be found adequate and acceptable by DNRC and FEMA to be effective and must be submitted for review at least 30 days prior to official adoption.

1.15 PUBLIC RECORDS

Records, including permits and applications, elevation and flood proofing certificates, certificates of compliance, fee receipts, and other matters relating to these regulations must be maintained by the Floodplain Administrator and are public records and must be made available for inspection and for copies upon reasonable request. A reasonable copying cost for copying documents for members of the public may be charged and may require payments of the costs before providing the copies. (44 CFR 60.3(b)(5)(iii) & 44 CFR 59.22 (a)(9)(iii))

1.16 SUBDIVISION REVIEW

Within the Regulated Flood Hazard Area, subdivisions including new or expansion of existing manufactured home parks, must be designed to meet the following criteria:

1. The Base Flood Elevations and boundary of the Regulated Flood Hazard area must be determined and considered during lot layout and building location design;

2. Locations for future structures and development must be reasonably safe from flooding; (44CFR 60.3(a)(4))

3. Adequate surface water drainage must be provided to reduce exposure to flood hazards; (44 CFR 60.3 (a)(4)(iii))

4. Public utilities and facilities such as sewer, gas, electrical and water systems must be located and constructed to minimize or eliminate flood damage; and (44 CFR 60.3(a)(4)(ii))

5. Floodplain permits must be obtained according to these regulations before development occurs that is within the Regulated Flood Hazard Area. (44 CFR 60.3(b))

FOR INFORMATIONAL PURPOSES ONLY Consider a companion regulation in the subdivision regulations.

FOR INFORMATIONAL PURPOSES ONLY

The National Flood Insurance Program (NFIP) program standard for community Floodplain management ordinances specifies that the local government is to consider flood hazards when reviewing and approving subdivisions within the Special Flood Hazard Area. Floodplain Administrators should check their subdivision ordinances to ensure flood hazards outside of Regulated Flood Hazard Areas are addressed in development proposals. For example, the Montana Model Subdivision Regulations suggests that for any portion of a proposed subdivision that is within 2,000 horizontal feet and 20 vertical feet of a stream draining an area of 25 square miles or more, where no official floodplain studies of the stream have been made, the subdivider may be required to conduct a flood hazard evaluation study. The Montana Department of Natural Resources and Conservation may, if requested, review the flood hazard analysis on the merit of its technical adequacy and make a recommendation back to the Floodplain Administrator. A technical review by DNRC is not intended to be a formal designation of a floodplain or floodway pursuant to MCA 76-5-201 et.seq. for floodplain management regulatory purposes unless specifically requested and subsequently adopted by DNRC.

1.17 DISASTER RECOVERY

In the event of a natural or man-made disaster, the Floodplain Administrator should participate in the coordination of assistance and provide information to structure owners concerning Hazard Mitigation and Recovery measures with the Federal Emergency Management Agency, Montana Disaster Emergency Services, Montana Department of Natural Resources and Conservation, and other state, local and private emergency service organizations.

Upon completion of cursory street view structure condition survey within the Regulated Flood Hazard Area, the Floodplain Administrator shall notify owners that a permit may be necessary for an alteration or substantial improvement before repair or reconstruction commences on damaged structures because of damages caused by natural or man-made disasters such as floods, fires or winds.

Owners should be advised that structures that have suffered substantial damage and will undergo substantial improvements require a floodplain application and permit and must be upgraded to meet the minimum building standards herein during repair or reconstruction.((MCA 76-5-404(3)(b) (ARM 36.15.702) (44 CFR 60.3(c)(2 and 3))

SECTION 2. DEFINITIONS

FOR INFORMATIONAL PURPOSES ONLY

There is a large list of definitions of terms and nomenclature normally used in floodplain hazard management guidelines and explanations. Be aware the same word may mean something different when applied to flood insurance, minimum standards, or a regulatory requirement.

The definitions in 76-5-103, MCA and ARM 36.15.101 where applicable may be considered however several of those definitions are specifically for describing the role and responsibility of the DNRC in regard to development and adoption of flood hazard studies and map and other responsibilities.

FEMA definitions 44 CFR 59.1 may be considered. Definitions are used to describe the FEMA minimum standards for floodplain management if communities want to join the National Flood Insurance Program so individuals and businesses are eligible for flood insurance in that community. However, some definitions are specifically for insurance purposes under the National Flood Insurance Program.

Another source of information including definitions is the FEMA National Flood Insurance Manual.

Unless specifically defined below, words or phrases used in these regulations shall be interpreted as to give them the meaning they have in common usage and the most reasonable application. For the purpose of these regulations, the following definitions are adopted:

100-year Flood – One percent (1%) annual chance flood. See Base Flood

Alteration – Any change or addition to an artificial obstruction that either increases its external dimensions or increases its potential flood hazard. (ARM 36.15.101(2))

Appurtenant Structure – A structure in which the use is incidental or accessory to the use of a principal structure. (44 CFR 59.1)

Artificial Obstruction – Any obstruction which is not natural and includes any development, dam, diversion, wall, riprap, embankment, levee, dike, pile, abutment, projection, revetment, excavation, channel rectification, road, bridge, conduit, culvert, building, refuse, automobile body, fill or other analogous structure or matter in, along, across, or projecting into any Regulated Flood Hazard Area that may impede, retard, or change the direction of the flow of water, either in itself or by catching or collecting debris carried by the water, or that is placed where the natural flow of the water would carry the same downstream to the damage or detriment of either life or property. See also Development. (ARM 36.15.101(3) & MCA 76-5-103(1))

Base Flood (Flood of 100 Year Frequency) – A flood having a one percent (1%) chance of being equaled or exceeded in any given year (ARM 36.15.101(4) & (44 CFR 59.1)

Base Flood Elevation (BFE) – The elevation above sea level of the Base Flood in relation to the National Geodic Vertical Datum of 1929 or the North American Vertical Datum of 1988 or unless otherwise specified. (ARM 36.15.101(5))

Basement – Any area of a building, except a crawl space, as having its Lowest floor below ground level on all sides. (44 CFR 59.1) (NFIP Insurance Manual, Rev. May 2013)

Building – A walled and roofed structure, including a gas or liquid storage tank that is principally above ground, as well as a manufactured home. (44 CFR 59.1)

Channel – The geographical area within either the natural or artificial banks of a watercourse or drain way. (MCA 76-5-103(2))

Crawl Space – An enclosure that has its interior floor area no more than 5 feet below the top of the next highest floor. See Enclosure and Sub grade Crawlspace. (NFIP Insurance Manual, Rev. May 2013)

DNRC – Montana Department of Natural Resources and Conservation

Development –Any man-made change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations or storage of equipment or materials. See also Artificial Obstruction. (44 CFR59.1)

Elevated Building – A building that has no Basement and that has it lowest elevated floor raised above ground level by foundation walls, shear walls, posts, piers, pilings or columns. A building on a crawlspace is considered an elevated building. (NFIP Insurance Manual, Rev. May 2013)

Enclosure – That portion below the lowest elevated floor of an elevated building that is either partially or fully shut in by rigid walls including a crawlspace, sub grade crawlspace, stairwell, elevator or a garage below or attached.

Encroachment – Activities or construction within the Regulated Flood Hazard Area including fill, new construction, substantial improvements, and other development.

Encroachment Analysis – A hydrologic and hydraulic analysis performed by an engineer to assess the effects of the proposed artificial obstruction or nonconforming use on Base Flood Elevation, flood flows and flood velocities.

Establish – To construct, place, insert, or excavate. (MCA 76-5-103(7) (ARM 36.15.101(9))

Existing Artificial Obstruction or Nonconforming Use – An artificial obstruction or nonconforming use that was established before land use regulations were adopted pursuant to Section 76-5-301(1), MCA. (MCA 76-5-404(3))

FEMA – Federal Emergency Management Agency

Flood Fringe – The identified portion of the Floodplain of the Regulated Flood Hazard Area outside the limits of the Floodway. (ARM 36.15.101(10))

Flood of 100 Year Frequency (Base Flood) – A flood magnitude expected to recur on the average of once every 100-years or a flood magnitude that has a 1% chance of occurring in any given year. (MCA 76-5-103(9)) (44 CFR 59.1)

Floodplain – The area of the Regulated Flood Hazard Area including and adjoining the watercourse or drainway that would be covered by the floodwater of a Base Flood. The area is partitioned into a Flood Fringe and Floodway where specifically designated. See Regulated Flood Hazard Area.

Floodway – The identified portion of the Floodplain of the Regulated Flood Hazard Area that is the channel and the area adjoining the channel that is reasonably required to carry the discharge of the Base Flood without cumulatively increasing the water surface by more than one half foot. (MCA 76-5-103(11)) (MCA 76-5-103(5))

Floodplain Administrator – Community official or representative appointed to administer and implement the provisions of this ordinance.

Flood Proofing – Any combination of structural and non-structural additions, changes, or adjustments to structures which reduce or eliminate flood damage to real estate or improved real property, water and sanitary facilities, electrical, plumbing, HVAC systems, structures and their contents. The term includes wet flood proofing, dry flood proofing and elevation of structures. ((44 CFR 59.1)

Letter of Map Change (LOMC) – An official response from FEMA that amends or revises the FEMA Special Flood Hazard Area and FEMA Flood Insurance Study for flood insurance purposes and/or flood risk hazard. FEMA Letters of Map Change specific to an amendment or revision include:

> **Letter of Map Amendment (LOMA)** – A letter of determination from FEMA issued in response to a request that a property or structure is not subject to the mandatory flood insurance requirement because it was inadvertently located in the effective FEMA Special Flood Hazard Area. The material submitted and response from FEMA may be considered by the Floodplain Administrator for

determining if a property or structure is within the Regulated Flood Hazard area and subject to these regulations.

Letter of Map Revision Based on Fill (LOMR-F) – A letter of approval from FEMA removing the mandatory requirement for flood insurance on property based on placement of fill or an addition. Placement of fill or an addition must be preceded by a permit pursuant to these regulations. Placement of fill does not remove the development from the Regulated Flood Hazard Area or these regulations.

Letter of Map Revision (LOMR) – An official FEMA amendment to the currently effective FEMA Flood Insurance Rate Map or FEMA Flood Boundary Map based on a physical change to the floodplain of the Special Flood Hazard Area. It is issued by FEMA and changes flood zones, delineations, and elevations on the FEMA Flood Insurance Rate Map or FEMA Flood Boundary Map and may amend the FEMA Flood Insurance Study. It must be preceded by an approved alteration of the designated floodplain from DNRC and subsequently an amendment to the Regulated Flood Hazard Area.

Conditional Letter of Map Revision (CLOMR) – A FEMA letter of approval for a proposed physical change that when completed would propose to change the flood zones, delineation or elevations on the FEMA Flood Insurance Rate Map or FEMA Flood Boundary Map and may amend the FEMA Flood Insurance Study through a subsequent LOMR,. The CLOMR may be considered in an evaluation by DNRC and the Floodplain Administrator during consideration of a proposed alteration to the Regulated Flood Hazard Area.

Lowest Floor – Any floor of a building including a basement used for living purposes, storage, or recreation. This includes any floor that could be converted to such a use. ((ARM 36.15.101(14)) (44 CFR 59.1))

Manufactured Home Park or Subdivision – Includes the construction of facilities for servicing the manufactured home lots and at a minimum includes the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads. (44 CFR 59.1)

Manufactured or Mobile Home – A building that may be residential or non-residential, is transportable in one or more sections, built on a permanent chassis, and designed to be used with or without a permanent foundation when connected to the required utilities and includes park trailers, travel trailers, and other similar vehicles placed on a site for greater than 180 consecutive days. (ARM 36.15.101(15))

New Construction – Structures for which the commencement of clearing, grading, filling, or excavating to prepare a site for construction occurs on or after the effective date of these regulations and includes any subsequent improvements to such structures. (ARM 36.15.101(20)) (44 CFR 59.1)

New Manufactured Home Park Or Subdivision – A manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the

manufactured homes are to be affixed includes at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads and is completed on or after the effective date of floodplain management regulations adopted by a community. (44 CFR 59.1)

Non-Residential– Buildings including manufactured homes that are not residential including commercial, agricultural, industrial buildings and accessory buildings. See Residential.

Owner – Any person who has dominion over, control of, or title to an artificial obstruction. (MCA 76-5-103(13))

Person – Includes any individual, or group of individuals, corporation, partnership, association or any other entity, including State and local governments and agencies. (44 CFR 59.1)

Recreational Vehicle – A park trailer, travel trailer, or other similar vehicle which is (a) built on a single chassis; (b) 400 square feet or less when measured at the largest horizontal projections; (c) designed to be self-propelled or permanently towable by a motorized vehicle; and (d) designed primarily for use as temporary living quarters for recreation, camping, travel, or seasonal use, not for use as a permanent dwelling. (44 CFR 59.1)

Regulated Flood Hazard Area – A Floodplain whose limits have been designated pursuant to Part 2, Chapter 5 of Title 76, MCA, and is determined to be the area adjoining the watercourse that would be covered by the floodwater of a Base Flood. The Regulated Flood Hazard Area consists of the Floodway and Flood Fringe where specifically designated. (MCA 76-5-103(4)), (MCA 76-5-103(10), (ARM 36-15-101(11))

Residential Building – A dwelling or building for living purposes or place of assembly or permanent use by human beings and including any mixed use of residential and non-residential use. All other buildings are **non-residential**.

Riprap – Stone, rocks, concrete blocks, or analogous materials that are placed along the bed or banks of a watercourse or drainway for the purpose of preventing or alleviating erosion. (ARM 36.15.101(18))

Scour Depth – The maximum depth of streambed scour caused by erosive forces of the Base Flood.

Special Flood Hazard Area – Land area which has been specifically identified by the Federal Emergency Management Agency as the floodplain within a community subject to a 1 percent or greater chance of flooding in any given year. It is useful for the purposes of identifying flood hazards by local subdivisions of government for regulatory purposes as well as use by the National Flood Insurance Program for establishing risk zones and flood insurance premium rates. The FEMA flood hazard area zone

designation or flood risk potential is as illustrated on FEMA's Flood Hazard Boundary Map or Flood Insurance Rate Map.

Structure – Any Artificial Obstruction.

Sub grade Crawlspace – A Crawlspace foundation enclosure that has its interior floor no more than 5 feet below the top of the next higher floor and no more than 2 feet below the lowest adjacent grade on all sides. A foundation exceeding either dimension is a Basement. (NFIP Insurance Manual, Rev. May 2013)

Substantial Damage – Damage of any origin sustained by a structure whereby the cost of restoring the structure to its before-damaged condition would exceed 50 percent of the market value of the structure before the damage occurred. (44 CFR 59.1)

Substantial Improvement – Any repair, reconstruction or improvement of a structure where the cost equals or exceeds fifty percent (50) of the market value of the structure either before the improvement or repair is started or if the structure has been damaged, and is being restored, before the damage occurred;

1. Substantial improvement is considered to occur when the first construction of any wall, ceiling, floor or other structural part of the building commences;

2. The term does not include:

1. Any project for improvement of a structure to comply with existing state or local health, sanitary, or safety code specifications which are solely necessary to assure safe living conditions; or
2. Any alteration of a structure listed on the national register of historic places or state inventory of historic places. (ARM 36.15.101(21)) (44 CFR 59.1))

Suitable Fill – Fill material which is stable, compacted, well graded, and pervious, not adversely affected by water and frost, devoid of trash or similar foreign matter, tree stumps or other organic material; and is fitting for the purpose of supporting the intended use and/or permanent structure. (ARM 36.15.101(22))

Variance – Means a grant or relief from the development requirements of these regulations which would permit construction in a manner that would be otherwise prohibited by these regulations by an approval pursuant Section 12. (ARM 36.15.101(23))

Violation – A finding and order pursuant to the regulations against the owner or responsible party of the failure of a structure or other development to be fully compliant with these regulations. (44 CFR 59.1)

SECTION 3. FORMS AND FEES

3.1 Forms The following forms may be required by the Floodplain Administrator:

1. **Floodplain Permit Application Form** –The "Joint Application for Proposed Work in Montana's Steams, Wetlands, Regulated Flood Hazard Areas, and Other Water Bodies", or other designated application form. A completed FEMA MT-1 form may be required to accompany the application when required by the Floodplain Administrator.

2. **Floodplain Permit Compliance Report** – A report required to be submitted by the Applicant to the Floodplain Administrator once the permitted project in the Regulated Flood Hazard Area is completed or within the designated time stipulated on the Floodplain permit. A compliance report including an elevation and or flood proofing certificate may be required where specified for the purpose of documenting compliance with the requirements of the permit.

3. **Floodplain Variance Application Form** – An application submitted by the Applicant to the Floodplain Administrator to initiate a proposed variance from the requirements of these regulations as described in Section 12 .

4. **Floodplain Appeal Notice Form**– A form submitted by the Applicant or an aggrieved party to initiate the appeal process described in Section 13.

5. **Floodplain Emergency Notification Form**– A written notification form required pursuant to Section 11 of these regulations.

6. **Official Complaint Form** – A form that may be used by any person to notify the Floodplain Administrator of an activity taking place that appears to be noncompliant with the requirements of these regulations.

3.2 Fees

A reasonable application fee for processing of permit applications may be imposed. Fees may be adopted for costs of permit applications, notices, variances, inspections, certifications or other administrative actions required by these regulations. (ARM 36.15.204(3)(b))

SECTION 4. REGULATED FLOOD HAZARD AREA

4.1 REGULATED FLOOD HAZARD AREAS

1. The Regulated Flood Hazard Areas are the 100-year floodplains illustrated and referenced in the following specific studies and reports described as follows:

1. Specific title and Order date of specific flood study including maps and areas of the 100-year floodplain, and
    1. A list of subsequent amendments to the Regulated Flood Hazard Area; and
2. Other specific studies or and Orders.

EXAMPLE FOR INFORMATIONAL PURPOSES ONLY

1. August 16, 2014 FEMA Flood Insurance Study (FIS) and Flood Insurance Rate Maps (FIRMs) for Missoula County, Montana, and
    1. As amended in conformance with DNRC Approval dated July 15, 2015 and FEMA Conditional Letter of Map Revision (CLOMR) dated August 16, 2015; and
2. Floodplain Management Study for Swan River adopted by DNRC on July 10, 2016.

2. The Regulated Flood Hazard Areas specifically described or illustrated in the above referenced studies and maps of the 100-year floodplain have been delineated, designated and established by order or determination by the DNRC pursuant to 76-5-201et.seq., MCA.

3. Use allowances, design and construction requirements specifically in Sections 5, 6, 9, and 10 in these regulations vary by the specific Floodplain areas including areas identified as Floodway and Flood Fringe within the Regulated Flood Hazard Area.

4.2 INTERPRETATION OF REGULATED FLOOD HAZARD AREA BOUNDARIES

1. The mapped boundaries of the Floodplain illustrated in the referenced studies and maps in this Section are a guide for determining whether property is within the Regulated Flood Hazard Area.

2. A determination of the outer limits and boundaries of the Regulated Flood Hazard Area or the Flood Fringe and Floodway within the Regulated Flood Hazard Area includes an evaluation of the maps as well as the particular study data referenced in this Section. Supporting study material for Base Flood Elevations takes precedence over any map illustrations if it exists.

3. The Regulated Flood Hazard Area boundary is delineated by the Base Flood Elevation. The physical field regulatory boundary of the Regulated Flood Hazard Area is the actual intersection of the applicable study Base Flood Elevation with the existing adjacent terrain of the watercourse or drainway. (ARM 36.15.501(6))

4. The Floodway boundary where identified within the Floodplain is as illustrated on the referenced maps and studies. Since the Floodway boundary is a study feature, the location of the boundary may be physically located by referencing the study data to a ground feature. The Floodplain Administrator's interpretation of the boundary and decision may be appealed as set forth in Section 13.

5. The Floodplain Administrator may request additional information described below to determine whether or not the proposed development is within the Regulated Flood Hazard Area:

1. Where Base Flood Elevations exist, the property owner may provide additional information which may include elevation information provided by an engineer or land surveyor in order to determine if the proposed development is subject to these regulations. (ARM 36.15.501(6))

2. Where Base Flood Elevations do not exist, the property owner may provide additional information to be considered to determine the location of the regulatory boundary or alternatively provide a computed Base Flood Elevation provided by an engineer.

3. The Floodplain Administrator's interpretation of the boundaries and decision may be appealed as set forth in Section 13.

6. Any owner or lessee of property who believes his property has been inadvertently included in the Regulated Flood Hazard Area including the Floodway or Flood Fringe may submit scientific and/or technical information to the Floodplain Administrator for a determination if the property is appropriately located. Scientific or technical information submitted to FEMA by an owner to affect the insurance rating for insurance purposes may be considered by the Floodplain Administrator. A determination by the Floodplain Administrator is independent of any determination by FEMA for insurance purposes.

FOR INFORMATIONAL PURPOSES ONLY

When property located within the Regulated Flood Hazard area is naturally above the Base Flood Elevation as proven by a certified elevation survey provided by an engineer or land surveyor, the property owner may submit a Letter of Map Amendment (LOMA) to FEMA in order to affect the flood risk designation for insurance purposes. Information on the process and requirements are available through FEMA.

4.3 ALTERATION OF REGULATED FLOOD HAZARD AREA

1. Revisions or updates to the specific maps and data that alter the established Floodplains or Floodway of the Regulated Flood Hazard Area requires DNRC approval pursuant to 75-5-203, MCA. An alteration of the Regulated Flood Hazard Area is a DNRC approved amendment to the DNRC order that originally delineated and designated the 100-year floodplain and is the basis of the Regulated Flood Hazard Area referenced in Section 4.1.2. A DNRC approved alteration consists of revisions or updates to the specific maps and data of the referenced studies in this Section and forms the basis for an amendment to the Regulated Flood Hazard Area in these regulations; (ARM 36.15.505)

2. Any change to the Regulated Flood Hazard Area as a result of a DNRC alteration is effective upon amendment to the Regulated Flood Hazard Area described in Section 4.1.1;

3. Substantial natural physical change or new technical or scientific flood data showing that the Base Flood Elevation has or may be changed or was erroneously established shall be brought to the attention of DNRC and FEMA; (ARM 36.15.505(1)(a)) (44 CFR 65.3)

4. Any Floodplain permit application for a proposed development or artificial obstruction must be denied until a DNRC alteration pursuant to 76-5-203, MCA is approved if it causes an increase of 0.5 feet or more to the Base Flood Elevation of a Regulated Flood Hazard Area without a Floodway or an increase of more than 0.00 feet to the Base Flood Elevation of a Floodway.

5. To propose an alteration a petition must be submitted to DNRC and must include the following information:

1. Certification that no buildings are located in the areas which would be impacted by the increased Base Flood Elevation; (44 CFR 65.12(a)(5)

2. Evidence of notice to all property and land owners of the proposed impacts to their properties explaining the proposed impact on their property; (44 CFR 65.12(a)(3))

3. Information that demonstrates that alternatives are not feasible; (44 CFR 65.12(2))

4. Information that demonstrates that development is for a public use or benefit; and

5. Any other supporting information and data as needed for approvals.

((ARM 36.15.505) (44 CFR 60.3(c)(10)) (44 CFR 60.3(d)(3)) (44 CFR 65.7(3)) (44 CFR 65.12))

6. The Floodplain Administrator may represent the permit authority for any necessary applications, approvals or endorsements such as the FEMA Community Acknowledgement Form to FEMA where affecting the FEMA Special Flood Hazard Area;

FOR INFORMATIONAL PURPOSES ONLY

Once DNRC approves an Alteration and the community amends the Regulated Flood Hazard Area, the community is then required per agreement between the community and FEMA to obtain approval by CLOMR from FEMA before there is any physical change to the Special Flood Hazard Area. (44 CFR 59.21, 44 CFR 65.12)

7. A determination by the Floodplain Administrator that land areas located within the Regulated Flood Hazard Area are above the Base Flood Elevation as proven by a certified elevation survey does not constitute or require an alteration or an amendment of the Regulated Flood Hazard Area and may be maintained as a public record that more explicitly defines the Regulated Flood Hazard Area boundary; and

8. Elevating with suitable fill as permitted does not alter the Regulated Flood Hazard Area or remove the elevated area from the Regulated Flood Hazard Area. (ARM 36.15.505(2))

9. A floodplain permit implementing the physical change cannot be approved until a CLOMR has been issued by FEMA.

SECTION 5. USES ALLOWED WITHOUT A PERMIT WITHIN THE REGULATED FLOOD HAZARD AREA

5.1 - GENERAL Existing artificial obstructions or nonconforming uses established before land use regulations pursuant to Section 76-5-301, MCA were effective, are allowed without a permit. However, alteration or substantial improvement of an existing artificial obstruction or nonconforming use requires a floodplain permit. Maintenance of an existing artificial obstruction or nonconforming use does not require a floodplain permit if it does not cause an alteration or substantial improvement. (MCA 76-5-404(3)

5.2 OPEN SPACE USES The following open space uses shall be allowed without a permit in the Regulated Flood Hazard Area, provided that such uses are not prohibited by any other regulation or statute, do not require structures, and do not require fill, grading, excavation or storage of materials or equipment: ((ARM 36.15.601) (ARM 36.15.701)(1) (MCA 76-5-401) (MCA 76-5-404(3))

1. Agricultural uses, not including related structures, such as tilling, farming, irrigation, ranching, harvesting, grazing, etc; ((ARM 36.15.601(1)(a)) (MCA 76-5-401(1)))

2. Accessory uses, not including structures, such as loading and parking areas, or emergency landing strips associated with industrial or commercial facilities; ((ARM 36.15.601(1)(b)) (MCA 76-5-401(2),))

3. Forestry, including processing of forest products with portable equipment; ((ARM 36.15.601(1)(d)) (MCA 76-5-401(4)))

4. Recreational vehicle use provided that the vehicle is on the site for fewer than 180 consecutive days and the vehicle is fully licensed and ready for highway use. A recreational vehicle is ready for highway use if it is on its wheels or jacking system with wheels intact, is attached to the site only by quick disconnect type utilities and security devices, and has no permanently attached additions; (44 CFR 60.3(c)(14))

5. Residential uses such as lawns, gardens, parking areas, and play areas; ((ARM 36.15.601(1)(e)) (MCA 76-5-401(5)))

6. Maintenance of the existing state of an existing open space uses including preventive maintenance activities such as bridge deck rehabilitation and roadway pavement preservation activities. Maintenance cannot increase the external size or increase the hazard potential of the existing open space use; (MCA 76-5-404(3)(b))

7. Public or private recreational uses not requiring structures such as picnic grounds, swimming areas, boat ramps, parks, campgrounds, golf courses,

driving ranges, archery ranges, wildlife management and natural areas, alternative livestock ranches (game farms), fish hatcheries, shooting preserves, target ranges, trap and skeet ranges, hunting and fishing areas, and hiking and horseback riding trails; (ARM 36.15.601(a)(c)) (MCA 76-5-401,))

8. Fences that have a low impact to the flow of water such as barbed wire fences and wood rail fences, and not including permanent fences crossing channels. Fences that have the potential to stop or impede flow or debris such as a chain link or privacy fence requires a floodplain permit and meet the requirements of Section 9.11; (ARM 36.15.601(2)(b)) (MCA 76-5-401))

9. Addition of highway guard rail, signing and utility poles that have a low impact to the flow of water along an existing roadway.

10. Irrigation and livestock supply wells, provided that they are located at least 500 feet from domestic water supply wells and with the top of casing 18" above the Base Flood Elevation. ((ARM 36.15.601(2)(a)) (MCA 76-5-401) (ARM 36.21.647))

SECTION 6. PROHIBITED USES, ACTIVITIES AND STRUCTURES WITHIN THE REGULATED FLOOD HAZARD AREA

6.1 FLOODWAY The following artificial obstructions and nonconforming uses are prohibited in the Floodway of the Regulated Flood Hazard Area, except for those established before land use regulations pursuant to Section 76-5-301, MCA have been adopted: (MCA 76-5-404(3))

1. A building for residential or non-residential purposes; (MCA 76-5-403(1), (ARM 36.15.605)(1a)), (ARM 36.15.605(2b), (ARM 36.15.605(2)(a)).

2. A structure, fill, or excavation that would cause water to be diverted from the Floodway, cause erosion, obstruct the natural flow of waters or reduce the carrying capacity of the Floodway. Notwithstanding these requirements, excavation or fill may be allowed when it is a component to a permitted use allowed in these regulations; (MCA 76-5-403(2)).

3. The construction or storage of an object (artificial obstruction) subject to flotation or movement during flood level periods; (MCA 76-5-403(3) and ARM 36.15.605(1)(c))

4. Solid and hazardous waste disposal and individual and multiple family sewage disposal systems unless the systems meet the local health and sanitation regulations and when permitted pursuant to these regulations and are designed to minimize or eliminate infiltration of flood waters and avoid impairment or contamination; ((ARM 36-15-605(2c)) (44 CFR 60.3(a)(3)))

5. Storage of toxic, flammable, hazardous or explosive materials; and (ARM 36.15.605(2d))

6. Cemeteries, mausoleums, or any other burial grounds. (Higher Standard)

6.2 FLOOD FRINGE OR REGULATED FLOOD HAZARD AREA WITHOUT A FLOODWAY The following artificial obstructions and nonconforming uses are prohibited in the Flood Fringe or Regulated Flood Hazard Area without a Floodway, except for those established before land use regulations have been adopted: (MCA 76-5-404(3))

1. Solid and hazardous waste disposal and individual and multiple family sewage disposal systems unless the systems meet the local health and sanitation regulations and when permitted pursuant to these regulations and are designed to minimize or eliminate infiltration of flood waters and avoid impairment or contamination; ((ARM 36-15-703(1)) (44 CFR 60.3(a)(3)))

2. Storage of toxic, flammable, hazardous or explosive materials; (ARM 36-15-703(2))

3. The construction or storage of an artificial obstruction subject to flotation or movement during flood level periods; (Higher Standard)

4. Cemeteries, mausoleums, or any other burial grounds; and (Higher Standard)

5. Critical facilities, including buildings and associated structures that provide essential community care and emergency operation functions such as schools, hospitals, nursing home facilities, fire stations and police stations. (Higher Standard) (44CFR 60.22(a)(2))

SECTION 7. FLOODPLAIN PERMIT APPLICATION REQUIREMENTS

7.1 GENERAL

1. A Floodplain permit is required for a person to establish, alter or substantially improve an artificial obstruction, nonconforming use or development within the Regulated Flood Hazard Area; ((44 CFR 60.1) (MCA 76-5-404) (ARM 36.15.204(2)(a)))

2. A Floodplain permit is required for artificial obstructions, developments and uses not specifically listed in Sections 9 and 10, except as allowed without a Floodplain permit in Section 5, or as prohibited as specified in Section 6, within the Regulated Flood Hazard Area;

3. Artificial obstructions and nonconforming uses in a Regulated Flood Hazard Area not exempt under Section 5 are public nuisances unless a Floodplain permit has been obtained; (MCA 76-5-404(1))

4. A Floodplain permit is required for an alteration of an existing artificial obstruction or nonconforming use that increases the external size or increases its potential flood hazard and not exempt under Section 5; ((MCA 76-5-404(3)(b)) (ARM 36.15.204(2)(a)))

5. A Floodplain permit is required to reconstruct or repair an existing artificial obstruction that has experienced substantial damage and will undergo substantial improvement; and

6. Maintenance of an existing artificial obstruction or use that is a substantial improvement or an alteration requires a Floodplain permit. (MCA 76-5-404(3)(b))

7.2 REQUIRED FLOODPLAIN PERMIT APPLICATION INFORMATION

1. A Floodplain permit application shall include, but is not limited to the following:

1. A completed and signed Floodplain Permit Application;

2. The required review fee;

3. Plans in duplicate drawn to scale showing the location, dimensions, and elevation of the proposed project including landscape alterations, existing and proposed structures, and the location of the foregoing in relation to the

Regulated Flood Hazard Areas and if applicable the Floodway boundary; ((MCA 76-5-405) (ARM 36.15.216))

4. A copy of other applicable permits or pending applications required by Federal or State law as submitted which may include but are not limited to a 310 permit, SPA 124 permit, Section 404 Permit, 318 Authorization, 401 Certification or a Navigable Rivers Land Use License or Easement for the proposed project; and the applicant must show that the Floodplain permit application is not in conflict with the relevant and applicable permits; and (44 CFR 60.3(a)(2))

5. Additional information related to the specific use or activity that demonstrates the design criteria and construction standards are met or exceeded as specified in Sections 9 and 10. ((MCA 76-5-405) (ARM 36.15.216))

SECTION 8. FLOODPLAIN PERMIT APPLICATION EVALUATION

8. 1 FLOODPLAIN PERMIT APPLICATION REVIEW

1. The Floodplain Administrator shall review and evaluate the Floodplain permit application and shall approve, approve with conditions, or deny the application within (60 days or a time specified) of receipt of a correct and complete application. (MCA 76-5-405(2))

2. The Floodplain Administrator shall determine whether the Floodplain permit application contains the applicable elements required in these regulations and shall notify the applicant of the Floodplain Administrator's determination.

3. If the Floodplain permit application is found to be missing the required elements and if the applicant corrects the identified deficiencies and resubmits the Floodplain application, the Floodplain Administrator shall notify the applicant whether the resubmitted Floodplain application contains all the elements required by these regulations, as applicable.

4. This process shall be repeated until the applicant submits a completed Floodplain permit application containing all the elements required by these regulations, or the application is withdrawn.

5. If after a reasonable effort the Floodplain Administrator determines that the Floodplain application remains incomplete, the Floodplain Administrator shall deny the Floodplain permit application and notify the applicant of missing elements. No further action shall be taken on the Floodplain permit application by the Floodplain Administrator until the Floodplain permit application is resubmitted.

6. A determination that a Floodplain permit application is correct and complete for review does not ensure that the Floodplain permit application will be approved or conditionally approved and does not limit the ability of the Floodplain Administrator to request additional information during the review process.

8.2. NOTICE REQUIREMENTS FOR FLOODPLAIN PERMIT APPLICATIONS:

1. Upon receipt of a complete application for a Floodplain permit, the Floodplain Administrator shall prepare a notice containing the facts pertinent to the Floodplain permit application and shall:

1. Publish the notice at least once in a newspaper of general circulation in the area; (ARM 36.15.204(2)(c))

2. Serve notice by first-class mail upon adjacent property owners; (ARM 36.15.204(2)(c))

3. Serve notice to the State National Flood Insurance Program Coordinator located in DNRC by the most efficient method. Notice to other permitting agencies or other impacted property owners may be provided; and

4. Prior to any alteration or relocation of a watercourse in the Regulated Flood Hazard Area, additionally provide notice to FEMA and adjacent communities. (44 CFR 60.3 (b)(6))

2. The notice shall provide a reasonable period of time, not less than 15 days, for interested parties to submit comments on the proposed activity. (ARM 36.15.204(2)(c))

8. 3 FLOODPLAIN PERMIT CRITERIA

1. Floodplain permit applications shall be approved provided the proposed new construction, substantial improvement, or alteration of an artificial obstruction meets the requirements of the minimum standards and criteria in Sections 9 and 10 and other requirements of these regulations. ((MCA 76-5-406) (44 CFR 60.3))

2. A Flood Plain permit application for a development that will cause an increase of more than 0.00 feet to the Base Flood Elevation of the Floodway or more than 0.50 feet to the Base Flood Elevation of the Regulated Flood Hazard Area without a Floodway shall not be approved until approval for an Alteration pursuant to Section 4.3 has been approved, the Regulated Flood Hazard Area is amended and a FEMA CLOMR where required is issued.

3. The Floodplain Administrator shall determine that all necessary permits have been received from those governmental agencies from which approval is required by Federal or State law, including section 404 of the Federal Water Pollution Control Act Amendment of 1972, 36 U.S.C. 1334.(44 CFR 60.3(a)(2)

8.4 DECISION

1. The Floodplain Administrator shall approve, conditionally approve, or deny the proposed Floodplain permit application. The Floodplain Administrator shall notify the applicant of his action and the reasons thereof within (60 days or time specified) of receipt of a correct and complete Floodplain permit application unless otherwise specified. A copy of the approved Floodplain permit must be provided to DNRC. ((MCA 76-5-405(2)) (ARM 36.15.204(2)(e))

2. The approval of a Floodplain permit application does not affect any other type of approval required by any other statute or ordinance of the state or any political subdivision or the United States, but is an added requirement. (MCA 76-5-108)

8.5 FLOODPLAIN PERMIT CONDITIONS AND REQUIREMENTS

1. Upon approval or conditional approval of the Floodplain permit application, the Floodplain Administrator shall provide the applicant with a Floodplain permit with applicable specific requirements and conditions including but not limited to the following:

1. The Floodplain permit will become valid when all other necessary permits required by Federal or State law are in place;(44 CFR 60.3(a)(2)

2. Completion of the development pursuant to the Floodplain permit shall be completed within one year from the date of Floodplain permit issuance or a time limit commensurate with the project construction time line for completion of the project or development. The applicant may request an extension for up to an additional year. The request must be made at least 30 days prior to the permitted completion deadline;

3. The applicant shall notify subsequent property owners and their agents and potential buyers of the Floodplain development permit issued on the property and that such property is located within a Regulated Flood Hazard Area and shall record the notice with the Floodplain Administrator; (ARM 36.15.204(2)(g))

4. The applicant shall maintain the artificial obstruction or use to comply with the conditions and specifications of the permit;

5. The applicant shall allow the Floodplain Administrator to perform on site inspections at select intervals during construction or completion;

6. The applicant shall provide periodic engineering oversight and/or interim reports during the construction period to be submitted to the Floodplain Administrator to confirm constructed elevations and other project elements;

7. The applicant shall submit a compliance report including certifications where required and applicable including flood proofing, elevation, surface drainage, proper enclosure openings and materials to the Floodplain Administrator within 30 days of completion or other time as specified;

8. The applicant shall submit an annual performance and maintenance report on bank stabilization or other projects utilizing maturing vegetative components to the Floodplain Administrator for a period of 5 years or a time specified in the permit; or

9. The applicant shall submit evidence of a submittal of a FEMA Letter of Map Revision (LOMR) to FEMA and applicable fees within 6 months of project completion and proceed with due diligence for acceptance of the document and necessary supporting materials by FEMA. (44 CFR 65.3)

SECTION 9. DEVELOPMENT REQUIREMENTS IN THE FLOODWAY

9.1 USES REQUIRING PERMITS Artificial obstructions including alterations and substantial improvements specifically listed in Sections 9.3 to 9.15 may be allowed by permit within the Floodway, provided the General Requirements in Section 9.2 and the applicable requirements in Sections 9.3 to 9.15 are met.

9.2 GENERAL REQUIREMENTS An application for a permit shall meet the following requirements:

1. All projects shall be designed and constructed to ensure that they do not adversely affect the flood hazard on other properties and are reasonably safe from flooding;

2. All projects shall assure that the carrying capacity of the Floodway is not reduced. All projects in the Floodway shall meet the following:

1. Demonstrate that the project does not increase the Base Flood Elevation by conducting an encroachment analysis certified by an engineer. A minimal or qualitative encroachment analysis may be accepted when the project or development does not require a structure, alteration of the Floodway, involve fill, grading, excavation or storage of materials or equipment but is also certified by an engineer to not exceed the allowable encroachment to the Base Flood Elevation; and

2. The allowable encroachment to the Base Flood Elevation is 0.00 feet, and no significant increase to the velocity or flow of the stream or water course unless approval of an alteration of the Regulated Flood Hazard Area pursuant to Section 4.3 and an approved FEMA Conditional Letter of Map Revision occurs before permit issuance; and

((ARM 36.15.604) (ARM 36.15.505) (ARM 36.15.605(b)) (44 CFR 60.3(a)(3 and 4)) (44CFR 65.12(a))

3. An application for a Floodplain permit must also demonstrate the following factors are considered and incorporated into the design of the use or artificial obstruction in the Floodway:

1. The danger to life and property due to backwater or diverted flow caused by the obstruction or use; ((MCA 76-5-406(1)) (ARM 36.15.216(2)(a)))

2. The danger that the obstruction or use may be swept downstream to the injury of others; ((MCA 76-5-406(2)) (ARM 36.15.216(2)(b)))

3. The availability of alternative locations; ((MCA 76-5-406(3)) (ARM 36.15.216(2)(c))

4. Construct or alter the obstruction or use in such manner as to lessen the flooding danger; ((MCA 76-5-406(4)) (ARM 36.15.216(2)(d)))

5. The permanence of the obstruction or use and is reasonably safe from flooding; ((MCA 76-5-406(5) (ARM 36.15.216(2e)))

6. The anticipated development in the foreseeable future of the area which may be affected by the obstruction or use; ((MCA 76-5-406(6)) (ARM 36.15.216(2f)))

7. Relevant and related permits for the project have been obtained; (44 CFR 60.3(a)(2))

8. Such other factors as are in harmony with the purposes of these regulations, the Montana Floodplain and Floodway Management Act, and the accompanying Administrative Rules of Montana; and ((MCA 76-5-406(7)) (ARM 36.15.216(2)(g)))

9. The safety of access to property in times of flooding for ordinary and emergency services. (44CFR 60.22 (c)(7)) (Higher Standard)

9.3 MINING OF MATERIAL REQUIRING EXCAVATION FROM PITS OR POOLS provided, in addition to the requirements of Section 9.2, that:

1. A buffer strip of undisturbed land of sufficient width as determined by an engineer to prevent flood flows from channeling into the excavation is left between the edge of the channel and the edge of the excavation; (ARM 36.15.602(1)(a))

2. The excavation meets all applicable laws and regulations of other local and state agencies; and (ARM 36.15.602(1)(b))

3. Excavated material may be processed on site but is stockpiled outside the Floodway.(ARM 36.15.602(1)(c))

9.4 RAILROAD, HIGHWAY AND STREET STREAM CROSSINGS, including other transportation related crossings provided, in addition to the requirements of Section 9.2, that:

1. Crossings are designed to offer minimal obstructions to the flood flow; (ARM 36.15.602(2))

2. Where failure or interruption of public transportation facilities would result in danger to public health or safety and where practicable and in consideration of FHWA Federal-Aid Policy Guide 23CFR650A:

1. Bridge lower chords shall have freeboard to at least two (2) feet above the Base Flood Elevation to help pass ice flows, the base flood discharge and any debris associated with the discharge; and

2. Culverts shall be designed to pass the Base Flood discharge and maintain at least two (2) feet freeboard on the crossing surface;

3. Normal overflow channels, if possible are preserved to allow passage of sediments to prevent aggradations; and

4. Mid stream supports for bridges, if necessary, have footings buried below the maximum scour depth.

9.5 LIMITED FILLING FOR ROAD AND RAILROAD EMBANKMENTS, including other transportation related embankments not associated with stream crossings and bridges provided, in addition to the requirements of Section 9.2, that:

1. The fill is suitable fill;

2. Reasonable alternate transportation routes outside the floodway are not available; and (ARM 36.15.602(3))

3. The encroachment is located as far from the stream channel as possible. (ARM 36.15.602(3))

9.6 BURIED OR SUSPENDED UTILITY TRANSMISSION LINES provided, in addition to the requirements of Section 9.2, that:

1. Suspended utility transmission lines are designed such that the lowest point of the suspended line is at least six (6) feet higher than the Base Flood Elevation; (ARM 36.15.602(4))

2. Towers and other appurtenant structures are designed and placed to withstand and offer minimal obstruction to flood flows; (ARM 36.15.602(4))

3. Alternatives such as alternative routes, directional drilling, and aerial crossings are considered when technically feasible; and

4. Utility transmission lines carrying toxic or flammable materials are buried to a depth of at least twice the calculated maximum scour depth determined by an engineer for the Base Flood. (ARM 36.15.602(4))

9.7 STORAGE OF MATERIALS AND EQUIPMENT provided, in addition to the requirements of Section 9.2, that:

1. The material or equipment is not subject to major damage by flooding and is properly anchored to prevent flotation or downstream movement; or (ARM 36.15.602(5)(a))

2. The material or equipment is readily removable within the limited time available after flood warning. Storage of flammable, toxic or explosive materials shall not be permitted.(ARM 36.15.602(5)(b))

9.8 DOMESTIC WATER SUPPLY WELLS provided, in addition to the requirements of Section 9.2, that:

1. They are driven or drilled wells located on ground higher than surrounding ground to assure positive drainage from the well; (ARM 36.15.602(6))

2. They require no other structures (e.g. a well house); (ARM 36.15.602(6))

3. Well casings are water tight to a distance of at least twenty five (25) feet below the ground surface and the well casing height is a minimum of two (2) feet above the Base Flood Elevation or capped with a watertight seal and vented two (2) feet above the Base Flood Elevation; ((ARM 36.15.602(6)))

4. Water supply lines have a watertight seal where the lines enter the casing; (ARM 36.15.602(6))

5. All pumps and electrical lines and equipment are either of the submersible type or are adequately flood proofed; and (ARM 36.15.602(6))

6. Check valves are installed on main water lines at wells and at all building entry locations. ((44 CFR 60.3 (a)(5)) (ARM 36.15.602(6)))

9.9 BURIED AND SEALED VAULTS FOR SEWAGE DISPOSAL IN CAMPGROUNDS AND RECREATIONAL AREAS provided, in addition to the requirements of Section 9.2, demonstrate approval by Montana Department of Environmental Quality and local health and sanitation permits or approvals. ((44 CFR 60.3(a)(6)) (ARM 36.15.602(7)))

9.10 PUBLIC AND PRIVATE CAMPGROUNDS provided, in addition to the requirements of Section 9.2, that:

1. Access roads require only limited fill and do not obstruct or divert flood waters; (ARM 36.15.602(8))

2. The project meets the accessory structures requirements in this Section;

3. No dwellings or permanent mobile homes are allowed; (ARM 36.15.602(8))

4. Recreational vehicles and travel trailers are ready for highway use with wheels intact, with only quick disconnect type utilities and securing devices, and have no permanently attached additions; and (44 CFR 60.3(c)(14))

5. There is no large-scale clearing of riparian vegetation within 50 feet of the mean annual high water mark. (Higher Standard)

9.11 STRUCTURES ACCESSORY OR APPURTENANT to permitted uses such as boat docks, loading and parking areas, marinas, sheds, emergency airstrips, permanent fences crossing channels that may impede or stop flows or debris, picnic shelters and tables and lavatories, that are incidental to a principal structure or use, provided in addition to the requirements of Section 9.2, that:

1. The structures are not intended for human habitation or supportive of human habitation; (ARM 36.15.602(9))

2. The structures will have low flood damage potential; (ARM 36.15.602(9))

3. The structures will, insofar as possible, be located on ground higher than the surrounding ground and as far from the channel as possible; (ARM 36.15.602(9))

4. The structures will be constructed and placed so as to offer a minimal obstruction to flood flows; (ARM 36.15.602(9))

5. Only those wastewater disposal systems that are approved under health and sanitation regulations are allowed;

6. Service facilities within these structures such as electrical, heating and plumbing are flood proofed according to the requirements in Section 10; (ARM 36.15.602(9))

7. The structures are firmly anchored to prevent flotation; (ARM 36.15.602(9))

8. The structures do not require fill and/or substantial excavation;

9. The structures or use cannot be changed or altered without permit approval; and

10. There is no clearing of riparian vegetation within 50 feet of the mean annual high water mark. (Higher Standard)

9.12 CONSTRUCTION OF OR MODIFICATIONS TO SURFACE WATER DIVERSIONS provided, in addition to the requirements of Section 9.2, that the design is reviewed and approved by an engineer and includes:

1. Measures to minimize potential erosion from a Base Flood; and (ARM 36.15.603(3)(b))

2. Designs and plans that demonstrate any permanent structure in the stream is designed to safely withstand up to the Base Flood considering the forces associated with hydrodynamic and hydrostatic pressures including flood depths, velocities, impact, ice buoyancy, and uplift forces associated with the Base Flood. ((ARM 36.15.603(3)(c) ((CFR 60.3(a)(3) (CFR 60.3(d)(3)))

9.13 FLOOD CONTROL AND STREAM BANK STABILIZATION MEASURES provided, in addition to the requirements of Section 9.2, that the design is reviewed and approved by an engineer and constructed to substantially resist or withstand the forces associated with hydrodynamic and hydrostatic pressures, including flood depths, velocities, impact, ice, buoyancy, and uplift associated with the Base Flood. The design must also show compliance with the following applicable criteria: ((CFR 60.3(a)(3) (CFR 60.3(d)(3)) (ARM 36.15.606))

1. LEVEE AND FLOODWALL construction or alteration:

1. Must be designed and constructed with suitable fill and be designed to safely convey a Base Flood; (ARM 36.15.606(1)(a))

2. Must be constructed at least 3 feet higher than the elevation of the Base Flood unless the levee or floodwall protects agricultural land only; (ARM 36.15.606(2)(a))

3. Must meet state and federal levee engineering and construction standards and be publically owned and maintained if it protects structures of more than one landowner; and
(ARM 36.15.505(1)(c)(ii)and (iii))

4. For any increase in the elevation of the Base Flood, an alteration of the Regulated Flood Hazard Area requires approvals pursuant to Section 4.3.

2. STREAM BANK STABILIZATION, PIER AND ABUTMENT PROTECTION projects:

1. Must be designed and constructed using methods and materials that are the least environmentally damaging yet practicable, and should be designed to withstand a Base Flood once the project's vegetative components are mature within a period of up to 5 years or other time as required by the Floodplain Administrator. Once vegetation is mature and established it should not require substantial yearly maintenance after the initial period;

2. Materials for the project may be designed to erode over time but not fail catastrophically and impact others. Erosion, sedimentation, and transport of the materials may be designed to be at least similar in amount and rate of existing stable natural stream banks during the Base Flood;

3. Must not increase erosion upstream, downstream, across from or adjacent to the site in excess of the existing stable natural stream bank during the Base Flood; and (ARM 36.15.606(1)(b))

4. Materials for the project may include but are not limited to riprap, root wads, brush mattresses, willow wattles, natural woody debris or combinations of analogous materials.

3. CHANNELIZATION PROJECTS where the excavation and/or construction of an channel is for the purpose of diverting the entire or a portion of the flow of a stream from its established course, the project must:

1. Not increase the magnitude, velocity, or elevation of the Base Flood; and

2. Meet the requirements of Section 9.13.2.
(ARM 36.15.101(7)) (ARM 36.15.606(1)(c))

4. DAMS:

1. The design and construction shall be in accordance with the Montana Dam Safety Act and applicable safety standards; and

2. The project shall not increase flood hazards downstream either through operational procedures or improper hydrologic/hydraulic design. (ARM 36.15.606(1)(d)

9.14 STREAM AND BANK RESTORATION projects intended to reestablish the terrestrial and aquatic attributes of a natural stream and not for protection of a structure or development provided, in addition to the requirements of Section 9.2, that:

1. The project will not increase velocity or erosion upstream, downstream, across from or adjacent to the site; (ARM 36.15.606(1)(b))

2. Materials may include but are not limited to boulders, rock cobble, gravel, native stream bed materials, root wads, brush mattresses, willow wattles, natural woody debris or combinations of analogous materials and that reasonably replicates the bed and bank of the natural stream;

3. Erosion, sedimentation, and transport of the materials are not more than the amount and rate of existing natural stream banks during the Base Flood; and

4. The project may be designed to allow vegetative materials to mature within a period up to 5 years or other time as required by the Floodplain Administrator. Once vegetation is mature and established it should not require substantial yearly maintenance after the initial period.

9.15 EXISTING RESIDENTIAL AND NON-RESIDENTIAL BUILDINGS IN THE FLOODWAY any alteration or substantial improvement to an existing building must meet the requirements of Section 9.2 and the applicable requirements in Section 10 for residential or non-residential buildings. (MCA76-5-404(3)(b))

SECTION 10. DEVELOPMENT REQUIREMENTS IN THE FLOOD FRINGE OR REGULATED FLOOD HAZARD AREA WITH NO FLOODWAY

10.1 USES REQUIRING PERMITS – All uses allowed by permit in the Floodway shall also be allowed by permit within the Flood Fringe or Regulated Flood Hazard Area with no Floodway. Such uses are subject to the requirements in Section 9, with the exception of the encroachment limit of Section 9.2.2. Instead, such uses are subject to the encroachment limits of this Section 10.2.9.

Except for prohibited artificial obstructions in Section 6.2, all other artificial obstructions including new construction, substantial improvements, alterations to residential, and nonresidential structures including manufactured homes, and related suitable fill or excavation shall be allowed by permit and are subject to the requirements in this Section and General Requirements of Section 9.2, with the exception of the encroachment limit of Section 9.2.2.
(ARM 36.15.701(2))

10.2 GENERAL REQUIREMENTS An application for a Floodplain permit must demonstrate or meet the following applicable requirements:

1. **Base Flood Elevation** Where necessary to meet the appropriate elevation requirement in these regulations, the Base Flood Elevation(s) must be determined by an engineer and utilized in the design and layout of the project demonstrating the design and construction criteria herein are met. For Regulated Flood Hazard Areas that do not have computed and published Base Flood Elevations in the adopted flood hazard study referenced in Section 4, a Base Flood Elevation must be determined or obtained from a reliable source, utilizing appropriate engineering methods and analyses;

2. **Flood Damage** Structures must be constructed by methods and practices that minimize flood damage and structures must be reasonably safe from flooding; ((44 CFR 60.3(a)) (44 CFR 60.3(a)(3)(iii)))

3. **Surface Drainage** Adequate surface drainage must be provided around structures;

4. **Materials** Structures must be constructed with materials resistant to flood damage; ((44 CFR 60.3(a)) (44 CFR 60.3(a)(3)(ii))

5. **Artificial Obstructions** Structures, excavation or fill must not be prohibited by any other statute, regulation, ordinance, or resolution; and must be compatible with subdivision, zoning and any other land use regulations, if any; (ARM 36.15.701(3)(a)) ((ARM 36.15.701(3)(b))

6. **Anchoring** All construction and substantial improvements must be designed and adequately anchored to prevent flotation, collapse, or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy;(44CFR 60.3(a)(3)

7. **Certification** Certification by an engineer, architect, land surveyor, or other qualified person must accompany the application where required including for an encroachment analysis, adequacy of structural elevations, Base Flood Elevation determinations, flood-proofing, enclosure flood openings and design and construction to withstand the hydrodynamic forces and hydrostatic pressures of flood depths, velocities, impact, buoyancy, uplift forces associated with the Base Flood and surface drainage. A certification is not intended to constitute a warranty or guarantee of performance, expressed or implied;
((ARM 36.15.606(1) (ARM 36.15.702(2)(c)) (ARM 36.15.801(3)(b)) (44 CFR 60.3(c)(3 &4)) (44 CFR 60.3 (d)(3)))

8. **Access** Structures must have safe access during times of flooding up to the Base Flood for ordinary and emergency services provided there are no reasonable alternate locations for structures; (Higher Standard)

9. **Encroachment Analysis**

   1. All applications in the Regulated Flood Hazard Area without a Floodway must be supported by an encroachment analysis of the proposed use, a thorough hydrologic and hydraulic analysis except as provided in following paragraph 4, Section 10.2.9.4, prepared by an engineer to demonstrate the effect of the structure on flood flows, velocities and the Base Flood Elevation; ((ARM 36.15.604) (44 CFR 60.3(a)(3))

   2. The maximum allowable encroachment is certified to be at or less than 0.5 feet increase to the Base Flood Elevation unless approval of an alteration of the Regulated Flood Hazard Area pursuant to Section 4 and an approved FEMA Conditional Letter of Map Revision occurs before permit issuance; ((ARM 36.15.604) (ARM 36.15.505) (44 CFR 60.3(c)(13)))

   3. An encroachment analysis is not required for any development in the Flood Fringe where an accompanying Floodway has been designated within the Regulated Flood Hazard Area; and

   4. Although all other development standards herein apply, a minimal or qualitative encroachment analysis may be accepted when the project or development does not require a structure, alteration of the Floodplain, involve fill, grading, excavation or storage of materials or equipment and also is certified by an engineer to not exceed the allowable encroachment.

10. <u>Electrical Systems Flood Proofing</u> All electrical service materials, equipment and installation for uses in a Regulated Flood Hazard Area must be certified to meet the following requirements:

1. All incoming power service equipment including all metering equipment, control centers, transformers, distribution and lighting panels and all other stationary equipment must be located at least two feet above the Base Flood Elevation; (ARM 36.15.901(1)(a))

2. Portable and movable electrical equipment may be placed below the Base Flood Elevation, provided that the equipment can be disconnected by a single plug and socket assembly of the submersible type; (ARM 36.15.901(1)(b))

3. The main power service lines must have automatically operated electrical disconnect equipment or manually operated electrical disconnect equipment located at an accessible remote location outside the Regulated Flood Hazard Area or two feet above the Base Flood Elevation; and (ARM 36.15.901(1)(c))

4. All electrical wiring systems installed below the Base Flood Elevation must be suitable for continuous submergence and may not contain fibrous components. (ARM 36.15.901(1)(d))

11. <u>Heating and Cooling Systems Flood Proofing</u> Heating and cooling systems for uses in a Regulated Flood Hazard Area must be certified to meet the following requirements:

1. Float operated automatic control valves must be installed so that fuel supply is automatically shut off when flood waters reach the floor level where the heating and cooling systems are located; (ARM36.15.902(1)(a))

2. Manually operated gate valves must be installed in gas supply lines. The gate valves must be operable from a location above the Base Flood Elevation; (ARM36.15.902(1)(b))

3. Electrical Systems flood proofing must be met; and (ARM36.15.902(1)(c))

4. Furnaces and cooling units must be installed at least two (2) feet above the Base Flood Elevation and the ductwork installed above the Base Flood Elevation.

12. <u>Plumbing Systems Flood Proofing</u> Plumbing systems for uses in the Regulated Flood Hazard Area must be certified to meet the following requirements:

1. Sewer lines, except those to a buried and sealed vault, must have check valves installed to prevent sewage backup into permitted structures; and (ARM 36.15.903(1)(a))

2. All toilets, stools, sinks, urinals, vaults, and drains must be located so the lowest point of possible flood water entry is at least two (2) feet above the Base Flood Elevation. (ARM 36.15.903(1)(b))

13. <u>Structural Fill Flood Proofing</u> Fill used to elevate structures, including but not limited to residential and non-residential buildings must be certified to meet the following requirements:

1. The filled area must be at or above the Base Flood Elevation and extend at least fifteen (15) feet beyond the structure in all directions;

2. Fill material must be suitable fill, that is stable, compacted, well graded, and pervious, not adversely affected by water and frost, devoid of trash or similar foreign matter, tree stumps or other organic material; and is fitting for the purpose of supporting the intended use and/or permanent structure. (ARM 36.15.101(22))

3. The fill must be compacted to minimize settlement and compacted to 95 percent of the maximum density. Compaction of earthen fill must be certified by a engineer;

4. No portion of the fill is allowed within the floodway;

5. The fill slope must not be steeper than 1 ½ horizontal to 1 vertical unless substantiating data justifying a steeper slope is provided and adequate erosion protection is provided for fill slopes exposed to floodwaters; and

6. The fill must be a minimum of 0.5 feet above the Base Flood Elevation and extend at least fifteen (15) feet beyond the structure in all directions. (Higher Standard—replace sentence number 1. above)

14. <u>Wet Flood Proofing</u> Building designs with an enclosure below the lowest floor must be certified to meet the following:

1. Materials used for walls and floors are resistant to flooding to an elevation two (2) feet or more above the Base Flood Elevation; (ARM 36.15.702(2)(a))

2. The enclosure must be designed to equalize hydrostatic forces on walls by allowing for entry and exit of floodwaters. Opening designs must either be certified by an engineer or architect or meet or exceed the following:

    1. Automatically allow entry and exit of floodwaters through screens, louvers, valves, and other coverings or devices;

2. Have two (2) or more openings with a total net area of not less than one (1) square inch for every one (1) square foot of enclosed area below the Lowest Floor, except if the enclosure is partially subgrade, a minimum of 2 openings may be provided on a single wall; and

3. Have the bottom of all openings no higher than one (1) foot above the higher of the exterior or interior adjacent grade or floor immediately below the openings.

(44 CFR 60.3(c)(5)) (NFIP Insurance Manual, Rev. May 2013)

15. <u>Dry Flood Proofing</u> Building designs that do not allow internal flooding must be certified according to these regulations to meet the following:

1. Building use must be for non-residential use only and does not include mixed residential and non-residential use;

2. Be Flood Proofed to an elevation no lower than two (2) feet above the Base Flood Elevation;

3. Be constructed of impermeable membranes or materials for floors and walls and have water tight enclosures for all windows, doors and other openings; and

4. Be designed to withstand the hydrostatic pressures and hydrodynamic forces resulting from the Base Flood and the effects of buoyancy.

((ARM 36.15.702(2)(b)) (44 CFR 60.3(c)(3))

16. <u>Elevation of the Lowest Floor</u> Elevating the lowest floor may be by either suitable fill, foundation wall enclosure, stem walls, pilings, posts, piers, columns or other acceptable means; ((MCA 76-5-402(2)(b)) (44 CFR 60.3(b)(8)) (44 CFR 60.3(c)(6)))

17. <u>Crawl Spaces</u> Crawl space foundation enclosures including sub grade crawlspace enclosures below the lowest floor must meet the wet flood proofing requirements and be designed so that the crawl space floor is at or above the Base Flood Elevation. Crawl space foundations must have an inside dimension of not more than five (5) feet from the ground to the top of the living floor level and a sub grade crawlspace must also have the interior ground surface no more than two (2) feet below the exterior lowest adjacent ground surface on all sides. A sub grade foundation exceeding either dimension is a basement;

18. <u>Manufactured Home Anchors</u> For new placement, substantial improvement or replacement of manufactured homes for residential or nonresidential use including additions, the chassis must be secure and must resist flotation, collapse or lateral movement by anchoring with anchoring components capable of carrying a force of 4,800 pounds and as follows:

1. For manufactured homes less than fifty (50) feet long, over-the-top ties to ground anchors are required at each of the four (4) corners of the home, with two additional ties per side at intermediate locations; or

2. For manufactured homes more than fifty (50) feet long, frame ties to ground anchors are required at each corner of the home with five (5) additional ties per side at intermediate points; and
((CFR 60.3(b)(8)) CFR 60.3(c)(6)))

19. Access Access for emergency vehicles is provided. For manufactured homes, access for a manufactured home hauler is also provided. (Higher Standard)

10.3 RESIDENTIAL BUILDING, EXCEPTIONS OR ADDITIONAL REQUIREMENTS
New construction, alterations, and substantial improvements of residential dwellings, manufactured homes, including replacement of manufactured homes, must be constructed such that:

1. **Elevation of the Lowest Floor** The Lowest Floor of the building including an attached garage or basement must be two (2) feet or more above the Base Flood Elevation; (ARM 36.15.701(3))

2. **Enclosure** Enclosures of elevated buildings cannot be dry flood proofed. Use for an enclosure is limited to facilitating building component access. The enclosure including a crawlspace must be wet flood proofed and the enclosure floor must be at or above the Base Flood Elevation. An attached garage floor must be two (2) or more feet above the Base Flood Elevation; and

3. **Recreation Vehicles** Recreational vehicles on site for more than 180 days or not ready for highway use must meet the requirements for manufactured homes for residential use.

10.4 NON-RESIDENTIAL BUILDING, EXCEPTIONS OR ADDITIONAL REQUIREMENTS New construction, alterations, and substantial improvements of non-residential including agricultural, commercial and industrial buildings and residential and non-residential accessory buildings must be constructed such that:

1. **Elevation of the Lowest Floor** The Lowest Floor of the building must be elevated two (2) feet above the Base Flood Elevation or adequately dry flood proofed according to this Section. The Lowest Floor may be wet proofed provided the use is limited to only parking, loading and storage of equipment or materials not appreciably affected by floodwater; ((ARM 36.15.702(2) (44 CFR 60.3(c)(3)(ii) (44 CFR 60.3(c)(3) & (4)))

2. **Enclosure** Enclosures below the Lowest Floor on elevated buildings must be wet flood proofed and the use must be limited to parking, access or storage or must be adequately dry flood proofed according to this Section;

3. **Manufactured homes** Manufactured homes proposed for use as non-residential buildings cannot be dry flood proofed; and

4. **Agricultural structures** Agricultural structures not intended to be insurable, used solely for agricultural purposes, having low flood damage potential, used exclusively in connection with the production, harvesting, storage, drying, or raising of agricultural commodities including raising of livestock, and not intended for human habitation are exempt from the elevation requirement, dry or wet flood proofing, but shall:

   1. Be located on higher ground and as far from the channel as possible;

   2. Offer minimal obstruction to flood flows;

   3. Be adequately anchored to prevent flotation or collapse;

   4. Where electrical, heating and plumbing systems are installed, meet the flood proofing requirements in Sections 10.2.10, 10.2.11, and 10.2.12; and

   5. Meet the elevation or dry flood proofing requirements if the structure is an animal confinement facility.

   ((ARM 36.15.602(9) (ARM 36.15.701(3)(e)) (ARM 36.15.702(2))

SECTION 11. EMERGENCIES

11.1 General

1. Emergency repair and replacement of severely damaged artificial obstructions and development in the Regulated Flood Hazard Area, including public transportation facilities, public water and sewer facilities, flood control works, and private projects are subject to the permitting requirements of these regulations.(ARM 36.15.217)

2. The provisions of these regulations are not intended to affect other actions that are necessary to safeguard life or structures during periods of emergency.

11.2 Emergency Notification and Application Requirements

1. The property owner and or the person responsible for taking emergency action must notify the Floodplain Administrator prior to initiating any emergency action in a Regulated Flood Hazard Area normally requiring a Floodplain permit. An Emergency Notification Form must be submitted to the Floodplain Administrator within five (5) days of the action taken as a result of an emergency.

2. Unless otherwise specified by the Floodplain Administrator, within 30 days of initiating the emergency action, a person who has undertaken an emergency action must submit a Floodplain Permit Application that describes what action has taken place during the emergency and describe any additional work that may be required to bring the project in compliance with these regulations.

3. A person who has undertaken an emergency action may be required to modify or remove the project in order to meet the permit requirements.

SECTION 12. VARIANCES

12.1 GENERAL - A variance from the minimum development standards of these regulations may be allowed. An approved variance would permit construction in a manner otherwise as required or prohibited by these regulations. ((44 CFR 59.1) (ARM 36.15.218))

12.2 VARIANCE APPLICATION REQUIREMENTS:

1. Prior to any consideration of a variance from any development standard in these regulations, a completed Floodplain Permit application and required supporting material must be submitted.

2. Additionally, supporting materials in a Variance application specific to the variance request including facts and information addressing the criteria in this Section must be submitted.

3. If the Floodplain permit application and Variance application is deemed not correct and complete, the Floodplain Administrator shall notify the applicant of deficiencies within a reasonable time not to exceed 30 days. Under no circumstances should it be assumed that the variance is automatically granted.

12.3 NOTICE REQUIREMENTS FOR FLOODPLAIN VARIANCE APPLICATION
Public Notice of the Floodplain permit application and Variance application shall be given pursuant to Section 8.2.

12.4 EVALUATION OF VARIANCE APPLICATION

1. A Floodplain permit and Variance shall only be issued upon a determination that the variance is the minimum allowance necessary, considering the flood hazard, to afford relief from these regulations and provided all of the following criteria are met:

1. There is a good and sufficient cause. Financial hardship is not a good and sufficient cause; (44 CFR 60.6(a)(3))

2. Failure to grant the variance would result in exceptional hardship to the applicant; (44 CFR 60.3(a)(3)) & ARM 36.15.218(b))

3. Residential and nonresidential buildings are not in the Floodway except for alterations or substantial improvement to existing buildings, Residential dwellings including basements and attached garages do not have the lowest floor elevation below the Base Flood Elevation;

4. Any enclosure including a crawl space must meet the requirements of Section 10.2.14, Wet Flood Proofing if the enclosure interior grade is at or below the Base Flood Elevation;

5. Granting of a variance will not result in increased flood heights to existing buildings, additional threats to public safety, extraordinary public expense, create nuisances, cause fraud on or victimization of the public, or conflict with other existing local laws or ordinances; (44 CFR 60.6 (a)(3) & (ARM 36.15.218(a))

6. The proposed use is adequately flood proofed; (ARM 36.15.218(c))

7. The variance is the minimum necessary, considering the flood hazard, to afford relief; (44 CFR 60.6(a)(4))

8. Reasonable alternative locations are not available; (MCA 76-5-406(3) & ARM 36.15.218(d))

9. An encroachment does not cause an increase to the Base Flood Elevation that is beyond that allowed in these regulations; and (44 CFR 60.6(a)(1))

10. All other criteria for a Floodplain permit besides the specific development standard requested by variance are met.

2. An exception to the variance criteria may be allowed as follows:

1. For either new construction of a structure outside of the Floodway only or for substantial improvements or an alteration of a structure, on a lot of one-half acres or less that is contiguous to and surrounded by lots with existing structures constructed below the Base Flood Elevation; or (44 CFR 60.6(a).

2. For Historic Structures – variances may be issued for the repair or rehabilitation of historic structures upon a determination that the proposed repair or rehabilitation will not preclude the structure's continued designation as a historic structure and the variance is the minimum relief necessary to preserve the historic character and design of the structure. The historic nature of the building must be designated as a preliminary or historic structure by U.S. Secretary of Interior or an approved state or local government historic preservation program. (44 CFR 60.6(a))

12.5 DECISION

1. The {Board of Adjustment, County Commission, or other panel} shall:

1. Evaluate the Floodplain permit application and Variance application using

the criteria in Section 12.4, and the application requirements and minimum development standards in Section 9 and 10;

2. Make findings, and approve, conditionally approve or deny a Floodplain permit and variance within 60 days of a complete application.

3. If approved, attach conditions to the approval of Floodplain permit and Variance including a project completion date and inspections during and after construction.

4. Notify the applicant that the issuance of a Floodplain permit and Variance to construct a structure not meeting the minimum building requirements in these regulations may result in increased premium rates for flood insurance and that flood insurance premiums are determined by actuarial risk and will not be modified by the granting of a variance. (44CFR 60.6(a))

5. Submit to the Floodplain Administrator a record of all actions involving a Floodplain permit and variance, including the findings and decision and send a copy of each variance granted to DNRC.(44 CFR 60.6(a)(6) & MCA 76-5-405)

12.6 JUDICIAL REVIEW

Any person or persons aggrieved by the Floodplain permit and variance decision may appeal such decision in a court of competent jurisdiction.

SECTION 13. ADMINISTRATIVE APPEALS

13.1 GENERAL An administrative appeal may be brought before the {Board of Adjustment, County Commission, or other panel} for review of the Floodplain Administrator's order, decision to grant, condition or deny a floodplain permit or interpretation of the Regulated Flood Hazard Area boundary.

13.2 APPEALS REQUIREMENTS The following provisions apply to administrative appeals:

1. An appeal shall include the basis of the appeal and supporting information including specific findings and conclusions of the Floodplain Administrator's decision being appealed;

2. An appeal may be submitted by an applicant and/or anyone who may be aggrieved by the Floodplain Administrator's decision or order;

3. Appeals must be received within 30 days of the date of the decision or order of the Floodplain Administrator; and

4. Additional information specific to the appeal request may be requested by the review panel.

13.3 NOTICE AND HEARING

1. Notice of the pending appeal and hearing shall be provided pursuant to Section 8.2. The Floodplain Administrator may notify DNRC and FEMA of pending appeals.

2. A public hearing on the appeal must be held within 30 days of the Notice unless set otherwise.

13.4 DECISION
A judgment on an appeal shall be made within 30 days of the hearing unless set otherwise. The decision may affirm, modify, or overturn the Floodplain Administrator's decision. A decision on an appeal of a permit cannot grant or issue a variance. A decision may support, reverse or remand an order or determination of a boundary of the Regulated Flood Hazard Area by the Floodplain Administrator.

13.5 JUDICIAL REVIEW
Any person or persons aggrieved by the decision on an administrative appeal may appeal such decision in a court of competent jurisdiction.

SECTION 14. ENFORCEMENT

14.1 INVESTIGATION REQUEST An investigation to determine compliance with these regulations for an artificial obstruction or nonconforming use within the Regulated Flood Hazard Area may be made either on the initiative of the Floodplain Administrator or on the written request of three titleholders of land which may be affected by the activity. The names and addresses of the persons requesting the investigation shall be released if requested. (MCA 76-5-105)(2)

14.2 NOTICE TO ENTER AND INVESTIGATE LANDS OR WATERS The Floodplain Administrator may make reasonable entry upon any lands and waters for the purpose of making an investigation, inspection or survey to verify compliance with these regulations. (MCA 76-5-105(1))

1. The Floodplain Administrator shall provide notice of entry by mail, electronic mail, phone call, or personal delivery to the owner, owner's agent, lessee, or lessee's agent whose lands will be entered.

2. If none of these persons can be found, the Floodplain Administrator shall affix a copy of the notice to one or more conspicuous places on the property.

3. If the owners do not respond, cannot be located or refuse entry to the Floodplain Administrator, the Floodplain Administrator may initiate a Search Warrant. (Higher Standard)

14.3 NOTICE TO RESPOND AND ORDER TO TAKE CORRECTIVE ACTION When the Floodplain Administrator determines that a violation may have occurred, the Floodplain Administrator may issue written notice to the owner or an agent of the owner, either personally or by certified mail. Such notice shall cite the regulatory offense and include an order to take corrective action within a reasonable time or to respond by requesting an administrative review by the Floodplain Administrator.

14.4 ADMINISTRATIVE REVIEW The order to take corrective action is final, unless within five (5) working days or any granted extension, after the order is received, the owner submits a written request for an administrative review by the Floodplain Administrator. A request for an administrative review does not stay the order.

14.5 APPEAL OF ADMINISTRATIVE DECISION Within ten (10) working days or any granted extension of receipt of the Floodplain Administrator's decision concluding the administrative review, the property owner or owner's agent may appeal the decision pursuant to Section 13.

14.6 FAILURE TO COMPLY WITH ORDER TO TAKE CORRECTIVE ACTION If the owner fails to comply with the order for corrective action, remedies may include administrative or legal actions, or penalties through court.

14.7 OTHER REMEDIES This section does not prevent efforts to obtain voluntary compliance through warning, conference, or any other appropriate means. Action under this part shall not bar enforcement of these regulations by injunction or other appropriate remedy.

SECTION 15. PENALTIES

15.1 MISDEMEANOR Violation of the provisions of these regulations or failure to comply with any of the requirements, including failure to obtain permit approval prior to development in the Regulated Flood Hazard Area except for an emergency, shall constitute a misdemeanor and may be treated as a public nuisance.

Any person who violates these regulations or fails to comply with any of its requirements shall, upon conviction thereof, be fined not more than $100 or imprisoned for not more than 10 days or both. Each day's continuance of a violation shall be deemed a separate and distinct offense. (MCA 76-5-110)

15.2 DECLARATION TO THE FEDERAL FLOOD INSURANCE ADMINISTRATOR
Upon finding of a violation and failure of the owner to take corrective action as ordered, the Floodplain Administrator may submit notice and request a 1316 Violation Declaration to the Federal Insurance Administrator. The Federal Insurance Administrator has the authority to deny new and renewal flood insurance for a structure upon finding a valid violation declaration. (44 CFR 73.3)

The Floodplain Administrator shall provide the Federal Insurance Administrator the following:

1. The name(s) of the property owner(s) and address or legal description of the property sufficient to confirm its identity and location;

2. A clear and unequivocal declaration that the property is in violation of a cited State or local law, regulation or ordinance;

3. A clear statement that the public body making the declaration has authority to do so and a citation to that authority;

4. Evidence that the property owner has been provided notice of the violation and the prospective denial of insurance; and

5. A clear statement that the declaration is being submitted pursuant to section 1316 of the National Flood Insurance Act of 1968, as amended.

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ORDINANCE NO. 15-___

An Ordinance of the City Council of the City of Whitefish, Montana, adopting new Flood Insurance Rate Maps for the City of Whitefish.

WHEREAS, the City of Whitefish Floodplain Regulations under Title 14 Flood Control consists of local requirements for development in the Regulated Flood Hazard Area that are adopted in conformance with Montana state law, the National Flood Insurance Program, and the Federal Emergency Management Agency (FEMA) code of federal regulations. The floodplain regulations reference the Flood Insurance Study (FIS) and Flood Insurance Rate Maps (FIRMs) which are provided to the community from FEMA. The City of Whitefish has a total of eight Flood Insurance Rate Map panels in its jurisdiction; and

WHEREAS, a new mapping update project through FEMA and the Montana Department of Natural Resources and Conservation (DNRC) began back in 2011, and has recently been completed. On December 6, 2011, the DNRC held a meeting about a map maintenance project called 'Risk Map' that was being undertaken using funding from FEMA to improve the accuracy of the floodplain boundaries. The Risk Map project performed new detailed studies on seven areas of Flathead County and refined the boundaries of many existing approximate A zones. The areas studied around the City of Whitefish included: 1.6 miles of Cow Creek upstream from the confluence with the Whitefish River; 4 miles of Whitefish River from Highway 40 upstream to Spokane Avenue; and Refinement of Zone A in surrounding areas such as Lost Coon Lake, Blanchard Lake, and smaller tributaries; and

WHEREAS, the formal release of preliminary revised FIRMs and FIS occurred on April 22, 2014. Of the eight panels within the City's jurisdiction, only four are affected by the revisions. Public open houses hosted by officials from FEMA, DNRC, Flathead County, Whitefish, and Kalispell were scheduled for May 21, 2014 in Whitefish and May 22, 2014 in Kalispell. On July 28, 2014 official notice of 'proposed flood hazard determinations' appeared in the *Federal Register*, and notice of the revised FIRM panels and FIS and information about the appeal process appeared in *The Daily Interlake* on September 7, 2014 and September 14, 2014. The second date of publication started a 90-day appeal period. During the formal appeal period, no appeals were received; and

WHEREAS, on May 4, 2015 FEMA issued a 'Letter of Final Determination' and 'Summary of Map Actions' to the City of Whitefish informing the City that "the modified flood hazards and revised map panel…will be effective as of November 4, 2015, and revise the FRIM that was in effect prior to that date." In the same letter FEMA informed the City that as a condition of continued participation in the National Flood Insurance Program, the City of Whitefish is required to adopt the revised FIRM panels and FIS prior to the effective date of November 4, 2015; and

WHEREAS, FIRM panels showing the established and/or documented floodplains in the City of Whitefish are available in Whitefish Planning and Building Department Office and on the Whitefish Planning and Building Department's website; and

WHEREAS, at a lawfully noticed public hearing on September 21, 2015, the Whitefish City Council received an oral report, reviewed Staff Report WFTA 15-01, invited public input, and approved the new FIRM panels and FIS; and

WHEREAS, it will be in the best interests of the City of Whitefish and its inhabitants to adopt the new FIRM panels and FIS.

NOW, THEREFORE, BE IT ORDAINED by the City Council of the City of Whitefish, Montana, as follows:

Section 1: All of the recitals set forth above are hereby adopted as Findings of Fact.

Section 2: Staff Report WFTA 15-01 dated September 15, 2015 from the Whitefish Planning & Building Department, is hereby adopted as Findings of Fact.

Section 3: The City Council hereby adopts the four new FIRM panels and new FIS.

Section 4: In the event any word, phrase, clause, sentence, paragraph, section or other part of the Ordinance set forth herein is held invalid by a court of competent jurisdiction, such judgment shall affect only that part held invalid, and the remaining provisions thereof shall continue in full force and effect.

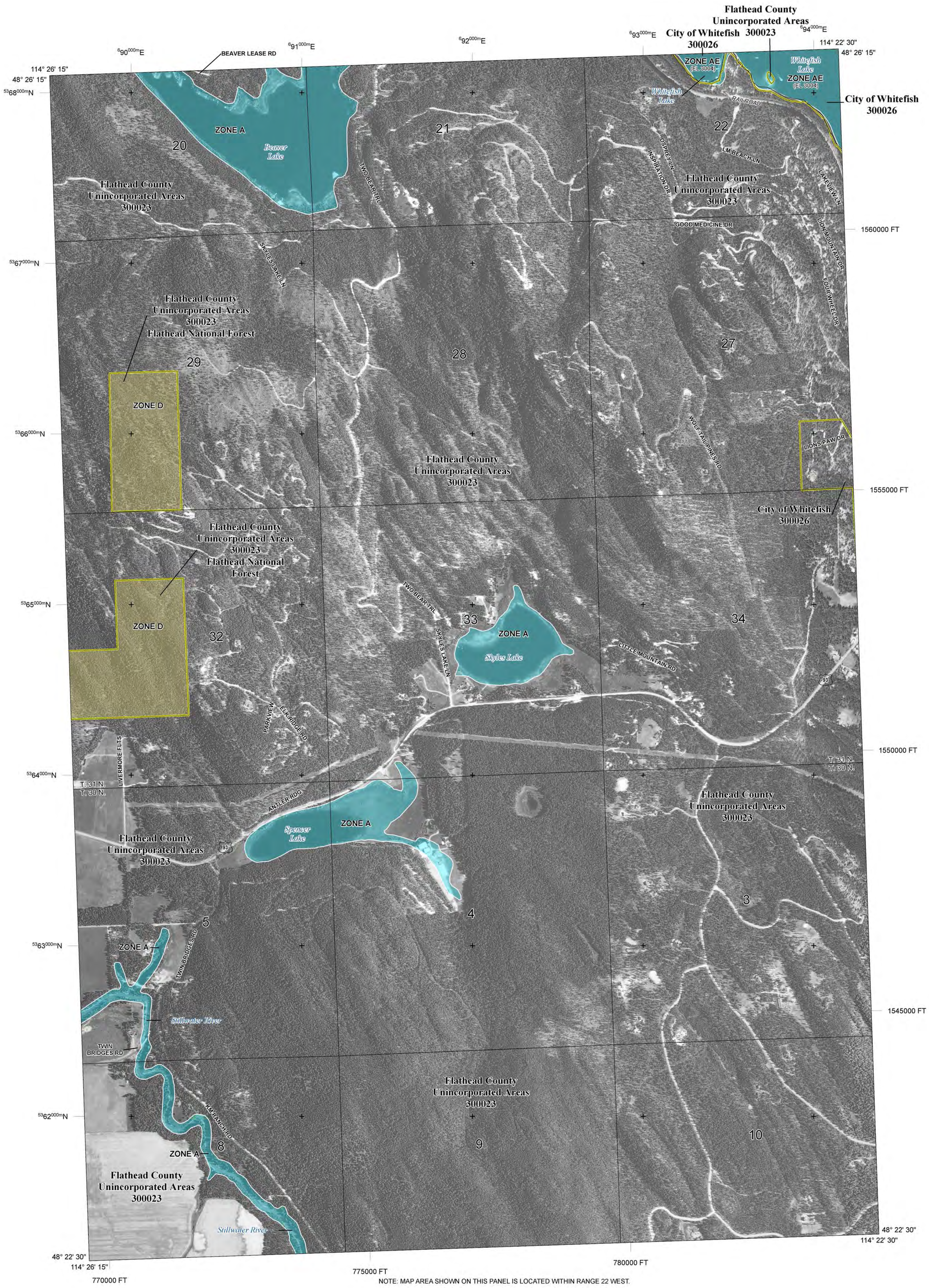
Section 5: This Ordinance shall take effect thirty (30) days after its adoption by the City Council of the City of Whitefish, Montana, and signing by the Mayor thereof.

PASSED AND ADOPTED BY THE CITY COUNCIL OF THE CITY OF WHITEFISH, MONTANA, THIS _____ DAY OF _____, 2015.

_____
John M. Muhlfeld, Mayor

ATTEST:

_____
Necile Lorang, City Clerk



NOTE: MAP AREA SHOWN ON THIS PANEL IS LOCATED WITHIN RANGE 22 WEST.

FLOOD HAZARD INFORMATION

SEE FIS REPORT FOR ZONE DESCRIPTIONS AND INDEX MAP

THE INFORMATION DEPICTED ON THIS MAP AND SUPPORTING DOCUMENTATION ARE ALSO AVAILABLE IN DIGITAL FORMAT AT

HTTP://MSC.FEMA.GOV

SPECIAL FLOOD HAZARD AREAS	Without Base Flood Elevation (BFE) *Zone A,V, A99*
	With BFE or Depth *Zone AE, AO, AH, VE, AR*
	Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD	0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
	Future Conditions 1% Annual Chance Flood Hazard *Zone X*
	Area with Reduced Flood Risk due to Levee See Notes. *Zone X*
OTHER AREAS	NO SCREEN Areas Determined to be Outside the 0.2% Annual Chance Floodplain *Zone X*
	Area of Undetermined Flood Hazard *Zone D*
GENERAL STRUCTURES	Channel, Culvert, or Storm Sewer
	Accredited or Provisionally Accredited Levee, Dike, or Floodwall
	Non-accredited Levee, Dike, or Floodwall
OTHER FEATURES	E 18.2 17.5 Cross Sections with 1% Annual Chance Water Surface Elevation (BFE)
	8 Coastal Transect
	Coastal Transect Baseline
	Profile Baseline
	Hydrographic Feature
	513 Base Flood Elevation Line (BFE)
	Limit of Study
	Jurisdiction Boundary

NOTES TO USERS

For information and questions about this map, available products associated with this FIRM including historic versions of this FIRM, how to order products or the National Flood Insurance Program in general, please call the FEMA Map Information eXchange at 1-877-FEMA-MAP (1-877-336-2627) or visit the FEMA Map Service Center website at http://msc.fema.gov. Available products may include previously issued Letters of Map Change, a Flood Insurance Study Report, and/or digital versions of this map. Many of these products can be ordered or obtained directly from the website. Users may determine the current map date for each FIRM panel by visiting the FEMA Map Service Center website or by calling the FEMA Map Information eXchange.

Communities annexing land on adjacent FIRM panels must obtain a current copy of the adjacent panel as well as the current FIRM Index. These may be ordered directly from the Map Service Center at the number listed above.

For community and countywide map dates refer to the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in the community, contact your Insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

Base map information shown on this FIRM was provided in digital format by the United States Department of Agriculture (USDA). This information was derived from 2011 National Agriculture Imagery Program (NAIP).

SCALE

N

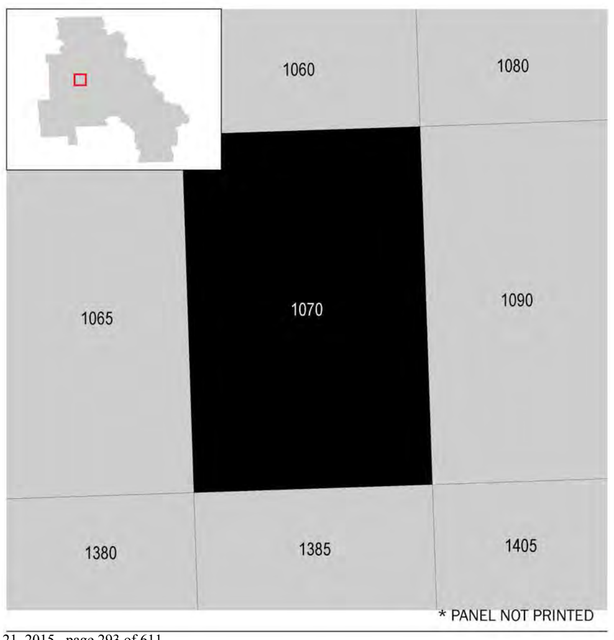
Map Projection:
NAD 1983 UTM Zone 11N;
Western Hemisphere; Vertical Datum: NAVD 88

1 inch = 1,000 feet 1:12,000

0 1,000 2,000 4,000 Feet

0 250 500 1,000 Meters

PANEL LOCATOR



* PANEL NOT PRINTED

FEMA

National Flood Insurance Program

NATIONAL FLOOD INSURANCE PROGRAM
FLOOD INSURANCE RATE MAP

FLATHEAD COUNTY, MONTANA
AND INCORPORATED AREAS

PANEL **1070** OF **3475**

FEMA

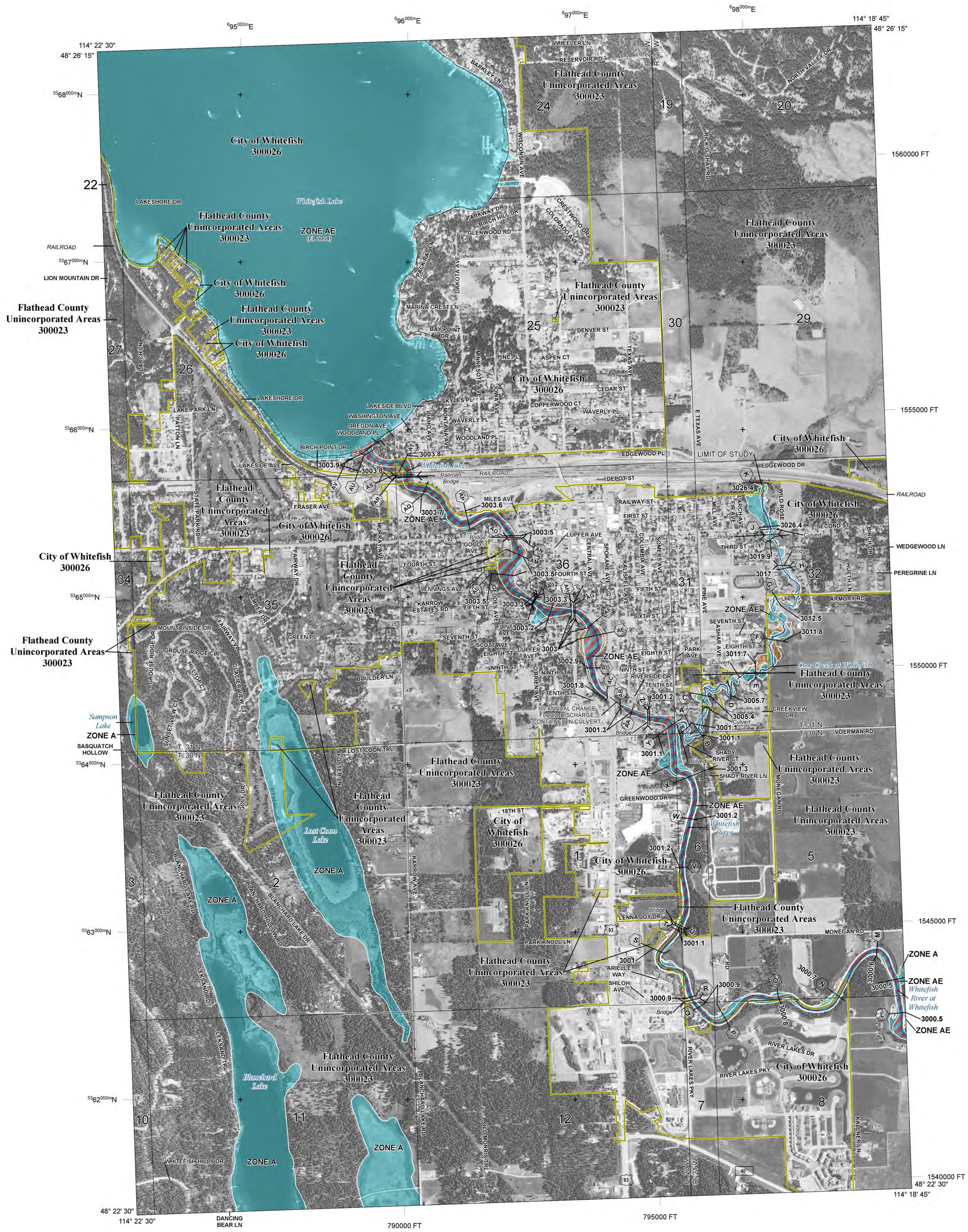
Panel Contains:

COMMUNITY	NUMBER	PANEL	SUFFIX
FLATHEAD COUNTY	300023	1070	J
WHITEFISH, CITY OF	300026	1070	J

VERSION NUMBER
2.2.2.1

MAP NUMBER
30029C1070J

EFFECTIVE DATE
November 04, 2015



FLOOD HAZARD INFORMATION

SEE FIS REPORT FOR ZONE DESCRIPTIONS AND INDEX MAP

THE INFORMATION DEPICTED ON THIS MAP AND SUPPORTING DOCUMENTATION ARE ALSO AVAILABLE IN DIGITAL FORMAT AT

HTTP://MSC.FEMA.GOV

SPECIAL FLOOD HAZARD AREAS	Without Base Flood Elevation (BFE) *Zone A,V, A99*
	With BFE or Depth *Zone AE, AO, AH, VE, AR*
	Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD	0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
	Future Conditions 1% Annual Chance Flood Hazard *Zone X*
	Area with Reduced Flood Risk due to Levee See Notes. *Zone X*
OTHER AREAS	NO SCREEN Areas Determined to be Outside the 0.2% Annual Chance Floodplain *Zone X*
	Area of Undetermined Flood Hazard *Zone D*
GENERAL STRUCTURES	Channel, Culvert, or Storm Sewer
	Accredited or Provisionally Accredited Levee, Dike, or Floodwall
	Non-accredited Levee, Dike, or Floodwall
OTHER FEATURES	E 18.2 17.5 Cross Sections with 1% Annual Chance Water Surface Elevation (BFE)
	8 Coastal Transect
	Coastal Transect Baseline
	Profile Baseline
	Hydrographic Feature
	513 Base Flood Elevation Line (BFE)
	Limit of Study
	Jurisdiction Boundary

NOTES TO USERS

For information and questions about this map, available products associated with this FIRM including historic versions of this FIRM, how to order products or the National Flood Insurance Program in general, please call the FEMA Map Information eXchange at 1-877-FEMA-MAP (1-877-336-2627) or visit the FEMA Map Service Center website at http://msc.fema.gov. Available products may include previously issued Letters of Map Change, a Flood Insurance Study Report, and/or digital versions of this map. Many of these products can be ordered or obtained directly from the website. Users may determine the current map date for each FIRM panel by visiting the FEMA Map Service Center website or by calling the FEMA Map Information eXchange.

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For community and countywide map dates refer to the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in the community, contact your Insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

Base map information shown on this FIRM was provided in digital format by the United States Department of Agriculture (USDA). This information was derived from 2011 National Agriculture Imagery Program (NAIP).

SCALE

N

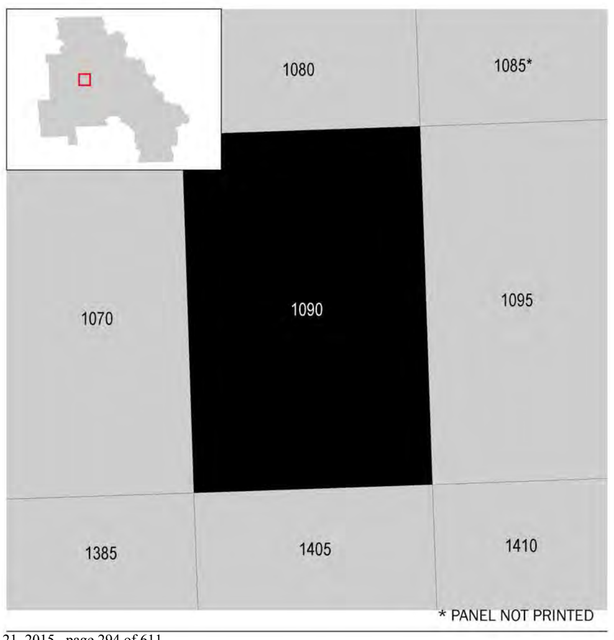
Map Projection:
NAD 1983 UTM Zone 11N;
Western Hemisphere; Vertical Datum: NAVD 88

1 inch = 1,000 feet 1:12,000

0 1,000 2,000 4,000 Feet

0 250 500 1,000 Meters

PANEL LOCATOR



* PANEL NOT PRINTED

FEMA

National Flood Insurance Program

NATIONAL FLOOD INSURANCE PROGRAM
FLOOD INSURANCE RATE MAP

FLATHEAD COUNTY, MONTANA
AND INCORPORATED AREAS

PANEL **1090** OF **3475**

FEMA

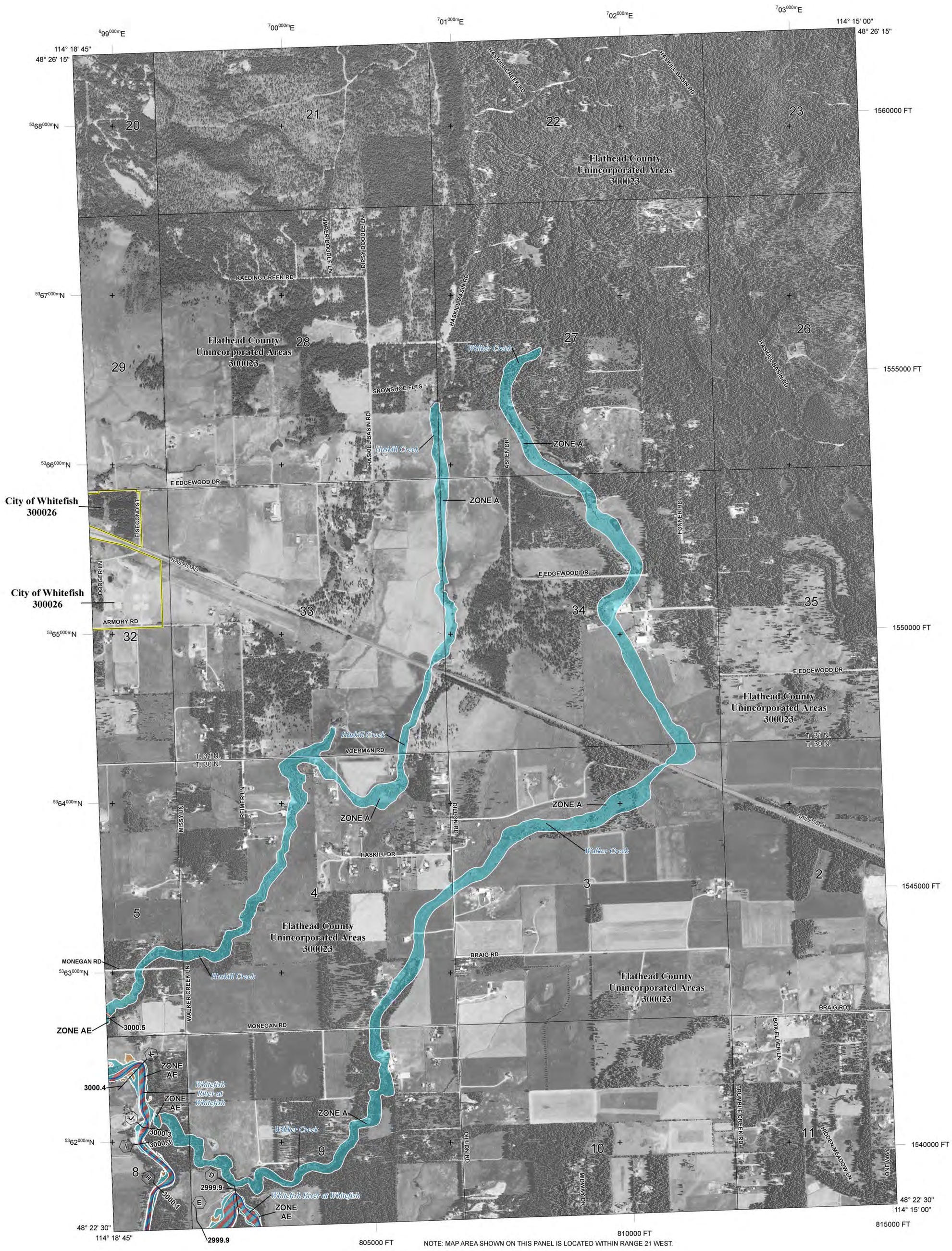
Panel Contains:

COMMUNITY	NUMBER	PANEL	SUFFIX
FLATHEAD COUNTY	300023	1090	J
WHITEFISH, CITY OF	300026	1090	J

VERSION NUMBER
2.2.2.1

MAP NUMBER
30029C1090J

EFFECTIVE DATE
November 04, 2015



NOTE: MAP AREA SHOWN ON THIS PANEL IS LOCATED WITHIN RANGE 21 WEST.

FLOOD HAZARD INFORMATION

SEE FIS REPORT FOR ZONE DESCRIPTIONS AND INDEX MAP

THE INFORMATION DEPICTED ON THIS MAP AND SUPPORTING DOCUMENTATION ARE ALSO AVAILABLE IN DIGITAL FORMAT AT

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SPECIAL FLOOD HAZARD AREAS	Without Base Flood Elevation (BFE) *Zone A,V, A99*
	With BFE or Depth *Zone AE, AO, AH, VE, AR*
	Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD	0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
	Future Conditions 1% Annual Chance Flood Hazard *Zone X*
	Area with Reduced Flood Risk due to Levee See Notes. *Zone X*
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GENERAL STRUCTURES	Channel, Culvert, or Storm Sewer
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	513 Base Flood Elevation Line (BFE)
	Limit of Study
	Jurisdiction Boundary

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To determine if flood insurance is available in the community, contact your Insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

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SCALE

N

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NAD 1983 UTM Zone 11N;
Western Hemisphere; Vertical Datum: NAVD 88

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0 1,000 2,000 4,000 Feet

0 250 500 1,000 Meters

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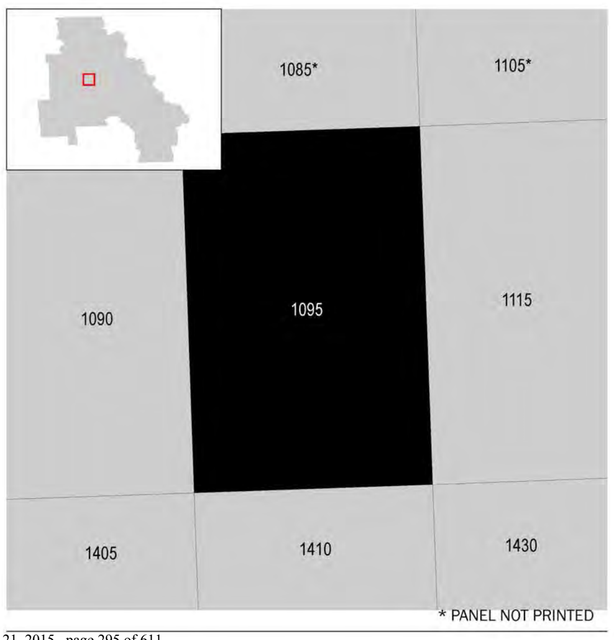

* PANEL NOT PRINTED

FEMA

National Flood Insurance Program

NATIONAL FLOOD INSURANCE PROGRAM
FLOOD INSURANCE RATE MAP

FLATHEAD COUNTY, MONTANA
AND INCORPORATED AREAS

PANEL **1095** OF **3475**

FEMA

Panel Contains:

COMMUNITY	NUMBER	PANEL	SUFFIX
FLATHEAD COUNTY	300023	1095	J
WHITEFISH, CITY OF	300026	1095	J

VERSION NUMBER
2.2.2.1

MAP NUMBER
30029C1095J

EFFECTIVE DATE
November 04, 2015

NOTE: MAP AREA SHOWN ON THIS PANEL IS LOCATED WITHIN TOWNSHIP 30 NORTH.

FLOOD HAZARD INFORMATION

SEE FIS REPORT FOR ZONE DESCRIPTIONS AND INDEX MAP

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	Coastal Transect Baseline
	Profile Baseline
	Hydrographic Feature
	513 Base Flood Elevation Line (BFE)
	Limit of Study
	Jurisdiction Boundary

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To determine if flood insurance is available in the community, contact your Insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

Base map information shown on this FIRM was provided in digital format by the United States Department of Agriculture (USDA). This information was derived from 2011 National Agriculture Imagery Program (NAIP).

SCALE

N

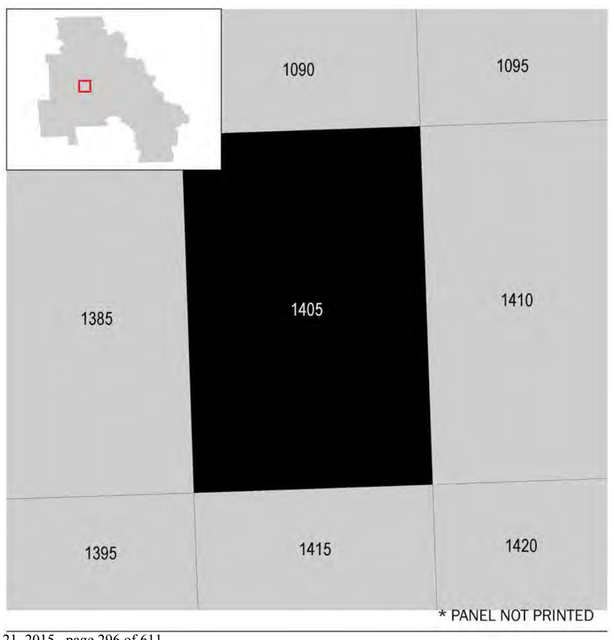
Map Projection:
NAD 1983 UTM Zone 11N;
Western Hemisphere; Vertical Datum: NAVD 88

1 inch = 1,000 feet 1:12,000

0 1,000 2,000 4,000 Feet

0 250 500 1,000 Meters

PANEL LOCATOR



* PANEL NOT PRINTED

FEMA

National Flood Insurance Program

NATIONAL FLOOD INSURANCE PROGRAM
FLOOD INSURANCE RATE MAP

FLATHEAD COUNTY, MONTANA
AND INCORPORATED AREAS

PANEL **1405** OF **3475**

FEMA

Panel Contains:

COMMUNITY	NUMBER	PANEL	SUFFIX
FLATHEAD COUNTY	300023	1405	J
WHITEFISH, CITY OF	300026	1405	J

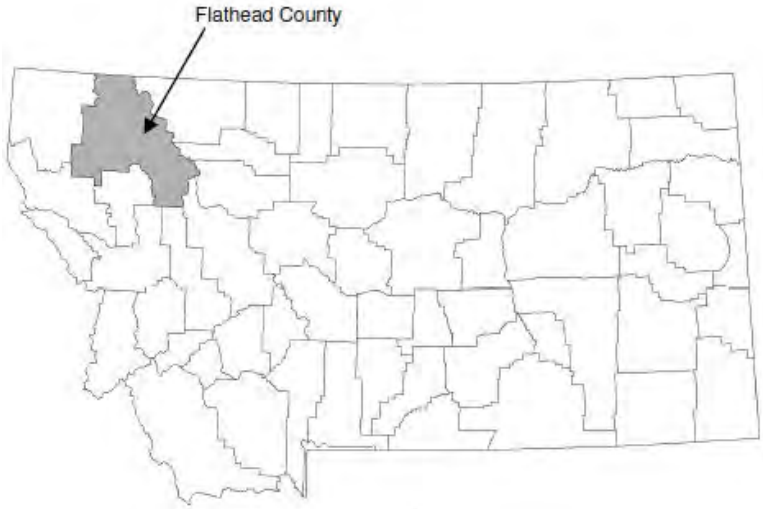
VERSION NUMBER
2.2.2.1

MAP NUMBER
30029C1405J

EFFECTIVE DATE
November 04, 2015

FLOOD INSURANCE STUDY

FLATHEAD COUNTY, MONTANA
AND INCORPORATED AREAS
VOLUME 1 OF 2



COMMUNITY NAME	COMMUNITY NUMBER
COLUMBIA FALLS, CITY OF	300024
FLATHEAD COUNTY (UNINCORPORATED AREAS)	300023
KALISPELL, CITY OF	300025
WHITEFISH, CITY OF	300026

Revised: November 4, 2015

Federal Emergency Management Agency

FLOOD INSURANCE STUDY NUMBER
30029CV001C

NOTICE TO
FLOOD INSURANCE STUDY USERS

Communities participating in the National Flood Insurance Program have established repositories of flood hazard data for floodplain management and flood insurance purposes. This Flood Insurance Study (FIS) report may not contain all data available within the Community Map Repository. Please contact the Community Map Repository for any additional data.

The Federal Emergency Management Agency (FEMA) may revise and republish part or all of this FIS report at any time. In addition, FEMA may revise part of this FIS report by the Letter of Map Revision process, which does not involve republication or redistribution of the FIS report. Therefore, users should consult with community officials and check the Community Map Repository to obtain the most current FIS report components.

Initial Countywide FIS Report Effective Date: September 28, 2007

First Revised Countywide FIS Report Effective Date: June 18, 2013

Second Revised Countywide FIS Report Effective Date: November 4, 2015

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Exhibit 2 – Flood Insurance Rate Map Index

Flood Insurance Rate Map

FLOOD INSURANCE STUDY
FLATHEAD COUNTY, MONTANA AND INCORPORATED AREAS

1.0 INTRODUCTION

1.1 Purpose of Study

This Flood Insurance Study (FIS) revises and supersedes the FIS reports and/or Flood Insurance Rate Maps (FIRMs)/Flood Boundary and Floodway Maps in the geographic area of Flathead County, Montana, including the Cities of Columbia Falls, Kalispell, and Whitefish, and unincorporated areas of Flathead County (hereinafter referred to collectively as Flathead County) (References 1, 2, and 3) and aids in the administration of the National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973. This study has developed flood risk data for various areas of the community that will be used to establish actuarial flood insurance rates. This information will also be used by Flathead County to update existing floodplain regulations as part of the Regular Phase of the National Flood Insurance Program (NFIP), and by local and regional planners to further promote sound land use and floodplain development. Minimum floodplain management requirements for participation in the NFIP are set forth in the Code of Federal Regulations at 44 CFR, 60.3.

In some states or communities, floodplain management criteria or regulations may exist that are more restrictive or comprehensive than the minimum Federal requirements. In such cases, the more restrictive criteria take precedence and the State (or other jurisdictional agency) will be able to explain them.

1.2 Authority and Acknowledgments

The sources of authority for this FIS are the National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973.

The hydrologic and hydraulic analyses for the previous studies for Flathead County and the Cities of Kalispell and Whitefish were performed by HKM Associates, the study contractor, for the Federal Emergency Management Agency (FEMA), under Contract No. H-4026. Those studies were completed in 1978.

Revised hydrologic and hydraulic analyses for the Flathead River from Flathead Lake to approximately Foy's Bend, along with new hydrologic and hydraulic analyses of the Swan River from the Steel Bridge to the Lake County line, were performed by Simons, Li, & Associates, Inc., for FEMA under Contract No. EMW-84-C-1635.

A revision was performed along Ashley Creek to revise the floodway and floodplain because of updated topographic information, channel improvements, and the addition and replacement of stream hydraulic structures. The hydraulic analyses for the revision were

performed independently by Pacific International Engineering and were completed in June 2006.

For this initial countywide study a hydraulic and hydrologic analysis was developed to support a new approximate Zone A boundary for the North Fork Flathead River. This analysis was performed by PBS&J, Inc. for the Montana Department of Natural Resources & Conservation (MTDNRC) under contract WO-PBSJ-040. This work was completed in April 2006.

New and revised hydrologic and hydraulics analyses were performed for a portions of Ashely Creek, Cow Creek, Stillwater River, Swan River near Bigfork, Whitefish River near Kalispell, Whitefish River near Whitefish, and West Spring Creek. Those studies were completed by the MTDNRC and their subcontractor Atkins North America under contract number WO-ANA-100. The work was completed in 2013.

The DOQQ (Digital Orthophoto Quarter Quadrangle) base map for Flathead County was provided by Natural Resources Conservation Service (NRCS) Data Gateway (http://datagateway.nrcs.usda.gov/GatewayHome.html). The black and white DOQQ mosaic for the County was acquired from the NRCS Data Gateway website. Though the photo mosaic does not cover the entire county, it does cover the mapped floodplains. The U.S. Department of Agriculture produced this orthophoto mosaic at 1:12,000 scale. It has one meter ground resolution and the DOQQs used to produce the mosaic were photographed between 1990 and 1995. The DOQQs have a 1-meter ground resolution, quarter-quadrangle image cast on UTM coordinates of the North American Datum of 1983. Though the photos are more than seven years old, they are the most recent DOQQs available for the County. Therefore, they will be used for the base map for the panels that were revised in 2007 and 2013.

National Agricultural Imagery Program (NAIP) aerials collected in 2011 are used for the base map for map panels that were updated in 20xx. The 2011 NAIP imagery is produced for the United States Department of Agriculture's Farm Service Agency Aerial Photography Field Office. It was obtained from the USDA Data Gateway website (http://datagateway.nrcs.usda.gov/). This imagery is a mosaic for all of Flathead County Montana. It was produced at a scale of 1:120,000 with a ground resolution of 1 meter, cast on UTM coordinates of the North American Datum of 1983. The imagery is in color. It was converted to black and white without altering the horizontal accuracy of the original imagery.

1.3 Coordination

For the countywide FIS, the initial Consultation Coordination Officer (CCO) meeting was held on October 7, 2005 and was attended by representatives of FEMA, Montana Department of Natural Resources and Conservation, Flathead County, the City of Kalispell, and the study contractor.

The results of the study were reviewed at the final CCO meeting held on September 7, 2006, and attended by representatives of FEMA, Montana Department of Natural Resources and Conservation, Flathead County, the City of Kalispell, and the study contractor. All problems raised at the meeting have been addressed.

Flathead County (Unincorporated Areas)
Streams requiring detailed study were identified at an initial CCO meeting attended by representatives of the study contractor, FEMA, Montana Department of Natural Resources and Flathead County, in the City of Kalispell on April 15, 1976.

Telephone and personal contacts were made by the study contractor throughout the duration of the Flood Insurance Study in an effort to coordinate activities and accumulate pertinent information. In addition to those mentioned previously, agencies and offices contacted were: the U.S. Geological Survey (USGS); local newspapers; the Flathead County Library; the Montana Department of Highways; local photographers who have taken flood photographs; the U.S. Army Corps of Engineers (USACE), Seattle District; The U.S. Soil Conservation Service (SCS); the local weather bureau; the local unit of the U.S. Forest Service of Flathead National Forest; local private engineering firms; the Burlington Northern Railroad, Bridge Section; the local unit of the Montana Fish and Game Department; local planning units; and others.

On November 17, 1982, the results of the original study were reviewed at the final meeting attended by representatives of Flathead County, FEMA, and the study contractor. The study was acceptable to the county.
Additional streams requiring detailed and approximate analyses for the revised report were identified at a meeting attended by representatives of Flathead County, FEMA, the study contractor, and the Montana Department of Natural Resources and Conservation (MTDNRC) in April 1984.

Telephone and personal contacts were made by the study contractor throughout the duration of the Flood Insurance Study in an effort to coordinate activities and accumulate pertinent information. In addition to those previously mentioned, the following agencies and offices were contacted: the USGS; local newspapers; Flathead County Library; the USACE, Seattle District; SCS; the local unit of the U.S. Forest Service of Flathead National Forest; local private engineering firms; the local unit of the Montana Fish and Game Department; and others.

On January 7, 1987, the results of this study were reviewed at the final meeting attended by representatives of Flathead County, FEMA, and the study contractor.

City of Kalispell
The initial CCO meeting was held on April 15, 1976, and attended by representatives of Flathead County, the City of Kalispell, FEMA, the Montana Department of Natural Resources (Floodway Management Bureau), and the study contractor. This meeting was held to identify streams which required approximate and detailed study.

Telephone and personal contacts were made by the study contractor throughout the duration of the study in an effort to coordinate activities and accumulate pertinent information. In addition to those mentioned previously, agencies and offices contacted were: the USGS; local newspapers; the Flathead County Library; the Montana Department of Highways; the USACE, Seattle District; the SCS; the local weather bureau; the local unit of the U.S. Forest Service of Flathead National Forest; local private engineering firms; the Burlington Northern

Railroad, Bridge Section; and the local unit of the Montana Fish and Game Department.

The results of the study were reviewed at the final CCO meeting held on February 27, 1979, and attended by representatives of FEMA, the study contractor, and the City of Kalispell. All problems raised at that meeting were addressed in the study.

City of Whitefish
On April 15, 1976, streams requiring approximate and detailed study were identified at the initial CCO meeting held in Kalispell, Montana. The meeting was attended by representatives of FEMA; Montana Department of Natural Resources, Floodway Management Bureau; study contractor; Flathead County; and the City of Whitefish.

Telephone and personal contacts were made by the study contractor throughout the duration of the study in an effort to coordinate activities and accumulate pertinent information. In addition to those mentioned previously, agencies and offices contacted were: the USGS; Whitefish Pilot; the Flathead County Library; the Montana Department of Highways; Whitefish Municipal Library; the USACE, Seattle District; the SCS; the local weather bureau; the local unit of the U.S. Forest Service of Flathead National Forest; local private engineering firms; the Burlington Northern Railroad, Bridge Section; and the local unit of the Montana Fish and Game Department.

The results of the study were reviewed at a final CCO meeting held on June 14, 1978. Attending this meeting were representatives of FEMA, the study contractor, the Montana Department of Natural Resources, and the City of Whitefish. The study incorporated all appropriate comments, and all problems were resolved.

2.0 AREA STUDIED

2.1 Scope of Study

This FIS covers the geographic area of Flathead County, Montana including the Cities of Columbia Falls, Kalispell, and Whitefish, and unincorporated areas of Flathead County. The Kalispell Air Force Base was excluded from this study.

The streams studied by detailed methods are presented in Table 1.

The areas studied by detailed methods were selected with priority given to all known flood hazard areas and areas of projected development or proposed construction through 2007.

Areas studied by approximate methods include segments of Ashley Creek, Bear Creek, Big Lost Creek, Brush Creek, Cow Creek, Cedar Creek, Flathead Lake, Flathead River, Garnier Creek, Haskill Creek, Lazy Creek, Logan Creek, Mud Creek, Mount Creek, North Fork Flathead River, Patrick Creek, Spring Creek, Stillwater River, Swift Creek, Truman Creek, Trumbull Creek, Walker Creek, West Spring Creek, Whitefish Lake, Whitefish River, and several small lakes within the county. Therefore, these areas were designated as zones of minimal flooding.

Approximate analyses were used to study those areas having a low development potential or minimal flood hazards. The scope and methods of study were proposed to and agreed upon by FEMA and Flathead County.

Table 1 – Streams Studied by Detailed Methods

Ashley Creek	Swan River
Bear Creek	Swift Creek
Flathead River	West Spring Creek
Lazy Creek	Whitefish River at Whitefish
Middle Fork Flathead River at Nyack	Whitefish River near Kalispell
Middle Fork Flathead River at West Glacier	Whitefish Lake
Stillwater River near Kalispell	
Stillwater River near Olney	

2.2 Community Description

Flathead County, in the northwestern corner of Montana, is one of the largest counties in the state. It is bounded on the north by the Canadian Provinces of Alberta and British Columbia; on the west by Lincoln County; on the south by Sanders, Lake, Missoula, and Powell Counties; and on the east by Glacier, Pondera, Teton, and Lewis and Clark Counties.

The topography of the county ranges from extremely mountainous in the eastern and northern sections to only moderately mountainous in the west-southwestern section. Mountains within the county include the Whitefish, Salish, Livingstone, Flathead, and Swan Ranges. Many large lakes dot the countryside, and several deep river valleys cut through the mountains forming a very complex drainage system. Elevations in the county range from more than 10,000 feet in Glacier National Park to approximately 2,900 feet along the shore of Flathead Lake.

As in other mountainous areas, the previously described geographical features contribute to the wide variation in climate. The variation is most evident between the actual slopes of the Continental Divide and the broad valleys north of Flathead Lake including the Whitefish-Columbia Falls area. The county climate is classified as a modified Pacific maritime-type. It varies from a moist, maritime type climate in the upper Flathead River Valley to a drier, continental-type climate farther south. Although the entire valley is affected by weather from the Pacific and Arctic Oceans, the dominant weather patterns vary from north to south. Pacific Ocean air is more dominant in the winter, resulting in a milder climate than would be characteristic of areas influenced by continental air masses (Reference 4).

Average temperatures within the Flathead River basin are generally a little cooler than in other parts of Montana, which are east of the Continental Divide. However, temperatures during the winter are less severe, mainly due to the sheltering effect of the divide. Although polar air masses develop enough vertical depth to spill westward over the Continental Divide, such cold waves occur one-half as often as in eastern Montana. The annual average temperature for Kalispell is 44 degrees Fahrenheit (°F), and monthly averages are 20°F and 66°F for January and July, respectively. These temperatures are generally warmer than those

at the unincorporated community of Summit, which is on the Continental Divide. There the average annual temperature is 36°F and January and July monthly averages are 15°F and 57°F, respectively (Reference 5).

Precipitation averages are generally higher in Flathead County than in other areas of Montana. Records indicate that Kalispell, which averages 15 inches per year, may be the driest point in the county. The average annual precipitation for Summit is 37 inches (Reference 5).

The pronounced early summer rainfall maximum common to most of Montana is not characteristic of this area. The variation from month to month is relatively small. In the Flathead River Valley, 40 to 60 percent of the annual precipitation occurs during the growing season. The midwinter precipitation is substantial, particularly in the mountains where winter and early spring snowfall is usually heavy. The mountains sometimes receive several hundred inches of snow annually. Severe snowstorms (a yearly occurrence in the mountain climate complex) are common in Flathead County. Thunderstorms usually are less severe in this area than east of the Continental Divide.

Low flows in the basin occur naturally during the winter months, and floods normally occur in the spring during periods of rapid snowmelt. Rain also may be an important factor during these floods periods. Winter floods in this area rarely reach substantial proportions.

Most of Flathead County has been influenced by alpine glaciation. The glaciated areas are covered with material that was picked up, mixed, and redeposited either by ice or glacial melt water.

Soils in the relatively flat portion of the Flathead River Valley north of Flathead Lake are generally of two types. One type is rocky and poorly drained, and is underlain by unsorted glacial till. This soil is only used marginally for agriculture but is more extensively managed for timber production. The other soil type, underlain by deposits that have been reworked or sorted by running water, is the most productive in the area and is managed extensively for cultivated crops. These valley soils are generally deep, well structured, and well drained.

Because of the high quality environment, (i.e., clean air and pristine environment), and the outdoor recreational opportunities, Flathead County has more than doubled in population since 1970. The current growth rate for the county is nearly 1,700 people per year. The April 1970 census indicated a county population of 39,460 (Reference 6), the estimated 1980 population was 51,966 (Reference 7), and the estimated 1990 population was 59,218 (Reference 7). The 2000 population estimate was 74,471 (Reference 7) and by July 1, 2004 that number had risen to 81,217 (Reference 7). Of this total, the three incorporated communities of Kalispell, Whitefish, and Columbia Falls are estimated to contain 31 percent of the population (Reference 7). Since 1960, suburbanization has been the predominant trend in the county.

As indicated previously, the abundance and diversity of natural resources have contributed to the growth of the area. These natural resources not only attract commercial and residential development, but provide areas well suited to agricultural and timber production. Mountains dominate the landscape; approximately 80 percent of the total land is classified as

mountainous with slopes generally exceeding 40 percent. Foothills and valley-bottom land (in approximately equal proportions) make up the remaining 20 percent of the landscape. The geologic, hydrologic, and soil characteristics such as earthquake hazards, high groundwater table, floodplain, steep slopes, and erosion hazard are natural development constraints.

Ashley Creek originates in the Salish Range of the Flathead National Forest and flows easterly for approximately 50 miles before joining Flathead River. The total vertical drop in that distance is approximately 2,100 feet. The drainage area is approximately 280 square miles above the detailed study segments and 323 square miles above the mouth.

Development within the Ashley Creek detailed study floodplain is residential and commercial (including part of the Kalispell Municipal Airport and a sewage disposal plant).

The Ashley Creek watershed is generally characterized by alluvial soils along the stream and gray wooded soils in the mountain regions. The alluvial soils usually occur in small areas along the stream bottom and in areas that may be flooded periodically. These incipient soils consist of a thick dark organic horizon underlain by parent material (i.e., alluvial sediments). Gray wooded soils occur in conifer forests and are more developed compared to alluvial soils. A dark surface layer of less than four inches may be present just under the forest litter. In the absence of the dark layer, a light gray to white zone 4 to 12 inches thick lies just beneath the litter. The subsoil (a mixture of surface soil and the substratum) may extend to depths of 3 to 4 feet. A clay accumulation zone lies below this zone of mixing and may extend to depths of 6 feet.

Bear Creek begins at the Continental Divide in the east-central portion of Flathead County, and flows generally southwesterly for approximately 19 miles before joining Middle Fork Flathead River. Bear Creek channel slopes average 440 feet per mile upstream of the first approximate study reach, 215 feet per mile near the gaging site (which is within the detailed study segment), and 87 feet per mile for the total stream length. Maximum and minimum elevations within the Bear Creek watershed range from approximately 8,610 to 3,880 feet, respectively. The drainage area upstream of the gaging site, within the detailed study stream segment, is 20.7 square miles, and at the mouth the drainage area is 56.2 square miles. The average annual precipitation values for the watershed range from a high of 54 inches in the upper areas to 49 inches at the mouth, resulting in an overall weighted average 51 inches. There are only a few private structures in the Bear Creek detailed study floodplain.

Flathead River is the major watercourse through Flathead County and is an upper tributary to the Columbia River. The Flathead River drainage is the most northeastern basin of the basins within the Columbia River system. Flathead River has its headwaters in the mountainous areas in western Montana on the western side of the Continental Divide and north of the international boundary. The river flows southerly for approximately 95 miles from Columbia Falls, Montana, to the unincorporated community of Dixon, Montana. Columbia Falls is significant because it is below the confluences of all three tributaries to Flathead River (North, South, and Middle Forks of Flathead River). Also, its geographic location is such that it can be described as the gateway to the broad Kalispell Valley along Flathead River. Dixon is significant because it is here that the Flathead River joins Clark Fork.

The middle one-third of the 95 mile stream distance is occupied by Flathead Lake, one of the largest bodies of freshwater in the western United States. Upstream of the lake, the river is referred to as Upper Flathead River, and the section downstream from the lake is referred to as Lower Flathead River. Only the section of Flathead River upstream of Flathead Lake is considered in this study.

The Flathead River drainage area is approximately 7,096 square miles at the outlet of Flathead Lake and 5,280 square miles at the inlet. The drainage basin of the river upstream from Kalispell is 5,212 square miles, and upstream of the stream gage at Columbia Falls, it is 4,464 square miles. The drainage area upstream of the international boundary between Flathead County and British Columbia is approximately 430 square miles.

The Flathead River basin above Flathead Lake consists of a series of northwest-southeast trending mountain ranges drained by tributaries of Flathead River. Mountain elevations average slightly more than 7,000 feet, but extend to 10,000 feet. The topography of the Kalispell Valley reflects both the most recent glacial recession and the meanderings of Flathead River. Above Kalispell, the river typically has a slope gradient of approximately 6 feet per mile; below Kalispell, it decreases to approximately 1 foot per mile during minimum impoundment of Flathead Lake.

Glacial outwash (glacial deposits reworked and resorted by glacial melt water) underlies most of the area in the Flathead River Valley and forms floodplains and terraces adjacent of Flathead River and its tributaries.

Soils in the Upper Flathead Basin tend to be immature or incompletely developed due to their relatively recent disturbances by glacial ice. A major exception is evidenced in the relatively productive alluvial soils developed from outwash deposits on the floodplain and terraces on the Flathead River.

Soils on mountain slopes and narrow valleys tend to be rocky, thin, and nutrient-poor; they are often unstable on steeper slopes if vegetation is removed. These soils support a luxuriant coniferous forest, where drainage and depth are suitable. Soils in the relatively flat portion of the valley north of Flathead Lake are generally of two types; one type is underlain by unsorted glacial till and is generally rocky and poorly drained; and the other valley soils are underlain by deposits that have been reworked or sorted by running water. The latter group is generally deep, well-structured and well-drained. These soils are the most productive in the area and are managed extensively for cultivated crops.

The Upper Flathead River Basin includes a wide variety of vegetation types, reflecting the variability of physiography, climate, and substrates found within the basin. While most of the Flathead River Valley south of Columbia Falls has been cultivated, some natural grasslands remain, particularly on south-facing foothills and lower slopes of mountains. At lower elevations, these are usually dominated by bunchgrasses such as bluebunch wheatgrass. The Flathead River floodplain supports extensive forests dominated by cottonwoods and often including spruce and juniper. Streambanks and valleys in the higher mountains often support a dense shrubland dominated by willow, alder, and aspen and bordered by birches or conifers. Ponderosa pine dominates the lowest forest zone in the Flathead River Basin, often occurring on drier sites as scattered trees or groves of trees

interspersed with grassland. Annual precipitation averages approximately 15 to 20 inches through the Flathead Valley, but is much higher on adjacent mountain slopes and in the upper reaches of the watershed. Snowfall of several hundred inches a year is common in the high-mountain ranges.

The source of Lazy Creek is in the foothills of the Whitefish Range in the Stillwater State Forest. The stream travels approximately 12 miles before entering Whitefish Lake. The drainage area upstream of the detailed study stream segment near the lake is approximately 11.5 square miles. Lazy Creek has an average streambed slope of 55 feet per mile through the middle sections, 150 feet per mile for the steeper slopes in the uppermost reaches, and 15 feet per mile near the lake inlet. The weighted average annual precipitation for the watershed is 25 inches.

Vegetative land cover near the stream mouth consists of bunchgrasses and scattered groupings of thick brush or tress. Timber stands are relatively dense in the upper reaches of the watershed.
There are several farm structures within the detailed study area floodplain along Lazy Creek.

Middle Fork Flathead River originates in the Bob Marshall Wilderness Area in northwest Montana and flows northwesterly for more than 100 miles, joining the North Fork of the Flathead River approximately four miles upstream from the unincorporated community of Hungry Horse. The upper reaches of the watershed are bordered by the Flathead Range and the Continental Divide. The river drains an area of more than 1,130 square miles and has no impoundments on the main stem or its tributaries. Middle Fork Flathead River forms the southern boundary of Glacier National Park from a point just east of the unincorporated community of Essex to the unincorporated community of West Glacier. It is classified under the National Wild and Scenic Rivers Act of 1968 as a wild river from its headwaters to Bear Creek, a distance of 46.6 miles, and as a recreational river from Bear Creek to its confluence with South Fork, a distance of 54 miles.

Middle Fork Flathead River flows through deep, narrow canyons in the upper stream segments with bed slopes of 40 to 50 feet per mile. In the lower segments, the valley widens and the gradient is approximately 15 feet per mile.

The mean annual precipitation for the watershed is approximately 60 inches. It is not uncommon for the watershed to receive several hundred inches of snow annually in the higher elevations. Runoff from snowmelt, occasionally combined with rainfall, provides high streamflows in the spring.

Soils in the watershed tend to be rocky, thin, and low in nutrients. They do, however, support a densely populated conifer forest where drainage and depth are suitable.

The detailed study area for the portion of Middle Fork Flathead River at West Glacier has a golf course with a clubhouse and related structures in the floodplain. There is also a small number of private homes. The floodplain in the detailed study areas at the unincorporated community of Nyack has a small number of structures (primarily farm structures).

Stillwater River is in west-central Flathead County. The river originates in the Salish Range

within the Flathead National Forest. It flows generally southeasterly toward Kalispell, and joins Whitefish River approximately 5.2 miles upstream of the confluence with Flathead River.

Stillwater River has a drainage area of approximately 580 square miles upstream of the mouth. Elevations in the watershed range from a maximum of approximately 7,000 feet to a minimum of 2,900 feet. Average channel slope upstream of the upper detailed study segment near the unincorporated community of Olney (referred to as Stillwater River near Olney) is approximately 84 feet per mile. For the total watershed, the channel slope averages 20 feet per mile. The average annual precipitation for the watershed is approximately 32 inches.

The drainage area is predominantly rolling plateau land extensively developed for dry farming. There are moderate to extensive timber stands throughout the area, especially at higher elevations. Along the river, there are a few lakes, which are essentially unregulated. Historically, however, splash dams at lake outlets in the upper valley have provided some regulation in order to accommodate log drives. There are a few structures in the floodplain of the Stillwater River detailed study areas.

The Swan River originates from Gray Wolf Lake in the Mission Range and flows generally in a northwesterly direction before emptying into Flathead Lake. At the inlet and outlet of Swan Lake, the river drains a watershed area of approximately 540 and 671 square miles, respectively.

The Swan River Valley bottom in Flathead County was formed by glacial melt waters and reworked by fluvial processes. The valley is bounded in the east by the Swan Mountain Range and on the west by the Mission Range.

The vegetation in the valley is dominated by subalpine firs with slopes ranging from 0 to 20 percent. The slope of the Swan River from the USGS gage near Bigfork to the diversion dam is 0.07 percent. Development along the Swan River within the study reach is limited to small farms and a few houses and cottages.

Swift Creek originates in the Whitefish Range and flows southeasterly for approximately 24 miles before flowing into Whitefish Lake. The total drainage area above the mouth is 78 square miles, and the average annual precipitation for the watershed is approximately 41 inches. Elevations range from 7,400 feet in the upper stream segments to 3,000 feet at the mouth. The average channel slope through the drainage area is approximately 87 feet per mile. Swift Creek is considered to be the main inflow stream to Whitefish Lake.

Near the mouth, there is a mix of grassland and timber stands. Timber density increases with elevation throughout the watershed. There is essentially no development in the floodplain in the Swift Creek detailed study area.

Spring Creek which is immediately west of Kalispell is called West Spring Creek in this study. This nomenclature was adopted both for convenience and to distinguish it from East Spring Creek along the eastern side of the city.

The basic water supply source for West Spring Creek is a group of springs in the foothills of the Salish Range of the Flathead National Forest. West Spring Creek flows southeasterly for approximately 4 miles before being intercepted and piped to Ashley Creek. The average streambed slope for West Spring Creek, through the detailed study stream segment, is 18.5 feet per mile. The weighted-average annual precipitation for the watershed is 15.5 inches.

The watershed is generally characterized by alluvial soils, which are sparsely vegetated by bunchgrasses and scattered trees or groves of trees. Stands of timber occur with increasing elevation in the Salish Range. There are residential and commercial structures within the floodplain of the West Spring Creek detailed study area.

The Whitefish River originates at the south end of Whitefish Lake and flows southerly for approximately 24 miles before joining Stillwater River near Kalispell. From there, the combined flows travel approximately 5.2 miles to join Flathead River. An average bed slope for the river as it passes through Whitefish is 0.79 foot per mile (0.00015 foot per foot). Just upstream of Kalispell, the average bed slope is 2.5 feet per mile.
The drainage area above the gage site midway between Whitefish and Flathead River is approximately 170 square miles. The average annual precipitation for the watershed is 37 inches.

The upper reaches of the Whitefish River watershed are generally characterized by dense timber stands. Brown Podzolic soils and gray wooded soils occur principally in the mountain regions where the annual precipitation is relatively high (Reference 8). Soils in the remaining portions of the watershed consist of Chestnut and Chernozem types in the Valley, and alluvial soils along the stream and in the immediately adjacent areas that may be flooded periodically. Development in the floodplain along the Whitefish River detailed study area consists of only a few structures.

Whitefish Lake, in west-central Flathead County, has a surface area of approximately 5 square miles and a shoreline length of approximately 15 miles. The normal pool level is considered to be 2,996.4 feet. Whitefish Lake is an unregulated system; the lake stage, geometry, and hydraulic characteristics of Whitefish River determine the amount of downstream releases. The main stream feeding Whitefish Lake is Swift Creek.

City of Kalispell
The City of Kalispell is situated in the south-central portion of Flathead County. Approximately 7 miles northeast of Kalispell is the community of Columbia Falls, and approximately 7 miles to the southeast is Somers. The community is located in Flathead Valley, which is part of the Rocky Mountain Trench, a large structural depression extending from British Columbia south to the Missoula, Montana area. Kalispell is located in the trench-like depression between Columbia Falls and Flathead Lake.

Kalispell is currently growing and is expected to continue this trend. The 1960 incorporated area population for Kalispell was 10,151, with an estimated jurisdictional or planning area population of 13,320. In 1970, the incorporated and jurisdictional populations were 10,526 and 15,431 (estimated), respectively. According to the 1990 U.S. census, the population for the incorporated area was up to 11,917 and the planning area for 23,600. By 2000, the population was 14,999 and by 2004 this number had risen to 17,381 (Reference 7).

Approximately one-half of Kalispell planning area is composed of slopes in excess of 20 percent, floodplains, and soils with severe limitations for development. Because of the general physical and chemical properties of the soil, certain portions of the jurisdictional area are not suited for development. With this in mind, and the fact that Kalispell is experiencing a rapid growth rate, pressure will undoubtedly be placed on the zoning authorities and desirable valley land, some of which lies within floodplains. Planning agencies are actively stressing the importance of coordination and control of floodplain development. These agencies are suggesting that greenbelt-parkway systems be developed which focus on natural and man-made water features. Hence, planning and control agencies recognize the pressure being placed on floodplain lands and recognize the urgency and importance of this study.

City of Whitefish

Whitefish is located in central Flathead County. The community lies in the Rocky Mountain Physiographic Province, along the west side of the Continental Divide. Mountains in the area include the Whitefish Mountains and the Salish Mountains to the west.

Whitefish is also currently growing rapidly and this trend is expected to continue. The 1970 census indicated a population of 3,349 for the incorporated area. By 1980, the population was 3,703. By 1990, the number had increased to 4,368, a 15 percent increase in ten years. By July 2000, the number had grown to 5,032. The most substantial increase was from July 2000 to July 2004. The estimate in July 2004 was 6,151. This was an increase of 18 percent in only four years.

The majority of this area is either part of the Flathead National Forest or is generally classified as undevelopable due to steep slopes. If special consideration is given to the type of construction and service facilities, some areas with steep slope may be developed. Historically, a significant force in the Whitefish area has been peripheral growth, with the lakeshore growth being most important. The limited amount of satisfactory land and the development sentiments for lakeshore property are obviously a test for flood zone planning and regulations.

2.3 Principal Flood Problems

Typically, the most severe flooding in Flathead County occurs in the spring and early summer months as a result of snowmelt and/or rainfall runoff. On rare occasions, ice jams cause some overbank flooding. In addition to the flooding along streams, shallow flooding periodically occurs in other isolated, developed areas of Flathead County due to the relatively high ground water table, rapid snowmelt, heavy sustained rainfalls, and other factors. Areas in the county where this type of flooding occurs are generally on the down side of sloping topography or in low lying areas of the Flathead River Valley where there is minimal topographic relief.

It appears that the worst flooding in the west Kalispell area occurred in 1948. Except for 1948, Ashley Creek does not have a history of severe flooding.

West Spring Creek has historically been classified as a stream of only potential flood hazard. However, it appears that rather recent changes in land use and additions to storm drain systems have intensified the flood problems.

At one time, the watershed was essentially undeveloped, with minimal manmade alterations along its natural course. Recently, however, development of varying nature and intensity has occurred in the area. Storm runoff has intensified and is being routed either directly into West Spring Creek or into areas that historically had to accommodate only the natural runoff amounts. Rather frequent flooding was being experienced in the urbanizing area, which necessitated flood protection works. The most significant modification involves a piping system at the end of the detailed study which was installed to redirect West Spring Creek flows and carry miscellaneous local storm runoff to Ashley Creek. The piping system has such a limited capacity that periodic flooding continues to be experienced in this area.

For the period of record, which spans approximately 30 years, the largest flow in the Whitefish River occurred in June 1974, with a record flow of 1580 cubic feet per second (cfs). This was approximately a 3.33-percent annual chance event. The historic peak elevation on Whitefish Lake also occurred in 1974, when the pool was at 3003.4 feet. Other minor floods on the Whitefish River occurred in 1932, 1948, 1950, and 1964.

Floods on Whitefish River often last for extended periods, occasionally in excess of two weeks. The Whitefish River generally rises and recedes gradually due to the effects of Whitefish Lake. It was reported that, during the 1948 flood, the Whitefish River had an estimated average rate of rise of 0.25 foot per day.

Historically, six severe flood events have occurred along Flathead River. The six years of most significance are 1894, 1982, 1933, 1948, 1964, and 1975 (Reference 9).

In the Flathead River basin, very little quantitative information exists for floods prior to 1910. The 1894 flood of 142,000 cfs on Flathead River at Columbia Falls was the largest flood event known until a discharge of 176,000 cfs was recorded in 1964 (Reference 9).

The lower portion of Flathead River between the discontinued gaging station near Kalispell and Flathead Lake has been subjected to high flood-crest elevations in all of the six years listed previously. A summary and comparison of flood-crest elevations for some of the historical flood events along Flathead River are given in Table 2.

Table 2 – Historic Flood Elevations on Flathead River

Name of Gaging Station	Miles Above Mouth	Elevations (feet-NAVD88) and Year of Flood[1]			
		1928	1933	1948	1964
Flathead River					
Near Kalispell	26.3	2,916.66	2,915.98	2,916.70	2,919.01
At Demersville	21.7	2,907.00	2,907.52	2,906.80	2,909.14
At Damon Ranch	13.7	2,902.20	2,903.55	N/A	2,903.23
At Therriault Ferry	7.5	N/A	2,901.07	2,900.40	2,901.06
At Keller Ranch[2]	3.8	2,900.10	2,899.70	2,899.50	2,897.84
Flathead Lake					
At Somers		2,897.62	2897.96	2897.71	2895.97

[1]From Reference 10
[2]The 1948 measurements were made at a site 3.0 miles above mouth

Several historic flood events in Flathead County are discussed in the following pages. Damages from flooding generally have been most severe along Flathead River.

Very few official records exist regarding the impact of the 1894 flood on the sparsely populated county. Newspaper accounts documented that the winter of 1893 through 1894 in the Columbia River Basin was colder than usual, and record depths of snow accumulated in the mountains. Precipitation in some parts of the basin was approximately 150 percent of normal. Unusually high temperatures during late May and early June greatly increased snowmelt runoff. Thunderstorms of cloudburst proportions added to flood volumes in many smaller streams while the main stems were still rising. Flood damage in Montana was reportedly great.

The peak discharge of Flathead River for the 1894 event was determined to be 142,000 cfs at the Columbia Falls gage (Reference 10). This value was determined from floodmarks and an extended rating curve. The event was the second largest during the reporting period, with the 1964 flood being the largest.

The flood of May to June 1948 was caused by a combination of conditions conducive to the production of high runoff. Cold, wet weather prevailed until mid-May. Snow surveys showed that the mountain snowpack, already above normal, increased in water content during April and early May (Reference 11). The following is an excerpt from the June 3, 1948, issue of the Flathead Monitor:

> Except for a few short periods of warm, sunny weather, the month (May) was generally cloudy with frequent light to heavy rains. Total precipitation for the month was 4.36 inches, the second wettest of record for May, greatest being 4.50 inches in 1902. Precipitation since June 1 of last year totals 23.14 inches, the wettest of any 12 months in 50 years (Reference 12).

During April and the early part of May, temperatures had been subnormal so that snowmelt in the high mountains was delayed. After May 15, temperatures increased abruptly throughout the area. The maximum daily temperatures during the following week were near 70° F. On May 21, a temperature of 80° F was recorded at Kalispell (Reference 13). The warm weather and heavy rains produced peak flows of 102,000 cfs as early as May 23 on Flathead River at Columbia Falls. A minor recession occurred, followed by another general peak on tributary streams a few days later. Specifically, Stillwater River near Whitefish peaked on May 26 (at 4,330 cfs), Ashley Creek near Kalispell peaked on May 27 (at 749 cfs), and Whitefish River near Kalispell peaked on May 30 (at 1,290 cfs) (Reference 11). The following is an excerpt from the Flathead Monitor of June 3, 1948:

> About 40 families were forced to leave their homes and around 100 head of livestock were drowned. Total losses of property, crops, livestock, etc., is estimated at near one million dollars (Reference 12).

The Swan River near Bigfork had a peak discharge of 8,400 cfs on May 24, 1948, which was the largest measured discharge since recording began in 1922 at this station (Reference 11). The previous maximum discharge at this station was 8,280 cfs, which occurred on June 18, 1933.

The most severe flooding in modern times of the Flathead River basin upstream from Flathead Lake occurred during the 1964 flood event. The peak flow of Flathead River at Columbia Falls was 176,000 cfs, as compared to the previous high of 142,000 cfs in 1894 (Reference 10). Studies by the USACE indicated that the 1964 peak at Columbia Falls would have been approximately 245,000 cfs if South Fork Flathead River had not been regulated by Hungry Horse Dam (Reference 13).

Flooding in the Swan River was not nearly as severe as that in the Flathead River during the 1964 flood. A peak discharge of approximately 4 percent less (8,100 cfs) than the 1948 peak discharge at Bigfork was recorded on June 10. Upstream at Strom's Store near Condon the measured discharge was 1,670 cfs.

Total damage in Montana was estimated by the USACE to be $55 million, of which $24.5 million reflects flood damage west of the Continental Divide. Between Columbia Falls and Flathead Lake, Flathead River flooded an extensive area of low lands totaling approximately 25,000 acres. More than 350 homes were flooded east of Kalispell in the Days Acres and Evergreen areas. Dikes along the lower Flathead River Valley near Flathead Lake held, but they were badly cut by the high flows (Reference 13).

The primary cause of the record flood flows of 1964 was the intense high volume rain of June 7 and 8, although antecedent streamflow, mountain snowmelt, and abundant soil

moisture were also factors. During a 30-hour period on June 7 and 8, rainfall of more than 15 inches occurred in some areas of Flathead River basin (Reference 10). Streams were already at high stages on June 6 in most of the mountain area because of snowmelt runoff and the scattered rains of late May. There was also considerable snow cover in well sheltered areas at slightly lower elevations prior to the heavy rains. Intense rain falling on the remaining mountain snowpack produced sharp peaks which were the highest recorded at many gaging stations and greatly exceeded historical maximum stages on many streams.

According to hydrologists and meteorologists, it would be difficult to design a set of physical conditions that would be more favorable for heavy rainfall that that of the 1964 storm. Because of the timing of the interacting physical forces and other parameters, the dimensions of this storm were considered to closely approximate the probable maximum precipitation as described by the U.S. Weather Bureau (Reference 10).

In the Upper Flathead River basin, the peak discharges (as determined by the USGS shortly after the flood) ranged from two to four times that of the previously estimated 2-percent annual chance flood, except in the Middle Fork Flathead River Basin where the ratios approached nine (Reference 10). Because of their greater distance from the storm center and their lower elevations, conditions in the Stillwater and Whitefish River basins were less severe during the 1946 storm/runoff event.

Gullying and debris flows in the mountains and on steep valley slopes were pronounced in the drainage area of Middle Fork Flathead River between Summit and West Glacier, Montana. The peak discharge of Bear Creek near Essex was 8,380 cfs from a drainage area of 20.7 square miles. The previous maximum discharge recorded was 696 cfs (Reference 10). It is estimated that the 1964 flood along Bear Creek caused channel scour of approximately 3 feet and some minor widening. A 1964 issue of the Hungry Horse News contained the following comments:

> Rain-swollen Bear Creek swept down from the Continental Divide to obliterate large sections of U.S. Highway 2, some of it construction of recent years…What once was a timbered valley along Bear Creek was now a wide gravel and rock trough (Reference 14).

Extremely high runoff in the Middle Fork Flathead River drainage basin caused extensive damage to highways and railroads in narrow valleys along the southern edge of Glacier National Park. A steel bridge on U.S. Highway 2 across the river at the unincorporated community of Essex was washed away. The river at Essex peaked at 75,300 cfs, which was five times the maximum discharge of the previous 25 years of record (Reference 10). In the Nyack Flats area downstream of Essex, 30 residents were evacuated by air.

It was reported that one of the homes and some barns at Nyack had only roofs above water on June 8. Farther downstream along Middle Fork Flathead River at West Glacier, the main highway bridge to west entrance of Glacier National Park was damaged beyond repair. An old, low single arch concrete bridge was completely submerged, but the arch was not seriously damaged. Downstream from West Glacier, a rock canyon constricted flow, and for a time, part of the river flowed upstream along McDonald Creek into Lake McDonald in Glacier National Park. The peak flow of Middle Fork Flathead River near West Glacier

(downstream from the McDonald Creek confluence) was approximately 140,000 cfs, or four times the maximum peak of the previous 25 years of record (Reference 10).

Flow of South Fork Flathead River was completely regulated at Hungry Horse Dam. Upstream from the dam, widespread flooding damaged forest roads, trails, logging operations, and resort facilities. An excerpt from a 1964 issue of the Hungry Horse News describes the flooding and dam effects as follows:

> One of the nation's great dams, Hungry Horse, completed in 1953 (flow regulation began in 1951), saved Flathead from worse catastrophe June 8-9. The 564-foot high Bureau of Reclamation Dam backs a 34-mile long lake, full each summer. Inflow June 8-9 peaked at 81,000 cubic feet per second and outflow of the South Fork was reduced to 500 cubic feet (Reference 14).

As alluded to earlier, the peak flow at Columbia Falls would have been approximately 245,000 cfs if the South Fork Flathead River had not been regulated.

Even with one of the three forks regulated, there was extreme flooding in the Flathead River Basin upstream from Flathead Lake. As stated in the Kalispell News of June 11, 1964:

> Almost beyond comprehension is the devastating flood damage to residents of the Flathead Valley along the banks of the Flathead River and the hundreds of people living in the Evergreen area along the highline. The flood parallels that of 1948 when the same area was flooded (Reference 15).

The peak stage of Flathead Lake, for the 1964 event at the unincorporated community of Somers, was 2,895.97 feet (NAVD88), recorded on June 12. This is the highest lake stage observed since upstream regulation by Hungry Horse Dam began in September 1951. The USACE estimated that a maximum stage of 2,898.5 feet (NAVD88) would have occurred in 1964 if there had been uncontrolled outflow from Flathead Lake after May 1 and if there had been no flood control storage in Hungry Horse Reservoir. The stage of 2,897.96 feet (NAVD88) in 1933 was the highest lake stage observed since continuous recording began in April 1909. The historic peak stage of 1894 was 2,902.7 feet (NAVD88) (Reference 13).

Flooding also occurred in Flathead River Valley in 1975. Unofficial estimates made by the County Civil Defense Director placed the damage at approximately $2 million or more for this event. Maximum discharge for Flathead River at Columbia Falls was 77,600 cfs, with a maximum stage of 16.8 feet (high-water stage is at 13 feet) (Reference 16). As reported in the Kalispell Weekly News of June 25, 1975:

> More than 200 trailer homes were either flooded or pulled from high-water areas, particularly at Spruce Park (Evergreen area) which ended up under more than four feet of water. About 50 residences in the Evergreen area were surrounded by rising waters (Reference 17).

It was reported and can be observed from flood photographs that water passed over Helena Flats Road in Evergreen and flowed west toward Bernard Road. A short distance downstream, flow in old river channels and backwater threatened Meadow Manor and the

adjacent area causing many people to pull their mobile homes to higher ground. It was reported that a USACE flood specialist estimated the 1975 flood as closely approximating the 1-percent annual chance flood flow and boundaries (Reference 16). This study estimates the magnitude of the 1975 flood flow to more closely approximate the 4-percent annual chance event.

In addition to the Flathead River Valley flooding, severe flows and damage were experienced along Bear Creek and Middle Fork Flathead River in 1975. Bear Creek had a peak discharge of 1,840 cfs at the gaging station near Essex (Reference 9).

For Middle Fork Flathead River near West Glacier, the maximum discharge was 63,600 cfs based on flood marks and an extrapolated rating curve for the site (Reference 9). Middle Fork Flathead River was considered to be well above flood stage, however, five homes were inundated and the county road was damaged near the West Glacier Golf Course. Rushing water also collapsed the old bridge near the Glacier National Park Headquarters. In order to associate the flood severity of Bear Creek and Middle Fork Flathead River with event frequency, this study estimates the 1975 flooding for the two streams to approximate that of the 1.33-percent annual chance frequency.

In 1997, snowmelt flooding causes numerous road closures and road washouts throughout the region. At least three road washouts were reported and one bridge was damaged. At least 50 homes were flooded, mainly along Ashley Creek and the Stillwater, Swan, and Whitefish Rivers. Fifty people were isolated along Truman Creek, which washed out an access road.

In 2005, a home was flooded from Hemlar Creek over topping its banks. Other creeks that flooded were Krause and Handkerchief where homes were also threatened by high water. Flooding of low lying areas was reported near Swan Lake. In Big Fork Bay, the combination of high creek flows and high water in Flathead Lake caused rising water and minor damage to docks in the bay. In Glacier National Park, the Going to the Sun Road was closed due to rockslides from heavy rainfall.

After reviewing some of the most severe flood events in Flathead County, it becomes obvious that most significance is placed on the Flathead River and its flooding because of the relatively undeveloped nature of other flood hazard streams and because of the Flathead Valley geomorphology. Surface landforms and underground aquifers through the Flathead River Valley occasionally have an effect on valley flooding. High water levels of Flathead River during regional flood events affect the free flowing characteristics of tributary streams, especially Ashley Creek, East Spring Creek, and Stillwater and Whitefish Rivers. High stages of Flathead River create backwater effects along the surface channels and raise the groundwater table in the valley, a combination of factors which cause valley flooding.

2.4 Flood Protection Measures

There are minimal flood protection works within the detailed study reaches of the following streams: Ashley Creek, Bear Creek, Lazy Creek, Middle Fork Flathead River, Swift Creek, West Spring Creek, and Whitefish River near Kalispell.

However, Ashley Lake, located in the upper reaches of the watershed, provides some flood storage. Also, there are some occasional, meandering reaches along Ashley Creek that have experienced rather severe cutting into the valley floor. This cutting has progressed to such an extent that the natural topographic features contain the flows in the channel for all but the most severe flood events.

There are no flood protection works along West Spring Creek other than the hydraulic features described in the previous section. The original intent of the rerouting and piping system was to alleviate the West Spring Creek flooding. However, as was noted earlier, this intent has been somewhat negated by the change in land use and storm drain network.

Whitefish River has no manmade flood protection structures in the area of detailed study near Whitefish. However, the naturally occurring high banks through the town provide adequate flood protection. Whitefish Lake provides flood storage detention and some flow regulation along Whitefish River near Whitefish.

The significant dams and reservoirs that affect Flathead River Valley flooding are Hungry Horse Dam and Reservoir on South Fork Flathead River, and Kerr Dam on Flathead Lake on Flathead River.

The Hungry Horse Dam and Reservoir have a very significant moderating effect on the flood flows on Flathead River. The 1- and 0.2-percent annual chance peak flows are reduced to approximate the 8.33- and 10-percent annual chance unregulated flows, respectively.

Flathead Lake, which is controlled by the Kerr Dam Project, has been regulated by an operation agreement between the PPL Montana, LLC (formerly Montana Power Authority) and the USACE since 1966. The agreement calls for the cooperation of the licensee and the USACE to exchange data and coordinate operations for flood control. Limited flood control is provided by operation of the Kerr Dam spillway gates.
Upstream of the Swan River detailed study reach is Swan Lake. The lake is natural and provides some flood detention and flood peak attenuation for the study reach.

Stillwater River has several small lakes which are capable of providing some flood detention in the upper reaches of the watershed, particularly near the Upper Stillwater River study reach. Just north of Kalispell, there is a dike running along the left bank (looking downstream) of Stillwater River in the area of the golf course. This dike has changed physical dimensions several times recently due to recreational development in the area. The photogrammetric and hydraulic models reflect field conditions and data at the time of the survey. This dike is not certified and is not reflected in the hydraulic model or on the FIRM. Along Stillwater River, there are other minor flood protection features, which are intended to reduce overbank flooding and stabilize streambanks.

Flathead County is provided some protection from floods through flood warning and forecasting by the National Oceanic and Atmospheric Administration (NOAA) and the National Weather Service (NWS).

3.0 ENGINEERING METHODS

For the flooding sources studied by detailed methods in the community, standard hydrologic and hydraulic study methods were used to determine the flood hazard data required for this study. Flood events of a magnitude that are expected to be equaled or exceeded once on the average during any 10-, 50-, 100-, and 500-year period (recurrence interval) have been selected as having special significance for floodplain management and for flood insurance rates. These events, commonly termed the 10-, 50-, 100-, and 500-year floods, have a 10-, 2-, 1-, and 0.2-percent annual chance, respectively, of being equaled or exceeded during any year. Although the recurrence interval represents the long term, average period between floods of a specific magnitude, rare floods could occur at short intervals or even within the same year. The risk of experiencing a rare flood increases when periods greater than 1 year are considered. For example, the risk of having a flood that equals or exceeds the 1-percent-annual-chance flood in any 50-year period is approximately 40 percent (4 in 10); for any 90-year period, the risk increases to approximately 60 percent (6 in 10). The analyses reported herein reflect flooding potentials based on conditions existing in the community at the time of completion of this study. Maps and flood elevations will be amended periodically to reflect future changes.

3.1 Hydrologic Analyses

Hydrologic analyses were carried out to establish the peak discharge-frequency relationships for each flooding source studied by detailed methods affecting the community.

There have been 19 years of peak discharge measurements recorded for Ashley Creek at a gage which is approximately 6 miles upstream of the detailed study stream segments (Reference 9). The record was not continuous, however, as it spanned a total of 45 years. The different record segments were analyzed as a continuous record with a length equal to the sum of all segments because there appeared to be nothing which indicated nonhomogeneity. A log-Pearson Type III statistical analysis was performed on the above data set using a skew factor of 0.23 (Reference 18).

Several other flood magnitude frequency determination methods were used. Regional regression relationships developed by E.R. Dodge (Reference 19) and the USGS (Reference 20) were used, as well as the SCS precipitation/runoff technique (Reference 21). Results obtained from the prediction equations and rainfall/runoff model were adjusted by using a reduction factor to allow for the flood storage provided by Ashley Lake. Values for the 10-, 2-, 1-, and 0.2-percent annual chance peak discharges were derived by using these methods. These results are applicable to the gaging site, which has an upstream watershed area of approximately 195 square miles. A hydrologic data transfer was performed by the USGS (Reference 20). The final transferred results reflect magnitude-frequency values for the detailed study reaches along Ashley Creek.

When Ashley Creek was restudied in 2003, a specific objective of that study was to determine if peak streamflow produced by the flood of May 1997 was large enough to require a revision to the Ashley Creek discharge frequency statistics calculated for the

previous FIS. The Ashley Creek gage record was discontinued in 1974 so the streamflow data had to be assessed indirectly by examining other stream gages in the vicinity of Kalispell. The Stillwater River near Whitefish and the Whitefish River near Kalispell were selected based on similar drainage area, elevation, shape, runoff characteristics, and proximity to Ashley Creek. These streams were assessed by two methods: 1) applying a log-Pearson type III statistical procedure to the annual maximum instantaneous flow data at the gaging stations for the period through 1996, and also through 2001; 2) testing the 1997 peak discharge as a high outlier in the annual maximum series including years through 2001. From this analysis, it was concluded that exceedance frequency statistics developed for the previous FIS were still valid (Reference 22).

The gaging station within the detailed study reach of Bear Creek (Gage No. 12356500) is referred to as "Bear Creek near Essex." The record covers a 9-year period from 1946 through 1952, 1964, and 1975. The maximum flow in June 1964 was estimated by the USGS to be 8,380 cfs. In 1975, the peak discharge was estimated to be 1,840 cfs (Reference 9).

To determine the discharge values of the 10-, 2-, 1-, and 0.2-percent annual chance floods, a log-Pearson Type III statistical analysis was performed on eight years of record by using a regional skew factor of -0.15.

Other methods of hydrologic analysis were used to accompany the log-Pearson Type III analysis, because the length of record was relatively short. These methods included the Dodge and USGS regional regression equations and the SCS precipitation/runoff technique. The values for the 10-, 2-, 1-, and 0.2-percent annual chance peak discharges were obtained by weighting the results of the log-Pearson Type III analysis with the prediction-equation results.

Flathead River upstream of Flathead Lake is under a partially regulated condition. Hungry Horse Dam and Reservoir has been regulating South Fork Flathead River, one of the three forks of Flathead River, since September 1951. The Flathead River hydrologic analysis includes consideration of both the unregulated and regulated condition because the Flathead River Valley has historically experienced severe flooding under both conditions, and it was felt that both should be considered for comparison and prediction purposes.

The unregulated flow condition analysis considers short and extended streamflow record periods, analysis with the log-Pearson Type III statistical technique, and implementation of other U.S. Water Resources Council Bulletin 17 guidelines and weighting procedures (Reference 18).

An initial analysis was performed by using the short period of records (1922, 1923, and 1928 through 1951) at the Columbia Falls gage on Flathead River and by considering the 1894 and 1964 floods as high outliers. Unregulated flow for the 1894 and 1964 floods were estimated to be 142,000 cfs and 245,000 cfs, respectively (Reference 10). The analysis used the log-Pearson Type III statistical technique with a weighted skew coefficient of -0.15.

Results from a second analysis were obtained in a similar manner to that just described, except that an extended period of record was generated using a log-log regression analysis of

the Columbia Falls and Polson gages. The historical period again dated back to 1894, and the 1894 and 1964 events were considered as high outliers. The extended systematic period included 40 events, 1908 to 1923 and 1928 to 1951.

Discharges for the 10-, 2-, 1-, and 0.2-percent annual chance recurrence intervals for unregulated flow conditions were determined by using a weighted average of results obtained from the methods described previously.

The regulated flow condition considers the effects of Hungry Horse Dam and Reservoir, which began hydrologic operation in the fall of 1951. The hydrologic study of regulated flow conditions included results obtained by considering short, partially extended, and fully extended streamflow record periods; by using the log-Pearson Type III statistical analysis; by implementing the Water Resources Council Bulletin 17 guidelines; and by weighting the result to obtain final frequency-discharge values.

An initial analysis was performed by considering a partially extended record period at the Columbia Falls gage and by using the log-Pearson Type III technique. The partially extended period of record was developed by using a log-log regression analysis of the Columbia Falls and Polson gages, and subtracting the South Fork Flathead River flows. The historical period again dated from 1894, and the 1894 and 1964 events were considered as high outliers. The partially extended period of record included the 54-year discontinuous period of 1911 to 1916, 1923, and 1928 to 1975. Only years having measured records for South Fork Flathead River were included. A method suggested by Water Resources Council Bulletin 17 resulted in a skew coefficient of -0.10.

A second analysis was performed by using the log-Pearson Type III techniques on a fully extended period of record (i.e., 1908 to 1923 and 1928 to 1975). The 1894 and 1964 events were considered as high outliers. The fully extended period of record was obtained by using the log-log regression equation to derive the extended Flathead River flows at the Columbia Falls gage. A regulated condition was obtained by subtracting the South Fork Flathead River flows. Where river flows were not available as a measured record, flows were assumed to be approximately one-third of the total Flathead River flow. This ratio was obtained by observing the historical records. The skew coefficient for this analysis was -0.10.

A third analysis of regulated conditions on Flathead River was made in a manner similar to those previously described for the fully extended record period, except that the 1964 event was completely eliminated from the analysis. This elimination presupposed that the 1964 flood was so severe and statistically biased that it was not reasonable to include it in the analysis. Precipitation for the 1964 event was estimated to be approximately the probable maximum precipitation in some areas.

Each of the three methods gave similar results, and discharges associated with the 10-, 2-, 1-, and 0.2-percent annual chance floods were derived from a weighted average of the results obtained by using the three methods.

It is the regulated condition results that are used in this flood study because it is this condition that most accurately reflects existing and projected flood flows in the Flathead River Valley above Flathead Lake.

Lazy Creek does not have a systematic stream flow record or any other historical measurements. Therefore, the 1972 Dodge prediction equations and the 1976 USGS prediction equations were the primary hydrologic methods employed. These methods were supplemented by the SCS rainfall/runoff methods and a comparison with hydrologically and meteorologically similar watersheds.

There are two gaging stations on Middle Fork Flathead River with stream flow records in the study area. One gage site is near West Glacier immediately downstream of the McDonald Creek confluence (Gage No. 12358500). The period of record for this gage is from October 1939 to 1975, and the drainage area is 1,128 square miles.

Measurements at the second gage were terminated in 1948. This gaging station was referred to as Gage No. 4480-Middle Fork Flathead River at Belton, Montana. The site was approximately two miles upstream of the McDonald Creek confluence, and the drainage area was 943 square miles. The record period was discontinuous and extended from 1911 to 1948. Only 23 years of peak discharge measurements are available.

As recommended by the USGS, a hydrologic data transfer was performed in order to obtain an extended period of record. One scheme involved transferring the Belton measurements downstream using the ratio of the drainage basin ratios raised to the 0.6 exponent. The other scheme consisted of developing a log-log regression relationship based on the years of record concurrent at the two gage sites. Using this regression relationship, the Belton records from 1911 to 1923 were transferred downstream to the West Glacier site in order to obtain an extended period of record. The end result of both schemes was a total systematic period length of 53 years. The resulting data base for each scheme was subjected to a log-Pearson Type III statistical analysis and the Water Resources Council Bulletin 17 guidelines for treating high outliers. Final frequency-discharge results for Middle Fork Flathead River near West Glacier were derived from these calculations.

The other detailed study segment along Middle Fork Flathead River is several miles upstream at Nyack. The watershed upstream of this study segment is approximately 850 square miles. The geographic location and difference in drainage area size dictated that the final results discussed previously should be adjusted when studying flows. A hydrologic data transfer of the final frequency-discharge results near West Glacier was made by using the technique suggested by the USGS. This technique uses the drainage area ratio to an appropriate exponential power.

The period of record for the gaging station on Stillwater River (Gage No. 12365000 near Whitefish) extended from 1929 to 1950. In October 1972, the gaging station was reinstituted, but was moved slightly downstream. Hence, there were several more peak-discharge values available to improve the database. Also, peak-discharge measurements were made on Stillwater River near Kalispell in 1922, 1929, and 1930, and one measurement was made in 1964 at Gage No. 12365000.

A hydrologic analysis was performed in order to incorporate the later information and to verify previous results or make improvements in previous studies. The investigation involved a log-Pearson Type III analysis of all available peak-discharge values (27 years

total), prediction equation methods by Dodge and the USGS, and a check with the SCS rainfall/runoff technique. All streamflow data were adjusted to a common location (i.e., to Gage No. 12365000) by using drainage area proportionality to an exponential power before implementing the log-Pearson Type III analysis. The final frequency-discharge values were transferred downstream to the study reach near Kalispell by using technique suggested by the USGS.

There were only 3 years of peak-discharge measurements (Gage No. 12363900) available for the Stillwater River near Olney detailed study area. Because there were so few measurements, these were considered historical measurements and were used primarily for comparative purposes. Primary emphasis for the hydrology study of Stillwater River near Olney was placed on the following methods: Dodge flood-prediction equations; USGS prediction equations; SCS rainfall/runoff technique; and a comparison with other similar watersheds. The 10-, 2-, 1-, and 0.2-percent annual chance discharges were determined by using a weighted average of the values produced by the cited methods with consideration of historical discharge values and neighboring and similar watershed discharge values.

The period of record for the gaging station on the Swan River (Gage No. 1237000 near Bigfork) extended from 1922 to 1983. With such a long recording period and because of the natural regulation above the study area, a frequency analysis was used to determine peak flows. A log-Pearson Type III distribution was used with the 62 years of data based upon the Chi-Squared statistic for best fit to obtain estimates of the 10-, 2-, 1-, and 0.2-percent annual chance flood values. Since the Bigfork gage is so close to the detailed study reach in Flathead County, the peak discharges were not modified for the hydraulic analysis.

Swift Creek has only a small number of peak-discharge measurements because the gaging station (Gage No. 12365800) was instituted in October 1972 (Reference 9). These measurements were used for comparative purposes, and were supplemented with various techniques in order to obtain estimates for the 10-, 2-, 1-, and 0.2-percent annual chance flood values. In particular, the Dodge and USGS prediction equation methods and the SCS rainfall/runoff model were used to complete the hydrologic analysis for Swift Creek.

No systematic or nonsystematic peak-flow measurement record is available for West Spring Creek. Hence, the regional regression equations of Dodge and the USGS and the SCS rainfall/runoff technique were used in order to obtain values for the 10-, 2-, 1-, and 0.2-percent annual chance peak discharges. Because there are no records for the storage ponds along West Spring Creek, allowance was made for detention storage effects.

The gaging station (Gage No. 121366000) on Whitefish River, approximately 8.0 miles north (upstream) of Kalispell, provided peak-flow measurement data. The period of record is from April 1929 to September 1950, 1964, and from October 1972 to 1975. The segments of record were grouped into one complete data set of 26 years as there appeared to be nothing to indicate nonhomogeneity. A log-Pearson Type III analysis was performed on these records by using a regional skew factor of -0.15.

The USACE published an updated hydrologic report on Whitefish River in August 1974 (Reference 13). The data in this report concurred with the determination of the study contractor of the flood discharges in the study area. The work of the USACE was accepted

by the study contractor as representative of the 10-, 2-, 1-, and 0.2-percent annual chance discharges.

The locations of the detailed study segments and upstream watersheds were observed in order to determine whether specific floodflow estimates away from the gage site were necessary. Because of the effects of Whitefish Lake and the relatively insignificant differences in contributory drainage areas, the results obtained at the gage were considered to be applicable to the upstream and downstream detailed study reaches along Whitefish River.

Peak discharge-drainage area relationships for streams studied in detail are shown in Table 3.

Table 3 – Summary of Discharges

Flooding Source and Location	Drainage Area (Square Miles)	Peak Discharges (cfs) 10-Percent Annual Chance	4-Percent Annual Chance	2-Percent Annual Chance	1-Percent Annual Chance	0.2-Percent Annual Chance
Ashley Creek						
At Kalispell	280.0	490	834	1,050	1,430	2,210
Bear Creek						
At USGS Gage No. 12345400 near Essex	20.7	1,120	-[1]	1,700	1,990	2,620
Blaine Creek						
Approximately 11,620 feet upstream of Mennonite Church Road	-[1]	-[1]	-[1]	-[1]	166	-[1]
Cow Creek at Whitefish						
At mouth	4.3	124	163	188	216	294
Flathead River						
At USGS Gage No. 1236300 at Columbia Falls	4,464.0	66,000	-[1]	79,000	84,500	140,000[2]
Lazy Creek						
Near Whitefish Lake	11.5	335	-[1]	580	710	1,015
Middle Fork Flathead River at Nyack						
At Nyack	850.0	32,200	-[1]	48,700	56,900	78,700

[1] Data not available.
[2] Approximated as the 0.2-percent annual chance flood. This flood has been estimated by USACE to be 121,000 cfs.

Flooding Source and Location	Drainage Area (Square Miles)	Peak Discharges (cfs) 10-Percent Annual Chance	4-Percent Annual Chance	2-Percent Annual Chance	1-Percent Annual Chance	0.2-Percent Annual Chance
Middle Fork Flathead River at West Glacier						
At USGS Gage No. 12358500, 0.8 Mile Downstream of McDonald Creek	1,128.0	38,200	-[1]	57,700	67,400	93,300
Upstream of McDonald Creek	953.0	33,900	-[1]	51,200	59,800	82,800
Stillwater River Above Spring Prairie Road						
At USGS Gage No. 12365000	524.0	-[1]	-[1]	-[1]	5,030	-[1]
Stillwater River Near Kalispell						
At mouth	833.6	4,190	5,220	5,980	6,740	8,470
Upstream of Whitefish River	585.0	3,160	3,970	4,570	5,170	6,570
At USGS Gage No. 1236500, 6.2 Miles Southwest of Whitefish	524.0	3,600	-[1]	5,400	6,200	8,200
Stillwater River Near Olney						
Near Olney	146.0	1,720	-[1]	2,660	3,100	4,010
Swan River						
At USGS Gage No. 12370000 Near Bigfork	671.0	7,200	-[1]	8,500	9,000	10,000
Swan River at Bigfork						
At mouth	727.2	7,420	8,380	9,080	9,760	11,300
Swift Creek						
At USGS Gage No. 12365800	78.0	1,340	-[1]	1,880	2,100	2,640
West Spring Creek						
At Meridian Drive	27.0	212	286	345	407	561

[1] Data not available.

Flooding Source and Location	Drainage Area (Square Miles)	Peak Discharges (cfs) 10-Percent Annual Chance	4-Percent Annual Chance	2-Percent Annual Chance	1-Percent Annual Chance	0.2-Percent Annual Chance
West Spring Creek Tributary						
Through Three Mile Drive/At mouth	2.84	6.28	20.9	21.2	22.8	25.8
Through Fly Way Crossing	-[1]	6.28	24.6	25.0	25.0	29.7
Upstream of Fly Way	-[1]	6.31	24.8	27.3	33.5	82.6
Whitefish River at Whitefish						
Above State Highway 40	162.0	1,110	1,280	1,400	1,510	1,770
Above Haskill Creek	141.0	987	1,140	1,250	1,360	1,600
Above Cross Section X	125.0	1,350	-[1]	1,700	1,830	2,200
Whitefish River near Kalispell						
At Mouth (Cross Sections A – P)	188.0	1,250	1,430	1,570	1,690	1,980
At USGS Gage No. 12366000 (Cross Section L, Cross Sections T – Y)	170.0	1,350	-[1]	1,700	1,830	2,200
Cross Sections R – V	168.1	1,190	-[1]	1,490	1,610	1,880

[1] Data not available.

Two frequency analyses were made of Flathead Lake. The first analysis involved determining the starting lake level coincident with the maximum discharge in Flathead River, and the second analysis involved assessing the maximum water level in the lake.

Flathead Lake levels have been recorded since 1908, but the lake regulation was modified by an agreement between the PPL Montana, LLC (formerly Montana Power Company) and the USACE in 1966. Because of the modification to the operation rule, the record since 1966 was used for the frequency analysis. In assessing the lake level coincident with the peak discharge in the river, a one-day lag period between the peak discharge at Columbia Falls and the Flathead Lake level is considered representative because of the travel time of the peak discharge from Columbia Falls to the lake. A Pearson Type III distribution was used with the 17 years of data (1966-1983) to determine water levels in Flathead Lake that coincide with the peak discharge in the Flathead River for the 10-, 2-, 1-, and 0.2-percent annual chance floods. These lake levels are used as the downstream boundary condition for computation of backwater profiles for the 10-, 2-, 1-, and 0.2-percent annual chance floods.

The annual maximum lake level study completed in 1965 by the USACE, Seattle District, was adopted for this study. Flathead Lake levels for different recurrence intervals were assessed by developing hypothetical floods in the 10- to 0.2-percent annual chance range upstream of the lake and simulating regulation with the Hungry Horse and Kerr projects. The maximum annual lake level analysis, adopted from the USACE study, was used to map inundated areas in the Flathead River at each frequency level until the backwater profile intercepted the lake level.

The Whitefish Lake watershed hydrology was examined previously by the SCS (Reference 23). Results of these investigations have been incorporated into this FIS.

Elevations for floods of the selected recurrence intervals on Flathead Lake and Whitefish Lake are shown in Table 4.

Table 4 – Summary of Stillwater Elevations

	Elevation (feet-NAVD88)			
Flooding Source and Location	**10-Percent Annual Chance**	**2-Percent Annual Chance**	**1-Percent Annual Chance**	**0.2-Percent Annual Chance**
Flathead Lake Coincident with Peak Charge in Flathead River	2,895.00	2,895.80	2,896.10	2,896.60
Flathead Lake Annual Maximum Level	2,894.40	2,896.00	2,896.60	2,897.90
Whitefish Lake At Whitefish	3,002.40	3,003.73	3,004.23	3,005.40

3.2 Hydraulic Analyses

Analyses of the hydraulic characteristics of flooding from the sources studied were carried out to provide estimates of the elevations of floods of the selected recurrence intervals. Users should be aware that flood elevations shown on the Flood Insurance Rate Map (FIRM) represent rounded whole-foot elevations and may not exactly reflect the elevations shown on the Flood Profiles or in the Floodway Data table in the FIS report. Flood elevations shown on the FIRM are primarily intended for flood insurance rating purposes. For construction and/or floodplain management purposes, users are cautioned to use the flood elevation data presented in this FIS report in conjunction with the data shown on the FIRM.

Water-surface elevations were developed using the HEC-2 step-backwater computer model (Reference 24) for all detailed study areas except for Flathead River below the City of Columbia Falls to Demersville, Stillwater River below its confluence with Whitefish River, and Whitefish River below the Burlington Northern Railroad.

The computer program SOCHMJ (Reference 25) was used to develop water-surface elevations for Flathead River between Columbia Falls and the unincorporated community of Demersville; Stillwater River below the confluence with Whitefish River; and Whitefish River below the Burlington Northern Railroad. This program performs analyses of the complex unsteady conditions by using a hydraulic routing procedure based on St. Venant's equation. This program requires time dependent input of stage or discharge at the outer boundaries to calculate the resultant stage, discharge, and velocity hydrographs. This accommodates a system containing several branches and junctions.

Forty-five channel and overbank sections were used to describe the geometrics used in the SOCHMJ model. These cross sections, with the exception of the channel section at the Columbia Falls gage, were surveyed in the spring of 1979 with some additional work done in March 1980. The section at the gage was reconstructed from USGS discharge measurements taken in April 1980.

Calibration of the SOCHMJ numerical model was based on observed high water-surface elevations recorded at established profile points along the Flathead River between Columbia Falls and Demersville for the June 1975 flood. This flood had a peak discharge of 77,600 cfs at the Columbia Falls gage and a recurrence interval of approximately 25 years.

Model input for this calibration consists of discharge hydrographs as recorded at the Columbia Falls gage as the upstream boundary and a rating curve as the downstream boundary.

A rating curve was used at the downstream boundary to reflect the influence of Flathead Lake on the water-surface elevation in the downstream area. The rating curve is based on observed water-surface elevations at established profile points in the reach between Kalispell and Flathead Lake. Discharges corresponding to these water-surface elevations reflect peak flow at the Columbia Falls gage.

Roughness coefficients (Manning's "n"), conveyance, and storage were variables that served as a means of adjustment in calibrating the SOCHMJ model to 1975 flood conditions.

The model reproduced the June 1975 recorded flood data to within 1.0 foot, with as little as 0.1 foot difference at some locations. The calibrated model was used to model the June 1964 flood and compared to observed data from that event. This flood had a peak discharge of 176,000 cfs at the Columbia Falls gage, a discharge which exceeds the estimated 0.2-percent annual chance flood. For this event, the maximum stages computed by the model were within 3.5 feet of observed high water elevations. The model's ability to reconstitute this event was considered satisfactory because the 1964 event was of such a large magnitude.

For the Flathead River between Flathead Lake and Demersville, HEC-2 computer models were used to predict water-surface profiles for the 1928, 1933 and 1948 floods to within 2.4 feet, 0.5 feet, and 1.4 feet, respectively. Considering the change in channel cross section and location from 1928 to 1984 (most recent survey), the model's accuracy for predicting flood events is considered satisfactory.

Water-surface profiles for the 2-, 1-, and 0.2-percent annual chance floods for these reaches were computed from the SOCHMJ model at designated intervals called nodes. Water-surface elevations for the 10-percent annual chance flood were developed using the HEC-2 computer program and the same cross sections as input.

Stream cross sections were located by using topographic maps (References 26, 27, and 28) and aerial photographs (References 29 and 30). Most of the below-water cross section data were obtained by field observations or measurements. Cross section data for Whitefish River at Whitefish were supplemented with data previously accumulated by the SCS (Reference 23). A hydrographic survey was performed for the Flathead River between Flathead Lake and Demersville and the Swan River between Bigfork and the Lake County line by Simons, Li, & Associates, Inc., in October 1984. Overbank data were measured in the field on the following streams: Ashley Creek, Bear Creek, Lazy Creek, Swift Creek, Stillwater River near Olney, and West Spring Creek. Cross section data for Flathead River upstream of Columbia Falls were obtained from the USACE (Reference 13).

Photogrammetric techniques were used on all other streams in order to obtain topographic information for overbank areas. Hydraulic structures were measured in the field to determine elevations and geometry unless data summaries or plans were available.

In the Ashley Creek detailed study, eight hydraulic structures were included: under Cemetery Road two corrugated metal pipes (CMPs) with diameters of 7.6 ft. and 7.75 ft, a road bridge approximately 3,500 ft. upstream of Cemetery Road, a bridge at Airport Road, a 3-arch bridge system at Begg Park Drive, a road bridge approximately 3,750 ft upstream of Begg Park Drive, a bridge at Sunnyside Drive, an eliptical concrete pipe 14.8 ft. x 10.7 ft. at Foys Lake Road, and a bridge with two piers at the Burlington Northern Railroad crossing. Many of the footbridges along Ashley Creek were not considered in the model (Reference 31).

In the detailed study of Bear Creek, only one hydraulic structure, a highway bridge on U.S. Highway 2, was included.

Five bridges were included in the detailed study reach of Flathead River: The Somers-Bigfork Highway bridge, the three-span Conrad Drive bridge (near Kalispell), the U.S. Highway 2 bridge (near Kalispell), the three-span 4th Avenue bridge (Red Bridge) south of Columbia Falls, and the State Highway 40 bridge at Columbia Falls (a four-span structure).

Lazy Creek has two bridge structures within the detailed study reach, but only the downstream structure at Delrey Road is considered significant in the hydraulic model. The upstream bridge is an old and relatively small timber crossing, and is not expected to withstand heavy flooding.

There are no bridge structures on Middle Fork Flathead River at Nyack or near West Glacier which affect the study.

The following structures were included in the 8 mile study of Stillwater River near Kalispell: a steel truss bridge on Conrad Drive; twin bridges for the U.S. Highway 2 crossing; the Burlington Northern Railroad bridge, which has a steel superstructure and timber bents in the abutment areas; an old single span timber bridge at a point 6.36 miles upstream of the Stillwater River mouth; and the Whitefish Stage Road bridge.

Stillwater River near Olney has one hydraulic structure in the short detailed study reach. This hydraulic structure, at the lower Stillwater Lake outlet, is a timber dam which operates as an overflow weir. The dam and downstream plank chute were used in the past for a logging operation.

The Swan River has two bridge crossings within the county. The old steel bridge, which is located approximately 6,200 feet upstream of the Bigfork Dam, is just downstream of the detailed study reach and was not modeled. The other bridge crosses Highway 209 at the Flathead/Lake County line and is considered significant in the model.

For the 0.75 mile study reach along Swift Creek, only one bridge structure was included. This bridge is along Delrey Road which services the northern and northwestern sides of Whitefish Lake.

Structural modifications have been made at the bridge and in its immediate vicinity subsequent to the field measurements, but these changes are not significant enough to affect hydraulic modeling. There is another bridge structure along Swift Creek in the detailed study reach that was not included in the model. This bridge is near the gaging station and is in relatively poor shape. It is not expected to withstand medium to heavy flooding.

West Spring Creek has two structures within the detailed study reach and one structure at the downstream limit of the study. The structure at the downstream limit is a 60 inch reinforced concrete pipe with a concrete headwall and trash rack at the inlet. The two structures within the study area consist of a 54 inch corrugated steel pipe under U.S. Highway 2.

Six hydraulic structures were included in the two mile study of Whitefish River at Whitefish; the Columbia Avenue timber bridge, in the downstream reaches of the study; three 15 foot corrugated steel culverts at Spokane Avenue; a new single-span, reinforced-concrete bridge

at Baker Avenue, a wooden footbridge with timber pilings; the Second Street bridge along U.S. Highway 93; and the Burlington Northern Railroad trestle near the upper end of the study area.

Stream cross sections were located using available topographic maps at a scale of 1:24,000, with a contour interval of 20 feet (Reference 26) and aerial photographs at a scale of 1:12,000; (Reference 29). Most below-water cross section data were obtained by field observations and measurements made by the study contractor. Overbank data for the Whitefish River were primarily obtained using photogrammetric techniques. These cross section data were supplemented with data previously accumulated by the SCS.

Water-surface profiles on Whitefish River near Kalispell were developed using the USACE HEC-2 step-backwater computer model (Reference 32). To obtain starting water-surface elevations for the HEC-2 model, a rating section was developed approximately 1,200 feet downstream of the original study delineation. Rating section information was developed by a uniform flow analysis, but modified appropriately to reflect field observations and measurements. The field work consisted primarily of a temporary stream gaging program implemented by the U.S. Bureau of Reclamation and field reconnaissance work of the study contractor. The U.S. Bureau of Reclamation program was extensive enough to provide stage and water-surface profile information at specific flow levels and locations. Rating section geometry and hydraulics were adjusted until satisfactory concurrence was obtained between the study results and HEC-2 profiles in the downstream study reaches. Starting water-surface elevations for the 1-percent annual chance encroachment conditions were obtained by adding 0.5 foot to the elevations for the 1-percent annual chance natural flood condition.

There were six structures considered on Whitefish River near Kalispell: the timber bridge, approximately 600 feet upstream of the mouth; the Burlington Northern Railroad bridge, which has a steel truss superstructure and concrete pilings in the abutment areas; the West Evergreen Drive timber bridge; a county bridge on West Reserve Drive; a steel bridge at Rose Crossing; and a steel bridge at Birch Grove Road.

Roughness coefficients (Manning's "n") were estimated by field inspection and review of aerial photographs (References 29 and 30). Roughness value selection was made by using one or a combination of the following approaches depending on the stream segment in question: a detailed development and weighting technique which considers all factors affecting the value of "n", consultation of tables with typical "n" values for channels of various types (Reference 33), comparison and familiarity with certain channel hydraulics and associated roughness coefficients, and comparison with work previously completed by the USGS (Reference 34) and the USACE (Reference 10).

For Ashley Creek, the main channel roughness value is 0.04, and the overbank roughness value is 0.048. Corrugated steel pipes were assigned a value of 0.03 and concrete pipes were assigned a value of 0.025.

For Bear Creek, channel roughness values range from 0.042 to 0.045, and overbank values range from 0.028 to 0.100. The 0.028 relates specifically to road sections, and the extreme value of 0.100 corresponds to heavily forested areas with some underbrush.

The Flathead River from Columbia Falls to Demersville has roughness values ranging from 0.025 to 0.055 for the channel, and from 0.023 to 0.120 for the overbank areas. These values were obtained primarily from previous work performed by the USACE.

For the Flathead River between Flathead Lake and Demersville, the main channel roughness value is 0.03 and the overbank roughness ranges from 0.045 to 0.06.

For Lazy Creek, channel roughness values range from 0.033 to 0.036, and from 0.030 to 0.080 for overbank values.

Channel roughness values for Middle Fork Flathead River at Nyack range from 0.043 to 0.047. A minimum value for overbank of 0.020 relates to highway sections and a maximum value of 0.150 is associated with dense timber stands.

For Middle Fork Flathead River near West Glacier, channel values range from 0.038 to 0.045, and overbank values range from 0.035 for the golf course area to 0.090 for timbered areas.

Channel roughness values for Stillwater River near Kalispell range from 0.045 to 0.067. Some of the higher channel values were actually weighted values in order to reflect brush cover near bank points. Overbank values range from 0.032 to 0.150.

The Stillwater River study segment near Olney typically has channel values ranging from 0.032 to 0.055. A special channel value of 0.025 is used along the timber outlet chute from Lower Stillwater Lake. Roughness values for overbanks range from 0.030 to 0.090.

The Swan River from the old steel bridge to the Flathead/Lake County line has a main channel roughness value of 0.030 and overbank roughness values ranging from 0.045 to 0.070. The roughness values are reasonable given that the measured stage (7.34 feet) in the June 20, 1974, discharge of 8,890 cfs at Bigfork was within 0.3 feet of the simulated stage for the 1-percent annual chance discharge of 9,000 cfs.

For Swift Creek, channel roughness values range from 0.036 to 0.045, and overbank values range from 0.032 for pasture to 0.090 for timbered and heavy undergrowth areas.

Channel roughness values for West Spring Creek range from 0.038 to 0.055; 0.024 was selected for the corrugated pipe and 0.020 was selected for the old steel pipe. Overbank values range from 0.034 to 0.060. The 0.055 channel “n” value is applied at the downstream limit of the detailed study, where Meridian Road forms a major obstruction. At that point, the flow changes direction by 90 degrees, and other flow disturbances are caused by storm drain pipes feeding into the inlet.

The Whitefish River study segment near Whitefish has roughness values ranging from 0.024 to 0.045 in the channel and from 0.035 to 0.080 in the overbank areas. The value of 0.024 in the channel refers specifically to the corrugated steel culverts.

The Whitefish River study segment near Kalispell has roughness values ranging from 0.035 to 0.070 for the channel, and from 0.035 to 0.090 for the overbanks. Some of the higher

channel "n" values are weighted in order to reflect heavy brush cover near the bank points.

Starting water-surface elevations for the Ashley Creek study were determined by water surface profiles of the Flathead River from the previous FIS. The Ashley Creek model extends downstream to its confluence with the Flathead River. However, Ashley Creek is only considered a detailed study from just downstream of Cemetery Road to just upstream of the Burlington Northern Railroad crossing.

Starting water-surface elevations for the Bear Creek study were obtained by performing a uniform flow analysis at the cross section farthest downstream. A stage-discharge table/curve was developed at this section to provide an estimated stage for a particular discharge and associated frequency. This method of taking the first cross section as a rating section was used because the downstream channel and overbank morphology were not conducive to developing and obtaining a good rating section.

The stage-frequency information provided in Table 4 for lake levels coincident with maximum river discharges were used as the downstream boundary condition for backwater profiles computed for the Flathead River between Flathead Lake and Demersville (Reference 35). The downstream boundary condition for the Flathead River reach between Demersville and Columbia Falls was established by developing a rating curve from the last cross section of the backwater profile computed in the reach between Flathead Lake and Demersville. This rating curve was developed during the initial approximate study of the Flathead River between Flathead Lake and Demersville.

Because the Lazy Creek drainage area is relatively small in comparison to the Whitefish Lake hydrologic system, it was considered reasonable to assume that there would not be exact concurrence of flood events between the lake and Lazy Creek (Reference 35). The event frequencies were staggered to obtain the most reasonable prediction of starting conditions for particular Lazy Creek flooding events. The following listing indicates the associated event frequencies and the starting water-surface elevations:

Lazy Creek Flood Frequency	Whitefish Lake Stage Frequency	Starting Elevation (Feet)
10-percent annual chance	50-percent annual chance	3,000.90
2-percent annual chance	10-percent annual chance	3,002.40
1-percent annual chance	2-percent annual chance	3,003.73
0.2-percent annual chance	1-percent annual chance	3,004.23

The stage-frequency data for Whitefish Lake were obtained from the SCS (Reference 23). Because the corresponding recurrence interval elevations on Whitefish Lake are higher than those on Lazy Creek, elevations on the lower two-thirds of the detailed study segment of Lazy Creek are controlled by elevations on Whitefish Lake.

Starting conditions for the hydraulic model of Middle Fork Flathead River at Nyack were developed by using a rating section at the farthest downstream cross section. This particular section was constructed by using the survey vertical control network, topographic maps (References 26 and 27), and ground level and aerial photographs (Reference 36). A uniform flow analysis was performed at the rating section to develop a stage-discharge relationship. Any deviations from uniform flow conditions during actual flood events were expected to be

compensated for through the HEC-2 calculation process before proceeding into the detailed study segment. The hydraulic model was compared to the 1975 flood event, and concurrence was obtained for both the flood stage and boundaries.

A rating curve for Middle Fork Flathead River at West Glacier was developed at the gage site, which is approximately one mile downstream from the original detailed study delineation. A cross section was also estimated at this location by using topographic maps and aerial photographs (References 26, 27, and 29). The rating section stage-discharge data provided starting elevations for the appropriate flood events, including the 1975 model event. This model event was selected instead of the 1964 flood event because it was later and also falls within the range of flows being considered in this study. The 1964 event was not used because of its extreme nature and the degree of extrapolation that would be required on the rating curve. Concurrence was obtained between the hydraulic model and the 1975 event.

For Stillwater River near Olney, a uniform flow analysis was performed at an estimated cross section in order to develop stage-discharge information. This information provided the starting water-surface elevations for the appropriate study event. The cross section was developed by using aerial and ground level photographs and topographic maps.

The starting water-surface elevation for the Swan River is based on the rating curve at Bigfork Dam. Pacific Power and Light Company provided plans of the diversion structure from which the rating curve was developed. The starting water-surface elevations for flood with 10-, 2-, 1-, and 0.2-percent annual chance frequencies are shown below:

Swan River Flood Frequency	**Swan River Starting Water-Surface**
10-percent annual chance	3,015.3
2-percent annual chance	3,015.7
1-percent annual chance	3,015.8
0.2-percent annual chance	3,016.0

A cross section was estimated on Swift Creek near the entrance to Whitefish Lake. The starting water-surface elevations of this section for specific flood events were made concurrent with the lake stage-frequency data. This procedure was suggested by the SCS because Swift Creek is the main contributory drainage to Whitefish Lake, and historical data indicate a close coincidence of event frequencies (Reference 23).

The flood on June 1974 on Swift Creek was modeled and concurrence was observed between the gage reading and the HEC-2 results. Peak-stage measurement at the gage was 3013.63, and the HEC-2 model estimated the stage to be 3013.64 feet.

Because there are only minimal backwater effects from Whitefish Lake above Cross Section A during the 1-percent annual chance event, it was classified as a natural or free flowing condition.

Unusual circumstances exist at the downstream end of the detailed study reach on West Spring Creek. Historically, West Spring Creek flowed southeasterly following a natural

course along the western edge of the Kalispell community. As the City of Kalispell expanded to the west, the natural course of the stream was altered in order to accommodate the development and to minimize flooding. At Meridian Road, West Spring Creek is redirected to the south through a 60-inch diameter reinforced concrete pipe. This pipe also is intended to carry storm runoff from other portions of western Kalispell. The pipe extends south for approximately 750 feet before connecting with storm runoff from other portions of West Kalispell. The east-west line varies in size from 57 inches to 60 inches in diameter and is believed to be a combination of corrugated steel and reinforced concrete material. It runs for approximately 700 feet before emptying into an open channel ditch which carries the flows past a lumber mill to Ashley Creek.

Analyzing the model starting conditions for West Spring Creek was unusual and complex. The flood hydrology and hydraulics of the complex storm pipe were analyzed independently of the HEC-2 computer program. The 10-, 2-, 1-, and 0.2-percent annual chance events were examined for the rural and urban watersheds in order to determine the flow conditions and stage at the downstream limit of the West Spring Creek study. Careful selection of contributing urban areas was required because of the little available topographic information in western Kalispell and because of the inadequate storm drain system in the area. Careful selection of event and peak concurrence between rural and urban flooding was also required.

The storm drain system in western Kalispell would be at or near the surcharged condition for the 10-percent annual chance event. It was determined that the stage at the structure inlet would be at the pipe crown of the 60 inch pipe. For the more severe events, calculations were made in order to determine the amount of head or surcharging required on the 60 inch reinforced concrete pipe for the estimated flows to pass. The head requirements eventually would become so great that Meridian Road would be overtopped; therefore, weir flow to the east was combined with pipe flow to the south until the stage was defined. This was used as the starting water-surface elevation for the HEC-2 model for that particular flood frequency event.

The 1-percent annual chance free flowing condition was defined as that condition which reflected minimal to no backwater effect from the pipe network and inlet structure. An elevation at the pipe crown for the 60 inch reinforced concrete pipe was selected for this condition.

A peculiarity occurred in the West Spring Creek study at the U.S. Highway 2 crossing. U.S. Highway 2 slopes downward to the east at this location, and there is a depression in the left overbank area of the West Spring Creek near an access road to a local shopping center. Flows can be released through the depression and travel easterly along U.S. Highway 2 before overtopping the highway perpendicularly (i.e., in the same direction as the 54 inch culvert flow line). Hence, an iterative procedure was required, using the HEC-2 model and hand calculations in order to determine headwater heights upstream of the 54 inch culvert and to proportion weir pressure pipe flows.

A possible study limitation for the Kalispell detailed study is the fact that a limited number of cross sections were field measured due to budgetary constraints for the Kalispell and Flathead County survey task. The spacing between field-measured cross sections does not appear excessive when analyzing map layouts, and when considering stream channel

characteristics. However, while developing and executing the HEC-2 model, it was found necessary to occasionally interpolate a cross section to improve the modeling.

In conjunction with the field data limitations discussed above, there were also inadequate topographic information in west Kalispell to accurately define surface storm runoff patterns and West Spring Creek overflow flooding. Available plans, vertical control information, and topographic mapping were used in the routing analysis.

Another common study limitation is the fact that the Kalispell study streams do not have an impressive peak flow measurement program. The Ashley Creek data set included 20 measurements, which is quite marginal when trying to perform a statistical analysis and predict extreme events. This is especially true when one would like a more complete database to develop a better understanding of the upstream flood storage capabilities. West Spring Creek has no peak flow measurements to its credit. Its location and the nature of its basic supply source limit the value of hydrologic regionalization.

A specific limitation for the West Spring Creek study is the questionable nature of contributory urban watershed areas and storm drain system in West Kalispell. Both of these features have a significant effect on the regional hydrologic and hydraulic analyses.

As described earlier, the Stillwater River is a tributary to the Flathead River. Flows along the Flathead River have a significant effect on tributary flow conditions, and the Stillwater River is no exception. It is unreasonable to assume exact event concurrence for both streams; basically because of different sizes and locations of respective watersheds. This theory is substantiated by historical data. Hence, event frequencies were staggered to obtain the most reasonable prediction of starting conditions for the Stillwater River flood events. The following tabulation indicates the associated event frequencies and the starting water-surface elevation:

Stillwater River Flood Frequency	**Flathead River Flood Frequency**	**Starting Elevation (Feet)**
10-Percent Annual Chance	10-Percent Annual Chance	2,908.1
2-Percent Annual Chance	4-Percent Annual Chance	2,908.5
1-Percent Annual Chance	2-Percent Annual Chance	2,908.8
0.2-Percent Annual Chance	1-Percent Annual Chance	2,909.2

A uniform flow analysis was performed to develop a stage-discharge relationship. The friction slope in Manning's equation was assumed equal to the bedslope. The results of this stage-discharge analysis were used to define the 1-percent annual chance free-flowing condition. One-half foot was added to the uniform flow 1-percent annual chance stage for the encroachment exercise.

To obtain starting water-surface elevations for the HEC-2 model for Whitefish River at Whitefish, a rating section was developed approximately 1,200 feet downstream of the original detailed study limit. Rating section information was developed by a uniform flow analysis, but was modified to reflect field observations and measurements. The fieldwork consisted primarily of a temporary stream gaging program implemented by the U.S. Bureau

of Reclamation (USBR) as well as by field reconnaissance. The USBR's program was extensive enough to provide stage and water-surface profile information at specific flow levels and locations. The rating section geometry and hydraulics were adjusted until satisfactory concurrence was obtained between the above study results and HEC-2 profiles in the downstream study stream segment.

Whitefish River joins Stillwater River near Kalispell. Because of the watershed similarity with respect to geography, meteorology, hydrology, and other factors, it was assumed that exact event concurrence would be realized. The 1-percent annual chance event on Whitefish River would be likely to occur simultaneously with the 1-percent annual chance event on Stillwater River and likewise for other designated frequencies.

In spring 1978, a water-surface profile measurement was made on Whitefish River. The flow at the time of measurement was referenced to bridge decks along the detailed study stream segment. Concurrence was obtained between the field measured information and a hydraulic model which used survey data exactly as field measured for this relatively low flow. For higher flows, adjustments were occasionally made in the channel and overbank areas for noneffective flow areas in order to improve stage and boundary predictions.

Streams studied by approximate methods received a cursory field investigation including hydraulic-structure geometry estimates and ground level photographic documentation. A brief hydraulic analysis was performed in the areas of interest. In order to develop typical cross sections and perform a stage-discharge analysis, field estimated channel geometry was supplemented by topographic information (References 26 and 27).

Locations of selected cross sections used in the hydraulic analyses are shown on the Flood Profiles (Exhibit 1). For stream segments for which a floodway is computed (Section 4.2), selected cross section locations are also shown on the FIRM (Exhibit 2).

The hydraulic analyses for this study were based on unobstructed flow. The flood elevations shown on the Flood Profiles (Exhibit 2) are thus considered valid only if hydraulic structures remain unobstructed, operate properly, and do not fail.

3.3 Vertical Datum

All FIS reports and FIRMs are referenced to a specific vertical datum. The vertical datum provides a starting point against which flood, ground, and structure elevations can be referenced and compared. Until recently, the standard vertical datum in use for newly created or revised FIS reports and FIRMs was the National Geodetic Vertical Datum of 1929 (NGVD29). With the finalization of the North American Vertical Datum of 1988 (NAVD88), many FIS reports and FIRMs are being prepared using the NAVD88 as the referenced vertical datum.

All flood elevations shown in this FIS report and on the FIRM are referenced to NAVD88. Elevation Reference Marks (ERMs) shown on the FIRM represent those used during the preparation of this and previous FIS reports. Users should be aware that these ERM elevations may have changed since the publication of this FIS report. To obtain up-to-date elevation information on National Geodetic Survey (NGS) ERMs shown on this map, please contact the Information Services Branch of the NGS at (301) 713-3242, or visit their website at www.ngs.noaa.gov. Map users should seek verification of non-NGS ERM monument elevations when using these elevations for construction or floodplain management purposes. It is important to note that adjacent communities may be referenced to NGVD. This may result in differences in Base Flood Elevations (BFEs) across the corporate limits between communities.

For this revision, a vertical datum conversion was completed for each studied reach. The range of conversion factors was prohibitively high; therefore, a standard conversion factor was not applied for the entire community. The Profile Panel and FDT conversion from NGVD29 to NAVD88 was carried out in accordance to the procedure outlined in the FEMA document Map Modernization – Guidelines and Specifications for Flood Hazard Mapping Partners Appendix B: Guidance for Converting to the North American Vertical Datum of 1988.

Using the multiple conversion factor approach, an average conversion factor for each flooding source was developed by establishing separate conversion factors at the upstream end, at the downstream end and at an intermediate point of the studied reach. From this data, the average conversion factors for each reach were developed. In some cases, it was necessary to divide each reach into multiple sections in order for the maximum offset from the average conversion factor to be less than or equal to 0.25 feet.

For more information on NAVD88, see the FEMA publication entitled *Converting the National Flood Insurance Program to the North American Vertical Datum of 1988* (FEMA, June 1992), or contact the Vertical Network Branch, National Geodetic Survey, Coast and Geodetic Survey, National Oceanic and Atmospheric Administration, Rockville, Maryland 20910 (Internet address http://www.ngs.noaa.gov).

Temporary vertical monuments are often established during the preparation of a flood hazard analysis for the purpose of establishing local vertical control. Although these monuments are not shown on the FIRM, they may be found in the Technical Support Data Notebook associated with the FIS report and FIRM for this community. Interested individuals may contact FEMA to access this data.

Conversion factors for each studied reach are shown in Table 5.

Table 5 – Datum Conversion Factors

Stream/Reach	Minimum Conversion	Maximum Conversion	Average Conversion	Maximum Offset	Begin Station	End Station
Ashley Creek	3.7	3.7	3.7	0.014	Entire Reach	
Bear Creek	4.2	4.3	4.2	0.024	Entire Reach	
Flathead River	3.6	3.9	3.7	0.154	Entire Reach	
Lazy Creek	3.9	3.9	3.9	0.002	Entire Reach	
Middle Fork Flathead River at Nyack	3.9	3.9	3.9	0.025	Entire Reach	
Middle Fork Flathead River at West Glacier	3.8	3.8	3.8	0.014	Entire Reach	
Stillwater River near Kalispell	3.7	3.7	3.7	0.015	Entire Reach	
Stillwater River near Olney	4.0	4.0	4.0	0.027	Entire Reach	
Swan River	3.7	3.7	3.7	0.013	Entire Reach	
Swift Creek	3.9	3.9	3.9	0.000	Entire Reach	
West Spring Creek	3.7	3.7	3.7	0.002	Entire Reach	
Whitefish Lake	3.8	3.9	3.9	0.073	Entire Reach	
Whitefish River near Kalispell	3.7	3.8	3.8	0.031	Entire Reach	
Whitefish River at Whitefish	3.8	3.8	3.8	0.004	Entire Reach	

4.0 FLOODPLAIN MANAGEMENT APPLICATIONS

The NFIP encourages State and local governments to adopt sound floodplain management programs. Therefore, each FIS provides 1-percent annual chance flood elevations and delineations of the 1- and 0.2-percent annual chance floodplain boundaries and 1-percent annual chance floodway to assist communities in developing floodplain management measures. This information is presented on the FIRM and in many components of the FIS report, including Flood Profiles and Floodway Data Tables. Users should reference the data presented in the FIS report as well as additional information that may be available at the local map repository before making flood elevation and/or floodplain boundary determinations.

4.1 Flood Boundaries

To provide a national standard without regional discrimination, the 1-percent annual chance flood has been adopted by FEMA as the base flood for floodplain management purposes. The 0.2-percent annual chance flood is employed to indicate additional areas of flood risk in the community. For each stream studied by detailed methods, the 1- and 0.2-percent annual chance floodplain boundaries have been delineated using the flood elevations determined at each cross section. For Flathead County, between cross sections, boundaries were interpolated using topographic maps at a scale of 1:24,000, with contour intervals of 20 and 40 feet (References 26 and 27, respectively), and developed photogrammetrically, using aerial photographs at a scale of 1:12,000 (Reference 29).

Flood boundaries were delineated using topographic maps at a scale of 1:4,800, with a contour interval of two feet for the Flathead River between Flathead Lake and the unincorporated community of Demersville and the Swan River between the Steel Bridge and the county line (Reference 30).

For the Cities of Kalispell and Whitefish, between cross sections, the boundaries were interpolated using topographic maps at a scale of 1:24,000, enlarged to a scale of 1:12,000, with a contour interval of 20 feet (Reference 26).

Shallow flooding boundaries on West Spring Creek, as discussed in Section 3.2, were also delineated using these topographic maps (Reference 26).

For Flathead River between Columbia Falls and the unincorporated community of Demersville, and for Stillwater and Whitefish Rivers downstream of the Burlington Northern Railroad, 1- and 0.2-percent annual chance flood boundaries were delineated using flood elevations determined at nodes from the SOCHMJ model (Reference 25). Boundaries were interpolated between nodes using topographic maps at a scale of 1:1,200, with a contour interval of 2 feet (Reference 28), and at a scale of 1:24,000, with a contour interval of 20 feet (Reference 26).

Flood boundaries determined by the study contractor for streams studied by approximate methods flowing through undeveloped areas were delineated using topographic maps (References 26 and 27).

Approximate flood boundaries in some portions of the study area were taken from the Flood Hazard Boundary Maps (Reference 37).

The 1- and 0.2-percent annual chance floodplain boundaries are shown on the FIRM (Exhibit 2). On this map, the 1-percent annual chance floodplain boundary corresponds to the boundary of the areas of special flood hazards (Zones A and AE); and the 0.2-percent annual chance floodplain boundary corresponds to the boundary of areas of moderate flood hazards. In cases where the 1- and 0.2-percent annual chance floodplain boundaries are close together, only the 1-percent annual chance floodplain boundary has been shown. Small areas within the floodplain boundaries may lie above the flood elevations but cannot be shown due to limitations of the map scale and/or lack of detailed topographic data.

For the streams studied by approximate methods, only the 1-percent annual chance floodplain boundary is shown on the FIRM (Exhibit 2).

4.2 Floodways

Encroachment on flood plains, such as structures and fill, reduces flood-carrying capacity, increases flood heights and velocities, and increases flood hazards in areas beyond the encroachment itself. One aspect of floodplain management involves balancing the economic gain from floodplain development against the resulting increase in flood hazard. For purposes of the NFIP, a floodway is used as a tool to assist local communities in this aspect of floodplain management. Under this concept, the area of the 1-percent annual chance floodplain is divided into a floodway and a floodway fringe. The floodway is the channel of a stream, plus any adjacent floodplain areas, that must be kept free of encroachment so that the 1-percent annual chance flood can be carried without substantial increases in flood heights. Minimum Federal standards limit such increases to 1.0 foot, provided that hazardous velocities are not produced. The floodways in this study are presented to local agencies as minimum standards that can be adopted directly or that can be used as a basis for additional floodway studies.

The floodways presented in this study were computed for certain stream segments on the basis of equal conveyance reduction from each side of the floodplain. Floodway widths were computed at cross sections. Between cross sections, the floodway boundaries were interpolated. The results of the floodway computations are tabulated at selected cross sections (Table 6). In cases where the floodway and 1-percent annual chance floodplain boundaries are either close together or collinear, only the floodway boundary has been shown.

The floodways were computed by assuming that no ice jamming or severe debris accumulation at hydraulic structures or in meandering stream reaches would occur. Except as noted in the following, starting water-surface elevations for the floodway analysis were determined by adding 0.5 foot to the 1-percent annual chance starting water-surface elevation as discussed in Section 3.2.

For the Bear Creek floodway calculation, the equal-conveyance reduction calculation routing was considered appropriate even though there were imbalances in overbank flood areas for opposite sides of the stream. The encroachment routine was run with a starting allowance of

0.3 foot, with an upstream change of the target value to 0.5 foot in order to satisfy allowable increases in elevation throughout the study reaches to 0.5 foot.

Calculation of the floodway on the basis of equal-conveyance reduction from each side of the floodplain on Middle Fork Flathead River at both Nyack and West Glacier was considered appropriate even though there was an imbalance of flow in the overbank areas, such as at the golf course near West Glacier. It was required to change the target value on occasion from 0.5 foot to 0.3 or 0.4 foot in order to satisfy allowable increases in elevation throughout the study reaches to 0.5 foot.

SOCHMJ is a better model for predicting flood elevations for floodplains such as those along the Flathead River between Demersville and Columbia Falls. However, this model does not have the capacity to compute a floodway; therefore, the HEC-2 program was used for the floodway determination only. Cross sections in those reaches employing the SOCHMJ model may list different elevations in the "Regulatory" column of the Floodway Data Tables than those listed in the "Without Floodway" column.

The area between the floodway and 1-percent annual chance floodplain boundaries is termed the floodway fringe. The floodway fringe encompasses the portion of the floodplain that could be completely obstructed without increasing the water-surface elevation of the 1-percent annual chance flood by more than 1.0 foot at any point. Typical relationships between the floodway and the floodway fringe and their significance to floodplain development are shown in Figure 1 below.

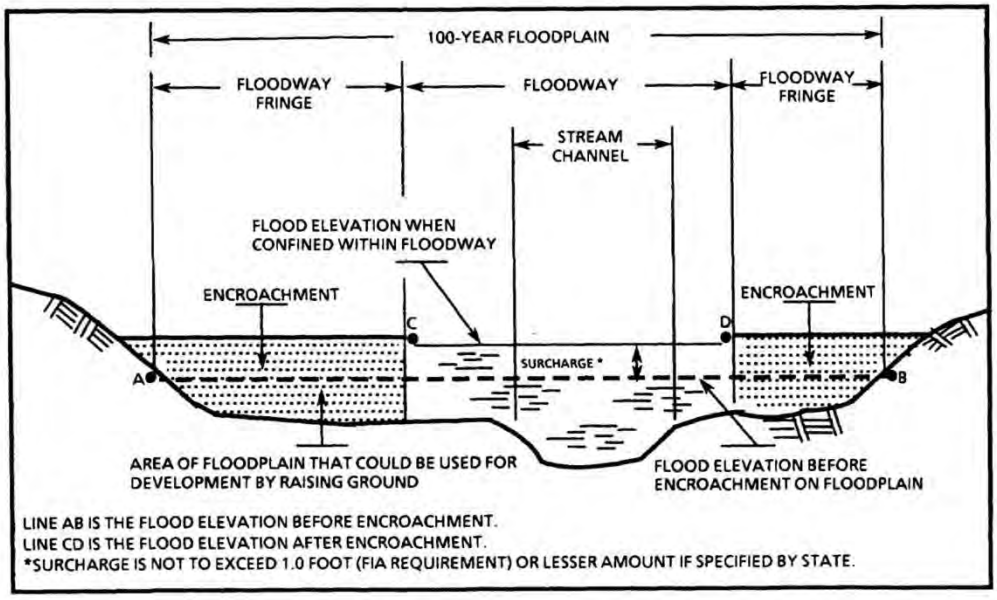

Figure 1 – Floodway Schematic

FLOODING SOURCE		FLOODWAY			1-PERCENT ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
ASHLEY CREEK								
A	40	41	266	5.5	2,920.4	2,920.4	2,920.9	0.5
B	150	41	588	2.4	2,928.3	2,928.3	2,928.8	0.5
C	1,733	196	1,793	1.0	2,928.4	2,928.4	2,928.9	0.5
D	3,497	202	1,311	1.6	2,928.5	2,928.4	2,928.9	0.5
E	4,634	336	2,935	0.7	2,928.5	2,928.5	2,929.0	0.5
F	6,065	405	4,134	0.5	2,928.5	2,928.5	2,929.0	0.5
G	6,801	277	2,043	1.0	2,928.5	2,928.5	2,929.0	0.5
H	7,485	271	1,018	1.5	2,928.5	2,928.5	2,929.0	0.5
I	7,665	262	622	2.5	2,928.6	2,928.5	2,929.0	0.5
J	9,074	346	1,585	1.4	2,928.7	2,928.7	2,929.2	0.5
K	9,199	346	1,600	1.4	2,928.8	2,928.7	2,929.2	0.5
L	10,208	288	1,718	1.2	2,928.8	2,928.8	2,929.2	0.5
M	11,969	512	2,833	0.8	2,928.8	2,928.8	2,929.3	0.5
N	15,446	202	914	2.2	2,928.9	2,928.9	2,929.4	0.5
O	17,487	77	312	4.9	2,929.5	2,929.5	2,929.9	0.4
P	17,924	54	346	4.1	2,930.2	2,930.2	2,930.7	0.5
Q	18,088	139	724	2.5	2,930.7	2,930.7	2,931.0	0.4
R	22,218	169	646	3.2	2,931.7	2,931.7	2,932.2	0.4
S	25,018	433	1,365	1.8	2,932.3	2,932.3	2,932.8	0.5
T	26,948	56	327	4.4	2,932.9	2,932.9	2,933.3	0.4
U	27,996	15	99	14.5	2,936.2	2,936.2	2,936.2	0.0
V	28,076	15	155	9.2	2,940.6	2,940.6	2,940.6	0.0

[1]Feet Above Limit of Detailed Study

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

FLATHEAD COUNTY, MT
AND INCORPORATED AREAS

FLOODWAY DATA

ASHLEY CREEK

FLOODING SOURCE		FLOODWAY			1-PERCENT ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
ASHLEY CREEK (cont.)								
W	28,421	91	819	1.8	2,942.4	2,942.4	2,942.5	0.1
X	28,798	87	802	1.8	2,942.5	2,942.5	2,942.5	0.0
Y	29,657	121	1,328	1.1	2,942.5	2,942.5	2,942.7	0.2
Z	30,588	39	260	5.5	2,943.1	2,943.1	2,943.4	0.3
AA	31,411	99	613	1.9	2,943.8	2,943.8	2,944.2	0.4
AB	32,642	106	451	2.5	2,944.1	2,944.1	2,944.5	0.4
AC	33,327	69	232	4.9	2,949.9	2,949.9	2,950.4	0.5
AD	34,897	44	170	6.7	2,962.1	2,962.1	2,962.5	0.4
AE	35,732	46	251	5.7	2967.0	2967.0	2967.3	0.3
AF	37,377	143	609	2.4	2969.4	2969.4	2969.8	0.4
AG	37,998	168	618	2.3	2970.1	2970.1	2970.5	0.4
AH	38,990	109	356	4.0	2970.9	2970.9	2971.2	0.3
AI	40,099	188[2]	341	4.2	2973.5	2973.5	2973.9	0.4
AJ	41,066	165	388	3.7	2975.4	2975.4	2975.9	0.5
AK	42,465	155	327	4.4	2978.5	2978.5	2978.9	0.4
AL	43,700	147	407	3.5	2981.8	2981.8	2982.3	0.5
AM	44,767	147	397	3.6	2984.8	2984.8	2985.3	0.5
AN	45,257	91	378	3.8	2990.0	2990.0	2990.0	0.0
AO	45,464	118	548	2.6	2990.8	2990.8	2990.9	0.1

[1]Feet Above Limit of Detailed Study

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

FLATHEAD COUNTY, MT
AND INCORPORATED AREAS

FLOODWAY DATA

ASHLEY CREEK

FLOODING SOURCE		FLOODWAY			1-PERCENT ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
BEAR CREEK								
A	28,400	245	472	4.2	4,327.6	4,327.6	4,327.9	0.3
B	31,025	516	547	3.6	4,344.1	4,344.1	4,344.3	0.2
C	33,000	80	275	7.2	4,359.2	4,359.2	4,359.7	0.5
D	34,220	318	400	5.0	4,370.3	4,370.3	4,370.3	0.0
E	34,680	80	237	8.4	4,374.6	4,374.6	4,374.8	0.2
F	35,380	218	650	3.1	4,378.3	4,378.3	4,378.6	0.3
G	37,120	300	343	5.8	4,395.1	4,395.1	4,395.1	0.0
H	38,650	116	361	5.5	4,410.6	4,410.6	4,410.6	0.0
I	38,920	85	233	8.5	4,414.7	4,414.7	4,414.7	0.0
J	39,200	83	216	9.2	4,419.3	4,419.3	4,419.3	0.0
K	39,320	68	205	9.7	4,421.1	4,421.1	4,421.1	0.0
L	39,340	72	293	6.8	4,421.8	4,421.8	4,422.3	0.5
M	39,450	67	200	9.9	4,424.3	4,424.3	4,424.3	0.0
N	39,940	198	495	4.0	4,429.1	4,429.1	4,429.5	0.4
O	41,240	150	284	7.0	4,448.9	4,448.9	4,449.4	0.5
P	43,200	168	334	6.0	4,475.3	4,475.3	4,475.3	0.0
Q	45,250	47	179	11.1	4,504.8	4,504.8	4,504.8	0.0
R	47,050	100	247	8.1	4,534.6	4,534.6	4,534.8	0.2
S	48,975	61	194	10.3	4,581.5	4,581.5	4,581.5	0.0

[1]Feet above confluence with Middle Fork of the Flathead River

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

FLATHEAD COUNTY, MT
AND INCORPORATED AREAS

FLOODWAY DATA

BEAR CREEK

FLOODING SOURCE		FLOODWAY			1-PERCENT ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
COW CREEK AT WHITEFISH								
A	357	21	50	4.35	3001.1	2997.0[2]	2997.1[2]	0.1
B	909	26	60	3.6	3001.1	2998.6[2]	2998.8[2]	0.2
C	1,825	36	147	1.5	3005.4	3005.4	3005.4	0.0
D	2,780	35	114	1.9	3005.7	3005.7	3006.2	0.5
E	3,582	21	152	1.4	3011.7	3011.7	3011.8	0.1
F	4,601	38	145	1.5	3011.8	3011.8	3012.0	0.2
G	5,797	28	74	2.9	3012.5	3012.5	3013.0	0.5
H	7,160	23	75	2.9	3017.0	3017.0	3017.4	0.4
I	7,822	36	91	2.4	3019.8	3019.8	3020.3	0.5
J	8,092	38	243	0.9	3026.4	3026.4	3026.7	0.3
K	9,075	40	113	1.9	3026.4	3026.4	3026.9	0.5

[1]Feet Above Confluence with Whitefish River [2] Elevation computed without consideration of backwater effects from Whitefish River

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

FLATHEAD COUNTY, MT
AND INCORPORATED AREAS

FLOODWAY DATA

COW CREEK AT WHITEFISH

FLOODING SOURCE		FLOODWAY			1-PERCENT ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
FLATHEAD RIVER								
A	11,120	1,420	36,139	2.5	2,896.6	2,896.1[2]	2,896.6	0.5
B	11,735	1,290	31,859	2.8	2,896.6	2,896.1[2]	2,896.6	0.5
C	12,340	1,240	34,469	2.6	2,896.6	2,896.2[2]	2,896.7	0.5
D	12,985	1,095	29,534	3.0	2,896.6	2,896.2[2]	2,896.7	0.5
E	13,670	835	17,885	5.0	2,896.6	2,896.0[2]	2,896.5	0.5
F	14,370	766	16,681	5.3	2,896.6	2,896.1[2]	2,896.6	0.5
G	15,665	955	22,499	4.0	2,896.6	2,896.5[2]	2,897.0	0.5
H	16,270	900	18,216	4.9	2,896.6	2,896.5[2]	2,897.0	0.5
I	17,055	750	18,228	4.9	2,896.7	2,896.7	2,897.2	0.5
J	17,715	735	17,242	5.2	2,896.8	2,896.8	2,897.2	0.4
K	18,375	645	18,189	4.9	2,896.9	2,896.9	2,897.3	0.4
L	18,475	645	18,197	4.9	2,896.9	2,896.9	2,897.3	0.4
M	19,380	671	20,233	4.4	2,897.1	2,897.1	2,897.5	0.4
N	20,220	624	18,834	4.7	2,897.1	2,897.1	2,897.5	0.4
O	20,970	660	17,049	5.2	2,897.2	2,897.2	2,897.6	0.4
P	21,480	637	16,708	5.3	2,897.2	2,897.2	2,897.6	0.4
Q	22,880	1,216	33,555	2.7	2,897.3	2,897.3	2,897.7	0.4
R	26,550	1,399	18,244	4.9	2,897.8	2,897.8	2,898.2	0.4
S	27,355	1,698	19,468	4.6	2,897.9	2,897.9	2,898.3	0.4
T	28,185	2,173	24,699	3.6	2,898.2	2,898.2	2,898.6	0.4
U	29,185	1,424	20,306	4.4	2,898.3	2,898.3	2,898.7	0.4
V	30,060	1,240	22,518	4.0	2,898.5	2,898.5	2,898.9	0.4

[1]Feet above confluence with Flathead Lake, [2]Elevation computed without consideration of backwater effects from Flathead Lake

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

FLATHEAD COUNTY, MT
AND INCORPORATED AREAS

FLOODWAY DATA

FLATHEAD RIVER

FLOODING SOURCE		FLOODWAY			1-PERCENT ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
FLATHEAD RIVER (cont.)								
W	32,670	1,445	27,700	3.2	2,898.9	2,898.9	2,899.3	0.4
X	34,970	1,370	25,727	3.5	2,899.1	2,899.1	2,899.5	0.4
Y	36,340	1,097	23,603	3.8	2,899.2	2,899.2	2,899.6	0.4
Z	37,785	1,110	24,022	3.7	2,899.4	2,899.4	2,899.8	0.4
AA	39,120	1,100	24,777	3.6	2,899.5	2,899.5	2,899.9	0.4
AB	40,595	1,203	33,702	2.6	2,899.7	2,899.7	2,900.1	0.4
AC	42,840	1,262	39,364	2.3	2,899.8	2,899.8	2,900.2	0.4
AD	44,110	769	20,515	4.3	2,899.7	2,899.7	2,900.1	0.4
AE	45,565	539	21,774	4.1	2,899.8	2,899.8	2,900.2	0.4
AF	46,970	599	20,724	4.3	2,899.9	2,899.9	2,900.3	0.4
AG	48,190	552	18,343	4.9	2,899.9	2,899.9	2,900.3	0.4
AH	49,175	730	21,699	4.1	2,900.2	2,900.2	2,900.6	0.4
AI	51,135	873	21,620	4.1	2,900.3	2,900.3	2,900.7	0.4
AJ	53,710	679	20,394	4.4	2,900.5	2,900.5	2,900.9	0.4
AK	56,640	650	25,120	3.5	2,900.8	2,900.8	2,901.2	0.4
AL	62,320	1,269	22,661	3.9	2,901.1	2,901.1	2,901.5	0.4
AM	68,815	1,901	25,308	3.5	2,901.6	2,901.6	2,902.0	0.4
AN	70,535	886	20,570	4.3	2,901.7	2,901.7	2,902.1	0.4
AO	75,190	610	19,190	4.6	2,902.1	2,902.1	2,902.5	0.4
AP	76,670	1,120	37,389	2.4	2,902.5	2,902.5	2,902.9	0.4
AQ	79,590	1,135	23,878	3.7	2,902.5	2,902.5	2,902.9	0.4
AR	80,355	1,056	21,430	4.2	2,902.5	2,902.5	2,902.9	0.4

[1]Feet above confluence with Flathead Lake

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

FLATHEAD COUNTY, MT
AND INCORPORATED AREAS

FLOODWAY DATA

FLATHEAD RIVER

FLOODING SOURCE		FLOODWAY			1-PERCENT ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
FLATHEAD RIVER (cont.)								
AS	85,770	4,108	43,230	2.1	2,903.0	2,903.0	2,903.4	0.4
AT	91,285	1,469	24,275	3.7	2,903.2	2,903.2	2,903.6	0.4
AU	93,960	1,583	24,804	3.6	2,903.6	2,903.6	2,904.0	0.4
AV	97,558	2,817	31,735	2.8	2,904.0	2,904.0	2,904.4	0.4
AW	99,650	2,631	29,895	3.0	2,904.1	2,904.1	2,904.5	0.4
AX	105,515	4,103	30,593	2.9	2,904.9	2,904.9	2,905.3	0.4
AY	106,350	4,227	41,392	2.2	2,905.0	2,905.0	2,905.4	0.4
AZ	107,275	4,289	39,182	2.3	2,905.1	2,905.1	2,905.5	0.4
BA	107,950	3,779	36,748	2.4	2,905.1	2,905.1	2,905.5	0.4
BB	111,200	6,229	57,365	1.6	2,905.4	2,905.4	2,905.8	0.4
BC	115,950	6,297	54,736	1.6	2,905.9	2,905.9	2,906.3	0.4
BD	118,650	4,713	30,243	3.0	2,906.6	2,906.6	2,907.0	0.4
BE	121,650	5,258	25,934	3.5	2,909.1	2,909.1	2,909.5	0.4
BF	125,650	3,421	28,725	2.9	2,914.8	2,914.8	2,915.3	0.5
BG	126,750	1,600	15,147	5.6	2,916.0	2,916.0	2,916.5	0.5
BH	131,343	1,660	16,404	5.2	2,920.1	2,920.1	2,920.4	0.3
BI	133,740	690	10,312	8.2	2,922.0	2,922.0	2,922.9	0.9
BJ	134,260	850	12,129	7.0	2,923.1	2,923.1	2,923.8	0.7
BK	136,850	1,848	14,942	5.6	2,925.3	2,925.3	2,925.6	0.3
BL	138,550	2,130	18,720	4.5	2,927.2	2,927.2	2,927.6	0.4
BM	140,050	3,300	22,264	3.8	2,928.6	2,928.6	2,928.8	0.2
BN	143,350	4,044	21,301	3.9	2,932.0	2,932.0	2,932.0	0.0

[1]Feet above confluence with Flathead Lake

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

FLATHEAD COUNTY, MT
AND INCORPORATED AREAS

FLOODWAY DATA

FLATHEAD RIVER

FLOODING SOURCE		FLOODWAY			1-PERCENT ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
FLATHEAD RIVER (cont.)								
BO	145,150	3,251	18,754	4.5	2,933.7	2,933.7	2,934.0	0.3
BP	147,050	2,925	15,369	5.4	2,935.5	2,935.5	2,935.8	0.3
BQ	148,550	3,657	20,632	4.0	2,937.2	2,937.2	2,937.6	0.4
BR	151,050	3,931	9,143	9.1	2,940.7	2,940.7	2,940.7	0.0
BS	153,950	3,194	12,346	6.8	2,945.1	2,945.1	2,945.1	0.0
BT	156,550	2,604	18,187	4.6	2,947.3	2,947.3	2,947.3	0.0
BU	158,650	2,002	7,356	11.4	2,949.5	2,949.5	2,949.5	0.0
BV	160,350	1,252	10,087	8.3	2,953.2	2,953.2	2,953.2	0.0
BW	162,150	971	7,894	10.6	2,956.3	2,956.3	2,956.3	0.0
BX	163,700	1,750	14,184	5.9	2,957.9	2,957.9	2,957.9	0.0
BY	165,550	1,850	7,621	11.0	2,960.2	2,960.2	2,960.2	0.0
BZ	167,300	1,608	12,297	6.8	2,962.7	2,962.7	2,962.7	0.0
CA	170,100	2,013	12,744	6.5	2,966.7	2,966.7	2,966.7	0.0
CB	172,400	1,280	12,883	6.5	2,969.8	2,969.8	2,970.3	0.5
CC	174,500	1,377	12,545	6.6	2,972.7	2,972.7	2,973.2	0.5
CD	178,000	2,506	20,757	4.0	2,977.6	2,977.6	2,978.1	0.5
CE	180,700	2,416	17,097	4.9	2,980.9	2,980.9	2,981.4	0.5
CF	183,600	2,775	19,317	4.4	2,984.0	2,984.0	2,984.3	0.3
CG	186,700	2,125	15,714	5.4	2,988.0	2,988.0	2,988.5	0.5
CH	191,400	730	9,788	8.6	2,993.7	2,993.7	2,994.2	0.5
CI	197,900	469	8,694	9.7	2,997.8	2,997.8	2,998.3	0.5
CJ	200,070	1,181	12,310	7.7	3,004.1	3,004.1	3,004.3	0.2

[1]Feet above confluence with Flathead Lake

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

FLATHEAD COUNTY, MT
AND INCORPORATED AREAS

FLOODWAY DATA

FLATHEAD RIVER

FLOODING SOURCE		FLOODWAY			1-PERCENT ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
FLATHEAD RIVER (cont.)								
CK	201,680	640	12,478	7.6	3,004.9	3,004.9	3,005.1	0.2
CL	202,080	441	8,232	11.5	3,004.9	3,004.9	3,005.1	0.2
CM	202,220	442	8,475	11.2	3,005.0	3,005.0	3,005.5	0.5
CN	203,140	850	14,729	6.4	3,007.8	3,007.8	3,008.1	0.3
CO	205,180	1,578	14,221	6.7	3,009.3	3,009.3	3,009.5	0.2
CP	207,020	1,065	12,117	7.8	3,012.5	3,012.5	3,012.7	0.2
CQ	209,530	778	11,041	8.6	3,015.8	3,015.8	3,015.9	0.1
CR	215,290	1,048	11,007	8.6	3,022.1	3,022.1	3,022.1	0.0
CS	220,070	794	9,683	9.8	3,028.9	3,028.9	3,029.1	0.2
CT	222,580	689	11,167	8.5	3,032.3	3,032.3	3,032.3	0.0
CU	226,150	426	9,852	9.6	3,035.4	3,035.4	3,035.4	0.0

[1]Feet above confluence with Flathead Lake

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

FLATHEAD COUNTY, MT
AND INCORPORATED AREAS

FLOODWAY DATA

FLATHEAD RIVER

FLOODING SOURCE		FLOODWAY			1-PERCENT ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
LAZY CREEK								
A	690	760	2,021	0.4	3,004.2	3,000.9[2]	3,001.4	0.5
B	820	27	164	4.3	3,004.2	3,000.9[2]	3,001.4	0.5
C	850	27	179	4.0	3,004.2	3,001.3[2]	3,001.8	0.5
D	900	169	713	1.0	3,004.2	3,001.7[2]	3,002.2	0.5
E	1,950	53	174	4.1	3,004.2	3,002.0[2]	3,002.4	0.4
F	3,660	34	127	5.6	3,005.9	3,005.9	3,006.3	0.4

[1]Feet above confluence with Whitefish Lake, [2]Elevations computed without consideration of backwater effects from Whitefish Lake

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

FLATHEAD COUNTY, MT
AND INCORPORATED AREAS

FLOODWAY DATA

LAZY CREEK

FLOODING SOURCE		FLOODWAY			1-PERCENT ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
MIDDLE FORK FLATHEAD RIVER AT NYACK								
A	0	613	6,666	8.5	3,287.9	3,287.9	3,288.4	0.5
B	1,700	1,624	9,784	5.8	3,295.1	3,295.1	3,295.6	0.5
C	3,950	2,772	15,546	3.7	3,299.3	3,299.3	3,299.8	0.5
D	5,840	2,901	10,882	5.2	3,302.1	3,302.1	3,302.6	0.5
E	6,830	3,187	13,163	4.3	3,304.1	3,304.1	3,304.6	0.5
F	9,950	2,956	9,074	6.3	3,312.7	3,312.7	3,313.2	0.5
G	14,750	3,706	14,083	4.0	3,325.9	3,325.9	3,326.3	0.4
H	18,260	3,255	9,908	5.7	3,332.3	3,332.3	3,332.8	0.5
I	21,780	4,041	15,206	3.7	3,343.5	3,343.5	3,343.6	0.1
J	24,760	4,002	18,008	3.2	3,352.0	3,352.0	3,352.1	0.1
K	28,500	1,329	9,409	6.0	3,362.6	3,362.6	3,362.9	0.3

[1]Feet above downstream study limit

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

FLATHEAD COUNTY, MT
AND INCORPORATED AREAS

FLOODWAY DATA

MIDDLE FORK FLATHEAD RIVER AT NYACK

FLOODING SOURCE		FLOODWAY			1-PERCENT ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
MIDDLE FORK FLATHEAD RIVER AT WEST GLACIER								
A	19,000	645	11,735	5.7	3,152.7	3,152.7	3,153.2	0.5
B	22,180	839	12,101	5.6	3,155.1	3,155.1	3,155.6	0.5
C	25,130	1,118	7,147	8.4	3,158.2	3,158.2	3,158.7	0.5
D	26,560	531	5,325	11.2	3,163.7	3,163.7	3,164.0	0.3
E	27,760	671	6,922	8.6	3,168.3	3,168.3	3,168.5	0.2
F	29,180	864	9,048	6.6	3,171.8	3,171.8	3,172.1	0.3

[1]Feet above confluence with North Fork Flathead River

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

FLATHEAD COUNTY, MT
AND INCORPORATED AREAS

FLOODWAY DATA

MIDDLE FORK FLATHEAD RIVER AT WEST GLACIER

FLOODING SOURCE		FLOODWAY			1-PERCENT ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
NORTH TRIBUTARY TO ASHLEY CREEK								
A	577	43	314	1.0	2,943.8	2,943.8	2,944.0	0.2
B	1,236	66	243	1.2	2,948.1	2,948.1	2,948.1	0.0

[1]Feet above confluence with Ashley Creek

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

FLATHEAD COUNTY, MT
AND INCORPORATED AREAS

FLOODWAY DATA

NORTH TRIBUTARY TO ASHLEY CREEK

FLOODING SOURCE		FLOODWAY			1-PERCENT ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
STILLWATER RIVER NEAR KALISPELL								
A	20,745	165	1,127	6.0	2,909.1	2,904.8[2]	2,905.1[2]	0.3
B	22,335	329	1,817	3.7	2,909.1	2,907.5[2]	2,907.8[2]	0.3
C	23,515	184	2,158	3.1	2,909.1	2,908.9[2]	2,909.2[2]	0.3
D	24,140	216	1,417	4.8	2,909.1	2,909.0[2]	2,909.4[2]	0.4
E	26,127	857[3]	2,881	2.3	2,910.8	2,910.8	2,911.2	0.4
F	27,899	240	1,126	6.0	2,912.5	2,912.5	2,913.0	0.5
G	28,741	358	1,836	3.7	2,914.4	2,914.4	2,914.7	0.3
H	30,466	141	834	6.2	2,917.6	2,917.6	2,918.0	0.4
I	30,925	245	1,322	3.9	2,919.0	2,919.0	2,919.2	0.2
J	32,533	144	734	7.0	2,924.3	2,924.3	2,924.4	0.1
K	34,149	86	577	9.0	2,929.3	2,929.3	2,929.8	0.5
L	35,510	172	1,078	4.8	2,934.3	2,934.3	2,934.8	0.5
M	36,345	87	714	7.2	2,936.0	2,936.0	2,936.2	0.2
N	36,395	90	657	9.4	2,937.0	2,937.0	2,937.2	0.2
O	36,465	382	1,946	3.2	2,938.8	2,938.8	2,938.9	0.1
P	36,945	1,291	2,026	3.1	2,940.0	2,940.0	2,940.1	0.1
Q	37,345	1,200	3,215	1.9	2,941.1	2,941.1	2,941.5	0.4
R	37,565	322	1,273	4.9	2,941.4	2,941.4	2,941.9	0.5
S	37,975	355	1,282	4.8	2,943.7	2,943.7	2,944.2	0.5
T	39,125	612	2,595	2.4	2,946.5	2,946.5	2,947.0	0.5
U	40,245	318	1,445	4.3	2,948.5	2,948.5	2,949.0	0.5

[1]Feet above confluence with Flathead River [2]Elevation computed without consideration of backwater effects from Flathead River [3]Width includes unmapped high ground areas

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

FLATHEAD COUNTY, MT
AND INCORPORATED AREAS

FLOODWAY DATA

STILLWATER RIVER NEAR KALISPELL

FLOODING SOURCE		FLOODWAY			1-PERCENT ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
STILLWATER RIVER NEAR KALISPELL (cont.)								
V	42,575	1,447	4,378	1.4	2,952.3	2,952.3	2,952.5	0.2
W	44,325	777	2,287	2.7	2,953.9	2,953.9	2,954.1	0.2
X	45,845	742	2,724	2.3	2,956.1	2,956.1	2,956.6	0.5
Y	48,125	134	1,153	5.4	2,961.4	2,961.4	2,961.8	0.4

[1]Feet above confluence with Flathead River

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

FLATHEAD COUNTY, MT
AND INCORPORATED AREAS

FLOODWAY DATA

STILLWATER RIVER NEAR KALISPELL

FLOODING SOURCE		FLOODWAY			1-PERCENT ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
STILLWATER RIVER NEAR OLNEY								
A	185,700	70	473	6.5	3,036.8	3,036.8	3,037.3	0.5
B	186,170	79	630	4.9	3,037.9	3,037.9	3,038.3	0.4
C	187,130	430	3,073	1.0	3,038.6	3,038.6	3,038.9	0.3
D	188,180	93	631	4.9	3,038.6	3,038.6	3,038.9	0.3
E	189,610	120	958	3.2	3,039.9	3,039.9	3,040.3	0.4
F	190,050	160	1,448	2.1	3,040.2	3,040.2	3,040.6	0.4
G	190,080	80	633	4.9	3,040.2	3,040.2	3,040.6	0.4
H	190,100	89	457	6.8	3,040.7	3,040.7	3,041.1	0.4

[1]Feet above confluence with Flathead River

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

FLATHEAD COUNTY, MT
AND INCORPORATED AREAS

FLOODWAY DATA

STILLWATER RIVER NEAR OLNEY

FLOODING SOURCE		FLOODWAY			1-PERCENT ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
SWAN RIVER								
A	15,065	285	2,432	3.7	3,015.8	3,015.8	3,016.3	0.5
B	15,580	360	3,173	2.8	3,016.0	3,016.0	3,016.5	0.5
C	16,175	335	3,033	3.0	3,016.2	3,016.2	3,016.7	0.5
D	16,755	335	3,157	2.9	3,016.3	3,016.3	3,016.7	0.4
E	17,365	315	3,034	3.0	3,016.4	3,016.4	3,016.8	0.4
F	17,965	300	2,923	3.1	3,016.5	3,016.5	3,016.9	0.4
G	18,555	435	3,976	2.3	3,016.7	3,016.7	3,017.1	0.4
H	19,135	575	6,067	1.5	3,016.8	3,016.8	3,017.2	0.4
I	19,720	275	2,835	3.2	3,016.8	3,016.8	3,017.2	0.4
J	21,035	310	3,423	2.6	3,017.0	3,017.0	3,017.4	0.4
K	21,640	375	4,145	2.2	3,017.1	3,017.1	3,017.5	0.4
L	22,180	395	4,414	2.0	3,017.2	3,017.2	3,017.6	0.4
M	24,060	335	4,092	2.2	3,017.3	3,017.3	3,017.7	0.4
N	27,585	235	3,182	2.8	3,017.6	3,017.6	3,017.9	0.3
O	28,190	200	2,149	4.2	3,017.6	3,017.6	3,017.9	0.3
P	28,815	370	3,307	2.7	3,017.9	3,017.9	3,018.3	0.4
Q	29,415	430	3,490	2.6	3,018.0	3,018.0	3,018.4	0.4
R	30,005	318	2,927	3.1	3,018.1	3,018.1	3,018.4	0.3
S	30,605	355	3,642	2.5	3,018.3	3,018.3	3,018.7	0.4
T	31,240	340	3,388	2.7	3,018.3	3,018.3	3,018.7	0.4
U	31,835	504	4,472	2.0	3,018.4	3,018.4	3,018.8	0.4
V	32,305	475	3,529	2.6	3,018.4	3,018.4	3,018.8	0.4

[1]Feet above confluence with Flathead Lake

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

FLATHEAD COUNTY, MT
AND INCORPORATED AREAS

FLOODWAY DATA

SWAN RIVER

FLOODING SOURCE		FLOODWAY			1-PERCENT ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
SWAN RIVER (cont.)								
W	32,955	250	2,921	3.1	3,018.5	3,018.5	3,018.9	0.4
X	33,515	385	3,362	2.7	3,018.6	3,018.6	3,019.0	0.4
Y	34,165	437	3,708	2.4	3,018.7	3,018.7	3,019.1	0.4
Z	34,585	360	3,810	2.4	3,018.8	3,018.8	3,019.2	0.4
AA	35,155	695	5,772	1.6	3,018.9	3,018.9	3,019.3	0.4
AB	35,750	724	6,250	1.4	3,018.9	3,018.9	3,019.3	0.4
AC	36,360	732	5,679	1.6	3,019.0	3,019.0	3,019.4	0.4
AD	37,070	810	6,081	1.5	3,019.0	3,019.0	3,019.4	0.4
AE	37,710	979	6,214	1.4	3,019.1	3,019.1	3,019.5	0.4
AF	38,755	1,371	8,500	1.1	3,019.2	3,019.2	3,019.6	0.4
AG	42,330	1,813	8,962	1.0	3,019.4	3,019.4	3,019.8	0.4
AH	42,860	1,660	6,706	1.3	3,019.4	3,019.4	3,019.8	0.4
AI	43,630	2,000	9,608	0.9	3,019.5	3,019.5	3,019.9	0.4
AJ	46,540	1,870	6,642	1.4	3,019.6	3,019.6	3,020.0	0.4
AK	50,395	615	3,003	3.0	3,020.3	3,020.3	3,020.7	0.4
AL	52,300	750	3,659	2.5	3,021.1	3,021.1	3,021.5	0.4
AM	54,765	967	4,046	2.2	3,021.9	3,021.9	3,022.1	0.2
AN	55,385	635	2,497	3.6	3,022.2	3,022.2	3,022.4	0.2
AO	55,945	270	1,387	6.5	3,022.7	3,022.7	3,022.8	0.1
AP	56,560	270	1,422	6.3	3,023.8	3,023.8	3,024.0	0.2
AQ	57,075	195	1,042	8.6	3,024.7	3,024.7	3,024.8	0.1
AR	57,680	260	1,513	5.9	3,026.3	3,026.3	3,026.7	0.4

[1]Feet above confluence with Flathead Lake

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

FLATHEAD COUNTY, MT
AND INCORPORATED AREAS

FLOODWAY DATA

SWAN RIVER

FLOODING SOURCE		FLOODWAY			1-PERCENT ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
SWAN RIVER (cont.)								
AS	58,260	240	1,390	6.5	3,027.3	3,027.3	3,027.6	0.3
AT	58,990	225	1,327	6.8	3,028.7	3,028.7	3,028.8	0.1
AU	59,345	230	1,422	6.3	3,029.4	3,029.4	3,029.5	0.1
AV	60,315	240	1,447	6.2	3,030.7	3,030.7	3,031.0	0.3
AW	60,930	250	1,433	6.3	3,031.7	3,031.7	3,032.0	0.3
AX	61,500	275	1,602	5.6	3,032.6	3,032.6	3,032.9	0.3
AY	62,085	185	1,014	8.9	3,033.3	3,033.3	3,033.5	0.2
AZ	62,675	203	1,335	6.7	3,035.1	3,035.1	3,035.4	0.3
BA	63,890	258	1,883	4.8	3,037.2	3,037.2	3,037.4	0.2
BB	64,365	172	1,356	6.6	3,037.4	3,037.4	3,037.5	0.1

[1]Feet above confluence with Flathead Lake

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

FLATHEAD COUNTY, MT
AND INCORPORATED AREAS

FLOODWAY DATA

SWAN RIVER

FLOODING SOURCE		FLOODWAY			1-PERCENT ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
SWAN RIVER AT BIGFORK								
A	199	138	1,024	9.5	2896.6	2895.9[2]	2895.9	0.0
B	717	178	1,321	7.4	2898.6	2898.6	2898.6	0.0
C	1,061	172	1,392	7.0	2901.9	2901.9	2901.9	0.0
D	1,440	112	727	13.4	2903.4	2903.4	2903.4	0.0
E	1,959	238	1,165	8.4	2911.3	2911.3	2911.3	0.0
F	2,587	144	762	12.8	2923.9	2923.9	2923.9	0.0

[1] Feet above confluence with Flathead Lake [2] Elevation computed without consideration of backwater effects from Flathead Lake

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

FLATHEAD COUNTY, MT
AND INCORPORATED AREAS

FLOODWAY DATA

SWAN RIVER AT BIGFORK

FLOODING SOURCE		FLOODWAY			1-PERCENT ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
SWIFT CREEK								
A	400	200	760	2.8	3,004.2	3,004.2	3,004.7	0.5
B	1,140	210	315	6.7	3,008.2	3,008.2	3,008.2	0.0
C	2,090	254	711	3.0	3,012.0	3,012.0	3,012.5	0.5
D	3,350	84	226	9.3	3,018.8	3,018.8	3,018.8	0.0
E	3,460	50	309	6.8	3,020.3	3,020.3	3,020.3	0.0
F	3,490	50	315	6.7	3,021.1	3,021.1	3,021.1	0.0
G	3,540	75	482	4.4	3,021.6	3,021.6	3,021.6	0.0
H	3,640	103	645	3.3	3,021.8	3,021.8	3,021.8	0.0
I	4,180	183	1,012	2.1	3,022.0	3,022.0	3,022.0	0.0
J	4,700	173	605	3.5	3,022.1	3,022.1	3,022.1	0.0

[1]Feet above confluence with Whitefish Lake

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

FLATHEAD COUNTY, MT
AND INCORPORATED AREAS

FLOODWAY DATA

SWIFT CREEK

FLOODING SOURCE		FLOODWAY			1-PERCENT ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
WEST SPRING CREEK								
A	2,557	76	353	1.2	2,959.8	2,959.8	2,959.9	0.1
B	3,295	79	360	1.1	2,959.9	2,959.9	2,960.0	0.1
C	4,177	105	580	0.7	2,965.8	2,965.8	2,966.2	0.4
D	5,176	68	263	1.6	2,965.8	2,965.8	2,966.2	0.4
E	6,042	53	154	2.7	2,968.3	2,968.3	2,968.4	0.1
F	7,503	105	449	0.9	2,974.0	2,974.0	2,974.3	0.3
G	8,511	70	139	2.9	2,975.1	2,975.1	2,975.4	0.3
H	9,779	60	142	2.9	2,981.7	2,981.7	2,982.1	0.4
I	11,223	56	175	1.9	2,989.8	2,989.8	2,990.1	0.3
J	12,457	25	97	3.5	2,993.9	2,993.9	2,994.4	0.5

[1]Feet above confluence with Bowser Creek

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

FLATHEAD COUNTY, MT
AND INCORPORATED AREAS

FLOODWAY DATA

WEST SPRING CREEK

FLOODING SOURCE		FLOODWAY			1-PERCENT ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
WEST SPRING CREEK TRIBUTARY								
A	51	32	11	3.1	2,986.5	2,985.7[2]	2,985.7[2]	0.0
B	262	49	78	0.4	2,990.3	2,990.3	2,990.3	0.0
C	682	23	13	2.7	2,994.5	2,994.5	2,994.5	0.0
D	1,442	100	315	0.1	3,003.3	3,003.3	3,003.3	0.0
E	2,056	207	581	0.1	3,004.5	3,004.5	3,004.5	0.0
F	2,716	157	186	0.2	3,004.5	3,004.5	3,004.5	0.0
G	3,298	32	10	3.2	3,005.4	3,005.4	3,005.4	0.0

[1]Feet from Confluence with West Spring Creek [2]Elevation Computed Without Consideration of Backwater from West Spring Creek

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

FLATHEAD COUNTY, MT
AND INCORPORATED AREAS

FLOODWAY DATA

WEST SPRING CREEK TRIBUTARY

FLOODING SOURCE		FLOODWAY			1-PERCENT ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
WHITEFISH RIVER AT WHITEFISH								
A	80,052	90	903	1.7	2,999.6	2,999.6	2,999.9	0.3
B	80,639	201	1,345	1.1	2,999.7	2,999.7	3,000.0	0.3
C	81,887	93	872	1.7	2,999.8	2,999.8	3,000.1	0.3
D	83,126	299	2,081	0.7	2,999.9	2,999.9	3,000.2	0.3
E	84,316	99	991	1.5	2,999.9	2,999.9	3,000.2	0.3
F	85,439	151	1,371	1.1	3,000.1	3,000.1	3,000.4	0.3
G	85,649	131	1,269	1.2	3,000.1	3,000.1	3,000.4	0.3
H	86,652	83	844	1.8	3,000.1	3,000.1	3,000.4	0.3
I	87,989	98	842	1.8	3,000.3	3,000.3	3,000.6	0.3
J	88,330	171	1,156	1.3	3,000.3	3,000.3	3,000.6	0.3
K	89,602	147	1,195	1.3	3,000.4	3,000.4	3,000.7	0.3
L	90,859	100	990	1.5	3,000.5	3,000.5	3,000.8	0.3
M	92,241	113	1,087	1.3	3,000.6	3,000.6	3,000.9	0.3
N	93,478	95	853	1.6	3,000.7	3,000.7	3,001.0	0.3
O	94,882	105	901	1.5	3,000.8	3,000.8	3,001.1	0.3
P	96,138	118	931	1.5	3,000.9	3,000.9	3,001.2	0.3
Q	96,815	104	914	1.5	3,000.9	3,000.9	3,001.2	0.3
R	97,063	104	981	1.4	3,000.9	3,000.9	3,001.2	0.3
S	98,353	112	1,068	1.3	3,001.0	3,001.0	3,001.3	0.3
T	98,898	107	1,027	1.3	3,001.1	3,001.1	3,001.4	0.3
U	99,003	119	1,095	1.2	3,001.1	3,001.1	3,001.4	0.3

[1]Feet above confluence with Stillwater River

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

FLATHEAD COUNTY, MT
AND INCORPORATED AREAS

FLOODWAY DATA

WHITEFISH RIVER AT WHITEFISH

FLOODING SOURCE		FLOODWAY			1-PERCENT ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
WHITEFISH RIVER AT WHITEFISH								
V	100,172	120	1,090	1.3	3,001.2	3,001.2	3,001.5	0.3
W	101,140	100	867	1.6	3,001.2	3,001.2	3,001.5	0.3
X	102,000	141	1,123	1.2	3,001.3	3,001.3	3,001.6	0.3
Y	103,200	223	1,285	1.4	3,001.1	3,001.1	3,001.6	0.5
Z	103,689	145	1,169	1.6	3,001.2	3,001.2	3,001.7	0.5
AA	104,050	127	845	2.2	3,001.3	3,001.3	3,001.8	0.5
AB	104,287	66	329	5.6	3,001.3	3,001.3	3,001.8	0.5
AC	104,562	67	332	5.5	3,001.8	3,001.8	3,002.3	0.5
AD	105,224	142	1,320	1.4	3,002.9	3,002.9	3,003.0	0.1
AE	105,874	397	2,167	0.8	3,003.0	3,003.0	3,003.1	0.1
AF	106,124	135	1,416	1.3	3,003.0	3,003.0	3,003.1	0.1
AG	106,555	89	611	3.0	3,003.0	3,003.0	3,003.1	0.1
AH	106,592	89	613	3.0	3,003.0	3,003.0	3,003.1	0.1
AI	106,998	230	1,718	1.1	3,003.2	3,003.2	3,003.3	0.1
AJ	107,348	88	782	2.3	3,003.3	3,003.3	3,003.4	0.1
AK	107,364	89	816	2.2	3,003.3	3,003.3	3,003.8	0.5
AL	108,114	281	2,008	0.9	3,003.5	3,003.5	3,004.0	0.5
AM	108,564	302	1,633	1.1	3,003.5	3,003.5	3,004.0	0.5
AN	108,882	150	1,475	1.2	3,003.5	3,003.5	3,004.0	0.5
AO	108,926	146	1,452	1.3	3,003.5	3,003.5	3,004.0	0.5
AP	109,944	160	1,435	1.3	3,003.6	3,003.6	3,004.1	0.5
AQ	110,944	140	1,339	1.4	3,003.7	3,003.7	3,004.2	0.5

[1]Feet above confluence with Stillwater River

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

FLATHEAD COUNTY, MT
AND INCORPORATED AREAS

FLOODWAY DATA

WHITEFISH RIVER AT WHITEFISH

FLOODING SOURCE		FLOODWAY			1-PERCENT ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
WHITEFISH RIVER AT WHITEFISH								
AR	111,431	196	1,523	1.2	3,003.8	3,003.8	3,004.3	0.5
AS	111,457	196	1,532	1.2	3,003.8	3,003.8	3,004.3	0.5
AT	111,636	166	1,559	1.2	3,003.8	3,003.8	3,004.3	0.5
AU	112,444	207	1,759	1.0	3,003.9	3,003.9	3,004.4	0.5
AV	112,519	333	1,740	1.1	3,003.9	3,003.9	3,004.4	0.5

[1]Feet above confluence with Stillwater River

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

FLATHEAD COUNTY, MT
AND INCORPORATED AREAS

FLOODWAY DATA

WHITEFISH RIVER AT WHITEFISH

FLOODING SOURCE		FLOODWAY			1-PERCENT ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
WHITEFISH RIVER NEAR KALISPELL								
A	330	81	516	3.3	2,915.0	2,912.9[2]	2,912.9	0.0
B	1,203	104	475	3.6	2,915.0	2,913.7[2]	2,913.7	0.0
C	2,427	96	555	3.1	2,915.0	2,914.6[2]	2,914.6	0.0
D	3,218	101	603	2.8	2,915.0	2,915.0[2]	2,915.0	0.0
E	4,200	368	1,296	1.3	2,916.4	2,916.4	2,916.4	0.0
F	5,432	78	651	2.6	2,916.6	2,916.6	2,916.7	0.1
G	6,258	88	711	2.4	2,916.8	2,916.8	2,916.9	0.1
H	7,270	66	510	3.3	2,917.1	2,917.1	2,917.2	0.1
I	8,130	78	652	2.6	2,917.4	2,917.4	2,917.7	0.3
J	9,112	64	552	3.1	2,917.7	2,917.7	2,918.0	0.3
K	10,194	65	598	2.8	2,918.0	2,918.0	2,918.3	0.3
L	11,079	86	716	2.4	2,918.3	2,918.3	2,918.6	0.3
M	12,064	99	740	2.3	2,918.5	2,918.5	2,918.9	0.4
N	13,002	71	595	2.8	2,918.7	2,918.7	2,919.1	0.4
O	13,754	75	617	2.7	2,919.1	2,919.1	2,919.4	0.3
P	14,210	87	797	2.1	2,919.3	2,919.3	2,919.7	0.4
Q	16,960	70/860[3]	3,477	0.5	2,920.2	2,920.1[2]	2,920.6	0.5
R	19,240	255	1,206	1.5	2,920.4	2,920.3[2]	2,920.8	0.5
S	23,310	50	260	6.2	2,922.4	2,922.4	2,922.8	0.4
T	26,500	91	506	3.2	2,925.4	2,925.4	2,925.8	0.4
U	27,010	77	277	6.6	2,926.2	2,926.2	2,926.6	0.4

[1]Feet above confluence with Stillwater River, [2]Elevation computed without consideration of backwater effects from Stillwater River, [3]Left channel/right channel

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

FLATHEAD COUNTY, MT
AND INCORPORATED AREAS

FLOODWAY DATA

WHITEFISH RIVER NEAR KALISPELL

FLOODING SOURCE		FLOODWAY			1-PERCENT ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
WHITEFISH RIVER NEAR KALISPELL (cont.)								
V	27,040	79	298	6.1	2,926.5	2,926.5	2,926.9	0.4
W	28,210	255	767	2.4	2,929.9	2,929.9	2,929.9	0.0
X	32,850	259	580	3.2	2,937.6	2,937.6	2,937.6	0.0
Y	36,150	360	829	2.2	2,942.8	2,942.8	2,943.2	0.4
Z	38,600	184	502	3.6	2,947.2	2,947.2	2,947.7	0.5
AA	41,960	237	845	2.2	2,950.7	2,950.7	2,951.2	0.5
AB	43,030	76	471	3.9	2,951.3	2,951.3	2,951.8	0.5
AC	43,060	76	474	3.9	2,951.3	2,951.3	2,951.8	0.5
AD	43,720	99	421	4.3	2,952.2	2,952.2	2,952.5	0.3

[1]Feet above confluence with Stillwater River

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

FLATHEAD COUNTY, MT
AND INCORPORATED AREAS

FLOODWAY DATA

WHITEFISH RIVER NEAR KALISPELL

5.0 INSURANCE APPLICATIONS

For flood insurance rating purposes, flood insurance zone designations are assigned to a community based on the results of the engineering analyses. These zones are as follows:

Zone A

Zone A is the flood insurance risk zone that corresponds to the 1-percent annual chance floodplains that are determined in the FIS by approximate methods. Because detailed hydraulic analyses are not performed for such areas, no BFEs or base flood depths are shown within this zone.

Zone AE

Zone AE is the flood insurance risk zone that corresponds to the 1-percent annual chance floodplains that are determined in the FIS by detailed methods. In most instances, whole-foot BFEs derived from the detailed hydraulic analyses are shown at selected intervals within this zone.

Zone AO

Zone AO is the flood insurance risk zone that corresponds to the areas of 1-percent annual chance shallow flooding (usually sheet flow on sloping terrain) where average depths are between 1 and 3 feet. Average whole-foot base flood depths derived from the detailed hydraulic analyses are shown within this zone.

Zone X

Zone X is the flood insurance risk zone that corresponds to areas outside the 0.2-percent annual chance floodplain, areas within the 0.2-percent annual chance floodplain, areas of 1-percent annual chance flooding where average depths are less than 1 foot, areas of 1-percent annual chance flooding where the contributing drainage area is less than 1 square mile, and areas protected from the 1-percent-annual-chance flood by levees. No BFEs or base flood depths are shown within this zone.

Zone D

Zone D is the flood insurance risk zone that corresponds to unstudied areas where flood hazards are undetermined, but possible.

6.0 FLOOD INSURANCE RATE MAP

The FIRM is designed for flood insurance and floodplain management applications.

For flood insurance applications, the map designates flood insurance risk zones as described in Section 5.0 and, in the 1-percent annual chance floodplains that were studied by detailed methods, shows selected whole-foot BFEs or average depths. Insurance agents use the zones and BFEs in conjunction with information on structures and their contents to assign premium rates for flood insurance policies.

For floodplain management applications, the map shows by tints, screens, and symbols, the 1- and 0.2-percent annual chance floodplains, floodways, and the locations of selected cross sections used in the hydraulic analyses and floodway computations.

The current FIRM presents flooding information for the entire geographic area of Flathead County. Previously, separate FIRMs were prepared for each identified flood prone incorporated community and for the unincorporated areas of the County. Historical data relating to the maps prepared for each community are presented in Table 7.

COMMUNITY NAME	INITIAL IDENTIFICATION	FLOOD HAZARD BOUNDAY MAP REVISION DATE	INITIAL FIRM EFFECTIVE DATE	FIRM REVISION DATE
Columbia Falls, City of	February 8, 1974	April 23, 1976	October 15, 1985	
Flathead County (Unincorporated Areas)	September 13, 1974	June 28, 1977 March 19, 1976	September 5, 1984	October 16, 1996 September 30, 1992 July 15, 1988
Kalispell, City of	February 15, 1974	May 21, 1976	September 17, 1980	
Whitefish, City of	May 31, 1974	January 9, 1976	July 16, 1979	

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY

FLATHEAD COUNTY, MT
AND INCORPORATED AREAS

COMMUNITY MAP HISTORY

7.0 OTHER STUDIES

The revised hydraulic analysis along Ashley Creek was performed by Pacific International Engineering in February, 2004. It was updated by Pacific International Engineering in June, 2006, and then again by Michael Baker Jr., Inc. in August, 2006.

The revised hydraulic analysis was based on the same discharge values used for Ashley Creek in the previous FIS. The USACE HEC-RAS computer program was used to perform the revised hydraulic analysis. Flood profiles were revised for Ashley Creek. This new study starts just downstream of Cemetery Road and ends just upstream of the Burlington Northern Railroad crossing, a reach of 28,800 ft. As a result, the 1- and 0.2-percent-annual-chance floodplain and floodway boundaries were revised.

A previous study along Ashley Creek (superseded by the above study) was performed by Billmayer Engineering on September 30, 1992. This revised analysis incorporated the effects of updated topographic information, channel improvements, and the addition and replacement of stream hydraulic structures.

This study was based on the same discharge values used for Ashley Creek in the FIS for the unincorporated areas of Flathead County, Montana, dated September 28, 1990. The USACE HEC-2 step-backwater computer program was used to perform the revised hydraulic analysis. Flood profiles were revised for Ashley Creek from a point approximately 6,000 feet downstream of Airport Road to Foys Lake Road, a reach of approximately 28,000 feet. As a result, the 1- and 0.2-percent annual chance floodplain and 1-percent annual chance floodway boundaries were also revised. Topographic maps entitled "Ashley Creek Flood Study," Panels 1 through 4 of 4, with a scale of 1:1,200 and a contour interval of 2 feet, produced by B.E., dated May 10, 1991, and revised September 12, 1991 (Reference 38), were utilized to determine the revised 1-percent annual chance floodplain and floodway boundaries. A topographic map, entitled "Ashley Creek Flood Study, 500-year Delineation," with a scale of 1:6,000 and a contour interval of 20 feet, also produced by B.E., dated January 29, 1991 (Reference 39), was utilized to determine the revised 0.2-percent annual chance floodplain boundaries.

In Floods of June 1964 in Northwestern Montana (Reference 10), it was estimated that the 1964 floodflow was 8,380 cfs on Bear Creek and that the flow was 8.67 times as large as the 2-percent annual chance flood. This estimate of the 2-percent annual chance discharge was apparently based on streamflow records from 1946 to 1952, where the maximum discharge was 696 cfs. The 1964 and 1975 floods had estimated discharges of 8,380 and 1,840 cfs, respectively. Additional data were incorporated in the estimation of recurrence intervals for this study.

Flathead River has been studied previously by the USACE, Seattle District. The results of their investigation are presented in the 1969 Floodplain Information Report (Reference 13). A detailed hydrologic and hydraulic analysis of Flathead River was performed from near Columbia Falls to Flathead Lake.

The hydrologic investigation in this study considered regulated and unregulated conditions

along Flathead River. Discharge estimates for the recurrence intervals of interest are considered to be too low because the 1894, 1923, 1928, and 1964 floods were not included in the database. For example, the 1-percent annual chance discharge was estimated to be 79,000 cfs (later increased by the USACE to 82,000). However, four times in the last 82 years, flows have approximately equaled or exceeded 70,000 cfs. Three times in 82 years, flows have approximately equaled or exceeded the original USACE 1-percent annual chance flood estimate of 79,000 cfs. Floods of 95,000 cfs have been equaled or exceeded twice in the same period.

This FIS uses flood data and photographs unavailable at the time of the USACE report and uses different starting water-surface elevations.

A private consulting firm worked with the Montana Floodplain Management Bureau in the early to middle 1970's and modified the 1-percent annual chance flood boundary for Flathead River. The scope of this work was not as broad as the USACE report and the methodology employed was approximate. The community officials and citizens found this new boundary delineation to be more favorable; therefore, they adopted it as part of their floodplain zoning and regulation program.

The Flathead River study was revised on September 28, 1990, to show modifications to the 1-percent annual chance floodway along the Flathead River between cross sections CW and CZ as shown on Panel 1820 of the Flood Boundary Floodway Map for the unincorporated areas of Flathead County, dated July 15, 1988. This revision is based on the removal of high ground within the existing floodway between cross sections CW and CZ as the result of a revised HEC-2 hydraulic analysis, modified and submitted by the Floodplain Management Section of the Montana Department of Natural Resources and Conservation. The HEC-2 model, originally developed by Simons, Li and Associates (SLA), was modified by adding a cross section between cross sections CW and CZ and by assigning the floodway limits on the right overbank at the riverward limits of the high ground. This resulted in little change to the 1-percent annual chance base flood elevations but reduced the width of the floodway. The topographic information for the overbank area in the vicinity of the extra cross section was derived from a topographic workmap, scale 1"= 40', taken from the original workmap for a previous restudy in Flathead County, Montana, dated June 1985 and prepared by SLA.

Although this revision resulted in a slight increase in base flood elevations, due to the profile scale limitations, the profile panels were not changed. The Floodway Data Table for the Flathead River was, however, revised.

The Flathead River study was revised on October 16, 1996, by Billmayer Engineering to show modifications to the 1- and 0.2-percent annual chance floodplain boundaries, the floodway, and the BFEs along the Flathead River between cross sections CF and F as shown on Panels 1810D, 1820F, 1830E, 1840E, 1845E, and 2280E of the FIRMs for the unincorporated areas of Flathead County, dated September 30, 1992. The revised analysis incorporated the effects of corrected topographic information between sections BU and CX along the Flathead River.

The revised hydraulic analysis was based on the same discharge values used for the Flathead River in the FIS for the unincorporated areas of Flathead County, Montana, dated September

30, 1992. The HEC-2 model, originally developed by SLA in June 1985, was modified to incorporate corrected topographic information. Flood profiles were revised for the Flathead River from a point 45,565 feet above the mouth to a point 125,650 feet above the mouth. Topographic information for the overbank areas in the vicinity of the cross sections was derived from a topographic workmap, scale 1”= 40’, taken from the original workmap for a previous restudy in Flathead County, Montana, dated June 1985 and prepared by SLA.

This revision resulted in a decrease in the BFEs, and these changes were reflected in the Floodway Data Table and Flood Profiles for Flathead River.

The USGS published some frequency-discharge values for Middle Fork Flathead River in 1976 (Reference 20), but their report consisted exclusively of records from Gage No. 12358500 (record period 1939 to 1973). Those results required adjustments for later streamflow data from the 1975 flood event.

Two hydrologic studies have been published on Stillwater River, the 1969 Floodplain Information Report (Reference 13) and the 1976 USGS Report (Reference 20). The hydrology in both studies related specifically to the gaging station near Whitefish (Gage No. 12365000). The USACE used the period of record from 1929 to 1950 and did a correlation analysis with Swan River near Bigfork in order to obtain an extended period of 29.6 years. The USGS apparently used the record period 1931 to 1950. More recent streamflow data are now available and have been used in this study. This study has also incorporated several peak-discharge measurements not included in the previous investigations.

The USACE investigation used different starting water-surface elevations for their hydraulic analysis and did not assume nonconcurrency of flood events between Stillwater River and Flathead River. Hydraulic structures along Stillwater River have also been replaced since the previous investigation.

A number of local engineering consulting firms have studied West Spring Creek hydraulics. One investigation examined the possibility of rerouting West Spring Creek in order to accommodate further urbanization. Other work was done concerning regional and site specific urban storm drain design.

The USGS performed a log-Pearson Type III hydrologic analysis of Whitefish River by using the data at the Whitefish River gage (eight miles upstream of Kalispell) and published the results in 1976 (Reference 20). However, because more measurements have been taken since their report, the previously published results are considered to be of limited value.

The USBR established a temporary stream gaging program along Whitefish River. The program consisted of a series of gages strategically located so as to provide specific and meaningful data. Some of these data were incorporated in this study in order to provide target values and profiles in establishing the hydraulic model.

The SCS has performed extensive hydrologic studies on the Whitefish River watershed and combined this with flood routing and backwater profile analyses. However, except for the 1974 Flood Prone Area Map of Whitefish (Reference 40) most of their work has not been published.

The USACE performed a hydrologic and hydraulic investigation of Whitefish River (particularly for the reaches near Kalispell) in 1969 (Reference 13). The report was updated in 1974. The hydrologic analysis considered the period of record to be 1929 to 1950, 1973, and 1974 (24 years). The period of record was extended to the equivalent of 37 years by correlation with 52 years of record for the North Fork Flathead River near Columbia Falls.

The Whitefish River profile from the USACE 1969 report (Reference 13) was only a general information aid because different hydrologic values and different starting conditions were implemented in this study. The hydrologic value used here is the same as that suggested by the USACE in August 1974 as being an improved prediction. The starting conditions used here consider the water-surface elevations and an associated magnitude-frequency event on Stillwater River at the confluence with Whitefish River. It appears that the USACE used the concept of nonevent concurrency for the two streams and/or considered less severe backwater effects along Stillwater River upstream of U.S. Highway 2 bridge than history would indicate.

Approximate studies have been performed in Flathead County by the USGS and the SCS for the purpose of developing Flood Prone Area Maps (References 41 and 42).

Previously Flood Insurance Studies have been prepared for Flathead County, the Cities of Kalispell and Whitefish and are in agreement with this study (References 1, 2 and 3).

This FIS report either supersedes or is compatible with all previous studies on streams studied in this report and should be considered authoritative for purposes of the NFIP.

Table 8 contains all Letters of Map Change (LOMCs) that have been incorporated into the FIS since the previous effective date.

Table 8 – Summary of LOMCs

Type of LOMC	Case Number	Effective Date	Project Identifier
LOMR	07-08-0950P	January 25, 2008	Hidden Waters Major SubDiv
LOMR	08-08-0430P	June 2, 2008	River Bend Village Property
LOMR	08-08-0134P	July 15, 2008	Trumbull Creek Subdivision
LOMR	08-08-0149P	July 31, 2008	Sweetgrass Ranch
LOMR	07-08-0771P	October 14, 2008	Lone Pine Trails SubDiv Letter of Map Revision
LOMR	08-08-0919P	October 15, 2008	Bigfork Harbor Condominium LOMR Reissue
LOMR	08-08-0361P[1]	April 21, 2009	Turner Mill Ashley, Tracts 11H, 11I, & 11Ia
LOMR	09-08-0251P	May 15, 2009	Lippincott

[1] Cross section AE not incorporated

8.0 LOCATION OF DATA

Information concerning the pertinent data used in the preparation of this study can be obtained by contacting the Flood Insurance and Mitigation Division, FEMA, Denver Federal Center, Building 710, Box 25267, Denver, Colorado 80225-0267.

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10.0 REVISION DESCRIPTIONS

This section has been added to provide information regarding significant revisions made since the original Flood Insurance Study was printed. Future revisions may be made that do not result in the republishing of the Flood Insurance Study report. To ensure that any user is aware of all revisions, it is advisable to contact the community repository of flood hazard data.

10.1 First Revision

This study was revised on June 18, 2013 to incorporate a Physical Map Revision (PMR) for a restudy of the Flathead River near the Evergreen area of Flathead County, MT, including a split flow from the Flathead River that occurs during low-frequency flood events. The flooding sources impacted by the PMR were Flathead River, Flathead River Overflows, and Spring Creek. The PMR was based on data provided in the engineering report entitled "Flathead River Evergreen Area Restudy Hydraulic Analysis Technical Support Notebook Flathead County, Montana", prepared by PBS&J, dated April, 2010 (Reference 43).

The analysis for the PMR includes hydraulic modeling of a split flow that occurs on the Flathead River as it flows beneath U.S. Highway 2 (MT Highway 35) until it intersects with Spring Creek and then converges with the Flathead River. Hydraulic analyses for the revision utilized field survey information collected in 2008 along the study reach (Reference 44). No new hydrologic analysis was performed. A supplemental hydraulic analysis was performed by BakerAECOM to extend the analysis to encompass hydraulic modeling of additional overflows from Spring Creek to approximately 1 mile downstream to its confluence with the Stillwater River (Reference 45). Hydraulic computations were carried out using the USACE HEC-RAS River Analysis System, version 4.0 (Reference 46). The hydraulic analysis resulted in revisions to the Flathead River floodway from approximately 2,000 ft upstream of Montana Hwy 35 to approximately 6,000 feet downstream. Floodplain mapping was completed using LiDAR topographic survey data flown in October 2008 and provided by Montana DNRC (Reference 47).

This revision incorporated the Letter of Map Revision (LOMR) issued on June 2, 2008, (Case No. 08-08-0430P) for a portion of the Whitefish River affecting the River Bend Village property located in the unincorporated areas of Flathead County, Montana. The LOMR revised flood hazard information for a reach from approximately 5,000 feet upstream of Reserve Drive to 40 feet upstream of Rose Crossing.

In addition, this revision incorporated the LOMR issued on July 15, 2008, (Case No. 08-08-0134P) for portions of Trumbull Creek and an adjacent Overflow Channel affecting the Trumbull Creek subdivision in the unincorporated areas of Flathead County, Montana. The LOMR revised flood hazard information for a reach of Trumbull Creek from approximately 4,280 feet downstream to approximately 330 feet upstream of Rose Crossing, and a reach of the Overflow Channel from approximately 170 feet downstream to approximately 5,380 feet upstream of Reserve Drive.

10.2 Second Revision

This study was revised on November 4, 2015 to incorporate revised flooding information performed under a Risk MAP project for the Hydrologic Unit Code 8 (HUC 8) watersheds: 17010208 (Flathead Lake Watershed) and 17010210 (Stillwater River and Flathead River) under an agreement with FEMA and Montana Department of Natural Resources and Conservation (Reference 48). This project utilized new LiDAR topographic information (Reference 49) to refine flood hazard boundaries of flooding sources studied by approximate methods developed during the first publication of this Flood Insurance Study. The LiDAR data was also utilized to perform new detailed hydrologic analyses, hydraulic analyses and floodplain mapping for several flooding sources. Flood hazard boundaries of flooding sources studied by approximate methods were refined for: Ashley Creek, Birch Creek, Brush Creek, Garnier Creek, Haskill Creek, Hunger Creek, Lost Creek, Mauzey Creek, Mud Creek, Patrick Creek, Rock Creek, Spring Creek, Stillwater River, Trumbull Creek, Walker Creek, and Whitefish River. The new detailed studies performed as part of the Risk MAP project include: Ashley Creek, Cow Creek at Whitefish, Stillwater River near Kalispell, Swan River at Bigfork, Unnamed Tributary to Bowser Creek, Unnamed Tributary to Bowser Creek Diverted Flow, West Spring Creek, West Spring Creek Tributary, Whitefish River at Whitefish, and Whitefish River at Kalispell.

The study reach along Ashley Creek extends from the downstream study limit located at the upstream extent of LOMR 08-08-0361P (approximately 7,540 feet upstream of Burlington Northern Railroad), near the City of Kalispell to the upstream study limit located roughly 1.84 miles upstream which terminates about 300 feet above the Dern Road crossing (in the Northeast corner of Section 15, 28N, R22W).

The study reach along Cow Creek at Whitefish extends from its downstream limit located at the river's mouth and confluence with the Whitefish River at the City of Whitefish upstream roughly 1.7 miles and terminates just downstream of the Burlington Northern Santa Fe railroad crossing.

The study reach along Stillwater River near Kalispell extends from the confluence with the Flathead River at the downstream limit to the study's upstream limit at Whitefish Stage Road.

The study reach along Swan River at Bigfork extends from the downstream study limit located at the river's mouth and confluence with Flathead Lake at the Town of Bigfork to roughly 0.5 miles upstream which terminates just downstream of a power line crossing for the upstream study limit.

The study reach along West Spring Creek extends from just downstream of Meridian Road at the downstream limit to the upstream limit of the previously effective Approximate Zone A study. The West Spring Creek Tributary study limits extend from the confluence with West Spring Creek at the downstream limit to the upstream limit of the previously effective Approximate Zone A study. Due to a diverted flow scenario, 0.25 miles of Unnamed Tributary to Bowser Creek and 0.1 miles of Unnamed Tributary to Bowser Creek Diverted Flow were also studied by limited detail methods.

The study reach along Whitefish River at Whitefish extends from the downstream limit of Montana State Highway 40 to the effective Zone AE boundary for the upstream extent (approximately 102,000 feet above confluence with Stillwater River).

The study reach along Whitefish River near Kalispell extends from the confluence with Stillwater River at the downstream limit to the upstream limit of West Reserve Drive.

In general, the new detailed hydrologic and hydraulic analyses followed FEMA Guidelines and Specifications (G&S), Appendix C during study development (Reference 50).

The hydrology used for the Ashley Creek study was taken directly from the effective study as described in Section 3.1. In consideration of the May 1997 flooding, the effective hydrologic analysis for Ashley Creek, as described in Section 3.1, was reviewed in 2003 and concluded to be valid. The 4-percent annual chance discharge was estimated from a flood frequency curve developed by plotting the 10-, 2-, 1-, and 0.2- percent annual chance frequency discharges and all were used for hydraulic modeling (Reference 51).

The hydrology used for Cow Creek at Whitefish was developed with United States Geological Survey (USGS) regression equations, as described in their publication, "Water Resource Investigation Report (WRIR) 03-4308" (Reference 52), for the ungaged site located at the mouth. The 10-, 4-, 2-, 1-, and 0.2-percent annual chance peak discharges were calculated at the mouth and used for hydraulic modeling (Reference 53). The regression equations using the weighted combination of basin-active channel-bankfull channel were selected because they have the greatest reliability (which corresponds to the lowest standard error of prediction (SEP) value and reflect both channel and basin parameters of the watershed.

The hydrology used for Stillwater River at Kalispell was based on a Bulletin 17B statistical gage analysis (Reference 54). The USGS has historically operated the stream gage USGS Gage No. 12365000, near Whitefish at Spring Prairie Road. This gage ceased operation in 2006, prior to the installation of the currently operated stream gage USGS Gage No. 12365700, Stillwater River at Lawrence Park in Kalispell. Due to the close proximity of these gages to the study reach, a statistical gage analysis as well as a regression transfer analysis based upon drainage areas, as described in USGS WRIR 03-4308, was performed for the calculation of the 10-, 4-, 2-, 1-, and 0.2-percent annual chance peak discharges at the mouth (Reference 55).

The hydrology used for Swan River at Bigfork was based on a Bulletin 17B statistical gage analysis of USGS Gage No. 12370000. Due to the close proximity of this gage to the study reach, a regression transfer analysis based upon drainage areas, as described in USGS WRIR 03-4308, was performed for the calculation of the 10-, 4-, 2-, 1-, and 0.2 percent annual chance peak discharges at the mouth and used for hydraulic modeling (Reference 56).

Because no stream gaging stations exist along West Spring Creek, the hydrology for its

two basins is based on the regression equations presented in WRIR 03-4308. A weighted combination of the regression equations based on basin characteristics, active-channel width, and bankfull width were determined to be the most appropriated method for determining the peak flow estimates. The hydrology used for West Spring Creek Tributary was based on a HEC-HMS (Reference 57) model utilizing precipitation, loss rate, transform, and routing variables, since no gage exists and regression equations are not suitable for the basin. The 10-, 4-, 2-, 1-, and 0.2 percent annual chance peak discharges were calculated for West Spring Creek at Meridian Drive and upstream of the West Spring Creek Tributary confluence (Reference 58). The For West Spring Creek Tributary, a Modified Puls routing method was utilized to account for realistic volume attenuation upstream of Fly Way and Three Mile Drive. The 10-, 4-, 2-, 1-, and 0.2-percent annual chance peak discharges were calculated for West Spring Creek Tributary upstream of Fly Way, through Fly Way Crossing, and through Three Mile Drive and used for hydraulic modeling (Reference 59). The Unnamed Tributary to Bowser Creek reach and the Unnamed Tributary to Bowser Creek Diverted Flow reach utilized flows diverted from West Spring Creek obtained through hydraulic modeling of those reaches (Reference 59).

The hydrology used for Whitefish River at Whitefish was based on a Bulletin 17B statistical gage analysis. The USGS has historically operated the stream gage USGS Gage No. 1236600, Whitefish River at Kalispell (Tetrault Road). This gage ceased operation in 2006, prior to the installation of the currently operated stream gage USGS Gage No. 12366080, Whitefish River near mouth at Kalispell. Due to the close proximity of these gages to the study reach, a combined statistical gage analysis as well as a regression transfer analysis based upon drainage areas, as described in USGS WRIR 03-4308, was performed for the calculation of the 10-, 4-, 2-, 1-, and 0.2-percent annual chance peak discharges at the downstream study extent (Reference 60) and used for hydraulic modeling.

The hydrology used for Whitefish River at Kalispell was based on a Bulletin 17B statistical gage analysis in a similar manner to Whitefish River at Whitefish. The historically operated stream gage USGS Gage No. 1236600 was combined with the currently operated stream gage USGS Gage No. 12366080. The results of the combined statistical gage analysis was transferred, as described in USGS WRIR 03-4308, for the calculation of the 10-, 4-, 2-, 1-, and 0.2-percent annual chance peak discharges at the mouth (Reference 61) and used for hydraulic modeling.

All hydraulic models developed for the Risk MAP project were performed using the standard-step backwater program HEC-RAS 4.1 (Reference 62) under subcritical, steady-state conditions.

Channel cross sections for all the new detailed analyses were field surveyed by WGM Group, Inc. between October 2011 and July 2012 (Reference 63). Three stream crossings were surveyed for Ashley Creek in October 2011 and July 2012. Considering the small size of Ashley Creek, with minimal discharge during collection of the LiDAR topography, bathymetric surveys for intermediate cross sections were not included. Six stream crossings were surveyed for Cow Creek at Whitefish on October 2011 and March 2012. Similar to Ashley Creek, bathymetric surveys for intermediate cross sections were

not included for Cow Creek at Whitefish. Twenty-two channel cross sections were field surveyed for the Stillwater River near Kalispell study in addition to the survey of four stream crossings. The survey was performed in November 2011 and January 2012. Eleven channel cross sections along with one stream crossing were field surveyed for the Swan River at Bigfork study. The survey was performed in December 2011 and July 2012. Forty-three channel cross sections were field surveyed for the West Spring Creek study in addition to the survey of twelve stream crossings. Twelve channel cross sections and three stream crossings were surveyed for West Spring Creek Tributary. These two streams were surveyed in October and November of 2011. The Whitefish River at Whitefish study utilized field survey of 23 channel cross sections along with survey of four stream crossings during October and December of 2011. Lastly, field survey was performed for 17 channel cross sections and five stream crossings, also in October and December of 2011. In general, field survey information was combined with the LiDAR topography to create a seamless representation of the channel and overbank geometry.

The new studies performed for the Risk MAP project utilized a range of boundary conditions and roughness values. Roughness values were based on field reconnaissance observations, aerial photographs, established hydraulic modeling guidelines (Reference 33), experience, and professional judgment. For a subcritical analysis, a downstream boundary condition is required. As mentioned above, the downstream study limit of Ashley Creek corresponds to the upstream limit of LOMR 08-08-0361P. The water surface elevations of that LOMR were not utilized as the Ashley Creek starting condition because of technical issues identified with the LOMR, which FEMA intends to correct. Accordingly, starting water surface elevations were determined using the normal depth/slope method with a slope of 0.0027 ft/ft. Roughness values ranged from 0.035 to 0.070 for overbank areas with a channel roughness of 0.04 for Ashley Creek. The downstream starting condition for Cow Creek at Whitefish utilized a normal depth/slope method with a slope of 0.0020 ft/ft. Roughness values ranged from 0.033 to 0.045 for the channel and ranged from 0.020 to 0.10 for overbank areas of Cow Creek at Whitefish. The downstream starting condition for Stillwater River near Kalispell utilized a normal depth/slope method with a slope of 0.0021 ft/ft. Roughness values ranged from 0.04 to 0.10 for overbank areas with a channel roughness of 0.035 for Stillwater River near Kalispell. The downstream starting condition for Swan River at Bigfork utilized a normal depth/slope method with a slope of 0.0050 ft/ft since consideration of backwater from Flathead Lake was not appropriate according to FEMA G&S Appendix C. Roughness values ranged from 0.04 to 0.052 for the channel and ranged from 0.016 to 0.085 for overbank areas of Swan River at Bigfork. The downstream starting condition for West Spring Creek utilized a normal depth/slope method with a slope of 0.0033 ft/ft for the reach through the culvert at Meridian Road and 0.00415 ft/ft for the Overland reach over the top of the culvert at Meridian Road. West Spring Creek Tributary could not be assumed to have coincident peak flooding with West Spring Creek, as defined in FEMA G&S Appendix C, so a normal depth/slope method with a slope of 0.0209 ft/ft was used. The Unnamed Tributary to Bowser Creek utilized the normal depth/slope method with a slope 0.0070 ft/ft. A junction was used for a boundary condition to balance energy and satisfy continuity of Unnamed Tributary to Bowser Creek Diverted Flow with West Spring Creek. Roughness values ranged from 0.015 to 0.060 for overbank areas with a channel roughness of 0.04 for West Spring Creek. A roughness value of 0.035 was utilized for the channel and a range of roughness values of 0.013 to 0.06 was used for

overbank area of West Spring Creek Tributary. Roughness values ranged from 0.05 to 0.06 for overbank areas with a channel roughness of 0.04 for Unnamed Tributary to Bowser Creek. A roughness value of 0.035 was utilized for both the channel and overbank of Unnamed Tributary to Bowser Creek Diverted Flow. The downstream starting condition for Whitefish River at Whitefish utilized a normal depth/slope method with a slope of 0.000085 ft/ft. Roughness values ranged from 0.04 to 0.11 for overbank areas with a channel roughness of 0.035 for Whitefish River at Whitefish. The downstream starting condition for Whitefish River near Kalispell utilized a normal depth/slope method with a slope of 0.0006 ft/ft. Roughness values ranged from 0.045 to 0.08 for overbank areas with a channel roughness of 0.04 for Whitefish River near Kalispell.

The flood boundaries of Ashley Creek, Cow Creek at Whitefish, Stillwater River near Kalispell, Swan River at Bigfork, Unnamed Tributary to Bowser Creek, Unnamed Tributary to Bowser Creek Diverted Flow, West Spring Creek, West Spring Creek Tributary, Whitefish River at Whitefish, and Whitefish River at Kalispell were delineated using the computed water-surface elevations at each cross section. Between cross sections, the flood boundaries were interpolated using the LiDAR topography collected in 2009.

Based on the hydraulic analyses, a floodway was developed on Ashley Creek, Cow Creek at Whitefish, Stillwater River near Kalispell, Swan River at Bigfork, West Spring Creek, West Spring Creek Tributary, Whitefish River at Whitefish, and Whitefish River at Kalispell. The floodways were computed on the basis of equal conveyance reduction from each overbank of the floodplain. Floodways were not developed for Unnamed Tributary to Bowser Creek or Unnamed Tributary to Bowser Creek Diverted Flow since the encroached primary flooding source (West Spring Creek) was able to accommodate the entire peak discharge within the allowable surcharge as defined in FEMA G&S Appendix C.

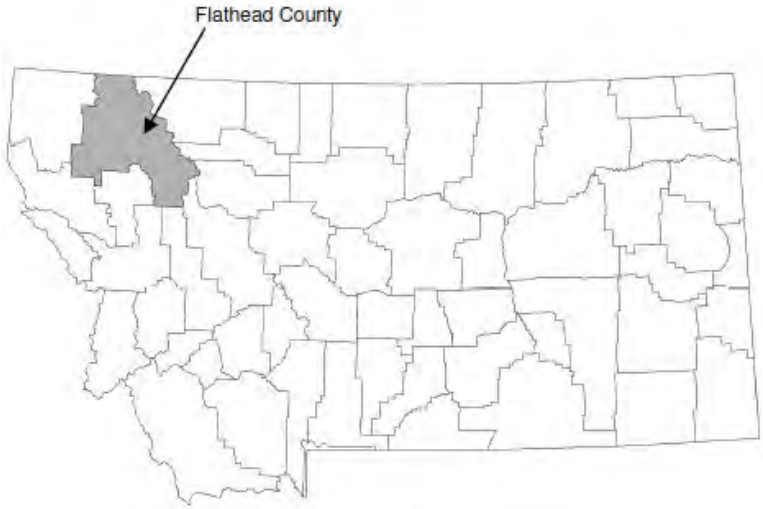
As part of this Risk MAP project, the conversion of the Flood Insurance Rate Map for the revised flooding areas (corresponding to the 2009 LiDAR acquisition area) to the Risk MAP format (Reference 64) was initiated. Additionally, the Digital Flood Insurance Rate Map (DFIRM) database for the revised area was updated to the Risk MAP format. It is important to note that this conversion did not occur for the entire HUC 8 - 17010208 and 17010210 watersheds but for the 2009 LiDAR acquisition area within those watersheds.

In addition to the Letters of Map Revision (LOMRs) incorporated during the first revision (Case No. 08-08-0430P and Case No. 08-08-0134P), several other LOMRs were incorporated during this revision for the FIRM panels updated as part of this Risk MAP project. The LOMRs incorporated during this revision include Case Numbers: 07-08-0950P, 07-08-0771P, 08-08-0919P, 08-08-0149P, 08-08-0361P, and 09-08-0251P.

As a result of this Risk MAP project, Table 3, “Summary of Discharges”, Table 6, “Floodway Data”, Table 8, “Summary of LOMCs”, and the Flood Profiles were revised.

FLOOD INSURANCE STUDY

FLATHEAD COUNTY, MONTANA
AND INCORPORATED AREAS
VOLUME 2 OF 2



COMMUNITY NAME	COMMUNITY NUMBER
COLUMBIA FALLS, CITY OF	300024
FLATHEAD COUNTY (UNINCORPORATED AREAS)	300023
KALISPELL, CITY OF	300025
WHITEFISH, CITY OF	300026

Revised: November 4, 2015

Federal Emergency Management Agency

FLOOD INSURANCE STUDY NUMBER
30029CV002C

NOTICE TO
FLOOD INSURANCE STUDY USERS

Communities participating in the National Flood Insurance Program have established repositories of flood hazard data for floodplain management and flood insurance purposes. This Flood Insurance Study (FIS) report may not contain all data available within the Community Map Repository. Please contact the Community Map Repository for any additional data.

The Federal Emergency Management Agency (FEMA) may revise and republish part or all of this FIS report at any time. In addition, FEMA may revise part of this FIS report by the Letter of Map Revision process, which does not involve republication or redistribution of the FIS report. Therefore, users should consult with community officials and check the Community Map Repository to obtain the most current FIS report components.

Initial Countywide FIS Report Effective Date: September 28, 2007

First Revised Countywide FIS Report Effective Date: June 18, 2013

Second Revised Countywide FIS Report Effective Date: November 4, 2015

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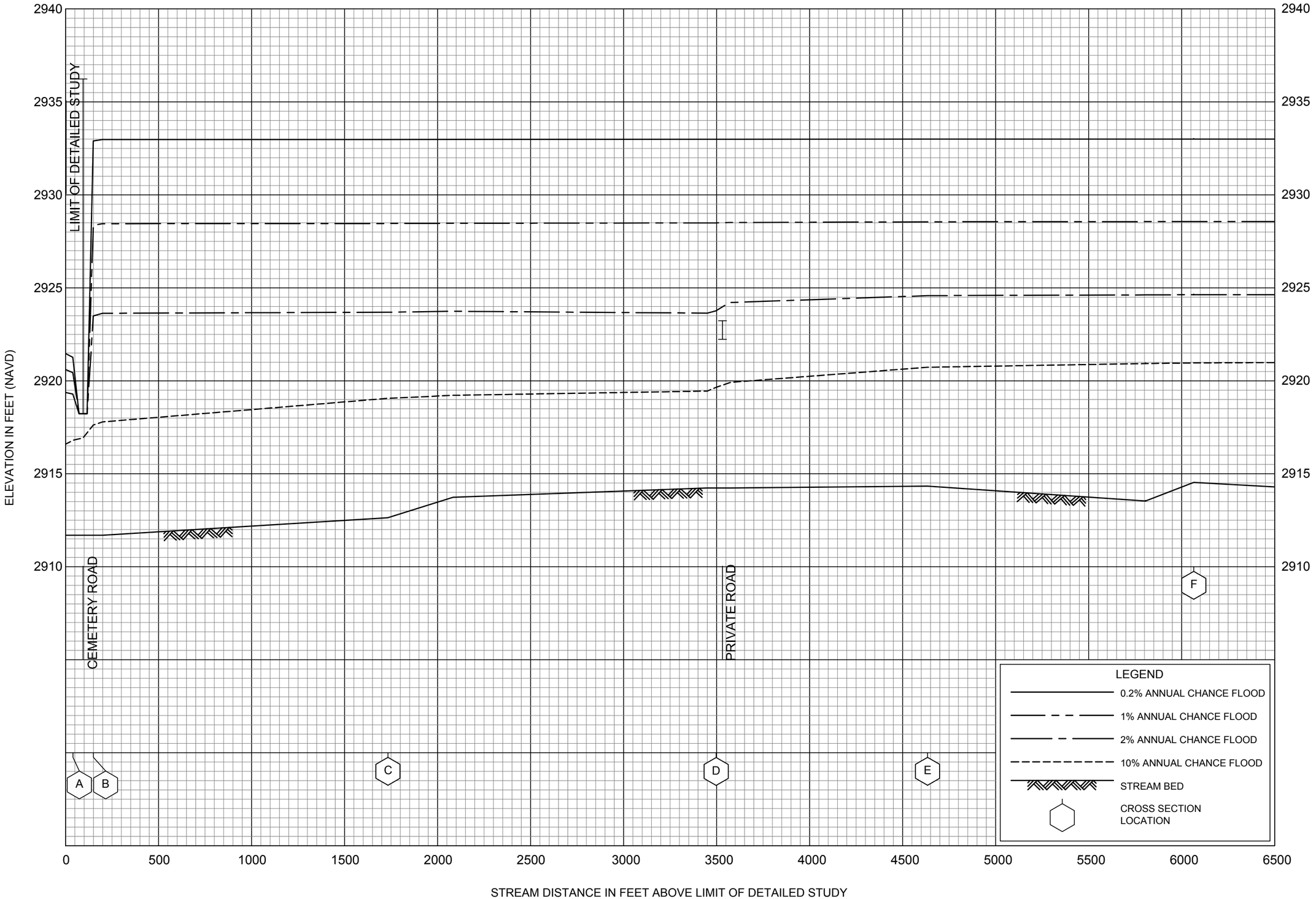
Exhibit 2 – Flood Insurance Rate Map Index

Flood Insurance Rate Map



FLOOD PROFILES

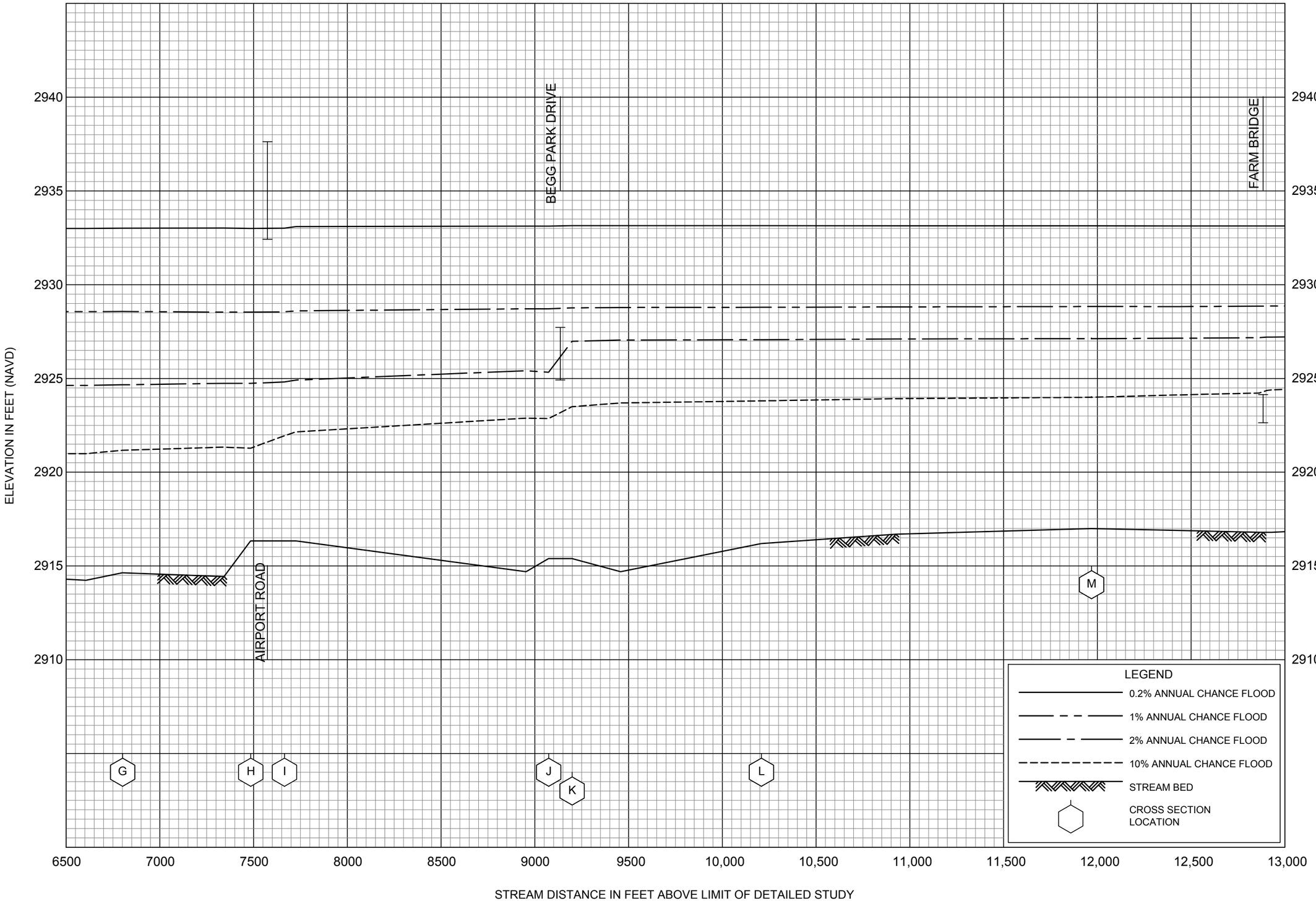
ASHLEY CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

FLATHEAD COUNTY, MT

AND INCORPORATED AREAS

01P



FLOOD PROFILES

ASHLEY CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

FLATHEAD COUNTY, MT

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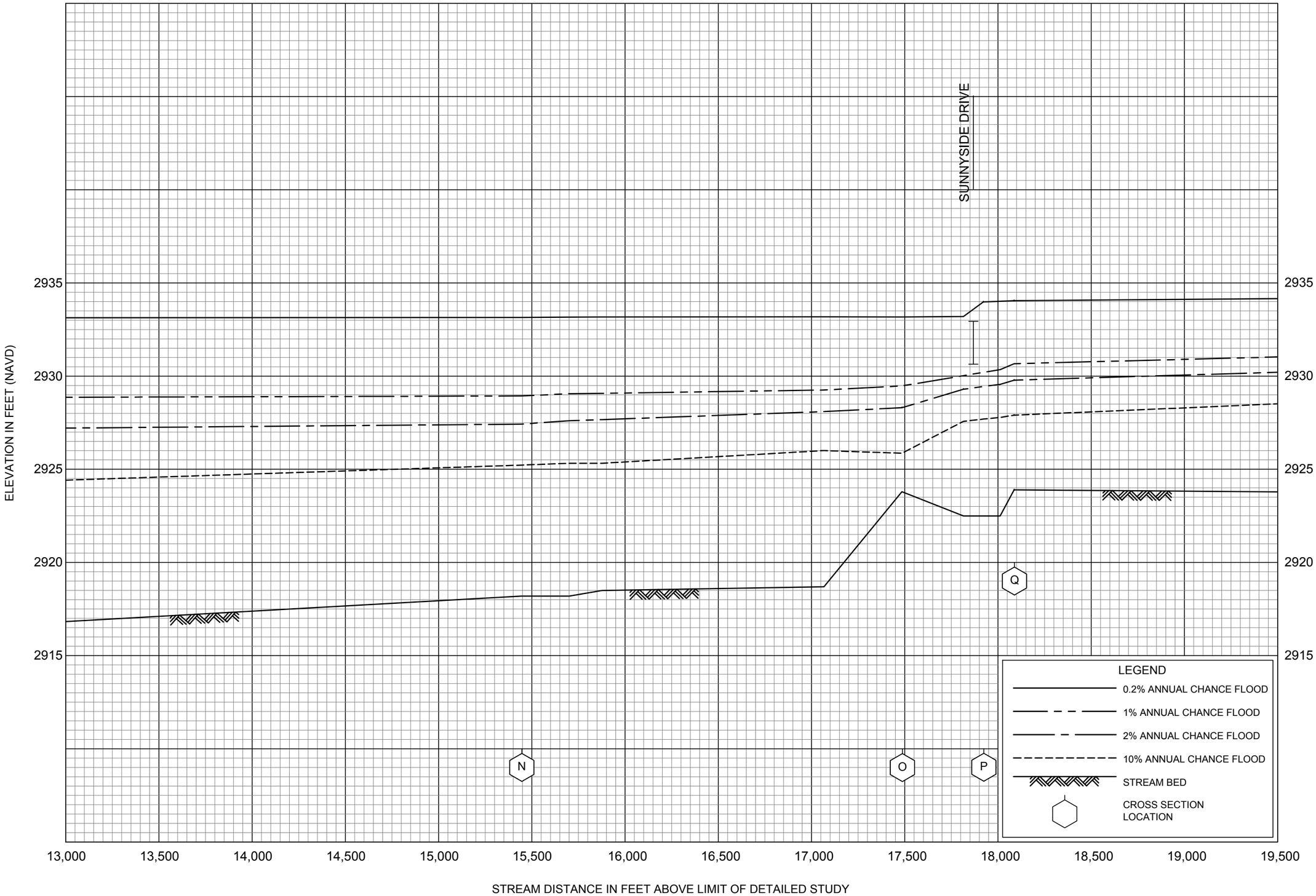

FLOOD PROFILES

ASHLEY CREEK

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FLATHEAD COUNTY, MT

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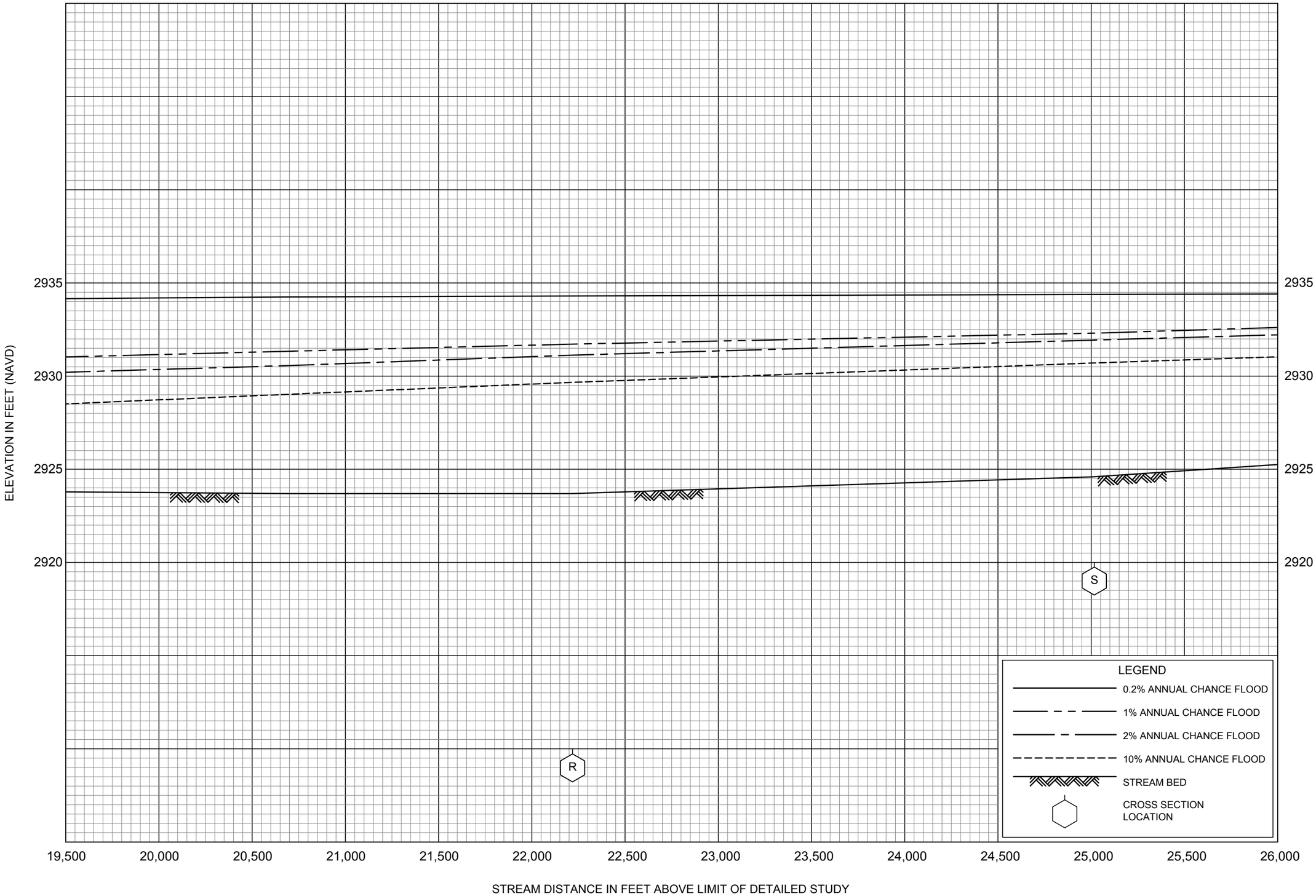

FLOOD PROFILES

ASHLEY CREEK

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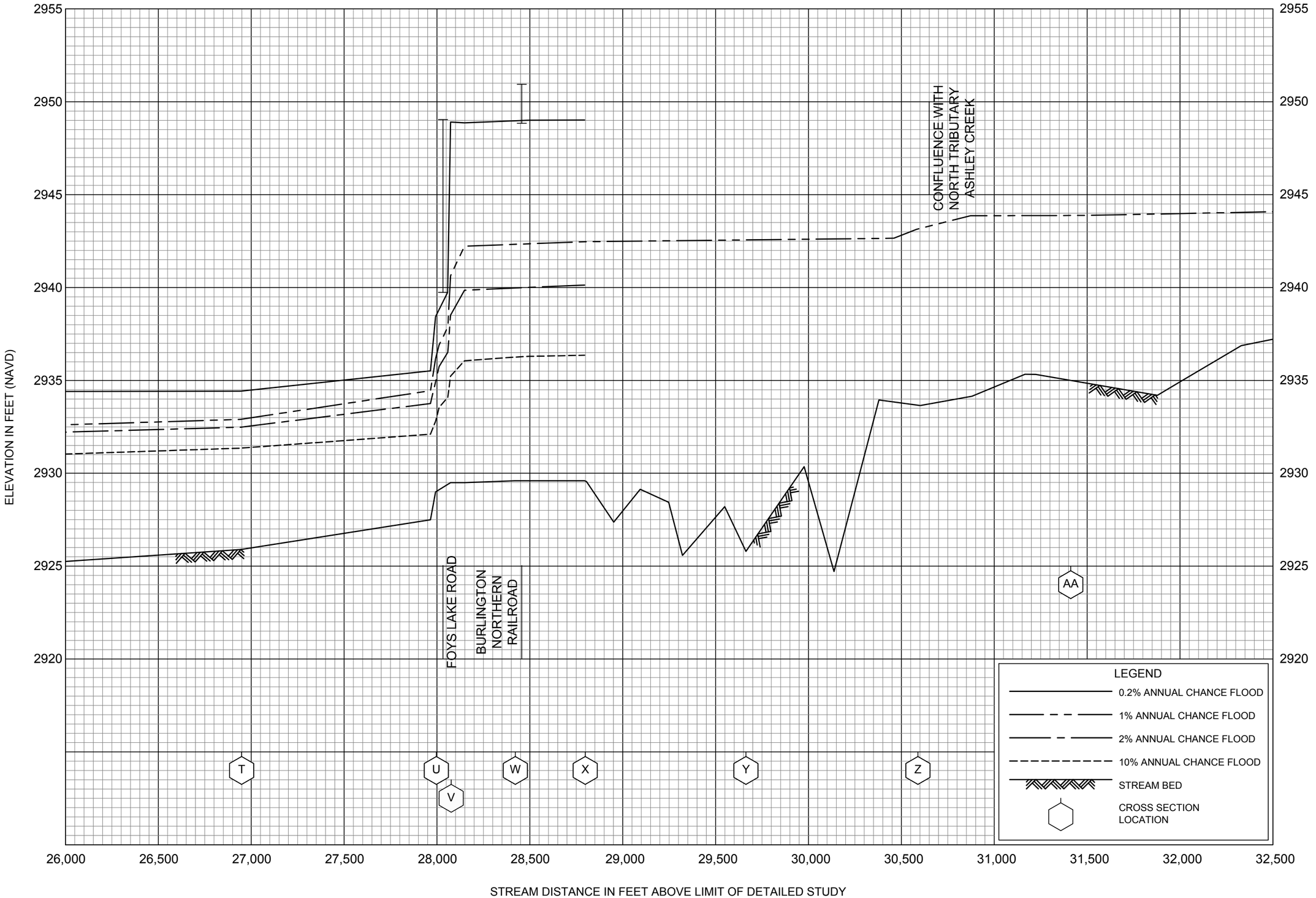

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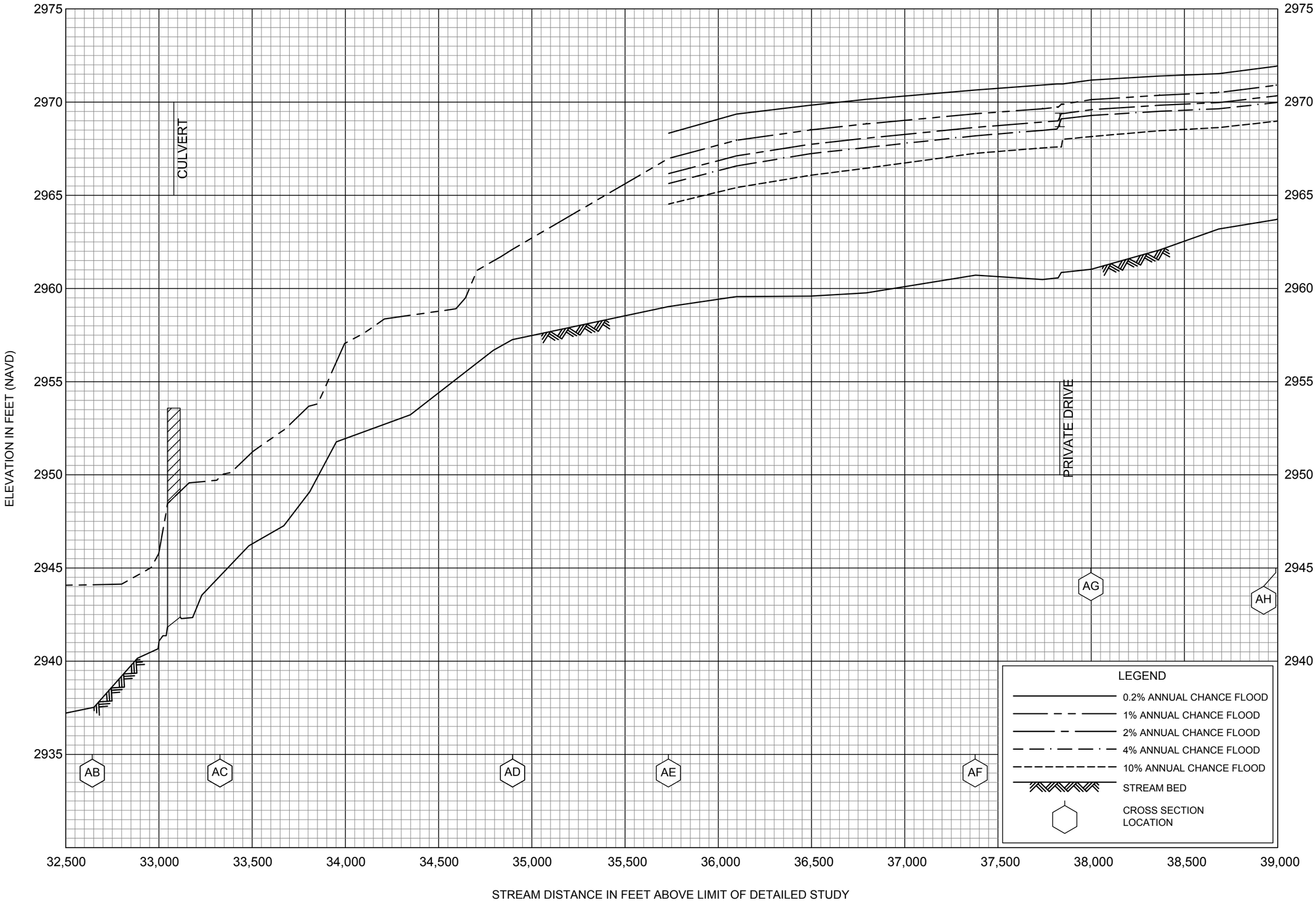

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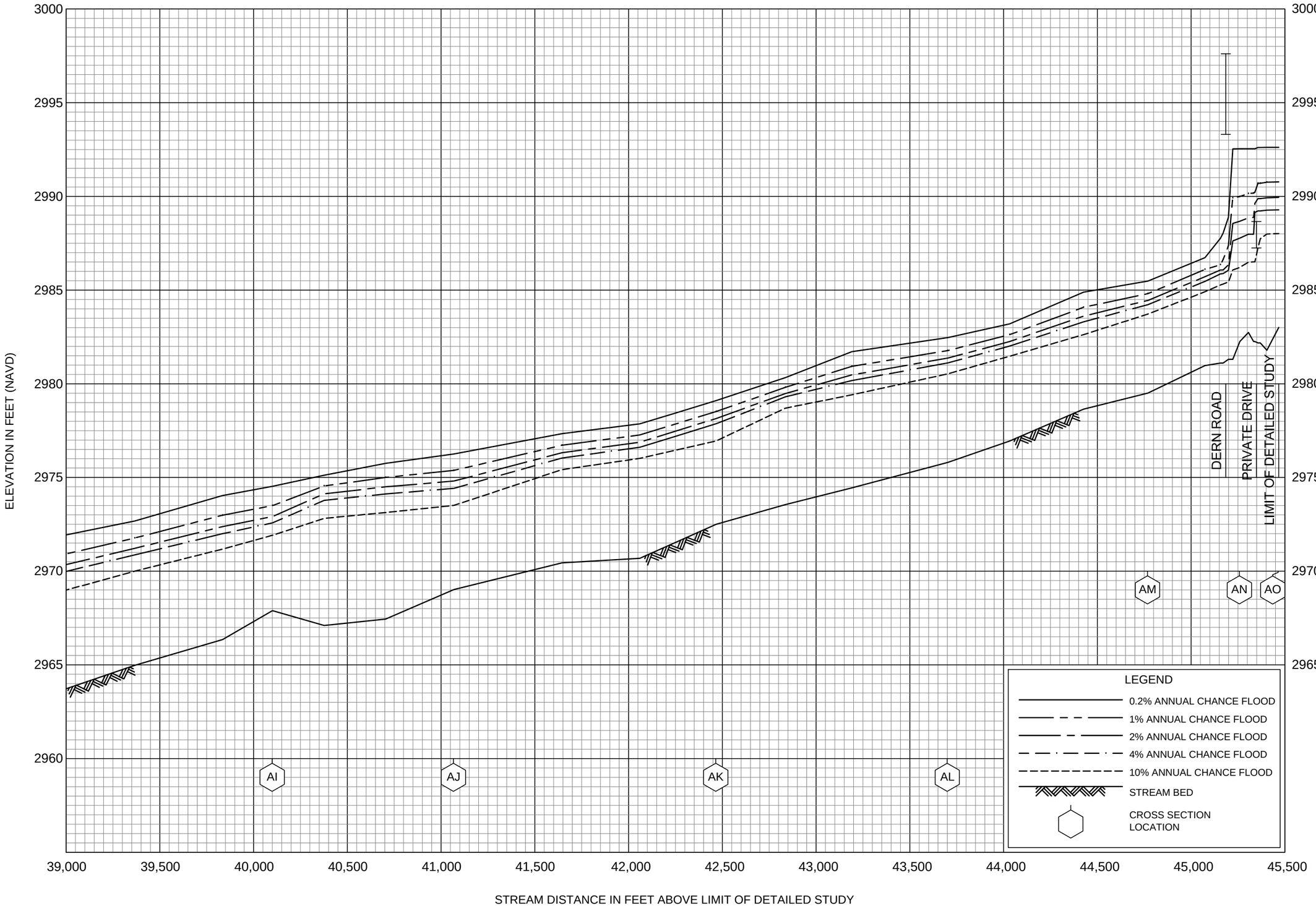

FLOOD PROFILES

ASHLEY CREEK

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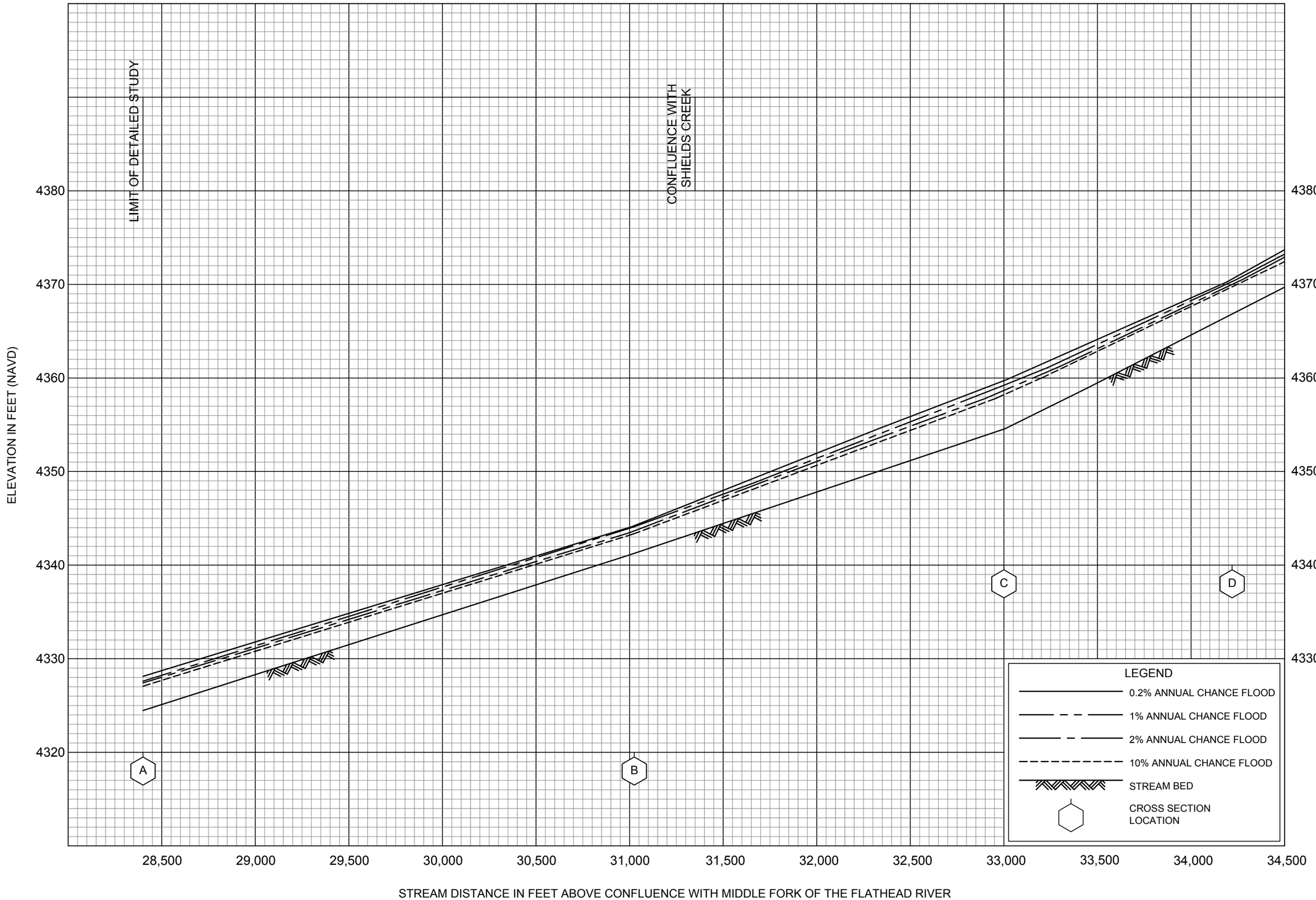

FLOOD PROFILES

BEAR CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

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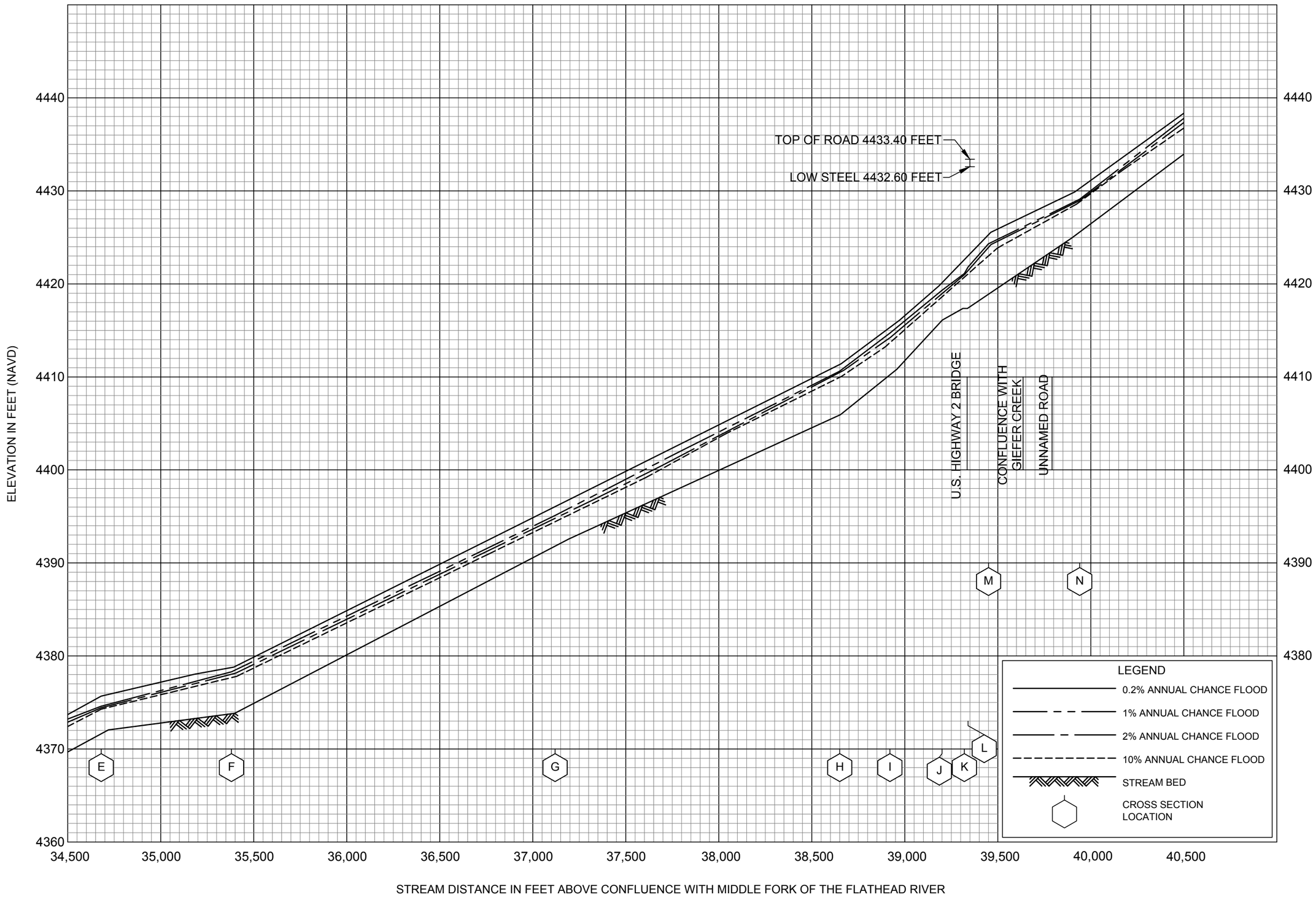

FLOOD PROFILES

BEAR CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

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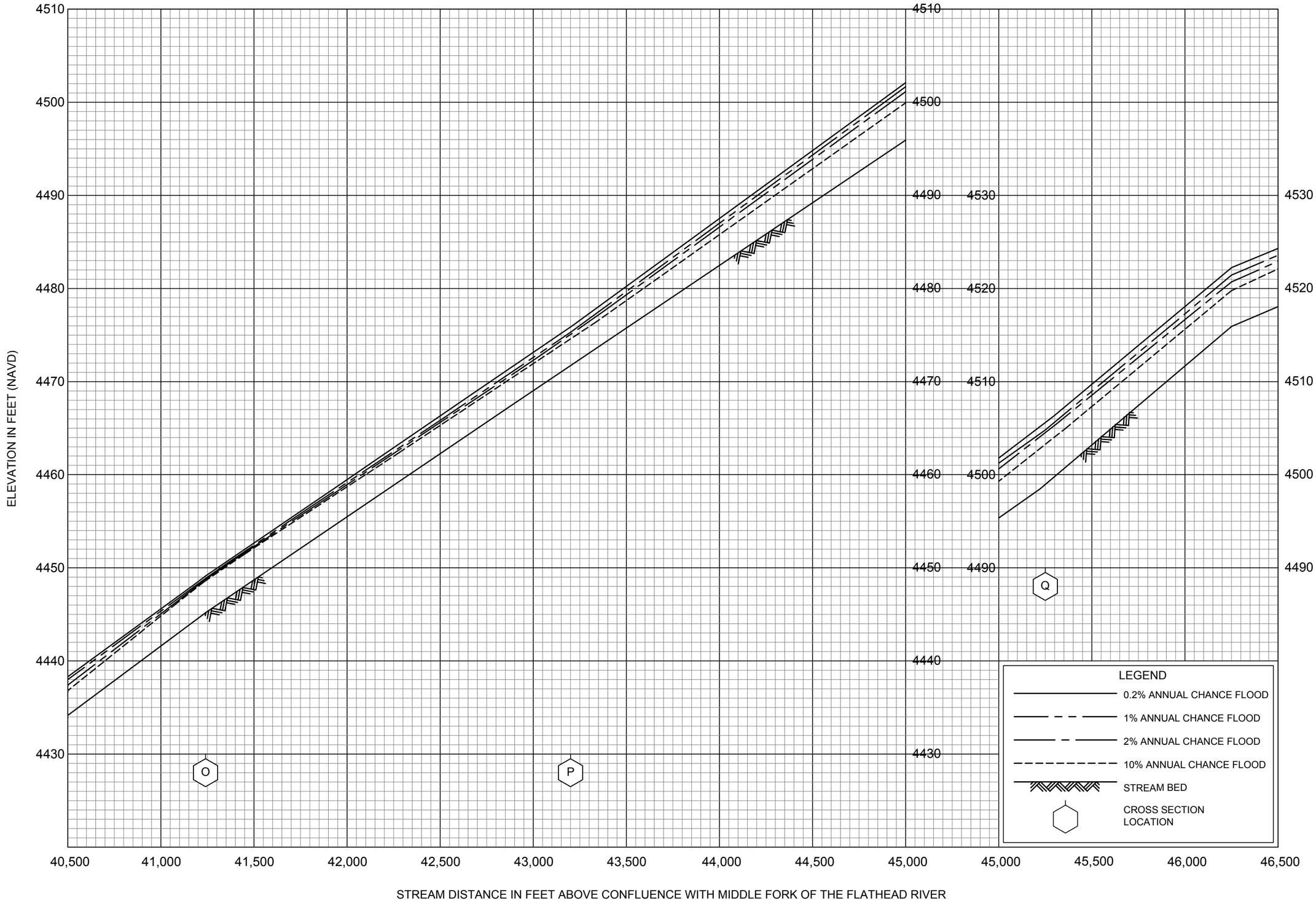

FLOOD PROFILES

BEAR CREEK

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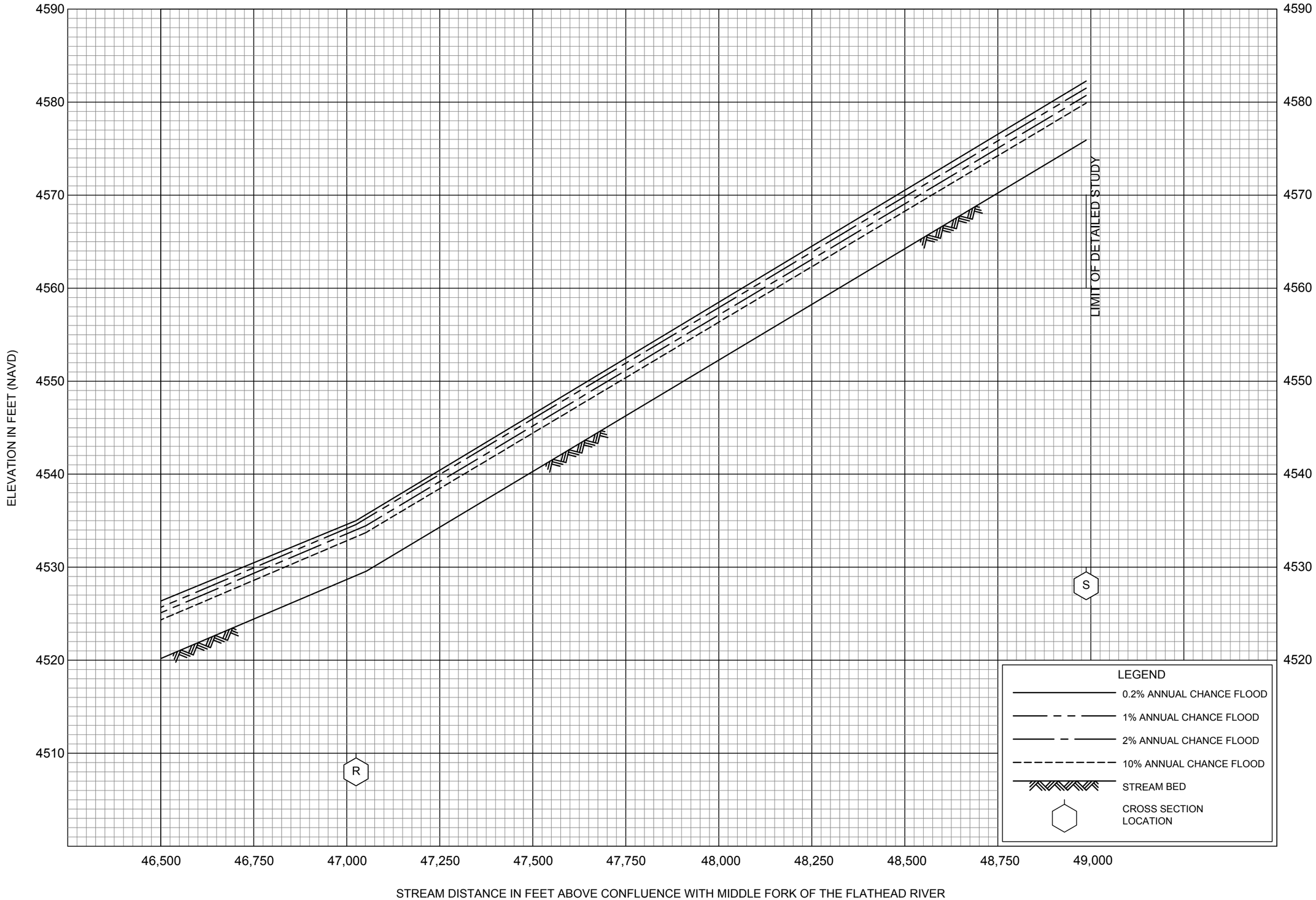

FLOOD PROFILES

BEAR CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

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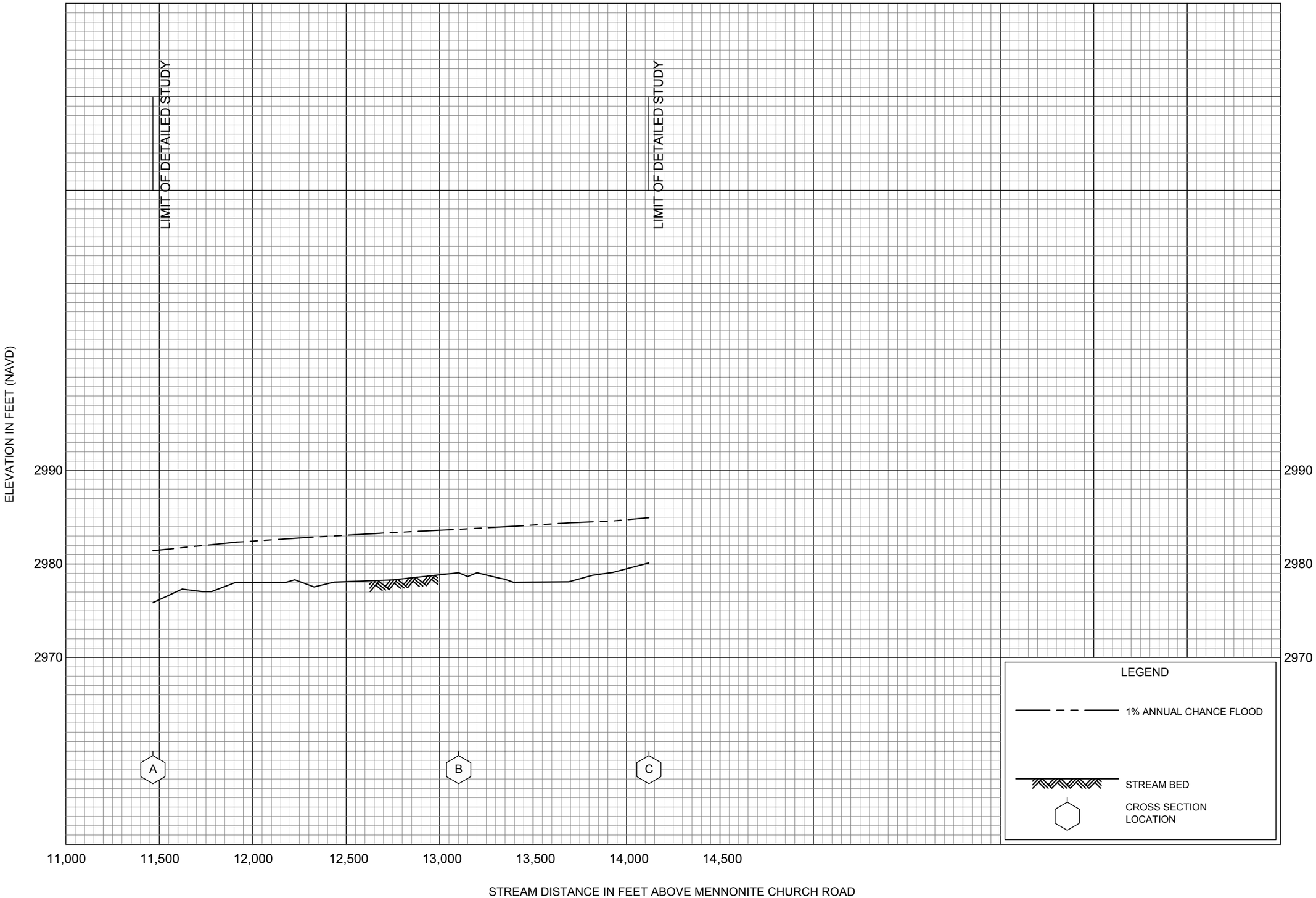

FLOOD PROFILES

BLAINE CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

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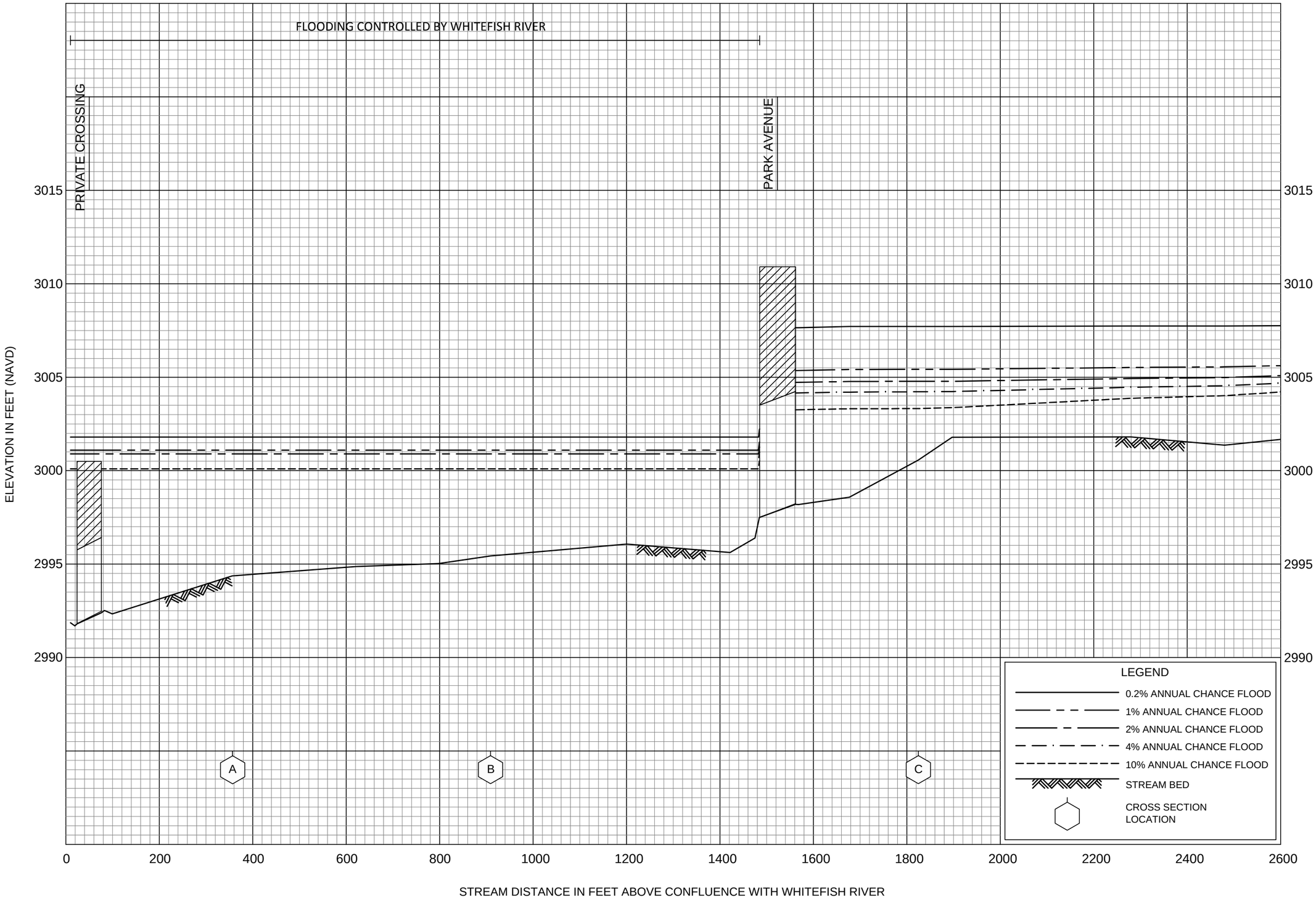

FLOOD PROFILES

COW CREEK AT WHITEFISH

FEDERAL EMERGENCY MANAGEMENT AGENCY

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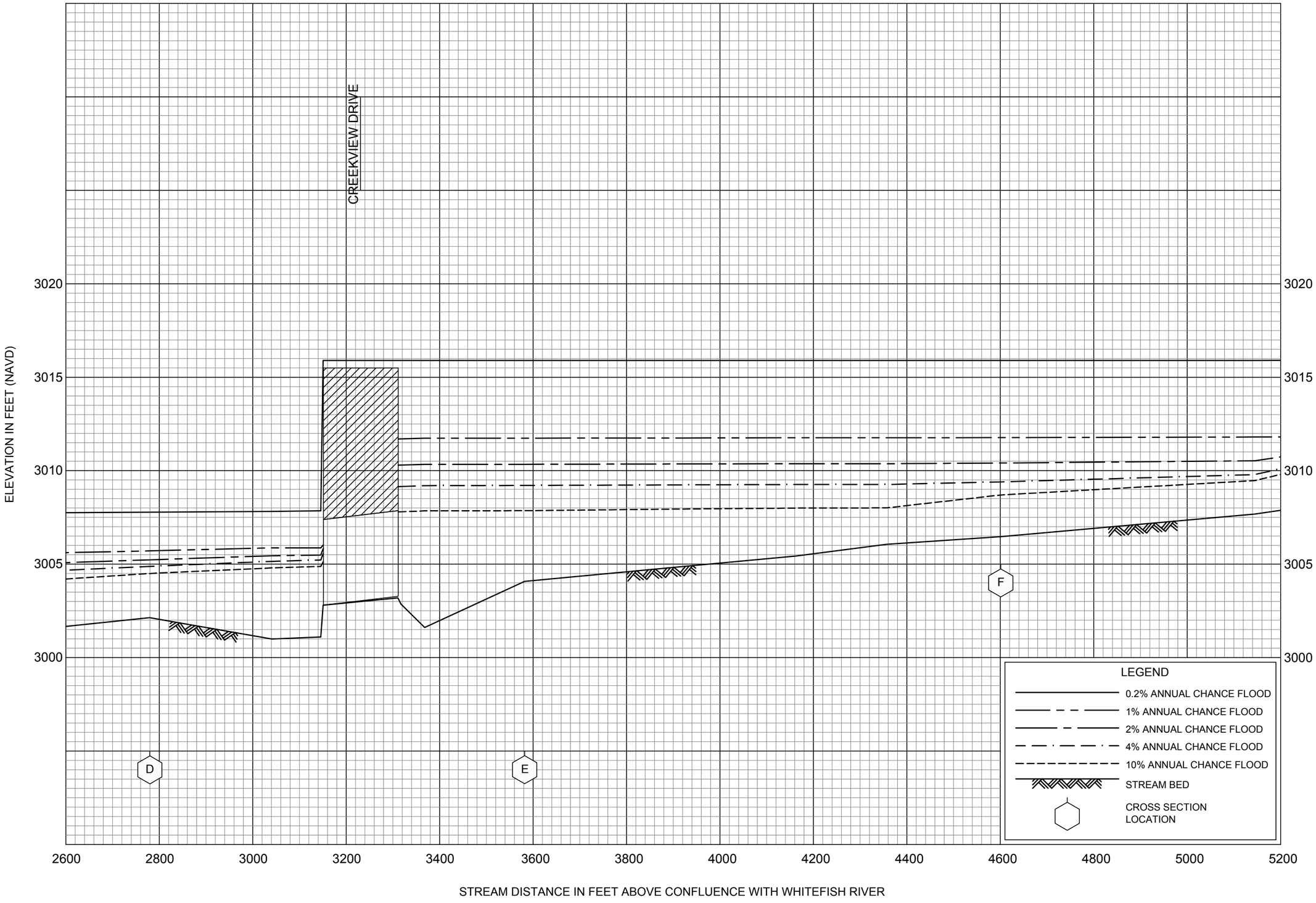

FLOOD PROFILES

COW CREEK AT WHITEFISH

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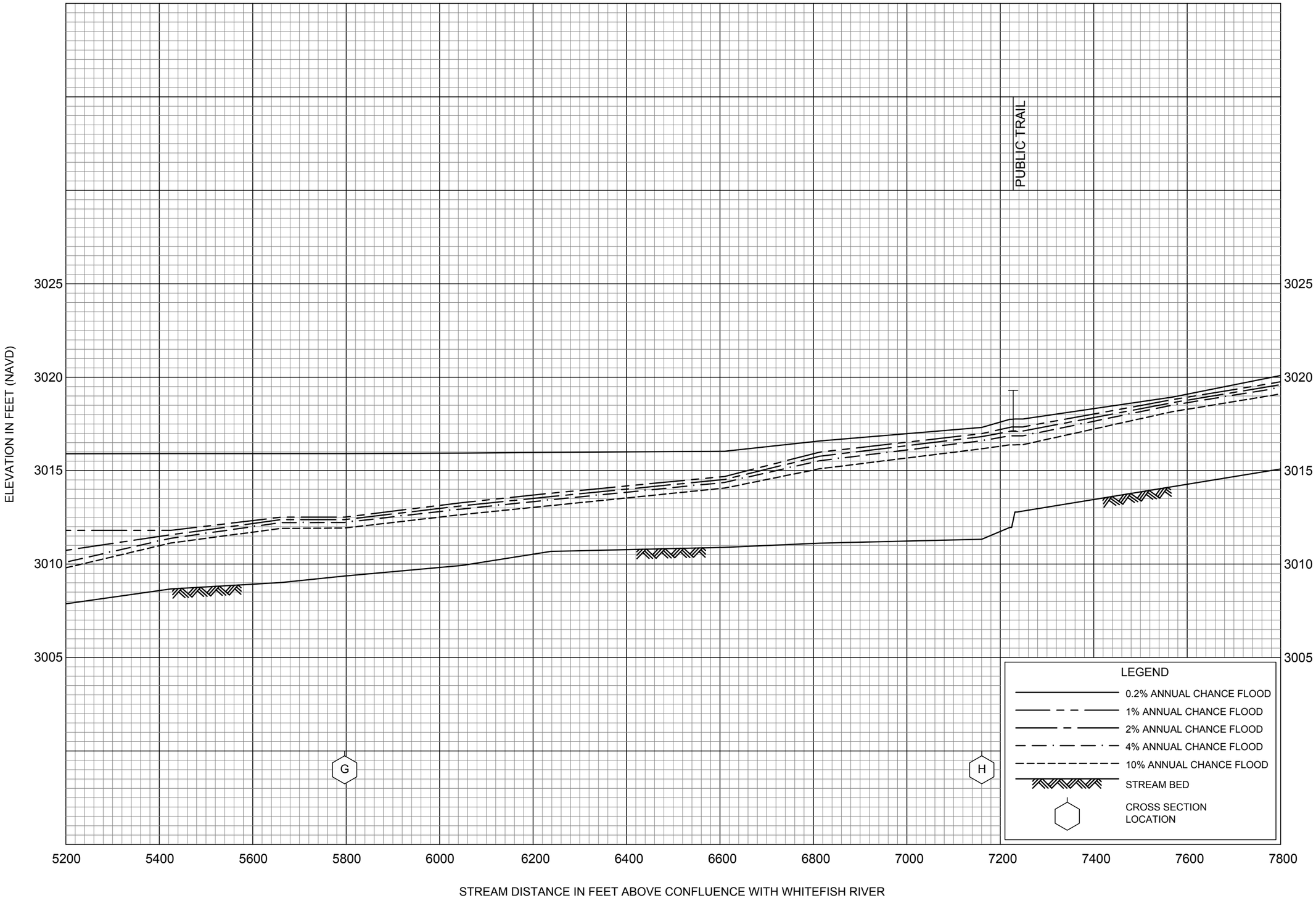

FLOOD PROFILES

COW CREEK AT WHITEFISH

FEDERAL EMERGENCY MANAGEMENT AGENCY

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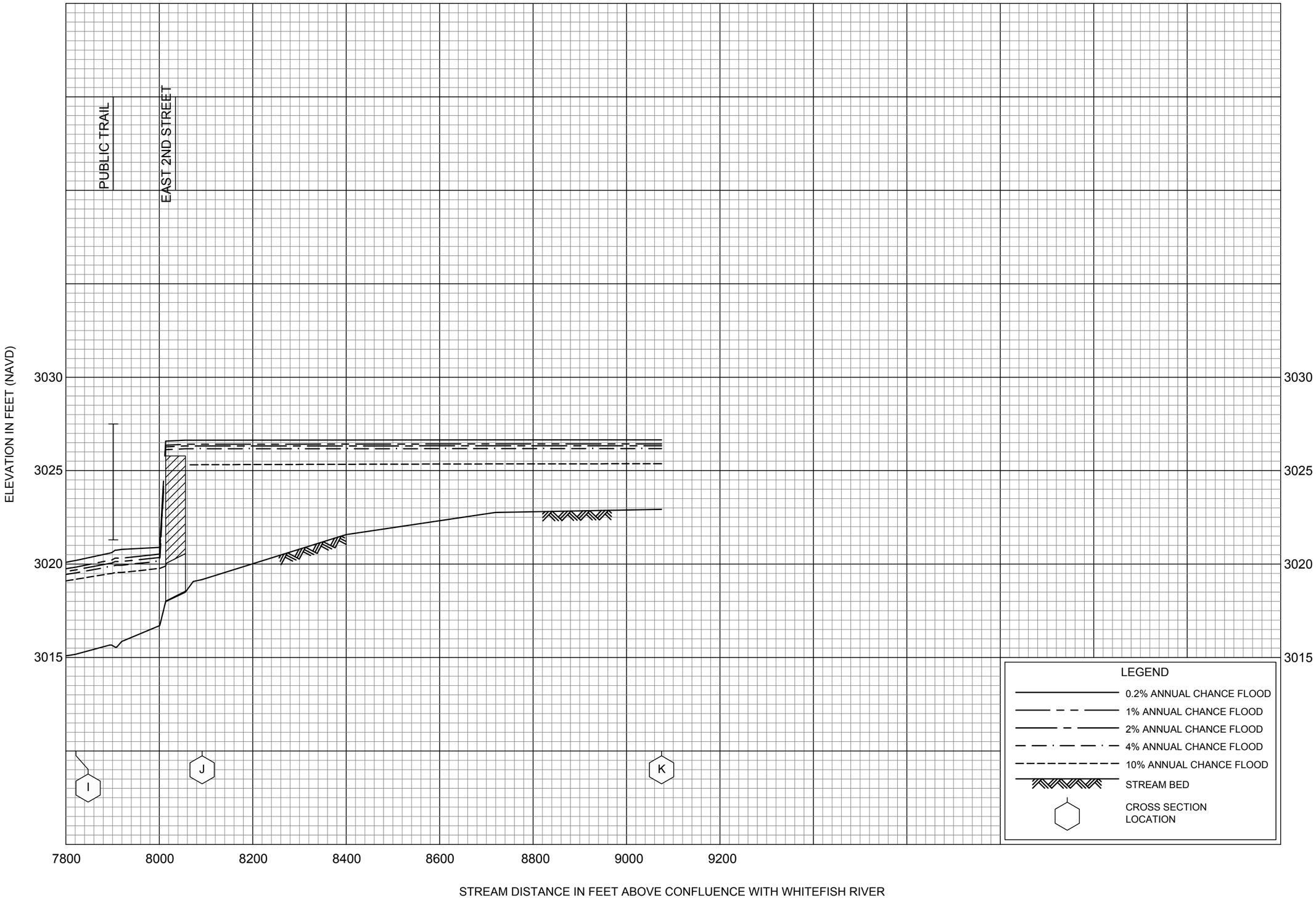

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COW CREEK AT WHITEFISH

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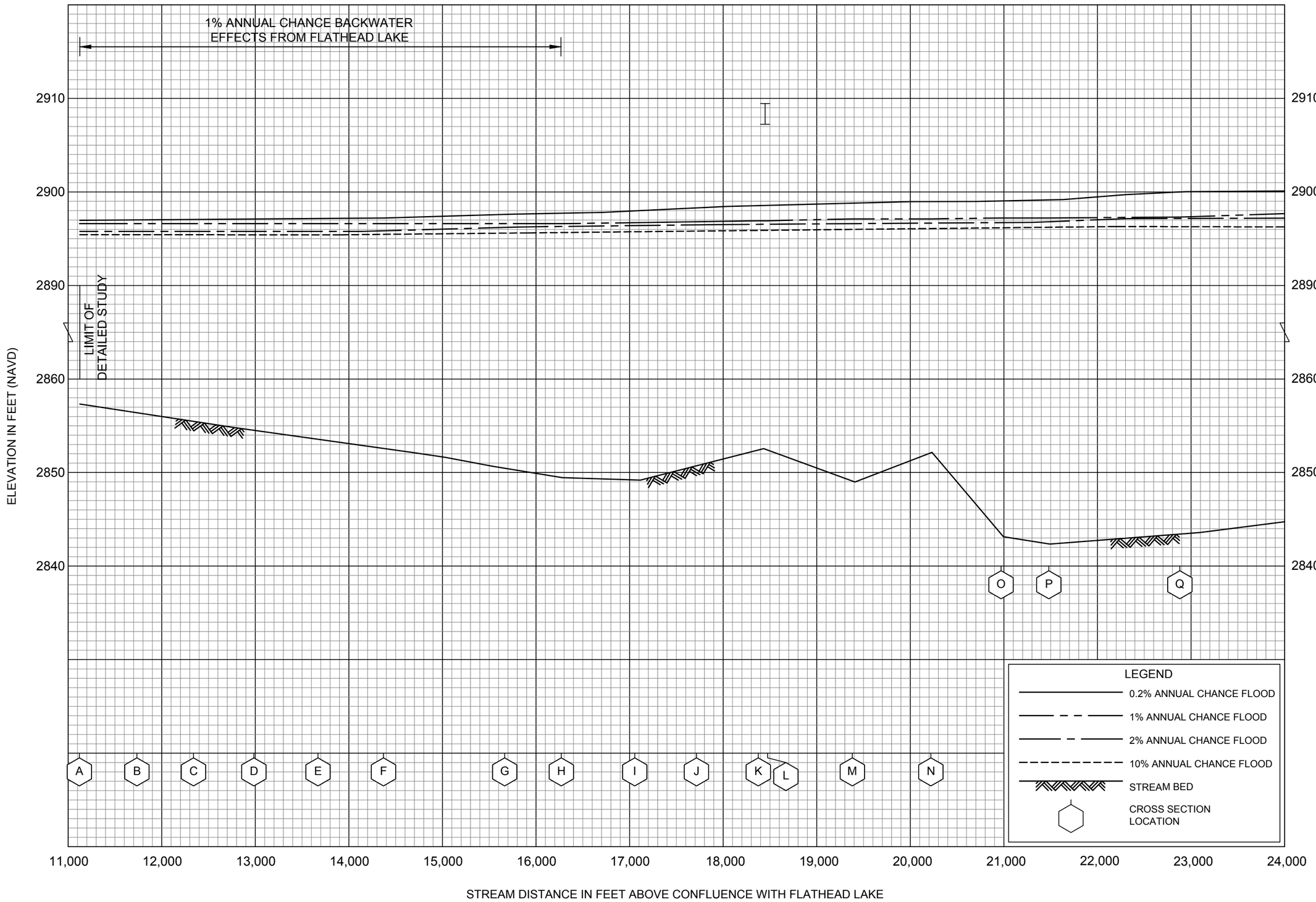

FLOOD PROFILES

FLATHEAD RIVER

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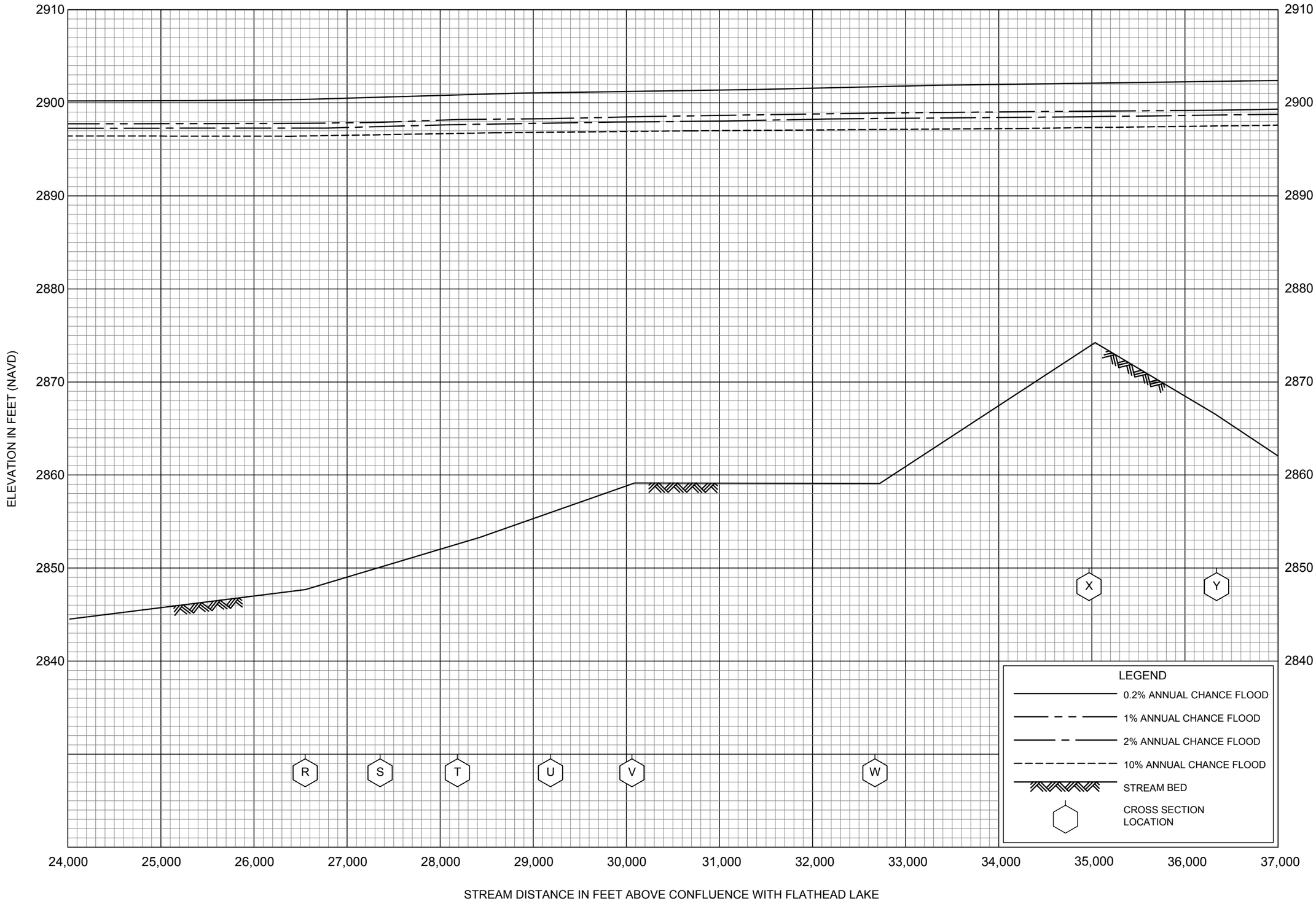

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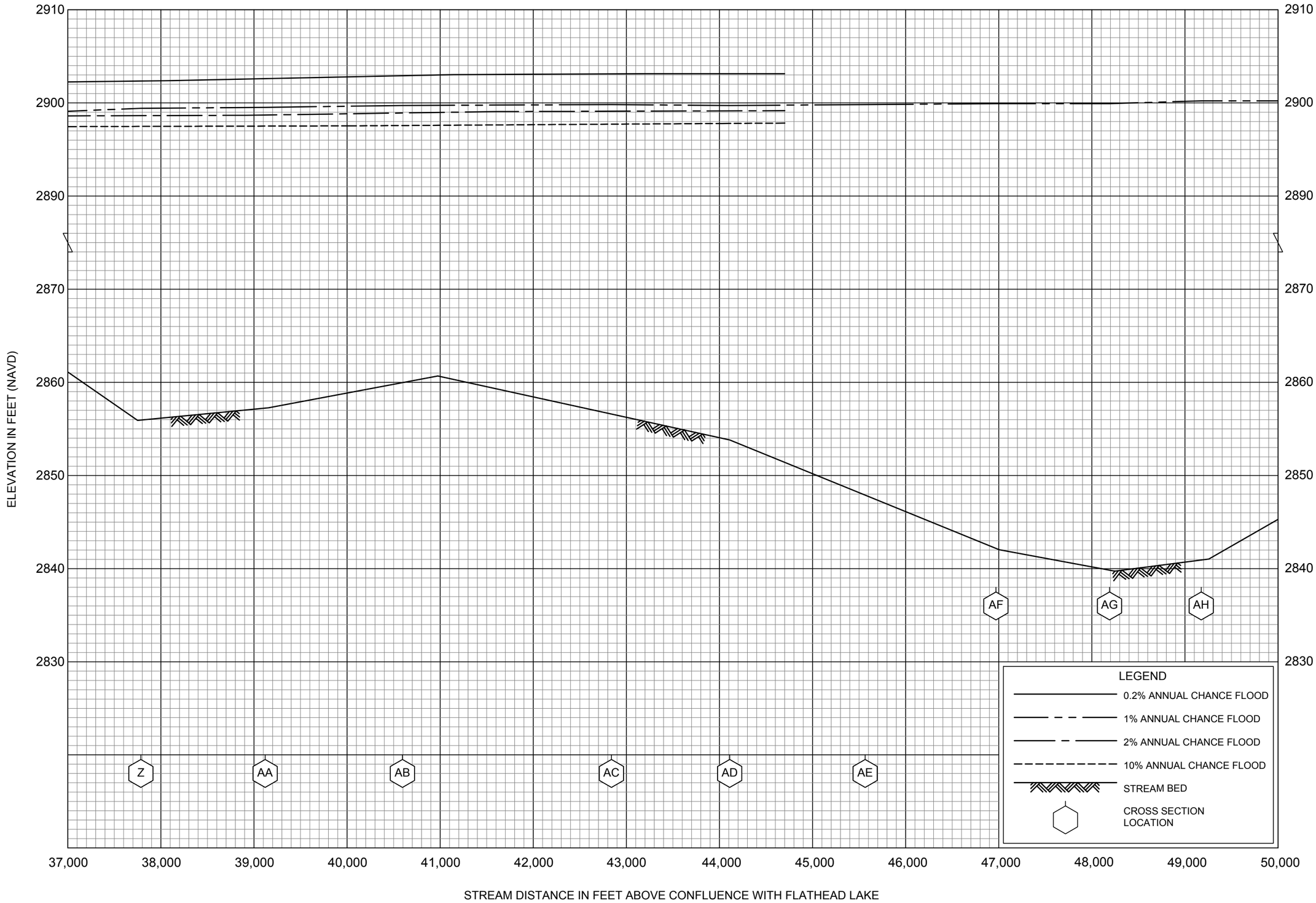

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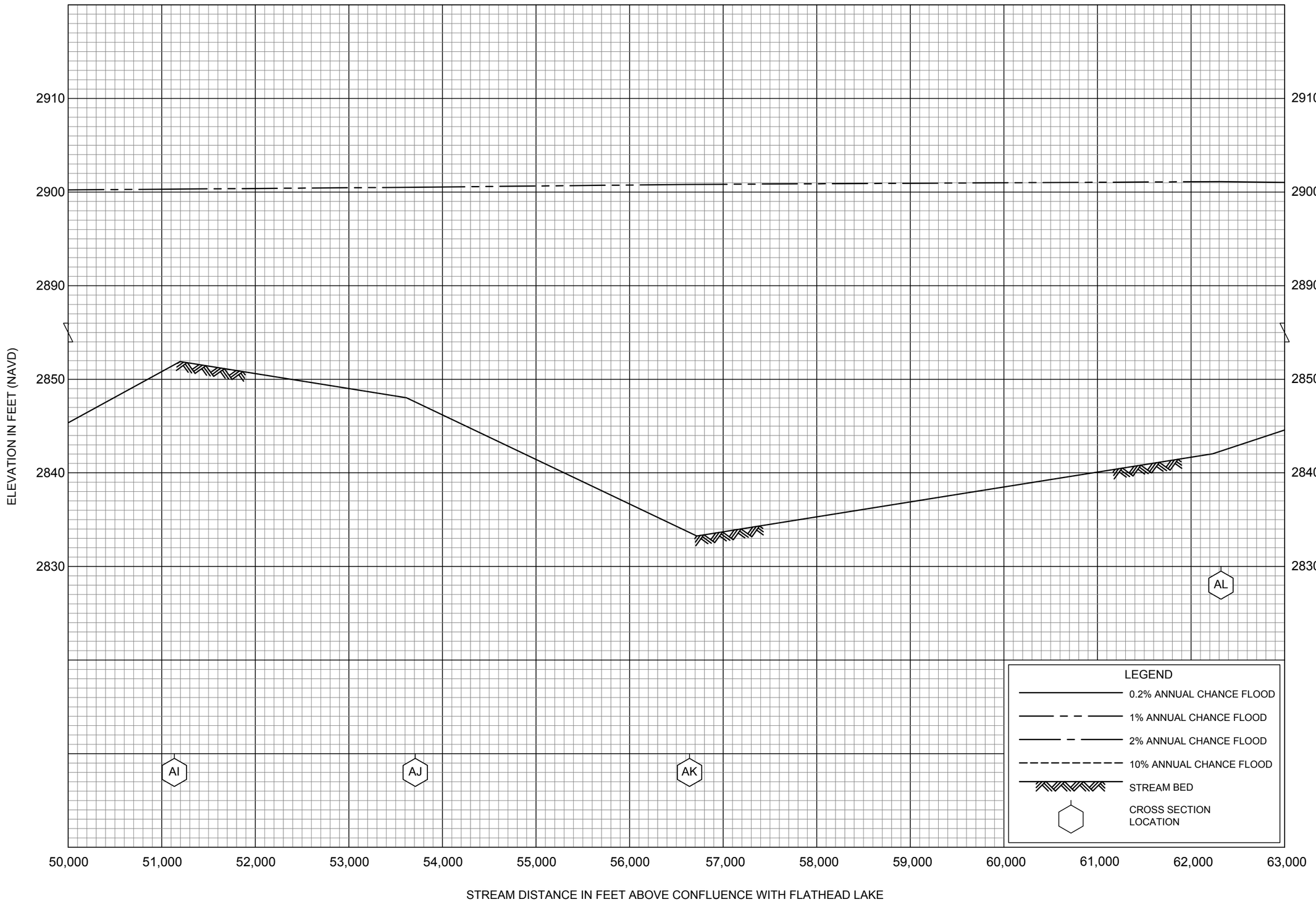

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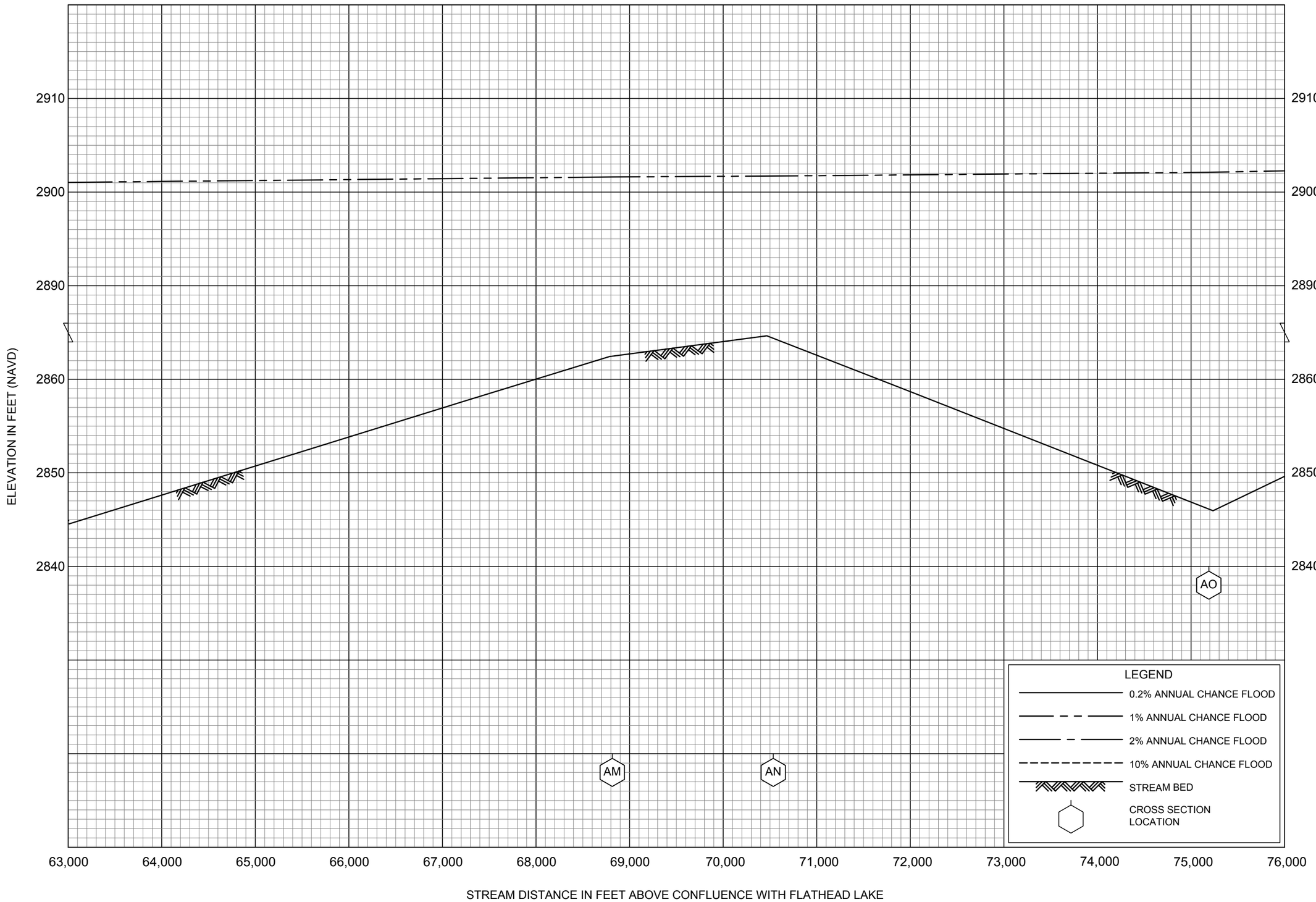

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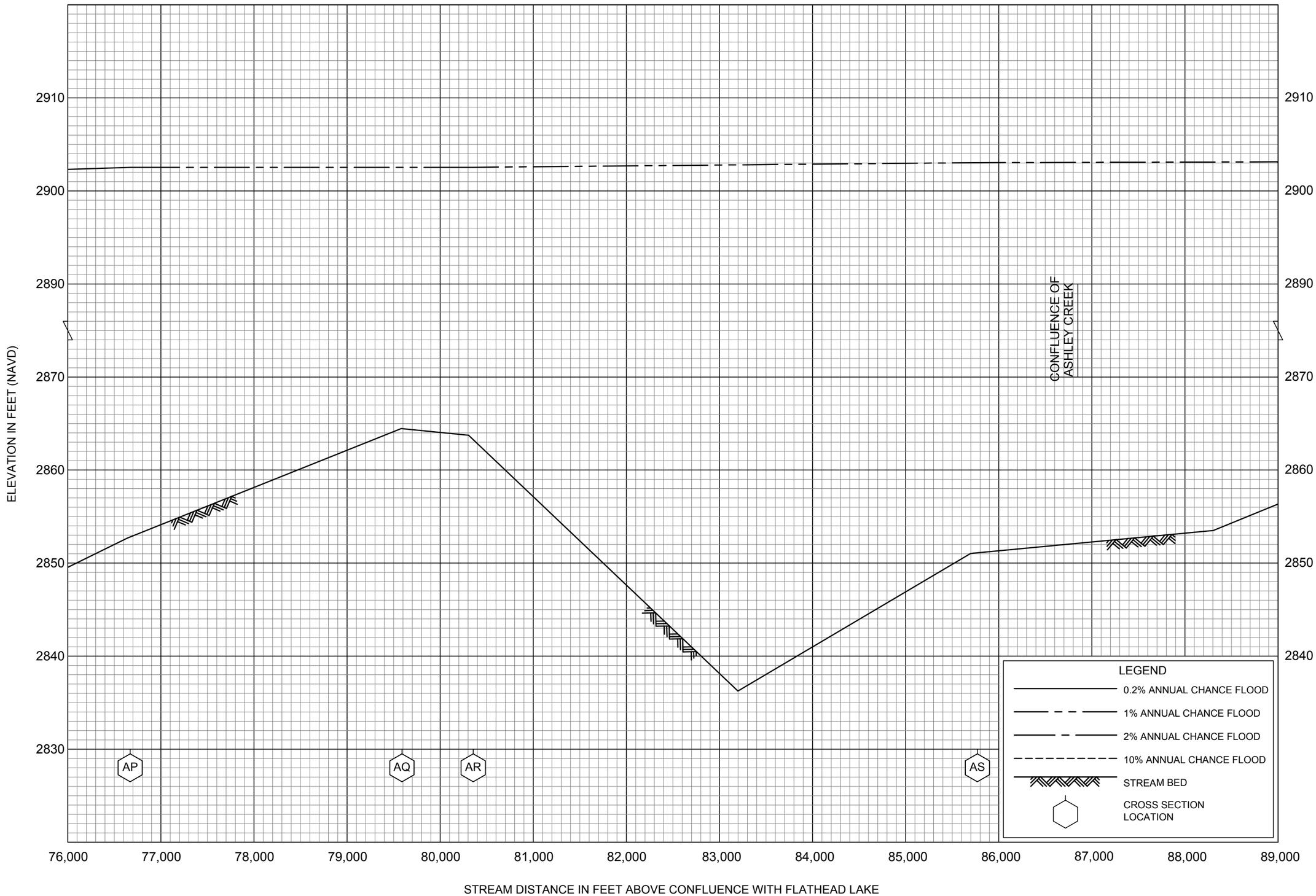

FLOOD PROFILES

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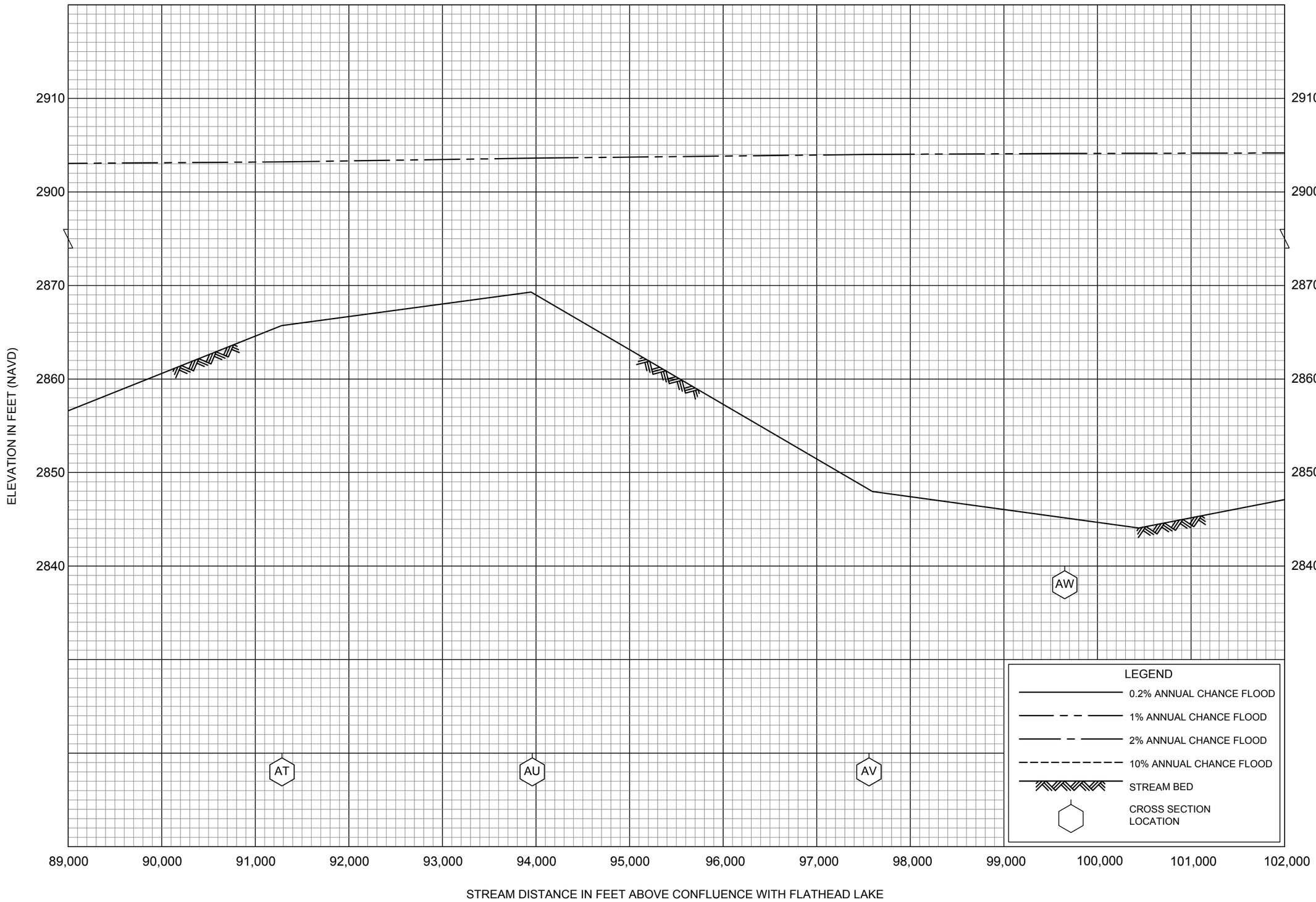

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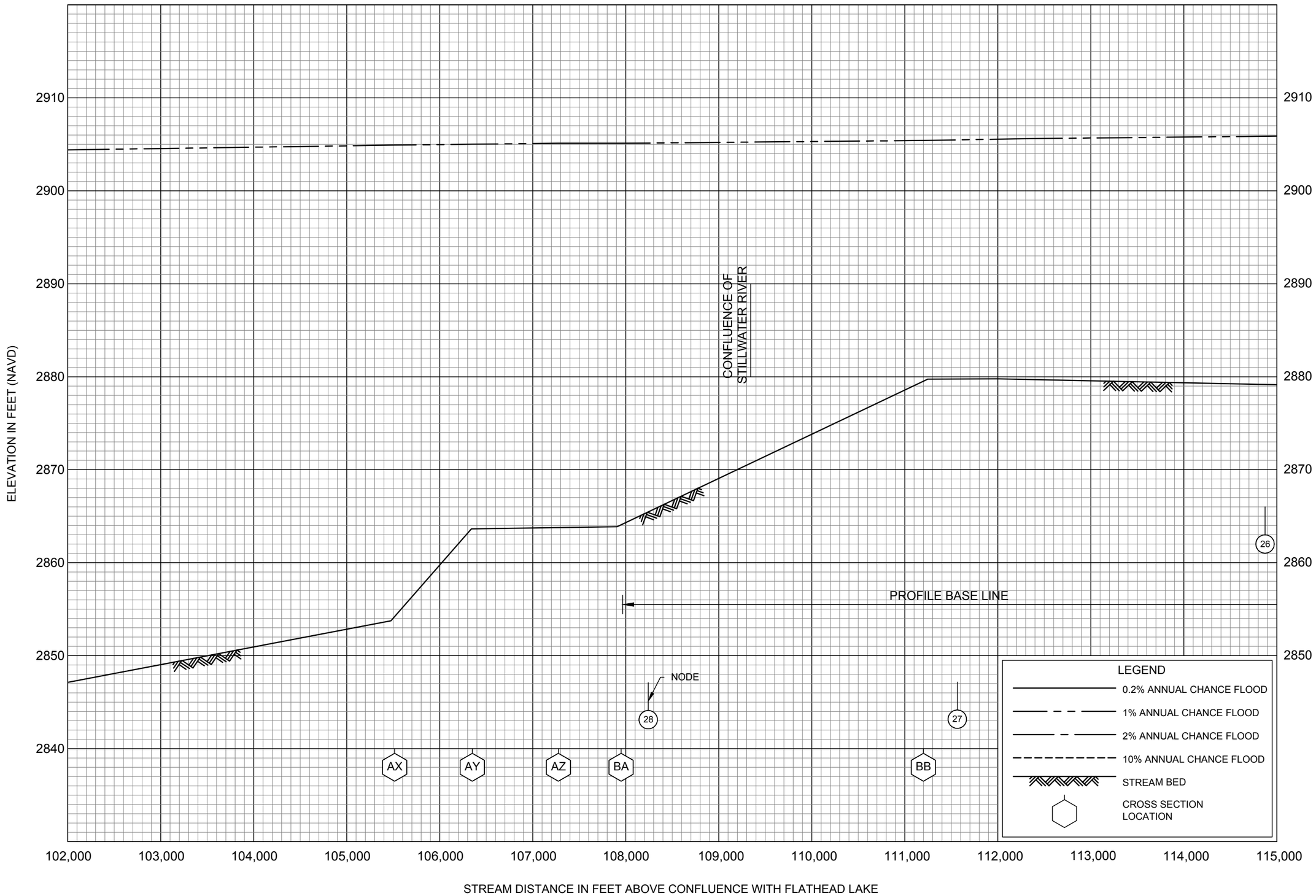

FLOOD PROFILES

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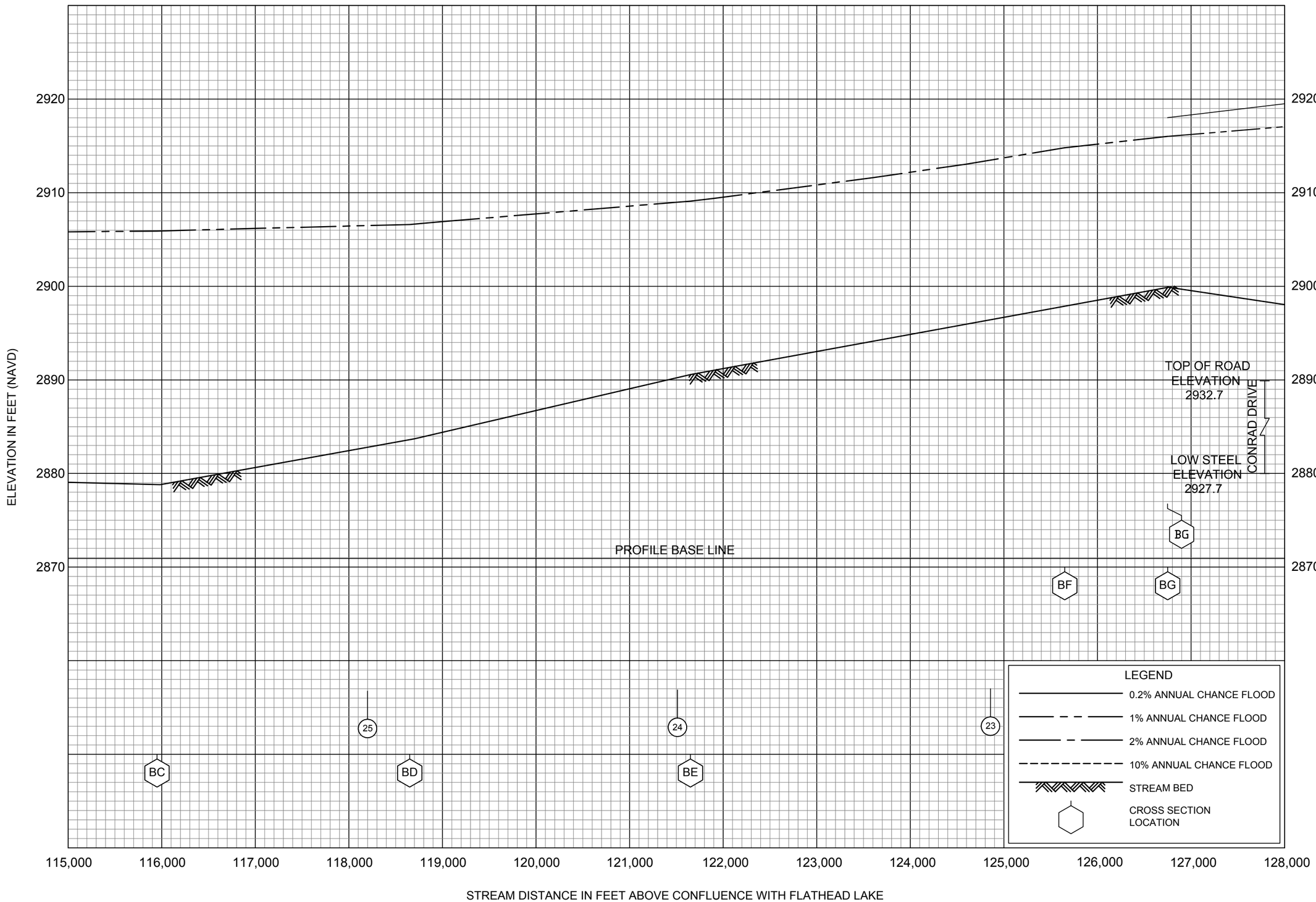

FLOOD PROFILES

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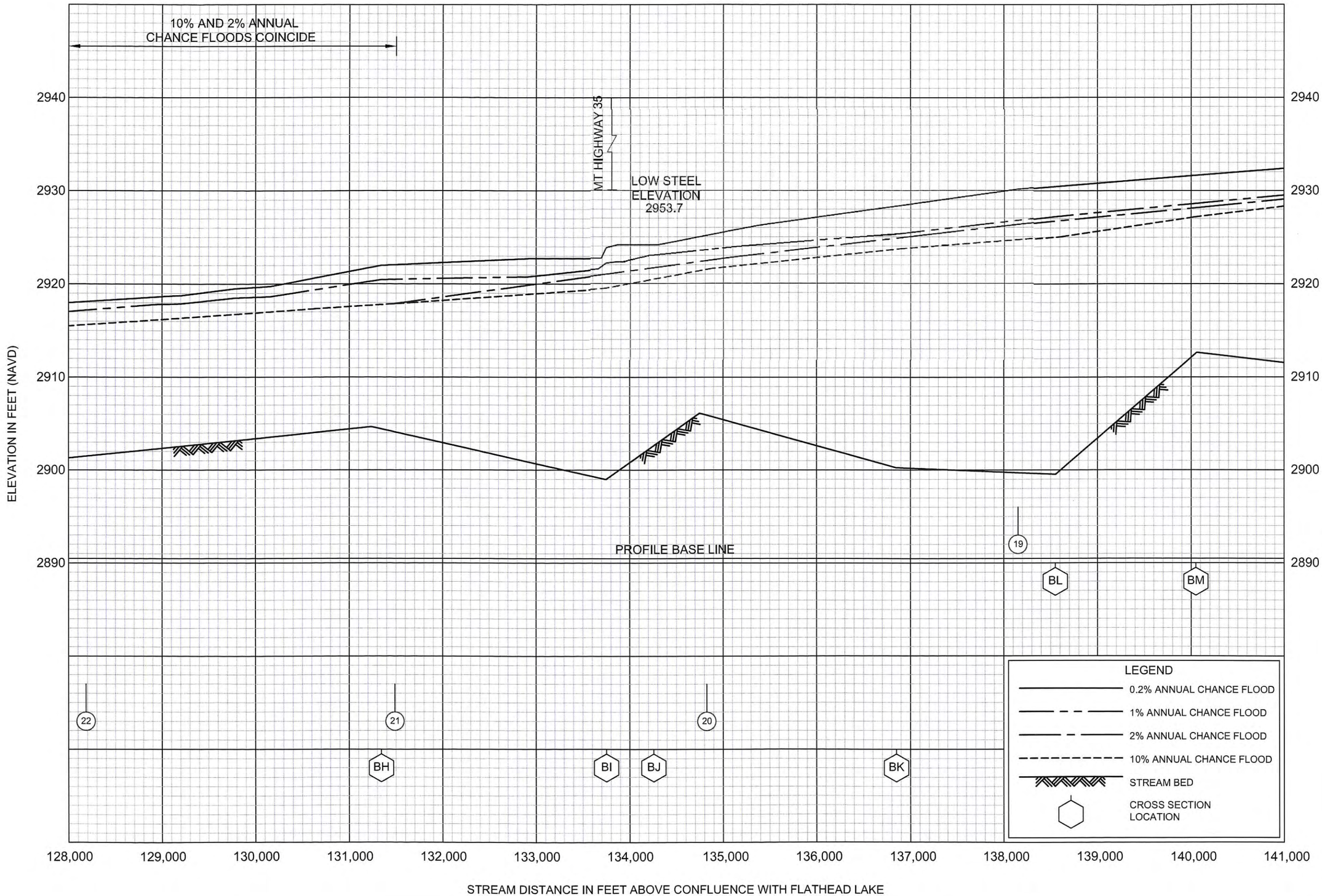

FLOOD PROFILES

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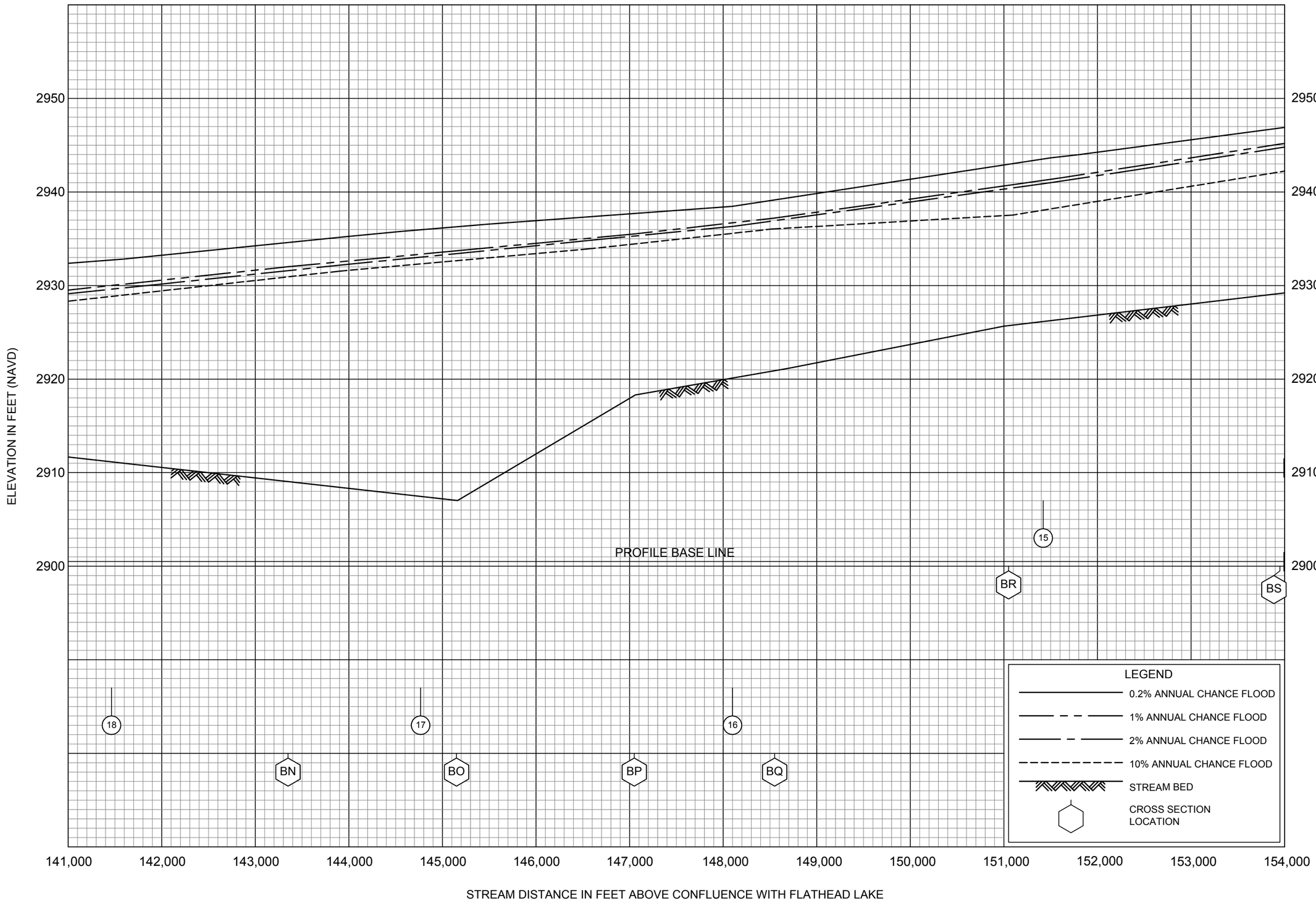

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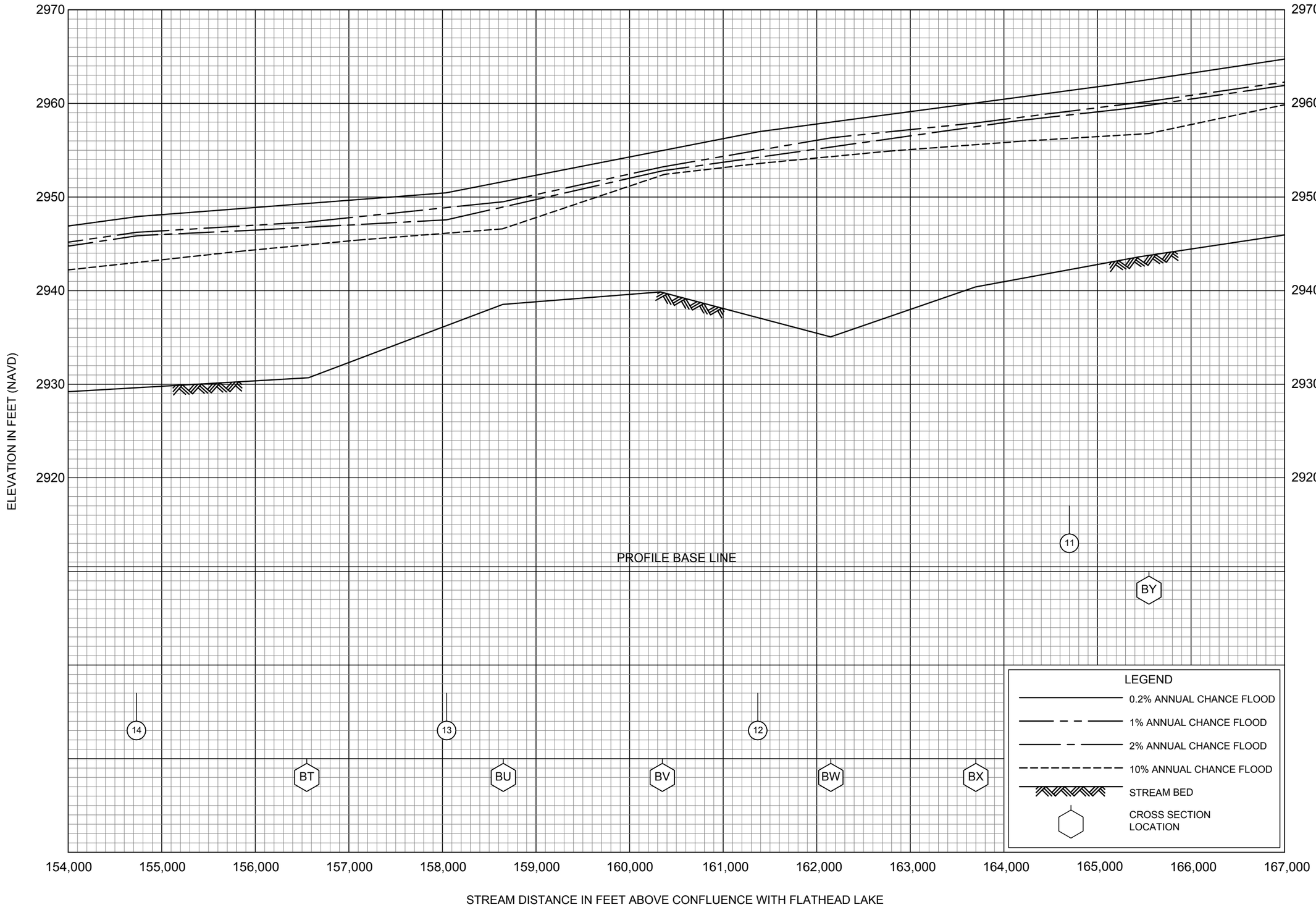

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FLATHEAD RIVER

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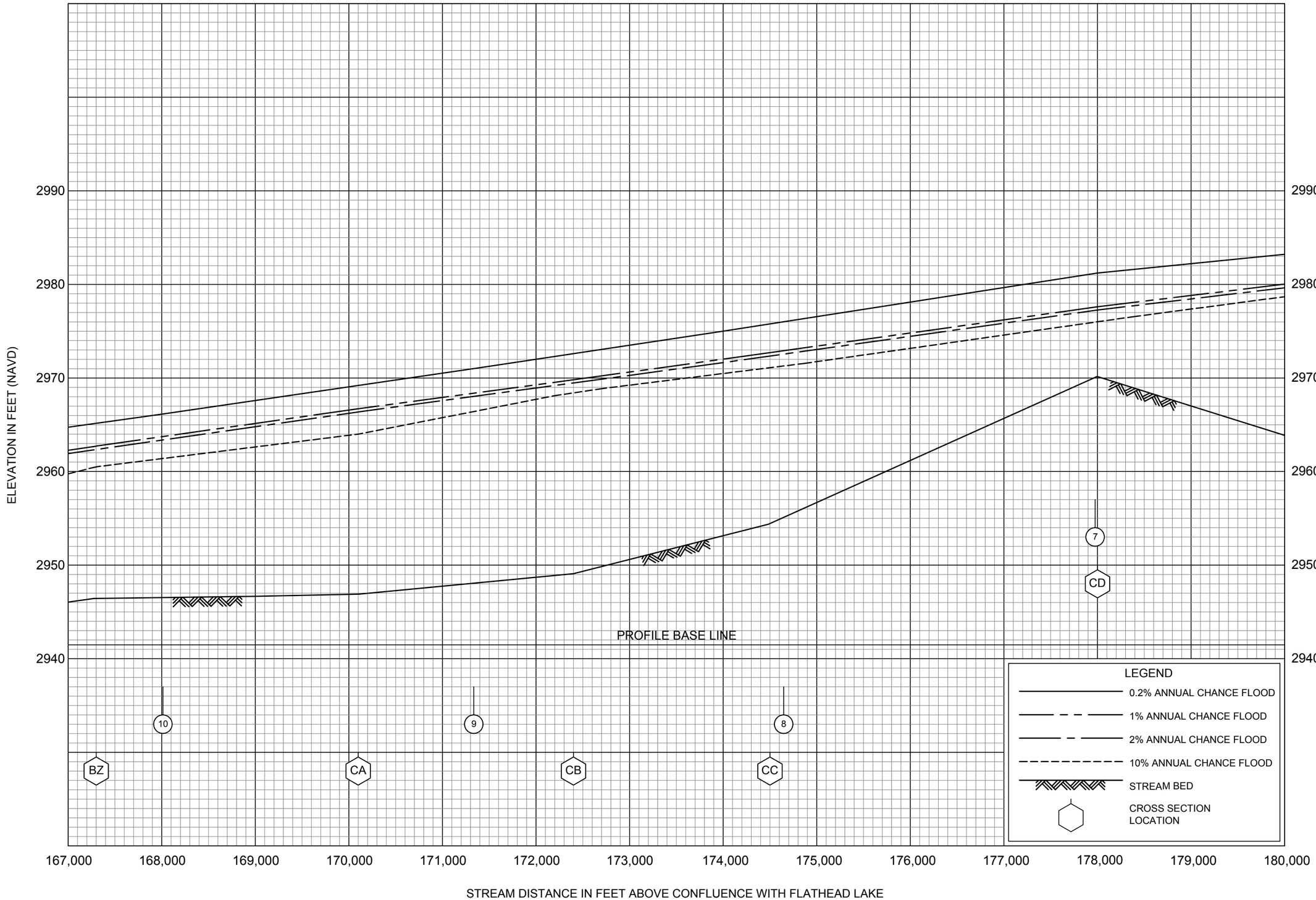

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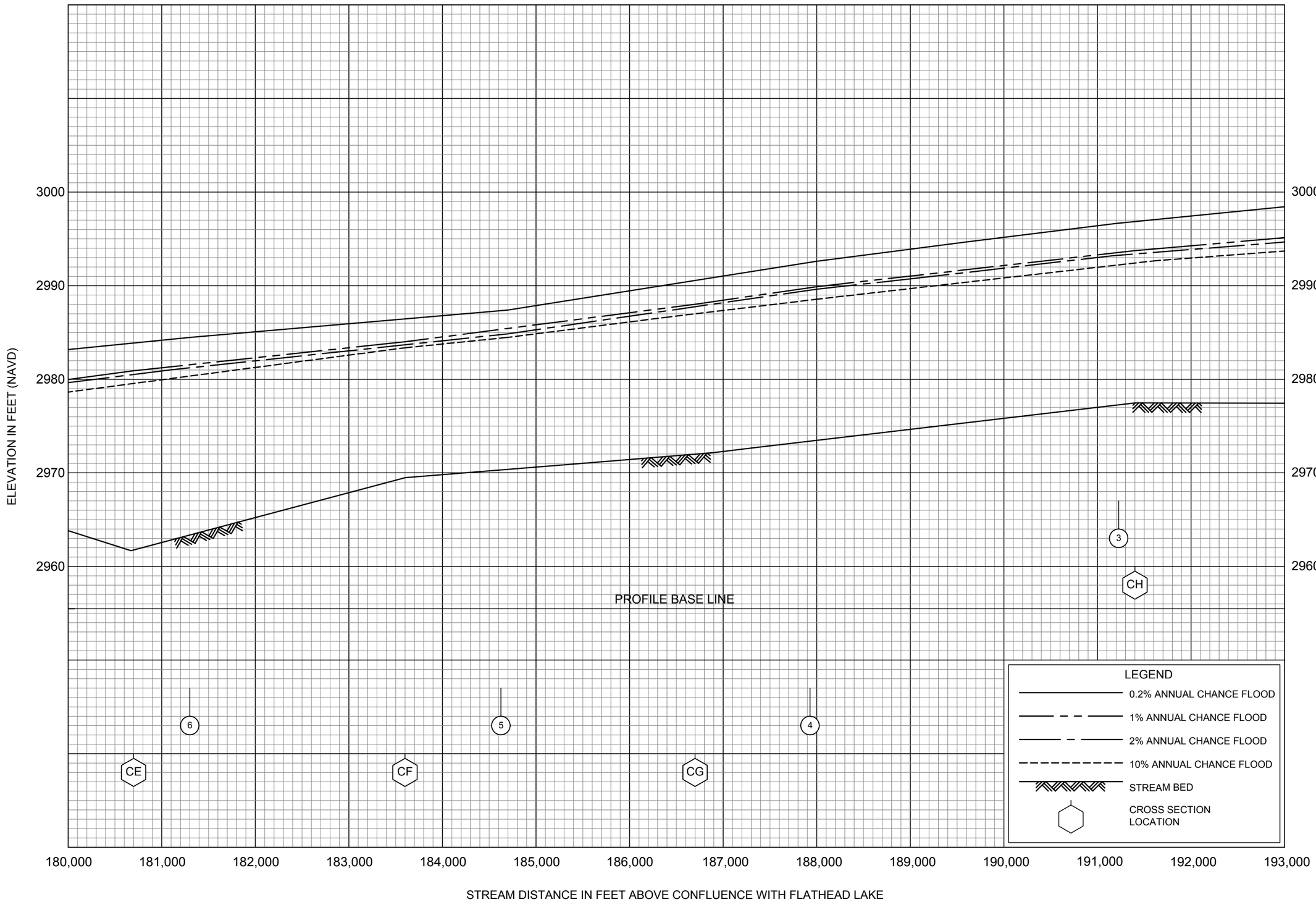

FLOOD PROFILES

FLATHEAD RIVER

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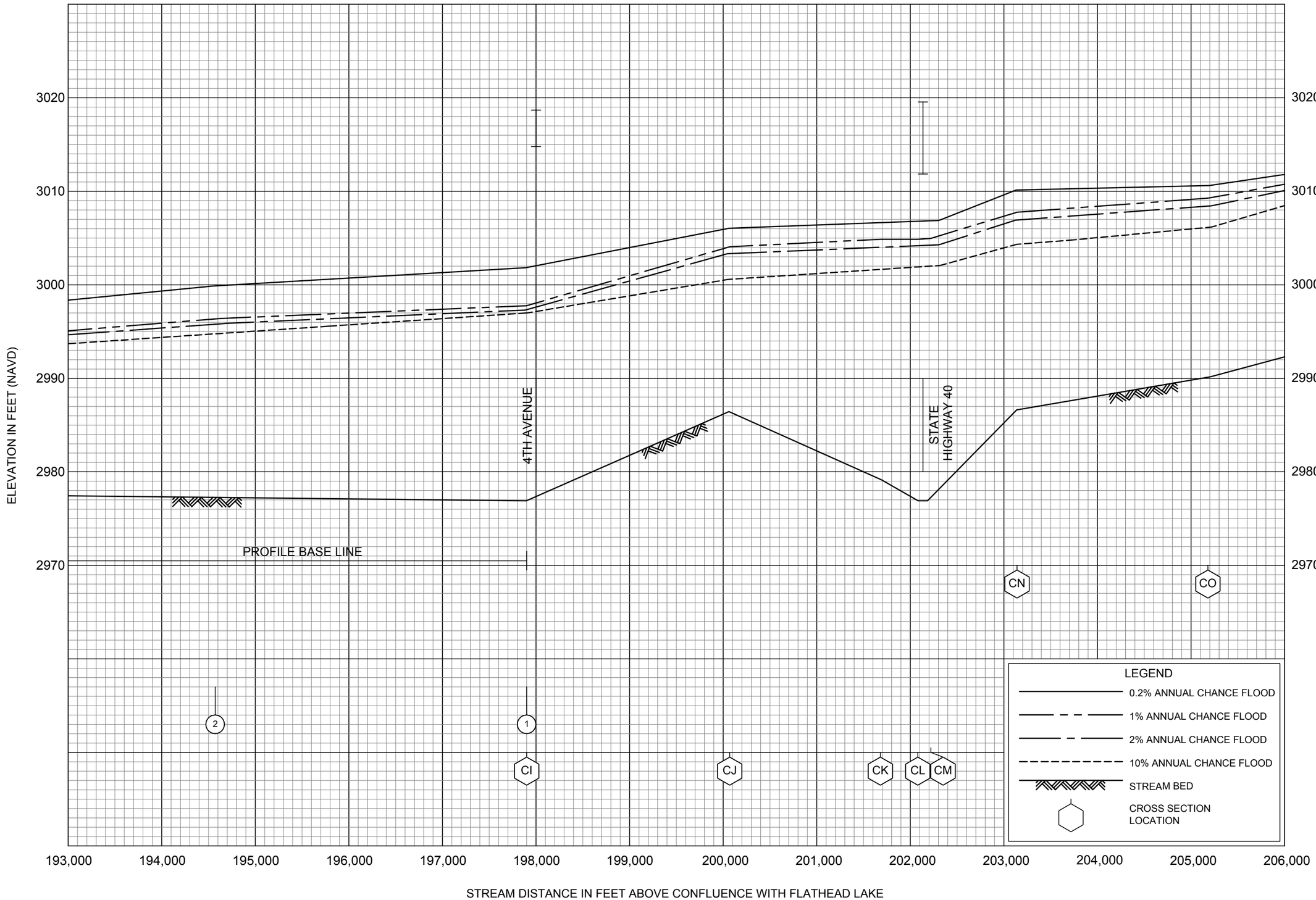

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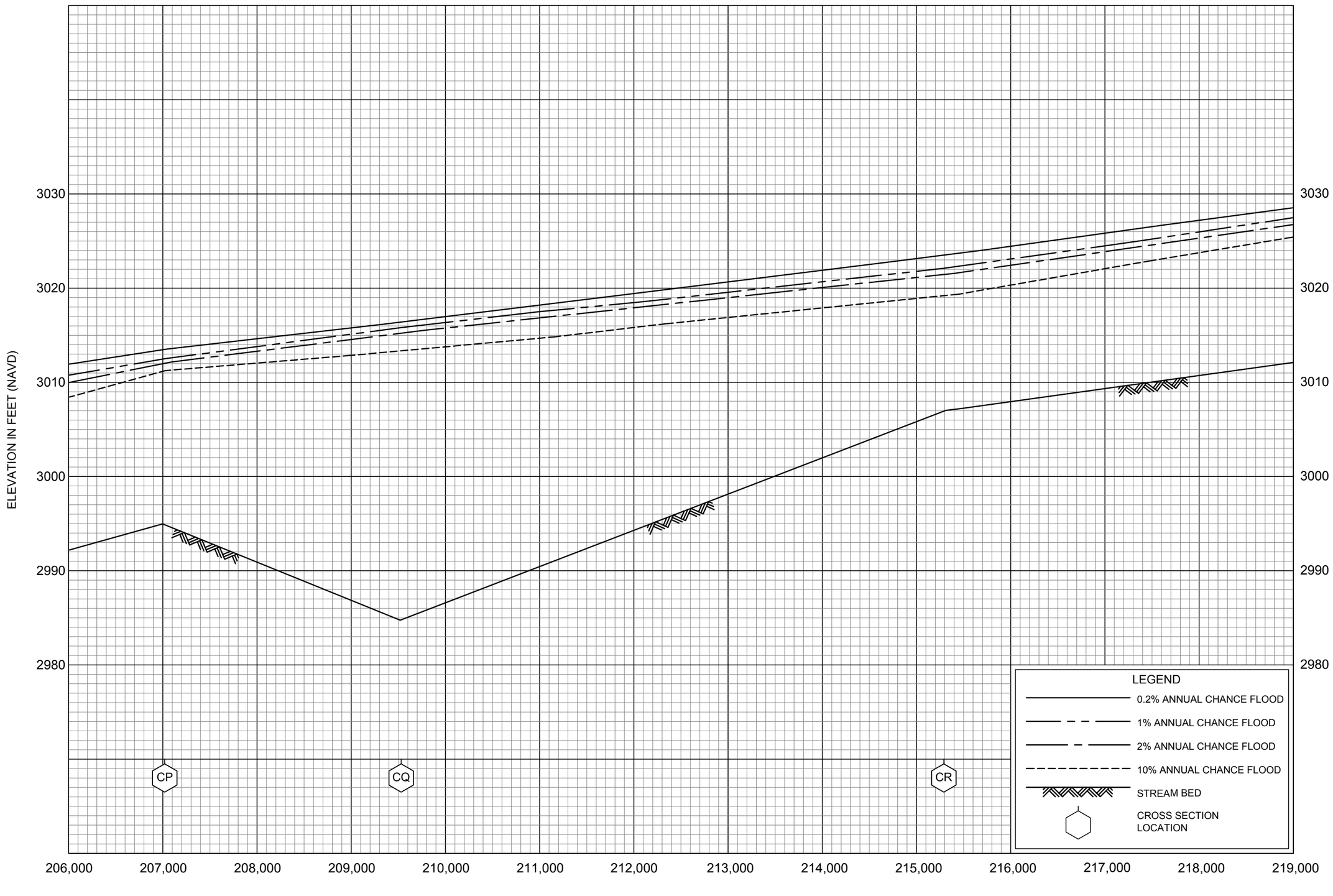

FLOOD PROFILES

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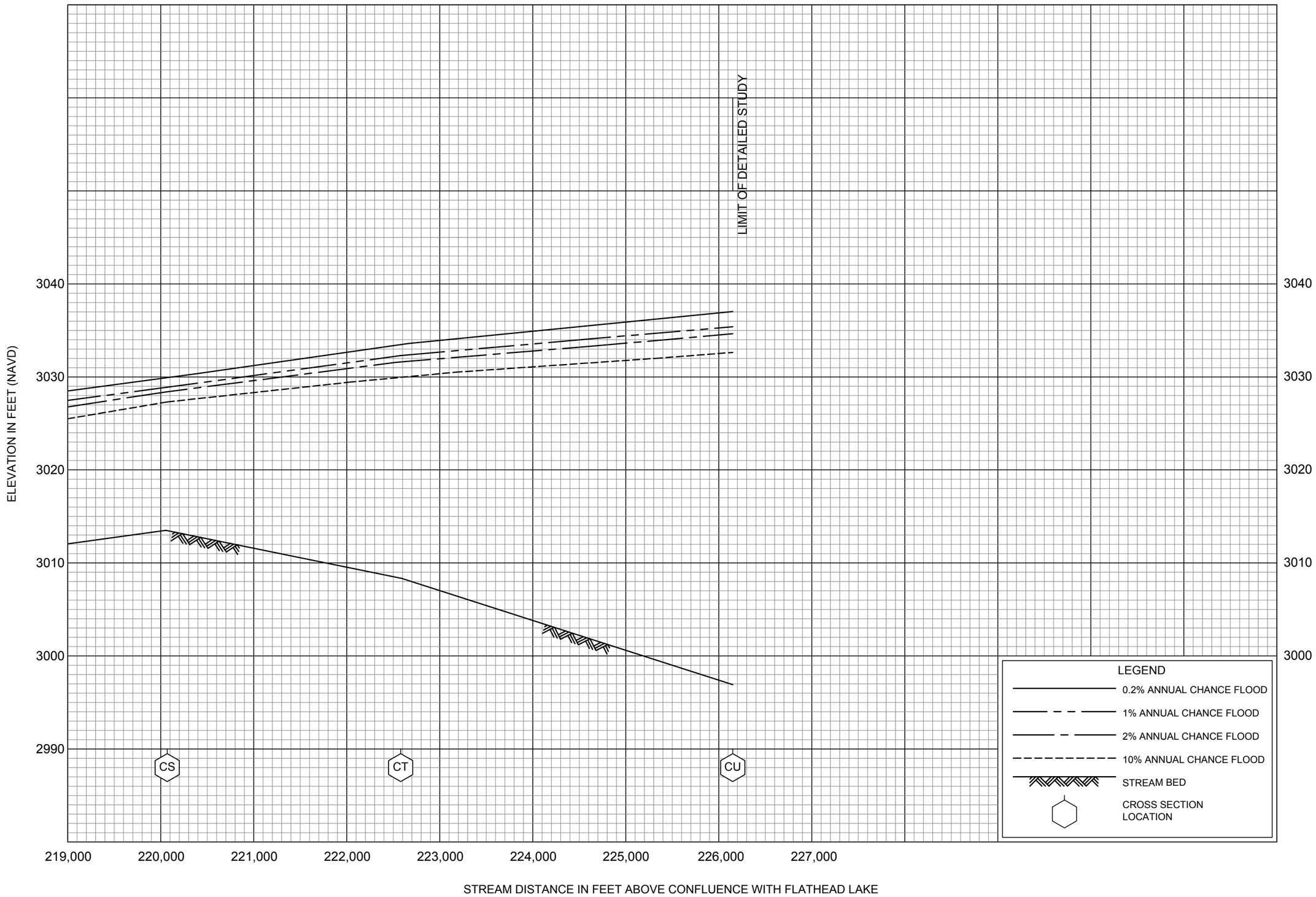

FLOOD PROFILES

FLATHEAD RIVER

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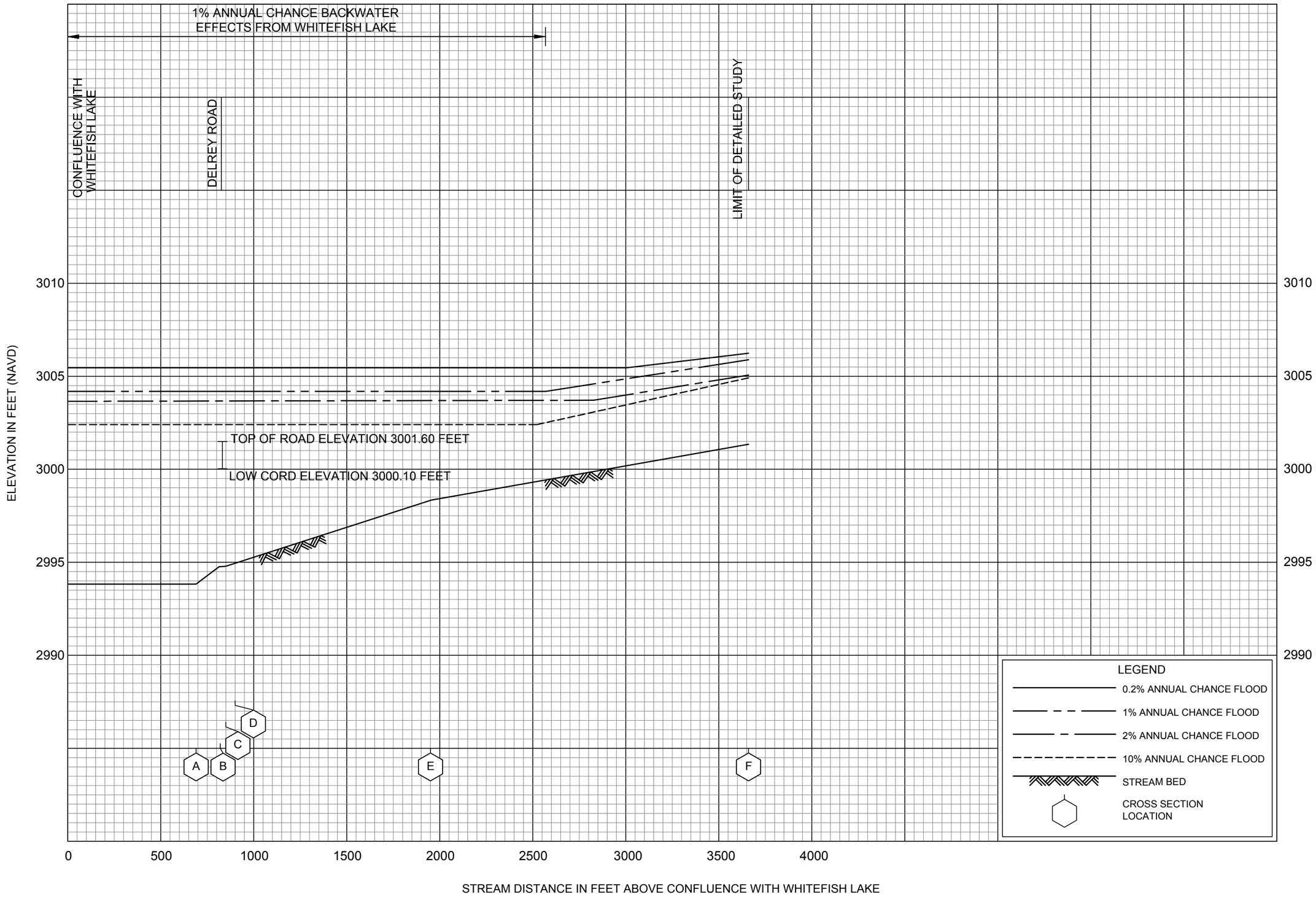

FLOOD PROFILES

LAZY CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

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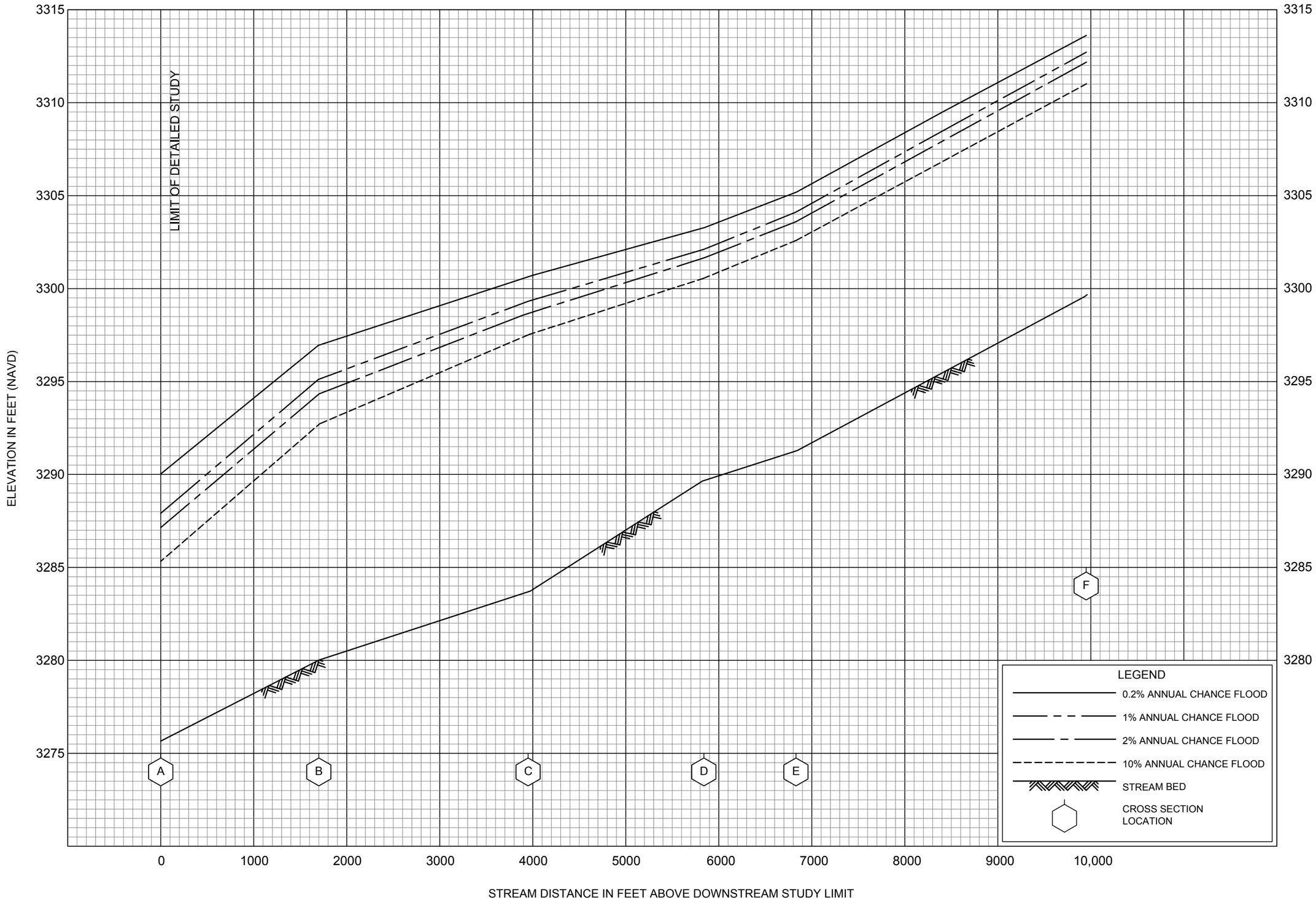


FLOOD PROFILES

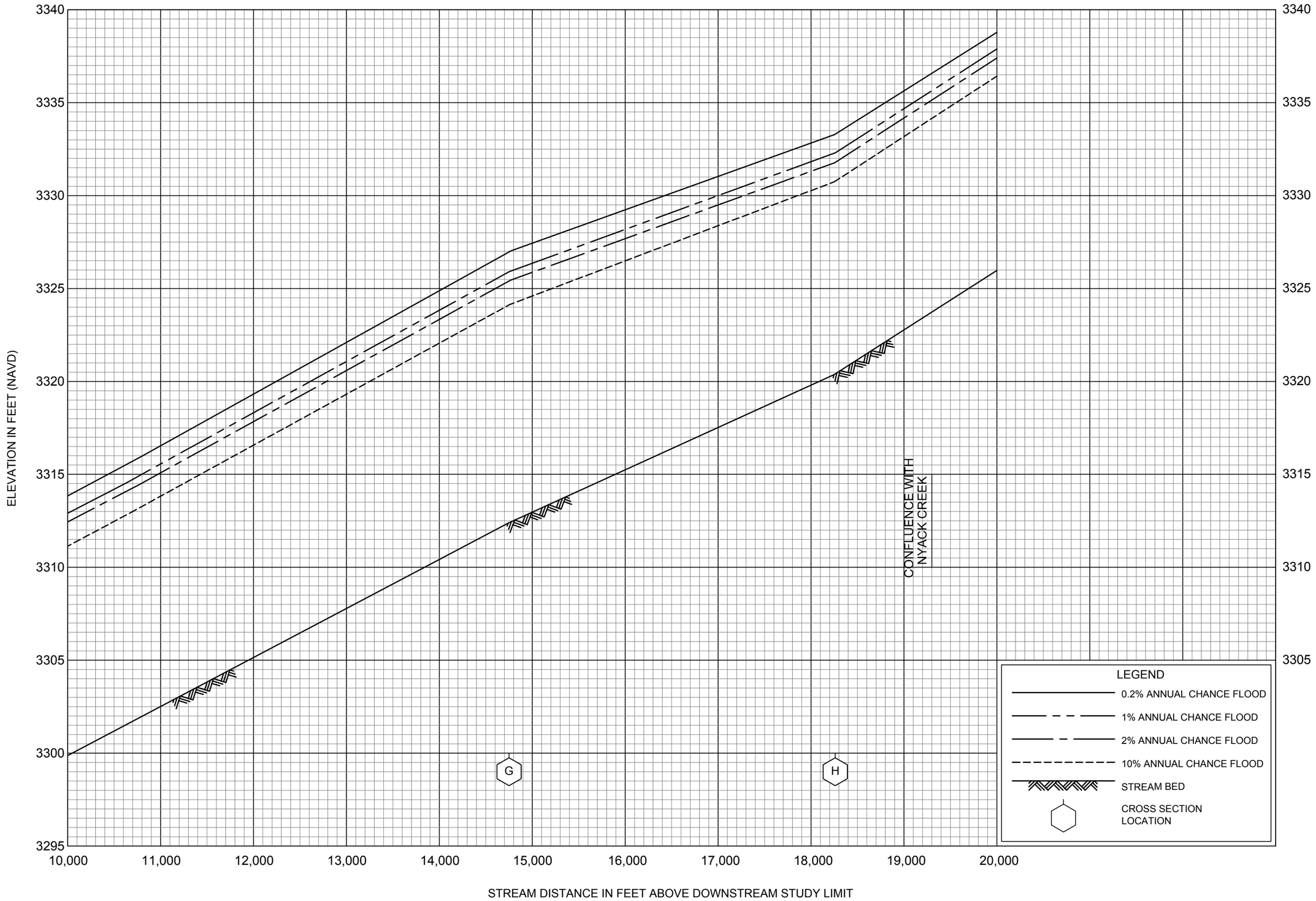
MIDDLE FORK FLATHEAD RIVER AT NYACK

FEDERAL EMERGENCY MANAGEMENT AGENCY

FLATHEAD COUNTY, MT

AND INCORPORATED AREAS

35P



FLOOD PROFILES

MIDDLE FORK FLATHEAD RIVER AT NYACK

FEDERAL EMERGENCY MANAGEMENT AGENCY

FLATHEAD COUNTY, MT

AND INCORPORATED AREAS

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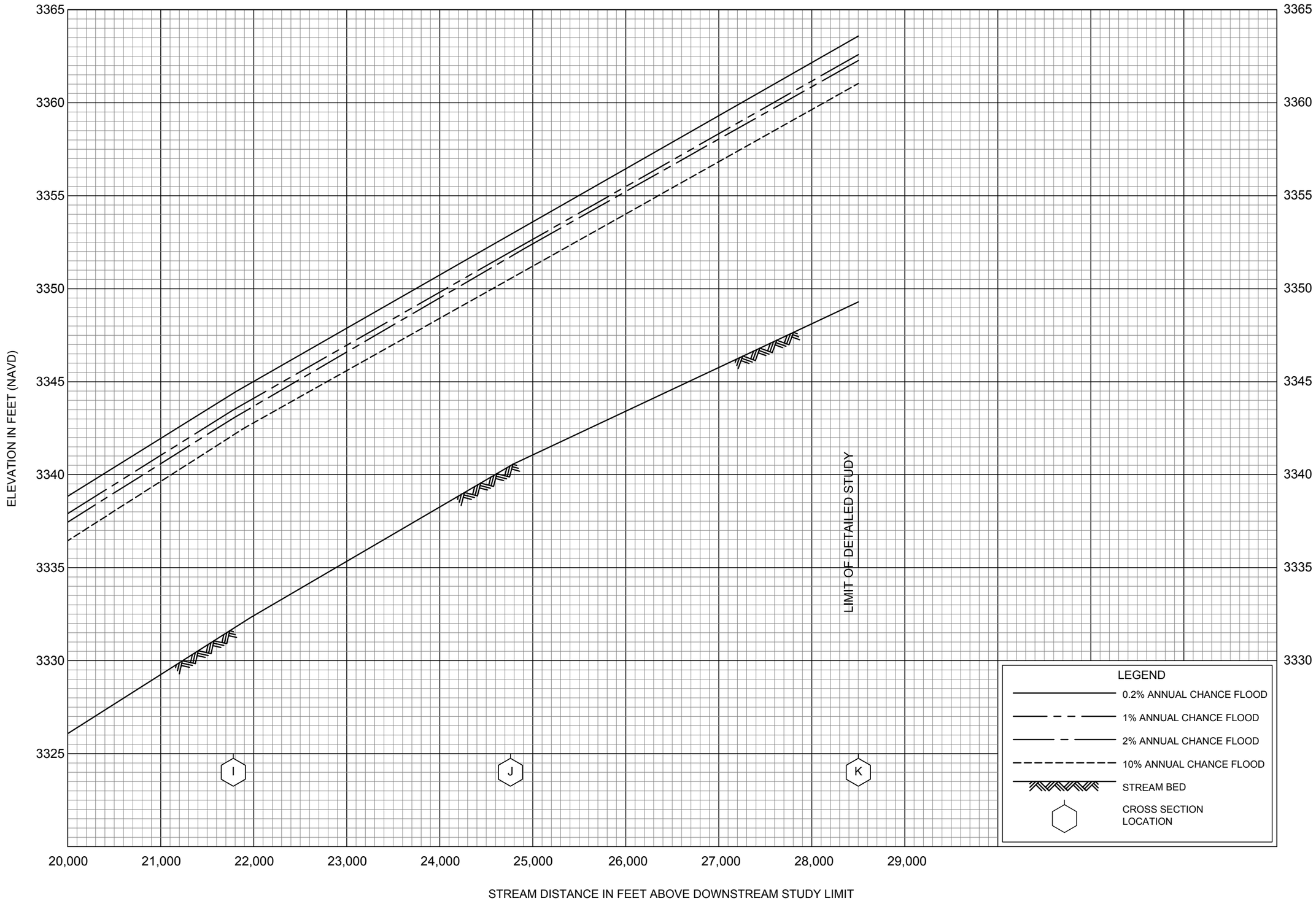

FLOOD PROFILES

MIDDLE FORK FLATHEAD RIVER AT NYACK

FEDERAL EMERGENCY MANAGEMENT AGENCY

FLATHEAD COUNTY, MT

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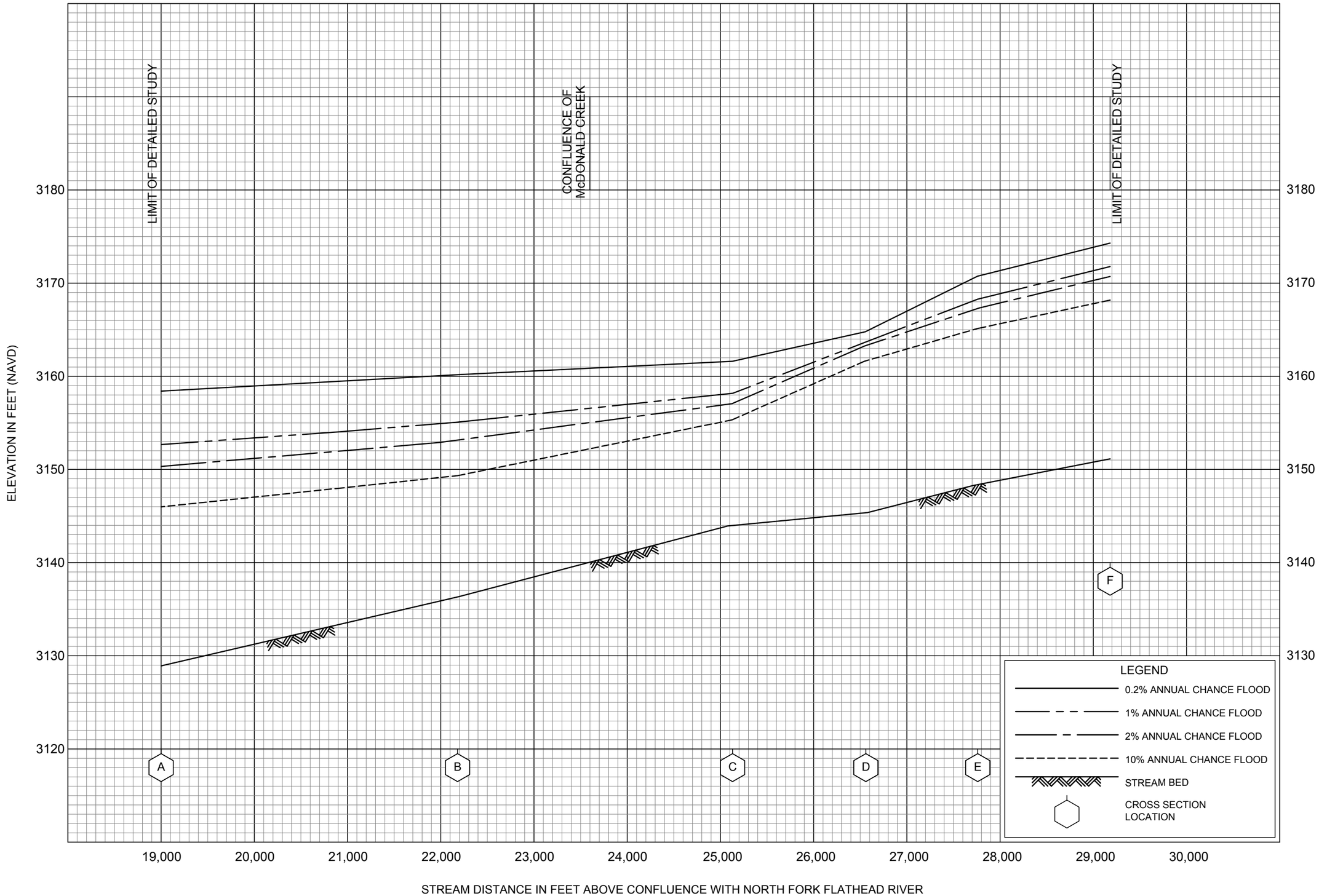

FLOOD PROFILES

MIDDLE FORK FLATHEAD RIVER AT WEST GLACIER

FEDERAL EMERGENCY MANAGEMENT AGENCY

FLATHEAD COUNTY, MT

AND INCORPORATED AREAS

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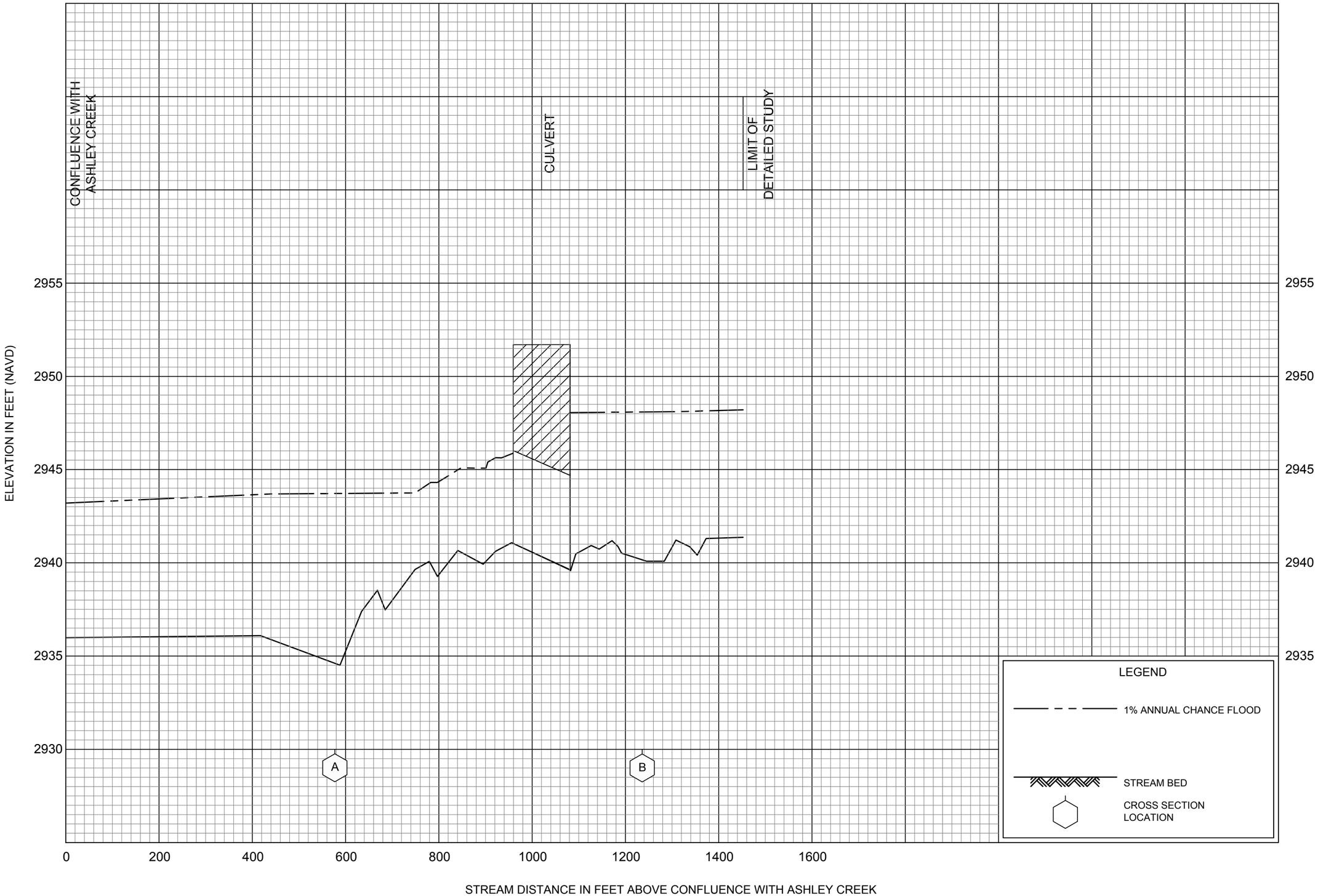


FLOOD PROFILES

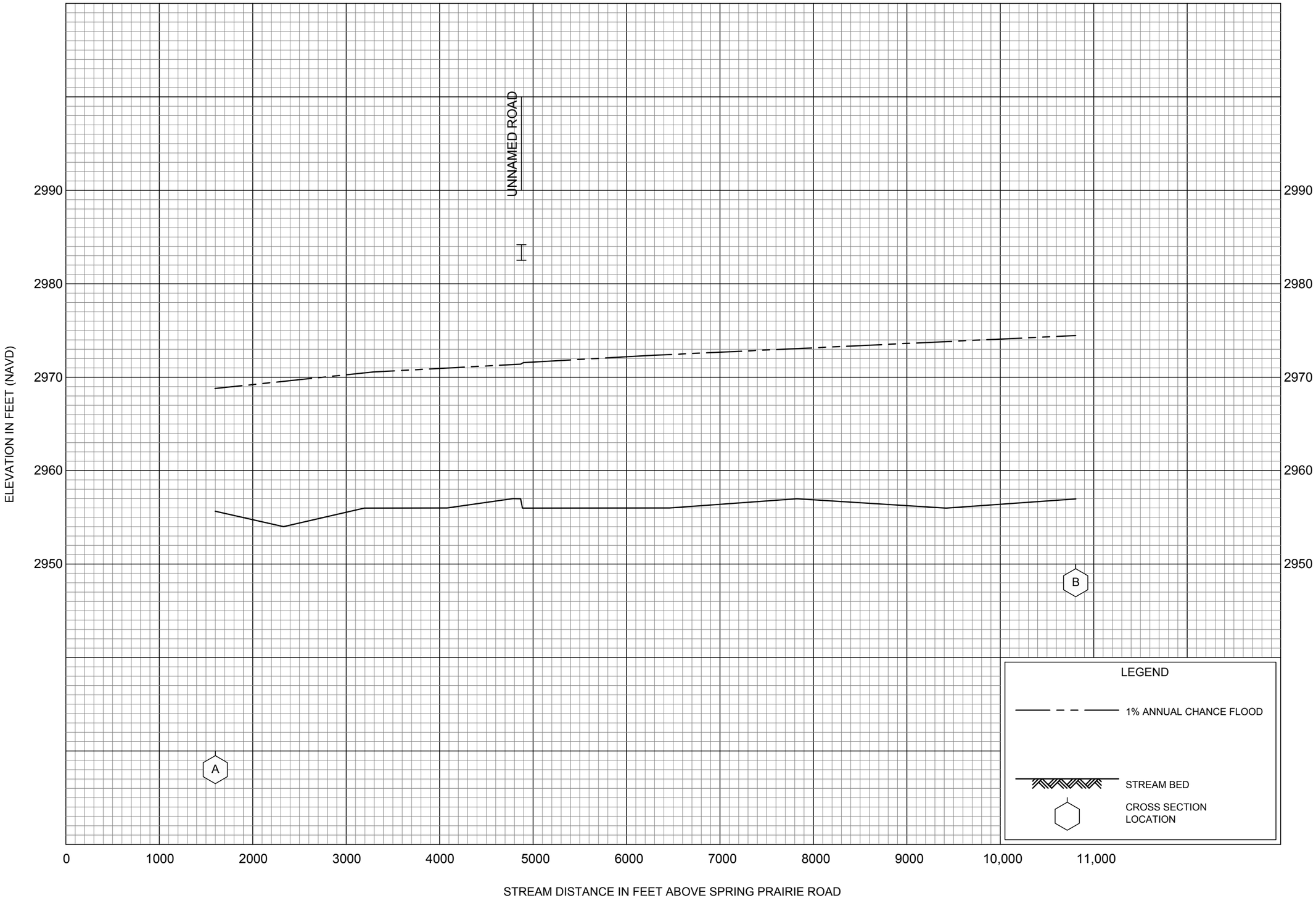
NORTH TRIBUTARY TO ASHLEY CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

FLATHEAD COUNTY, MT

AND INCORPORATED AREAS

39P



FLOOD PROFILES

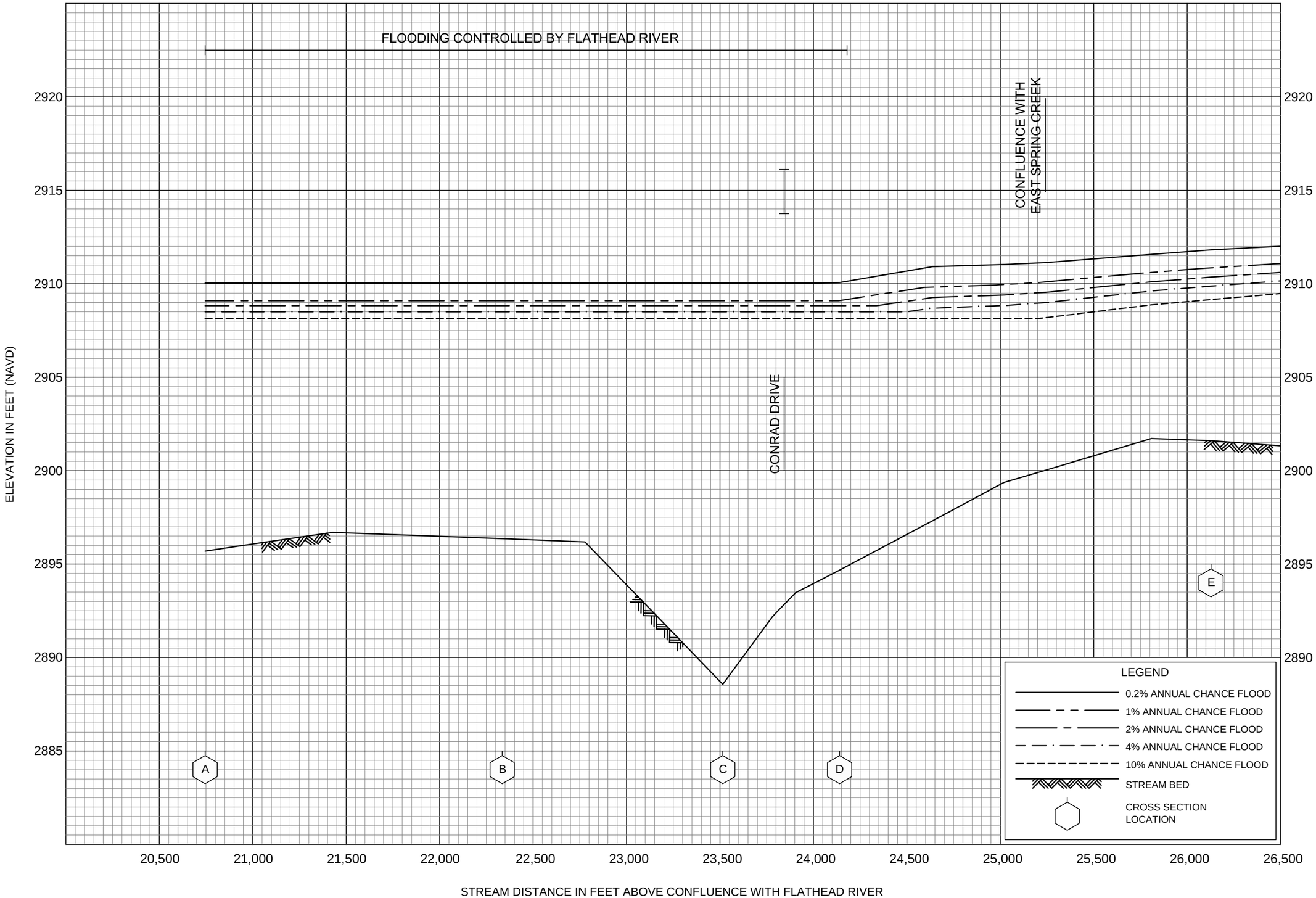
STILLWATER RIVER ABOVE SPRING PRAIRIE ROAD

FEDERAL EMERGENCY MANAGEMENT AGENCY

FLATHEAD COUNTY, MT

AND INCORPORATED AREAS

40P



FLOOD PROFILES

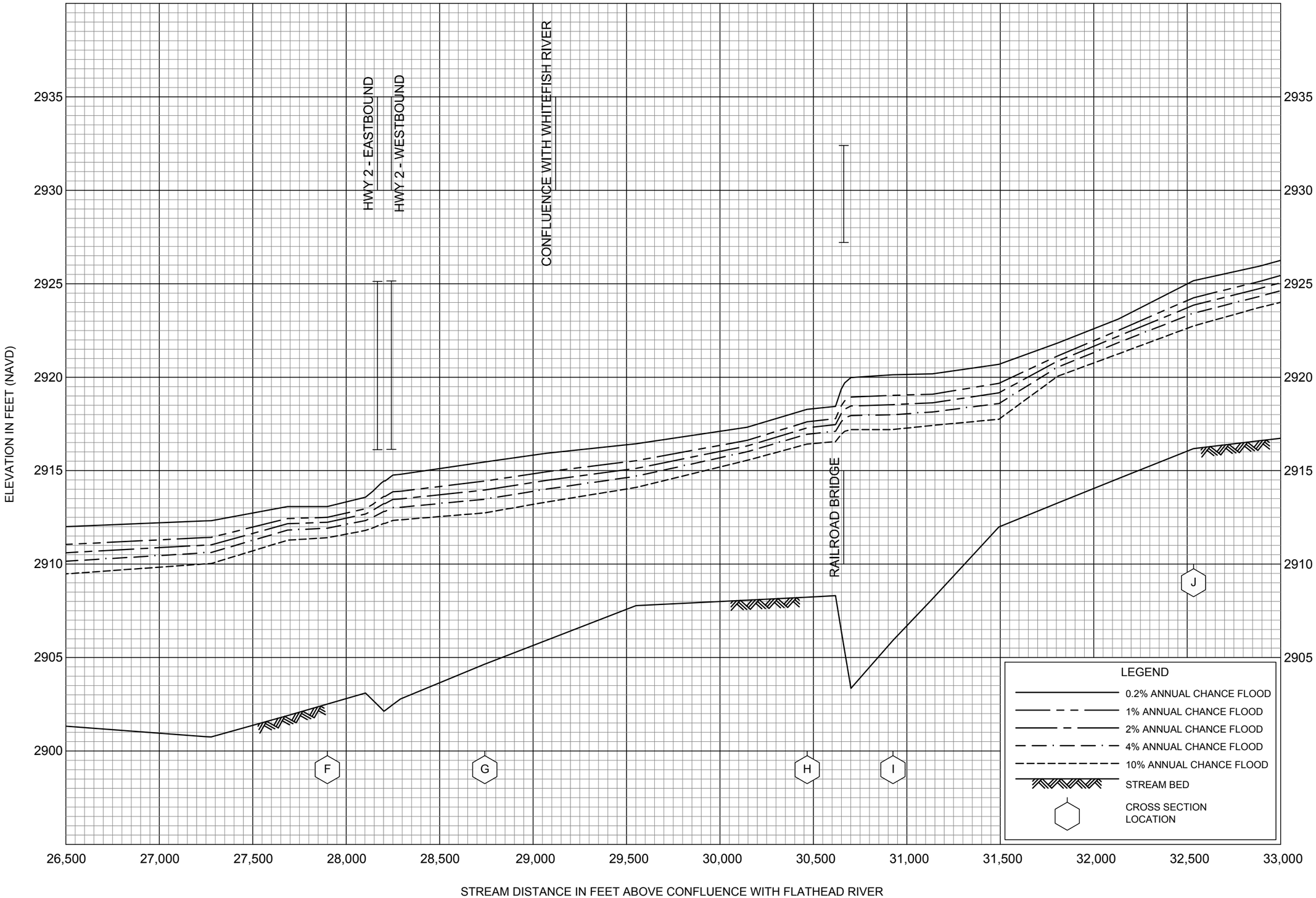
STILLWATER RIVER NEAR KALISPELL

FEDERAL EMERGENCY MANAGEMENT AGENCY

FLATHEAD COUNTY, MT

AND INCORPORATED AREAS

41P



FLOOD PROFILES

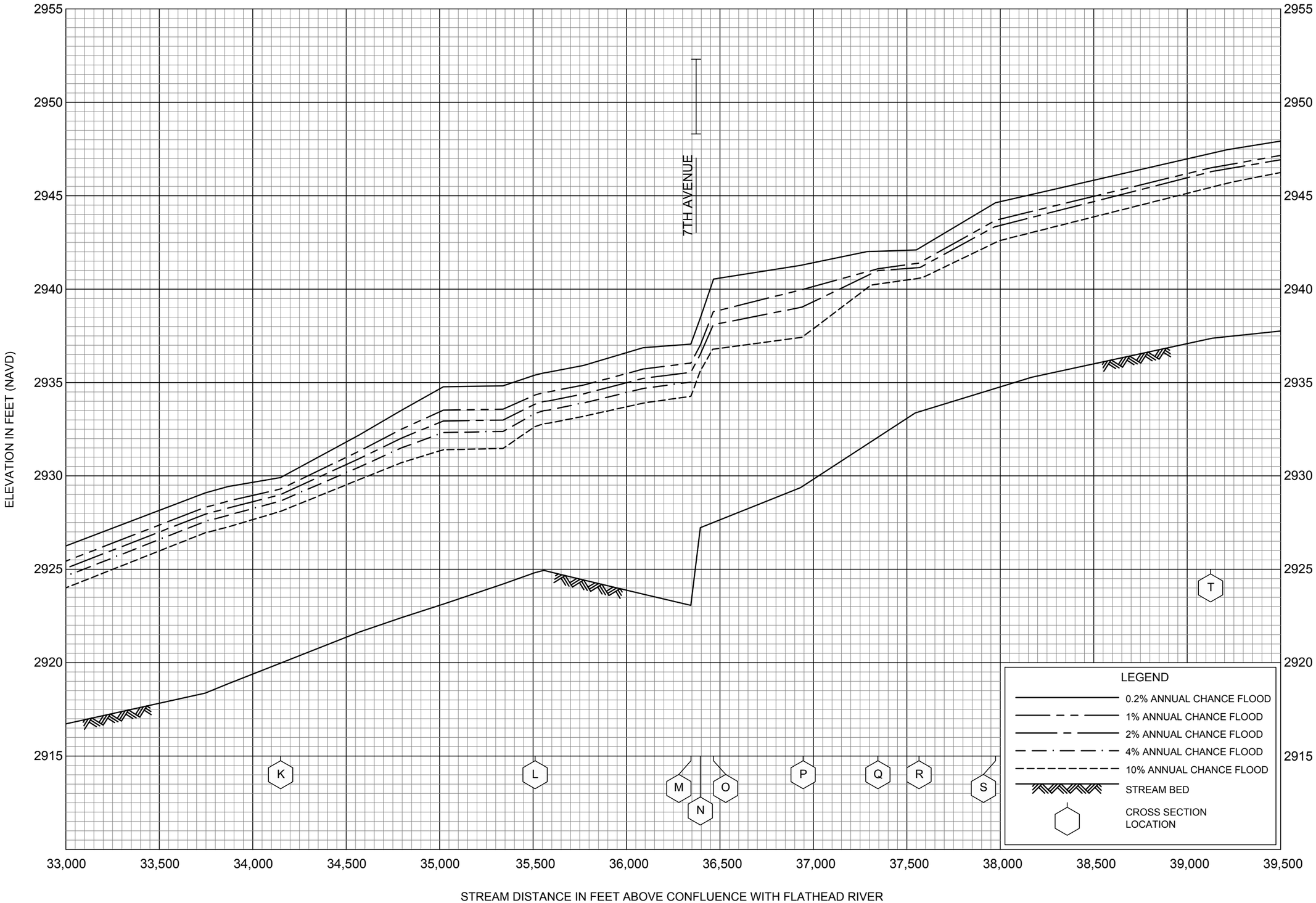
STILLWATER RIVER NEAR KALISPELL

FEDERAL EMERGENCY MANAGEMENT AGENCY

FLATHEAD COUNTY, MT

AND INCORPORATED AREAS

42P



FLOOD PROFILES

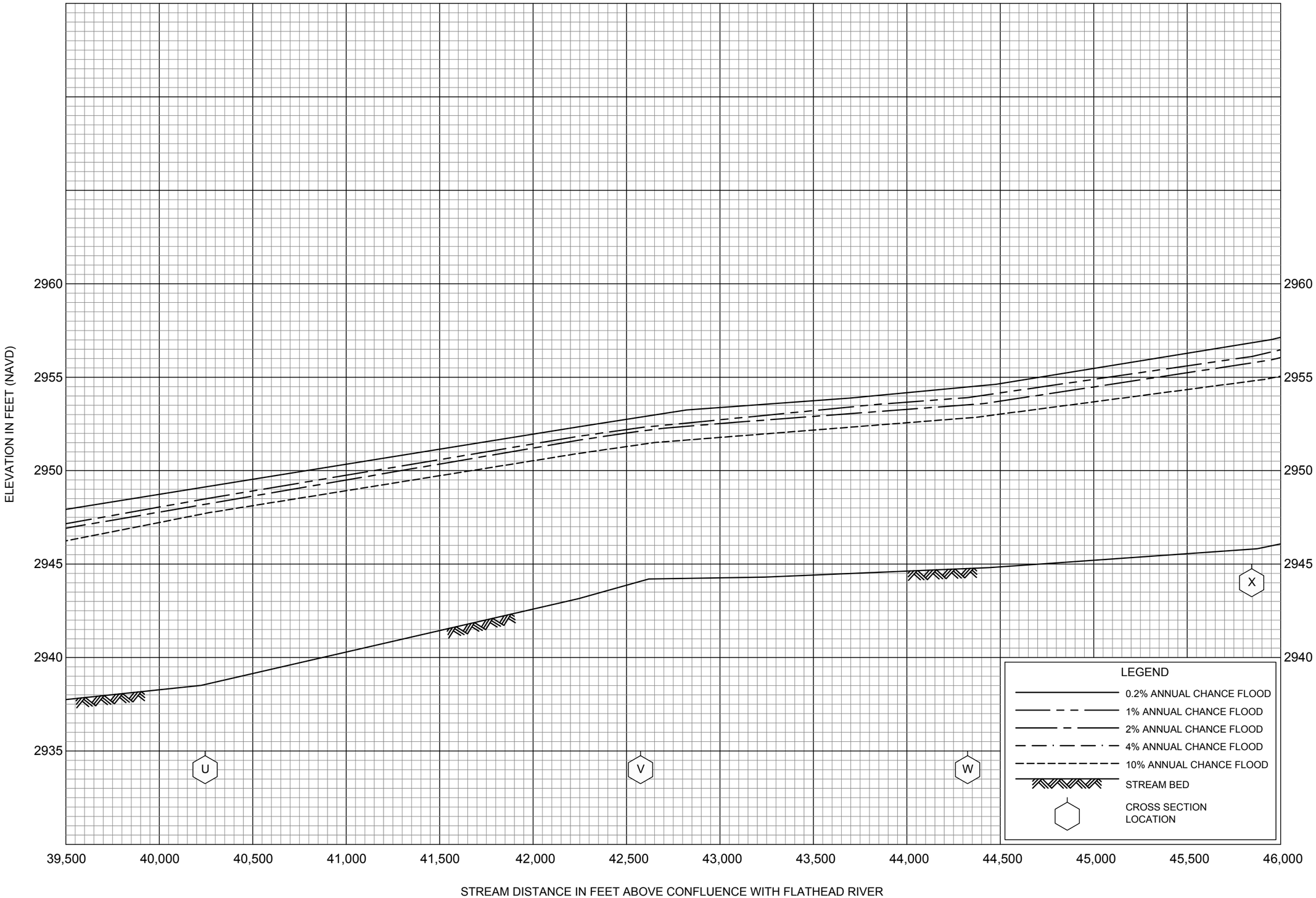
STILLWATER RIVER NEAR KALISPELL

FEDERAL EMERGENCY MANAGEMENT AGENCY

FLATHEAD COUNTY, MT

AND INCORPORATED AREAS

43P



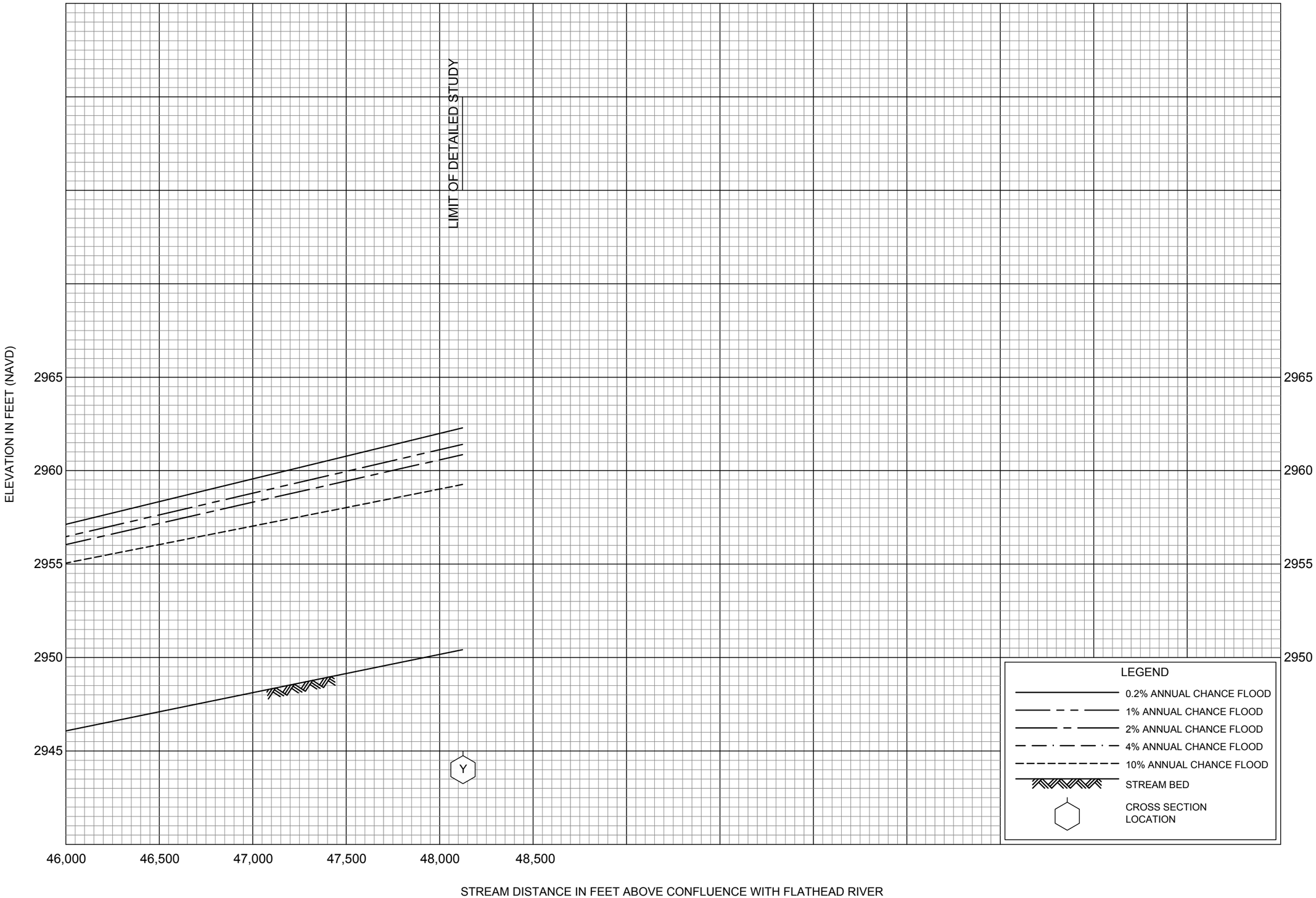
FLOOD PROFILES

STILLWATER RIVER NEAR KALISPELL

FEDERAL EMERGENCY MANAGEMENT AGENCY

FLATHEAD COUNTY, MT

AND INCORPORATED AREAS



FLOOD PROFILES

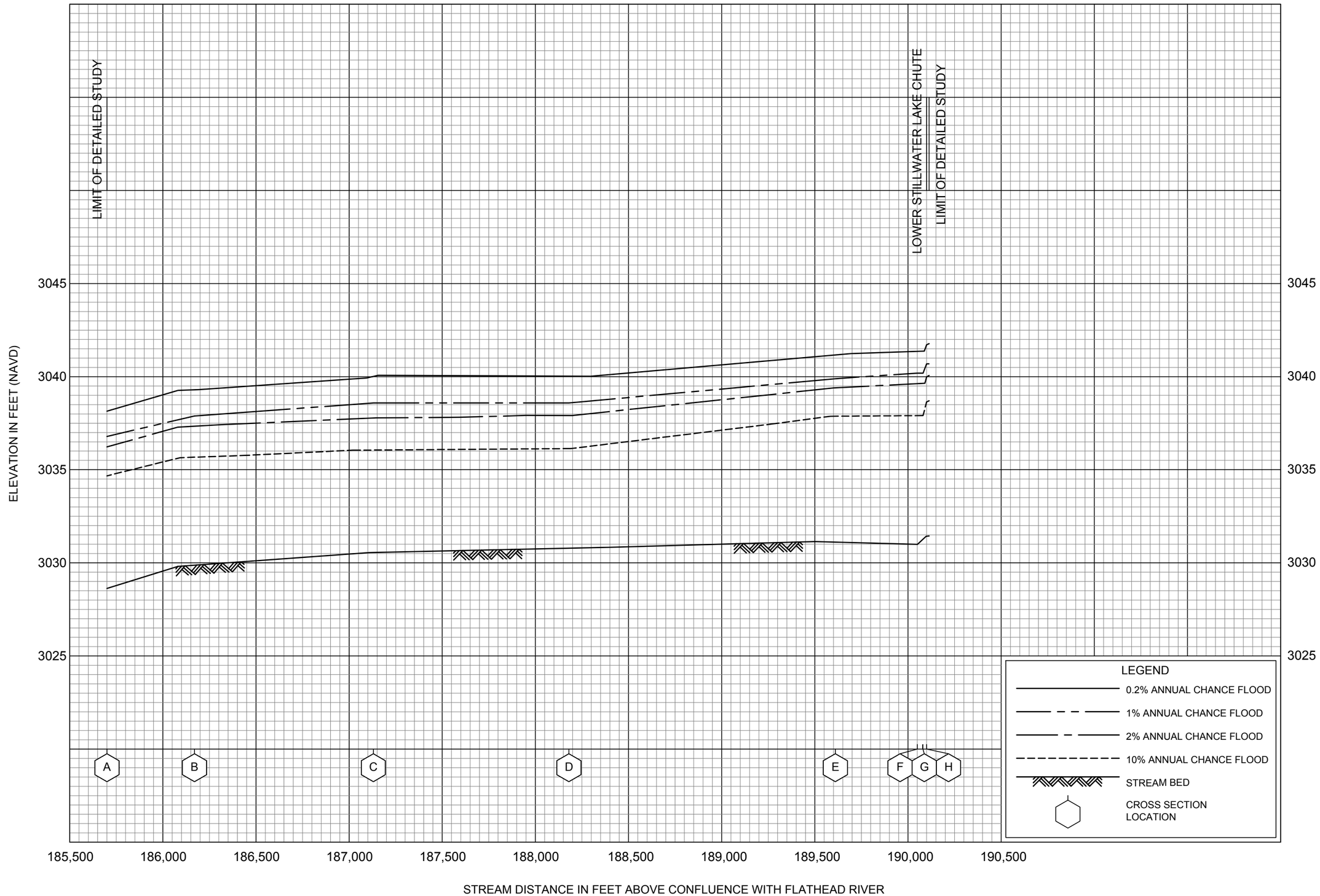
STILLWATER RIVER NEAR KALISPELL

FEDERAL EMERGENCY MANAGEMENT AGENCY

FLATHEAD COUNTY, MT

AND INCORPORATED AREAS

45P



FLOOD PROFILES

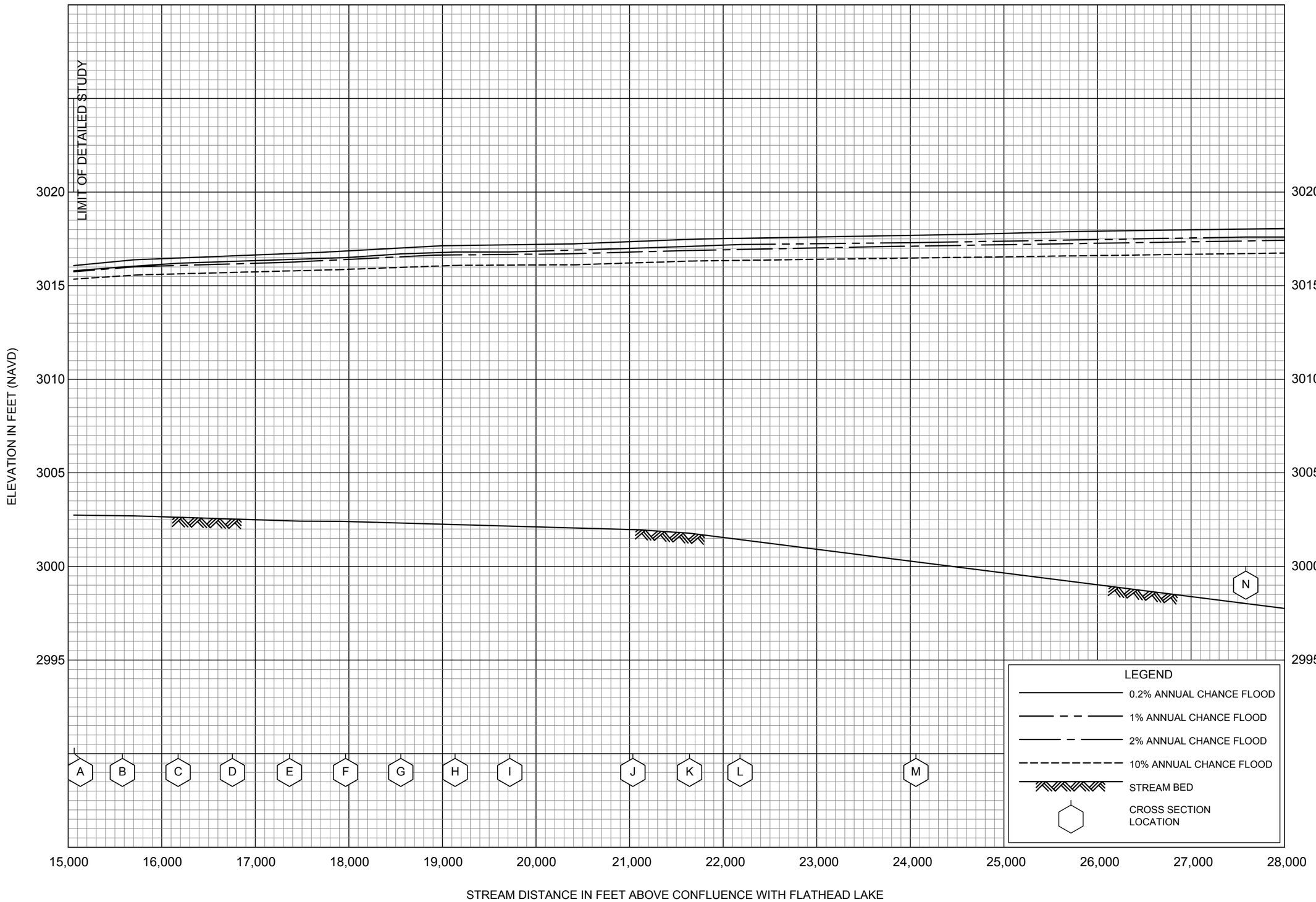
STILLWATER RIVER NEAR OLNEY

FEDERAL EMERGENCY MANAGEMENT AGENCY

FLATHEAD COUNTY, MT

AND INCORPORATED AREAS

46P



FLOOD PROFILES

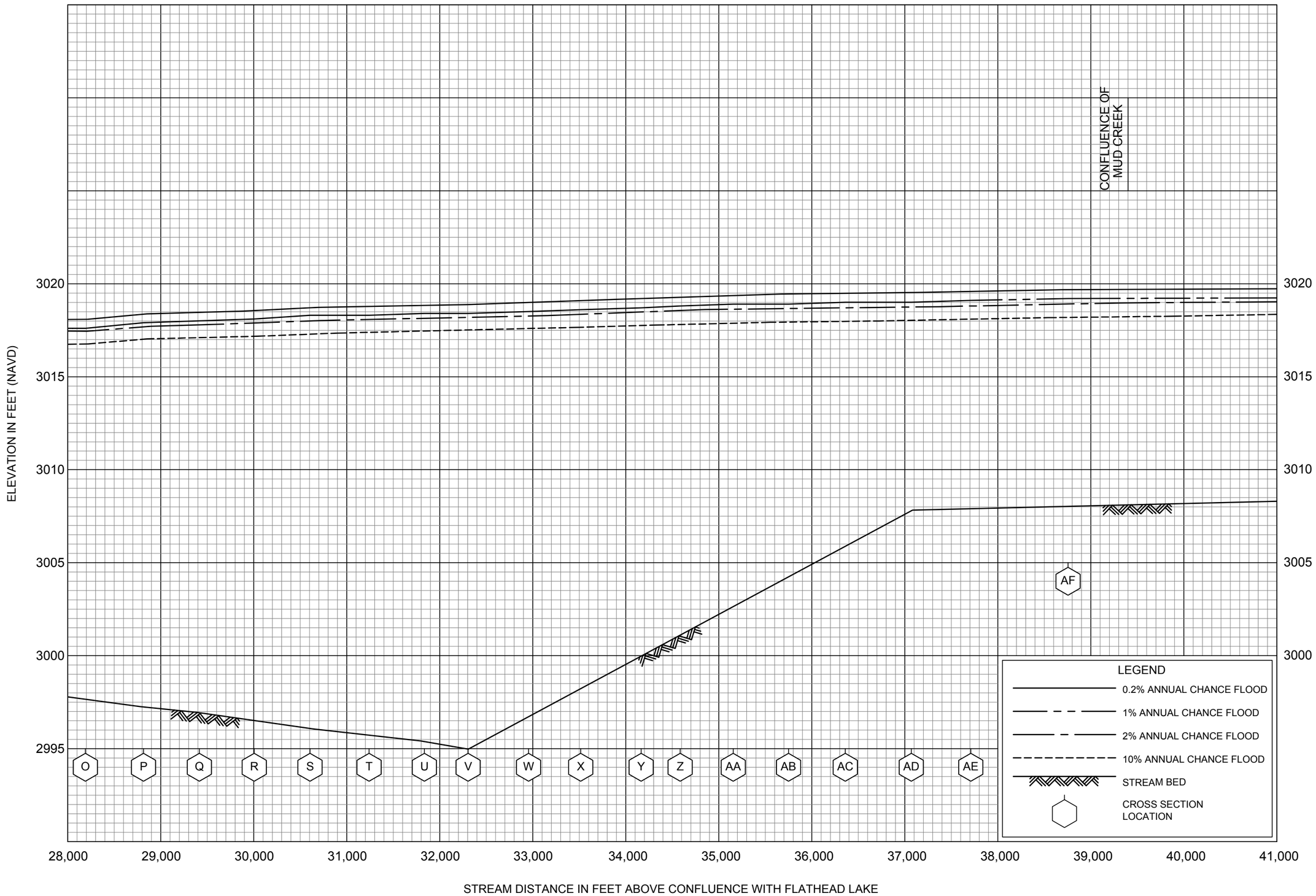
SWAN RIVER

FEDERAL EMERGENCY MANAGEMENT AGENCY

FLATHEAD COUNTY, MT

AND INCORPORATED AREAS

47P



FLOOD PROFILES

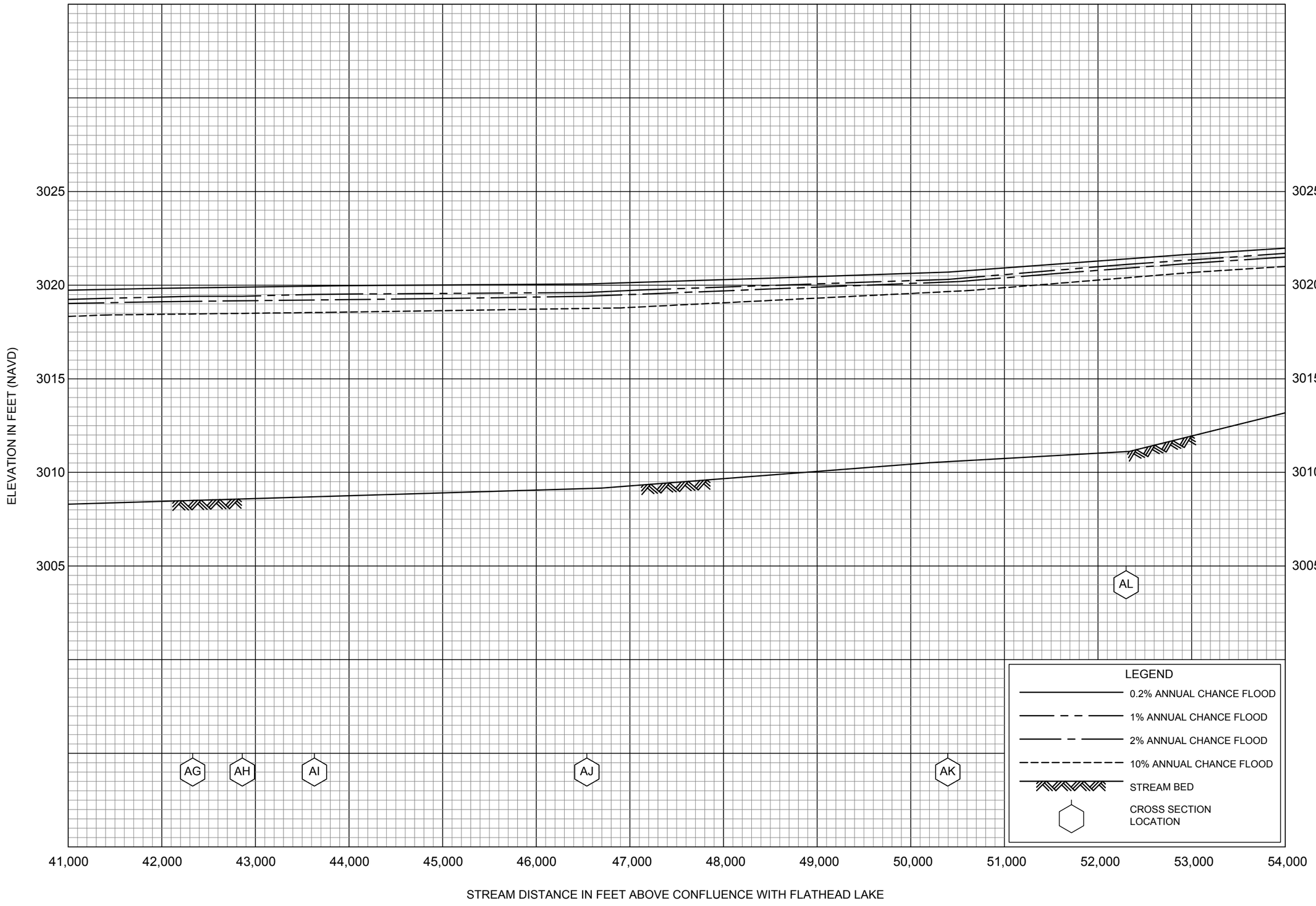
SWAN RIVER

FEDERAL EMERGENCY MANAGEMENT AGENCY

FLATHEAD COUNTY, MT

AND INCORPORATED AREAS

48P



FLOOD PROFILES

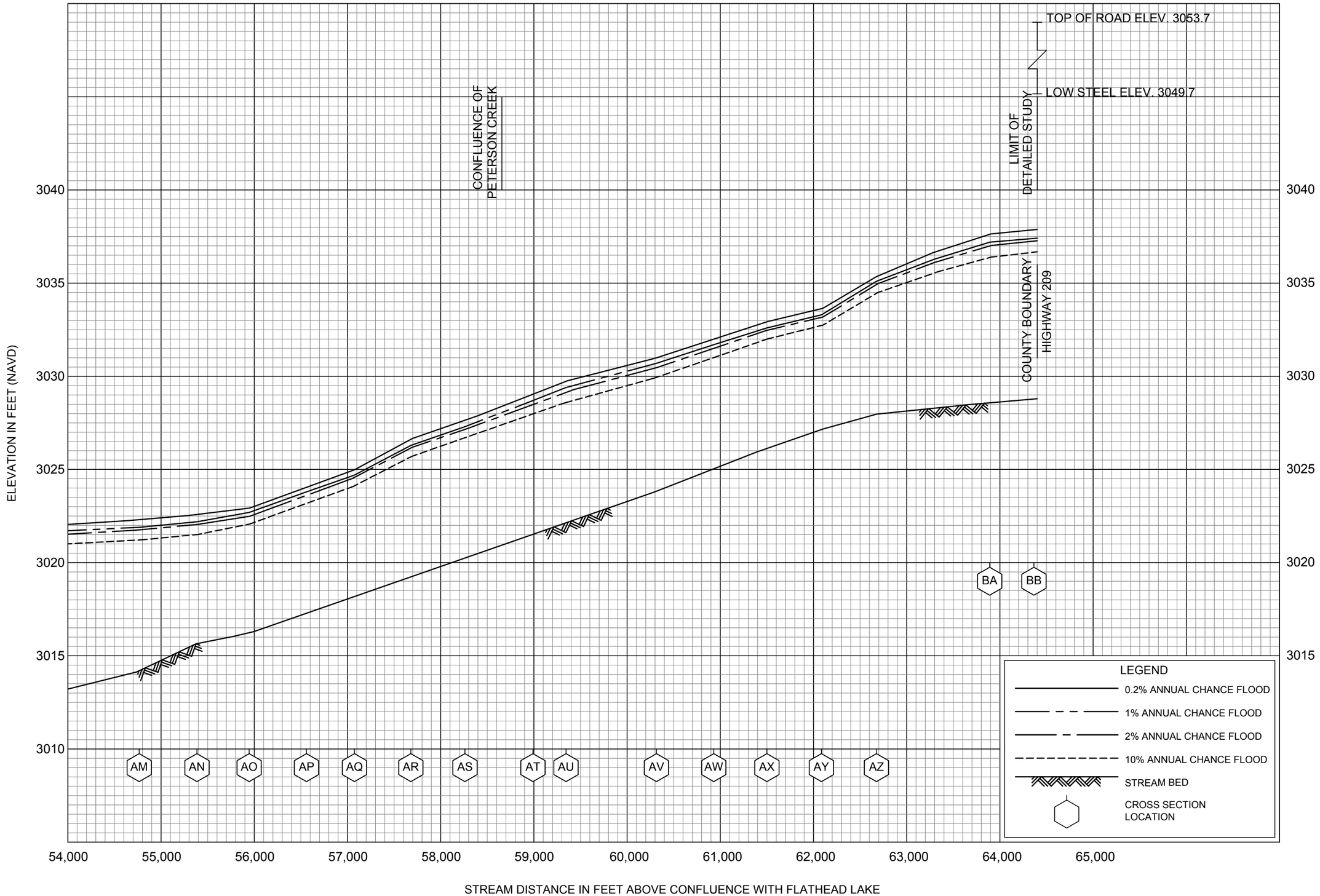
SWAN RIVER

FEDERAL EMERGENCY MANAGEMENT AGENCY

FLATHEAD COUNTY, MT

AND INCORPORATED AREAS

49P



FLOOD PROFILES

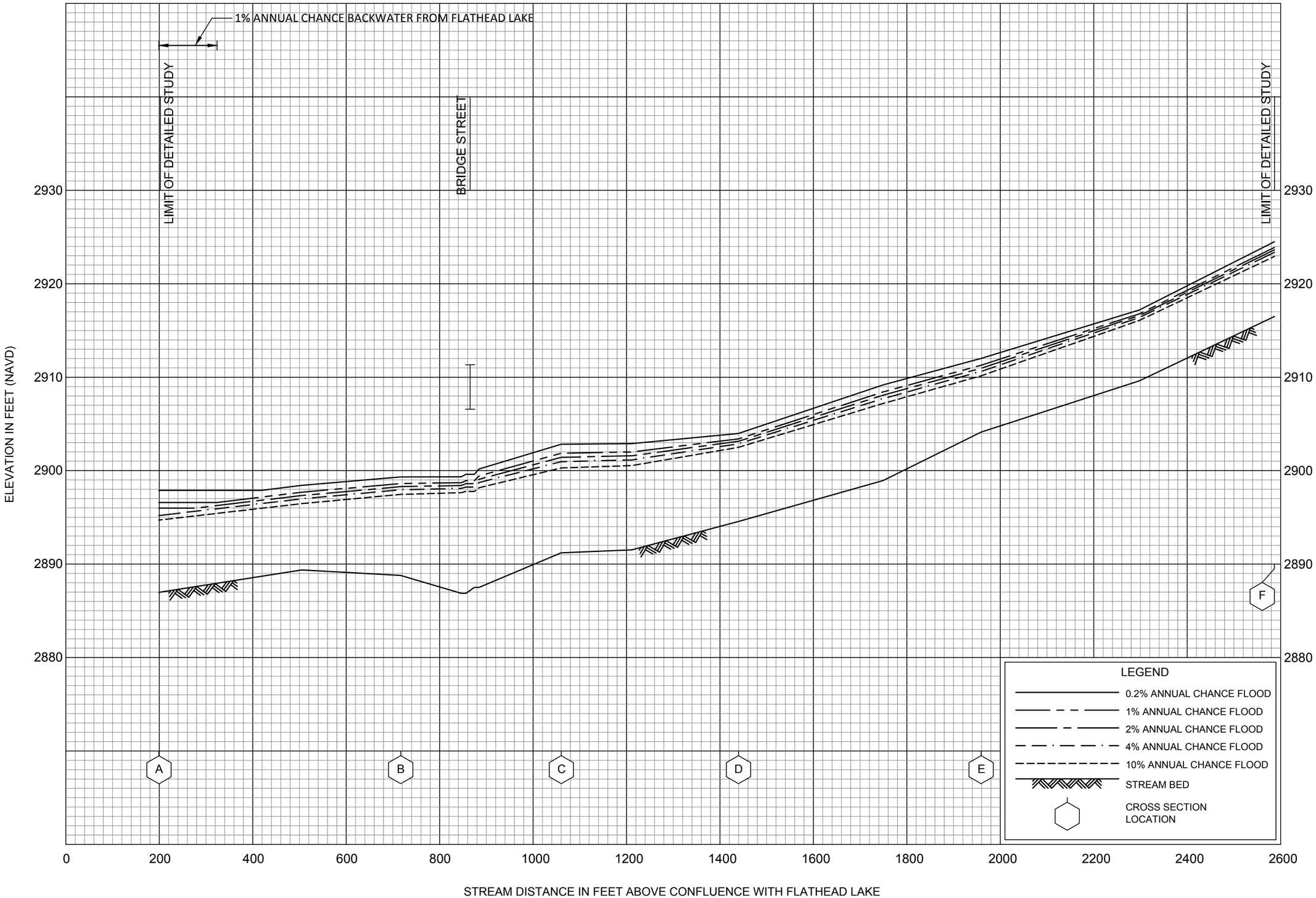
SWAN RIVER

FEDERAL EMERGENCY MANAGEMENT AGENCY

FLATHEAD COUNTY, MT

AND INCORPORATED AREAS

50P



FLOOD PROFILES

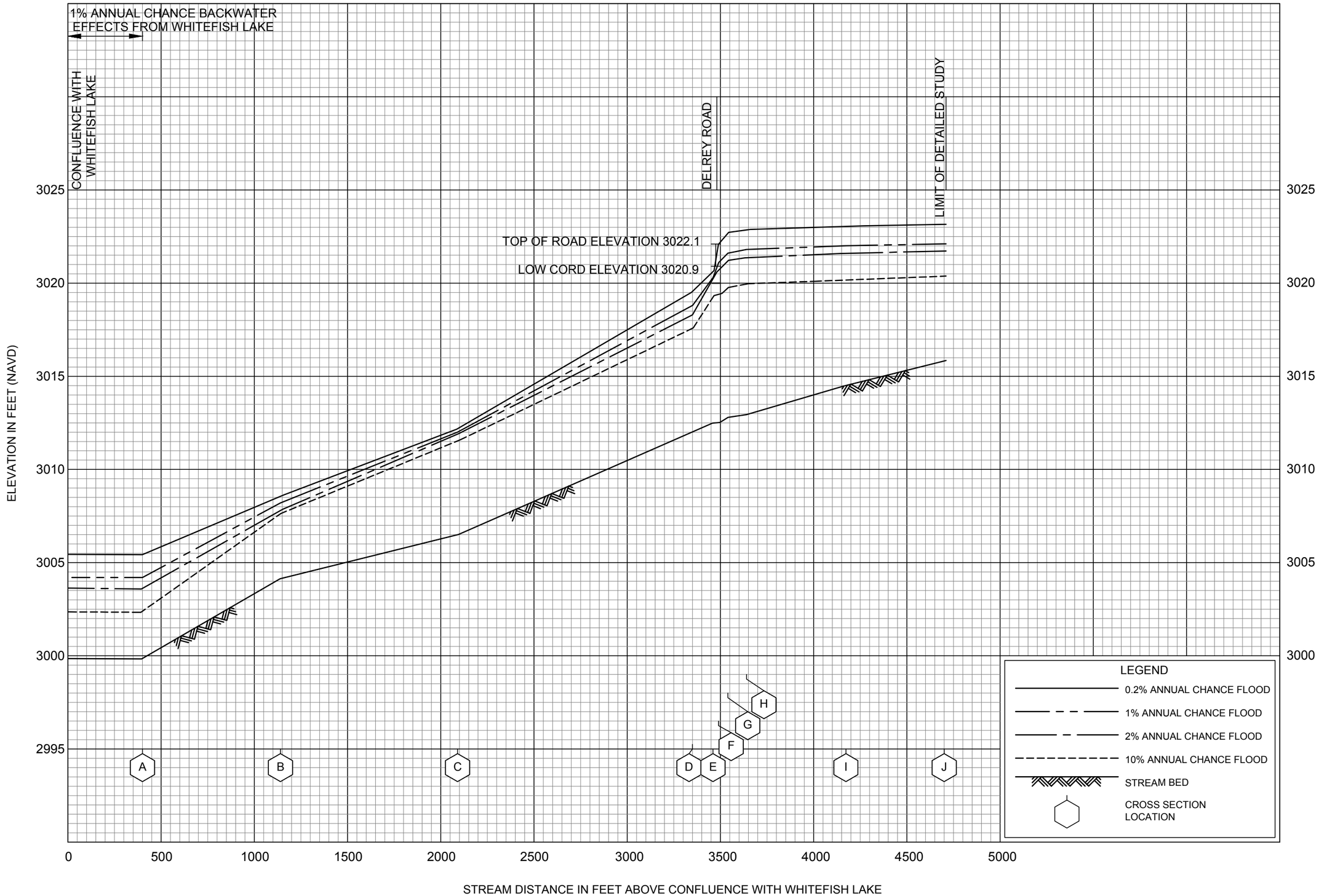
SWAN RIVER AT BIGFORK

FEDERAL EMERGENCY MANAGEMENT AGENCY

FLATHEAD COUNTY, MT

AND INCORPORATED AREAS

51P



FLOOD PROFILES

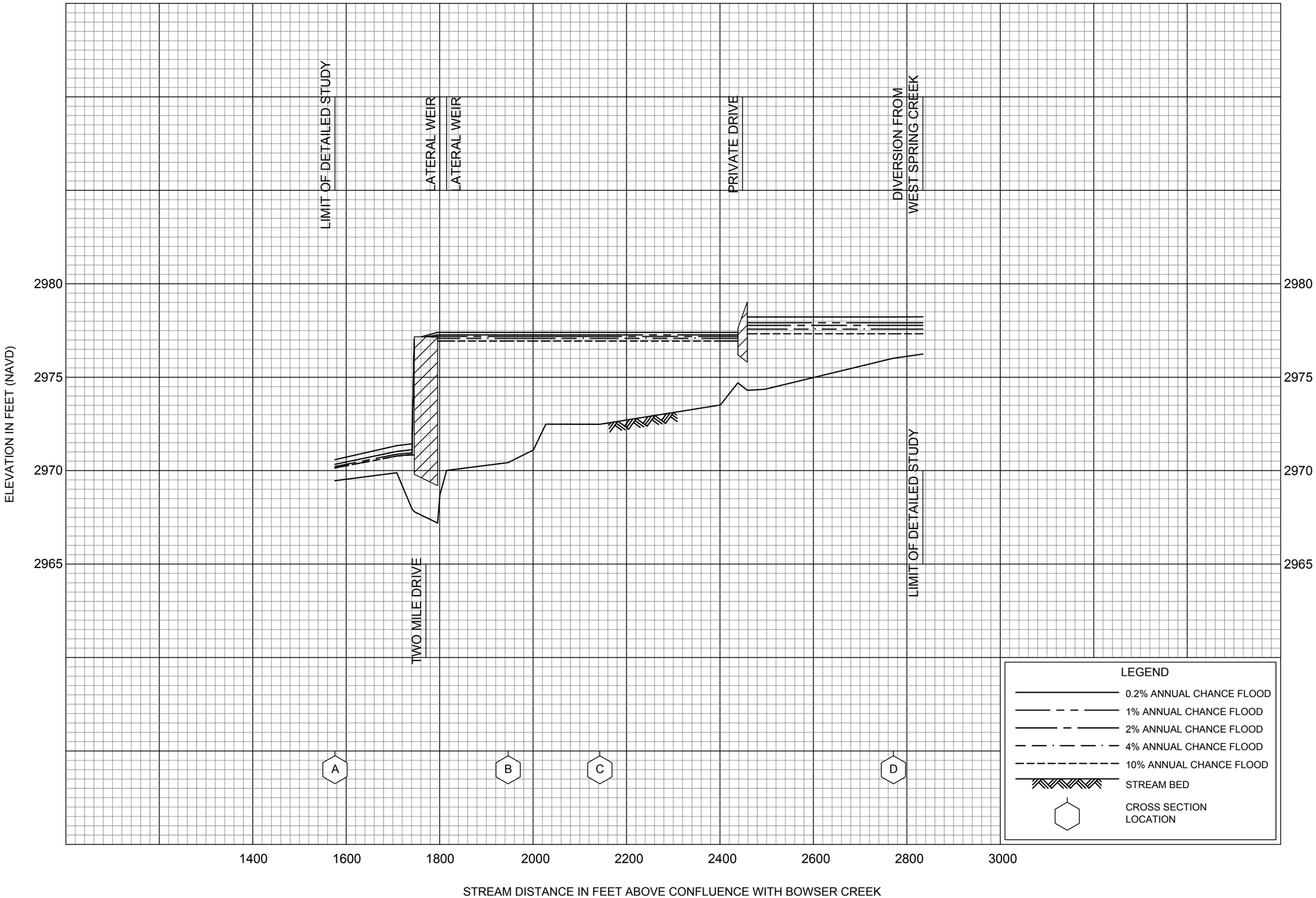
SWIFT CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

FLATHEAD COUNTY, MT

AND INCORPORATED AREAS

52P



FLOOD PROFILES

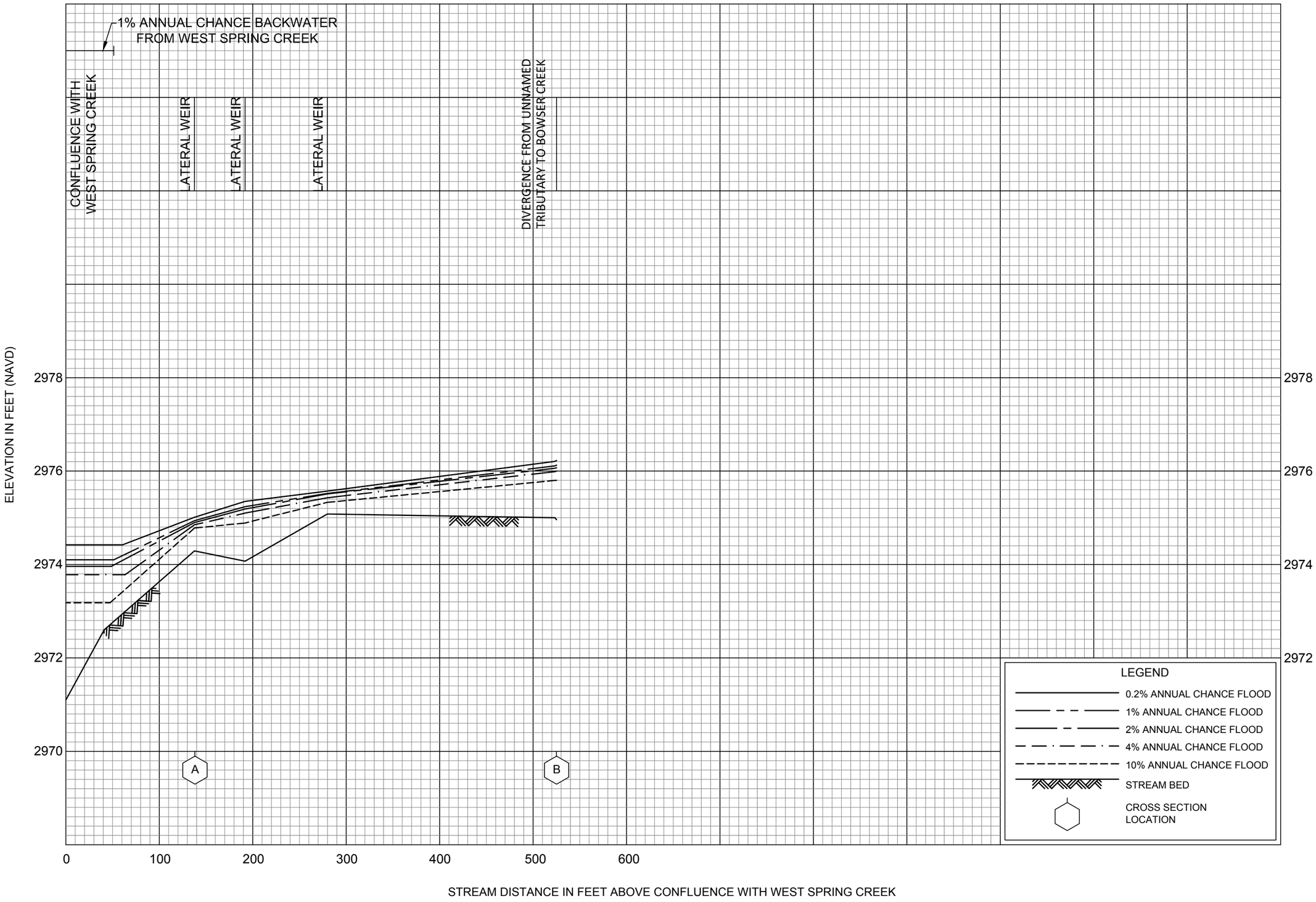
UNNAMED TRIBUTARY TO BOWSER CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

FLATHEAD COUNTY, MT

AND INCORPORATED AREAS

53P



FLOOD PROFILES

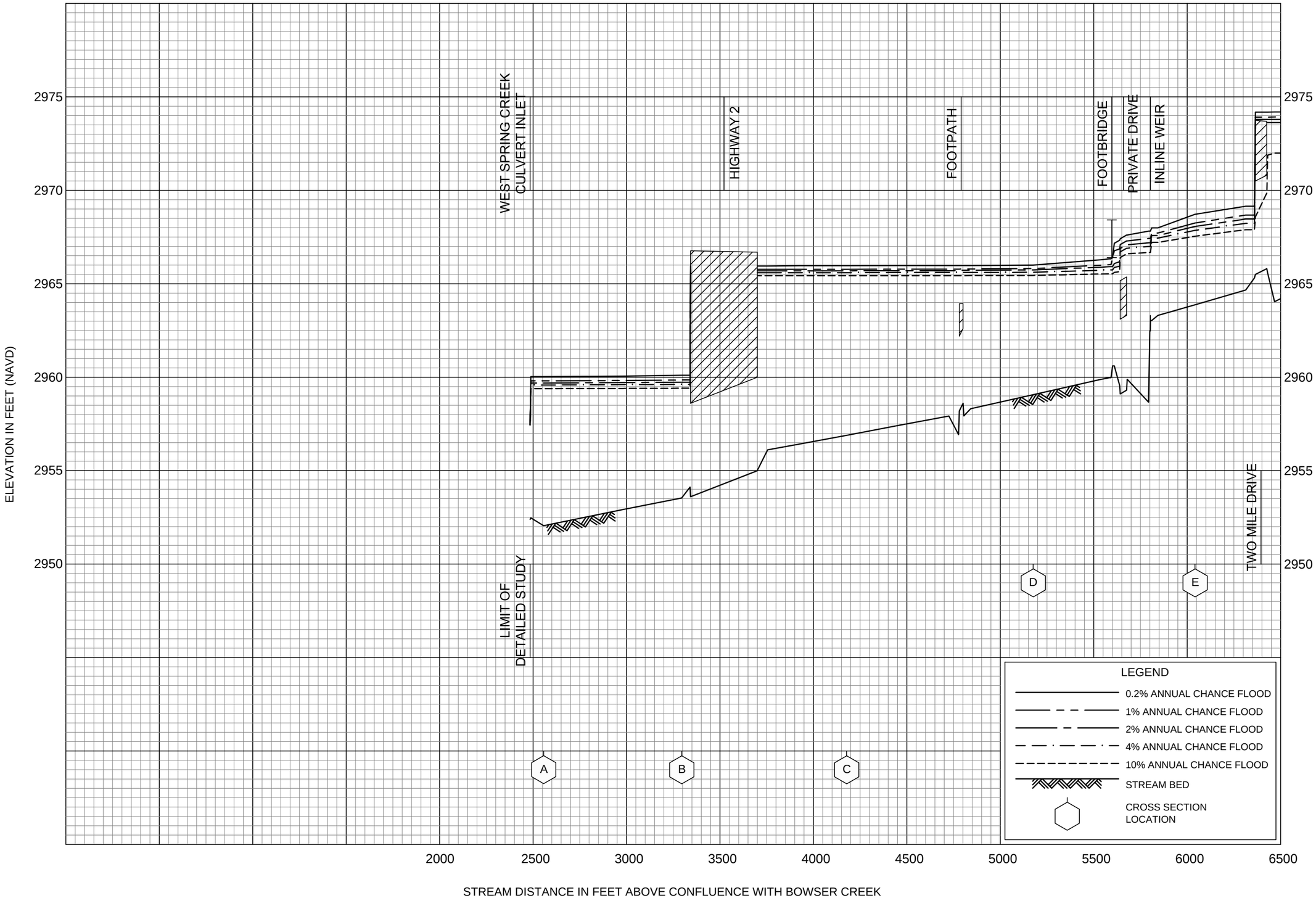
UNNAMED TRIBUTARY TO BOWSER CREEK DIVERTED FLOW

FEDERAL EMERGENCY MANAGEMENT AGENCY

FLATHEAD COUNTY, MT

AND INCORPORATED AREAS

54P



FLOOD PROFILES

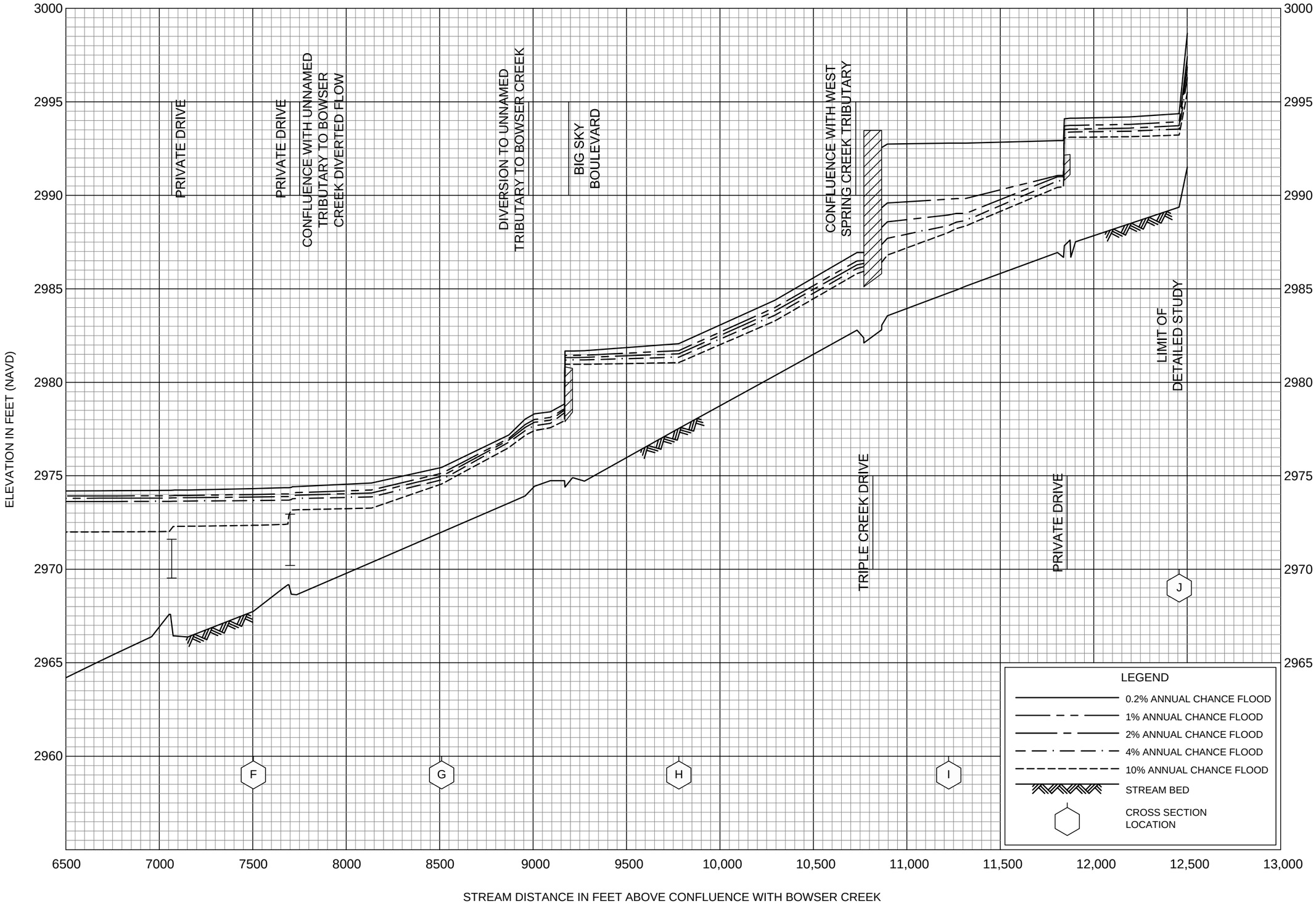
WEST SPRING CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

FLATHEAD COUNTY, MT

AND INCORPORATED AREAS

55P



FLOOD PROFILES

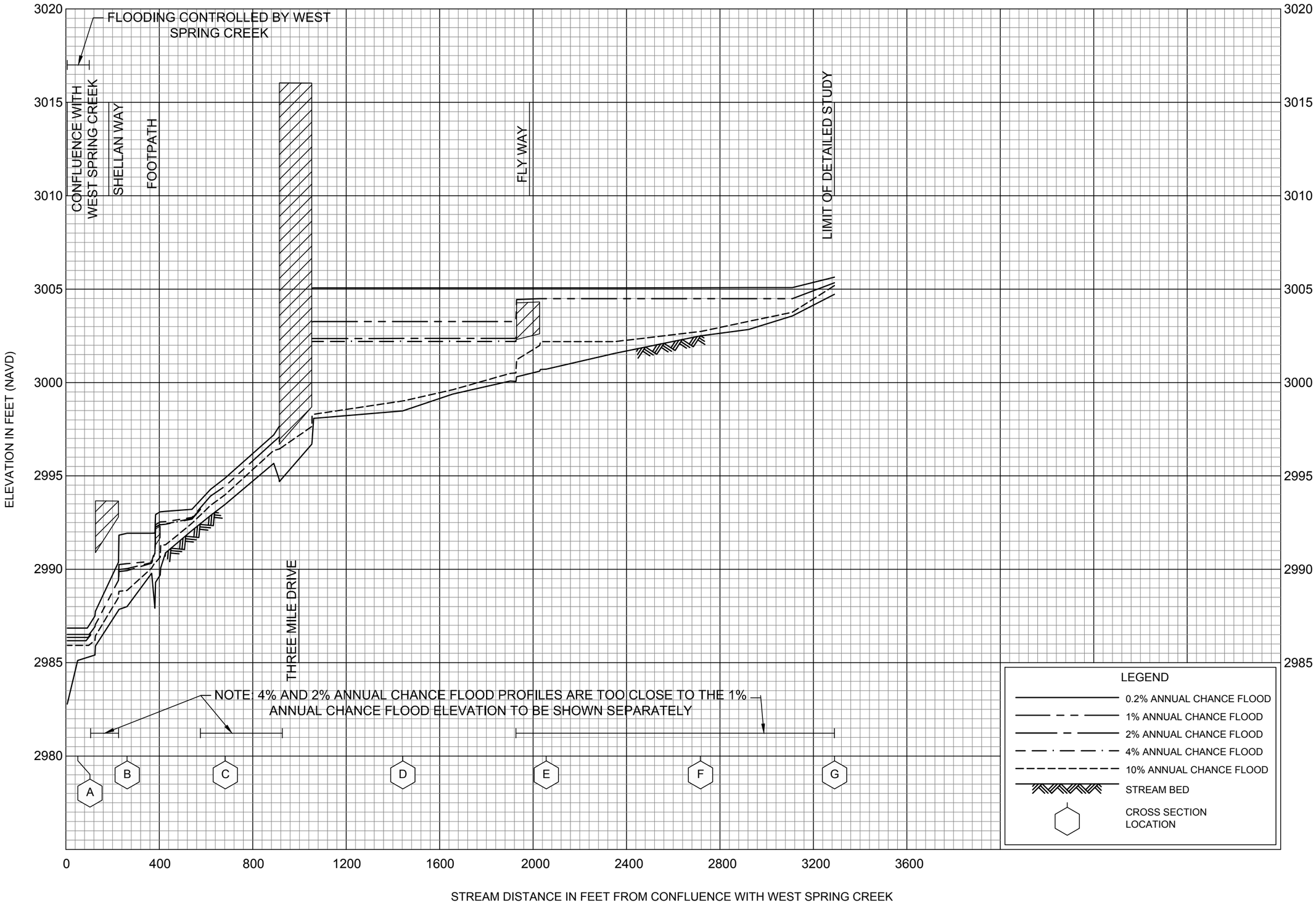
WEST SPRING CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

FLATHEAD COUNTY, MT

AND INCORPORATED AREAS

56P



FLOOD PROFILES

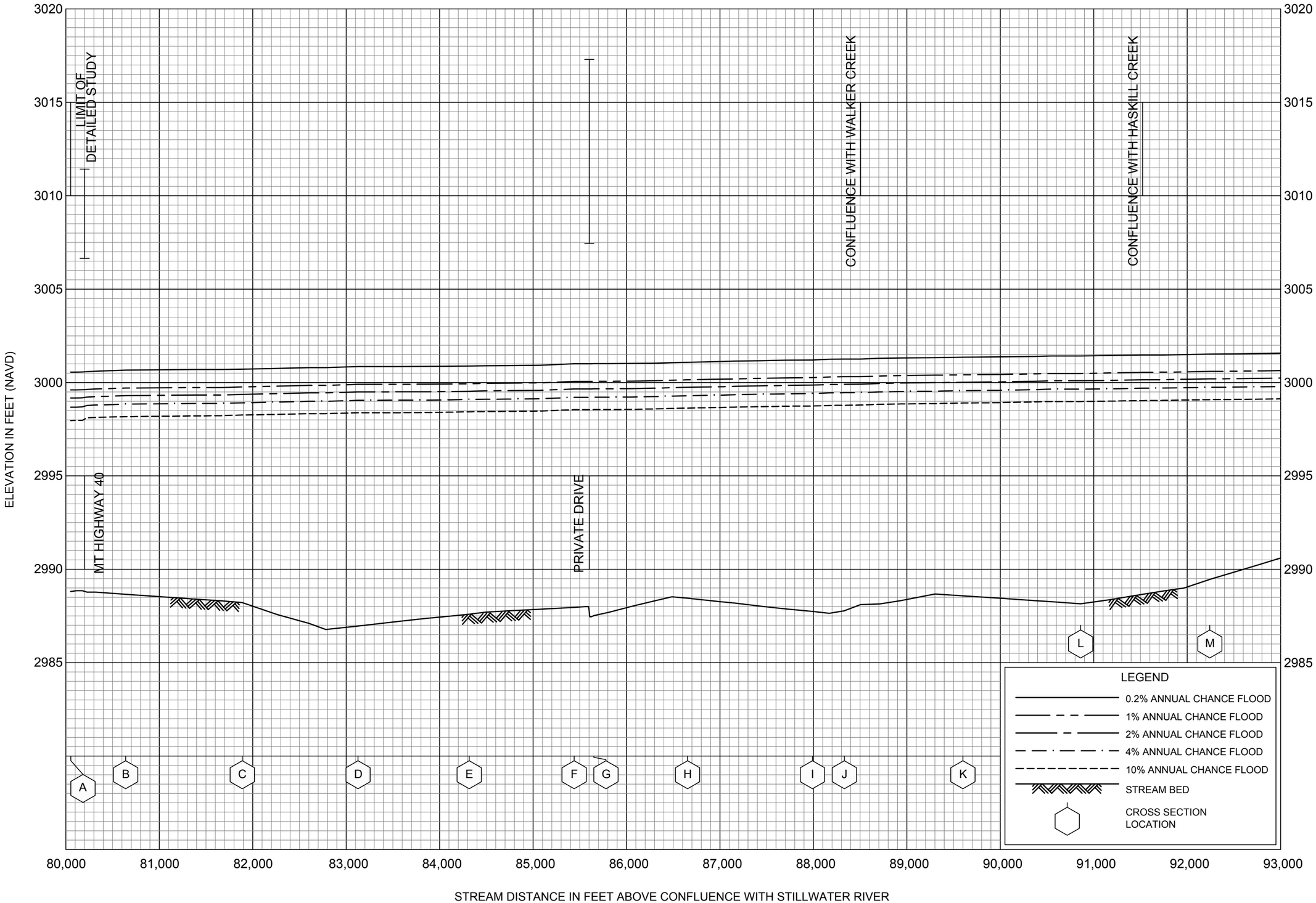
WEST SPRING CREEK TRIBUTARY

FEDERAL EMERGENCY MANAGEMENT AGENCY

FLATHEAD COUNTY, MT

AND INCORPORATED AREAS

57P



FLOOD PROFILES

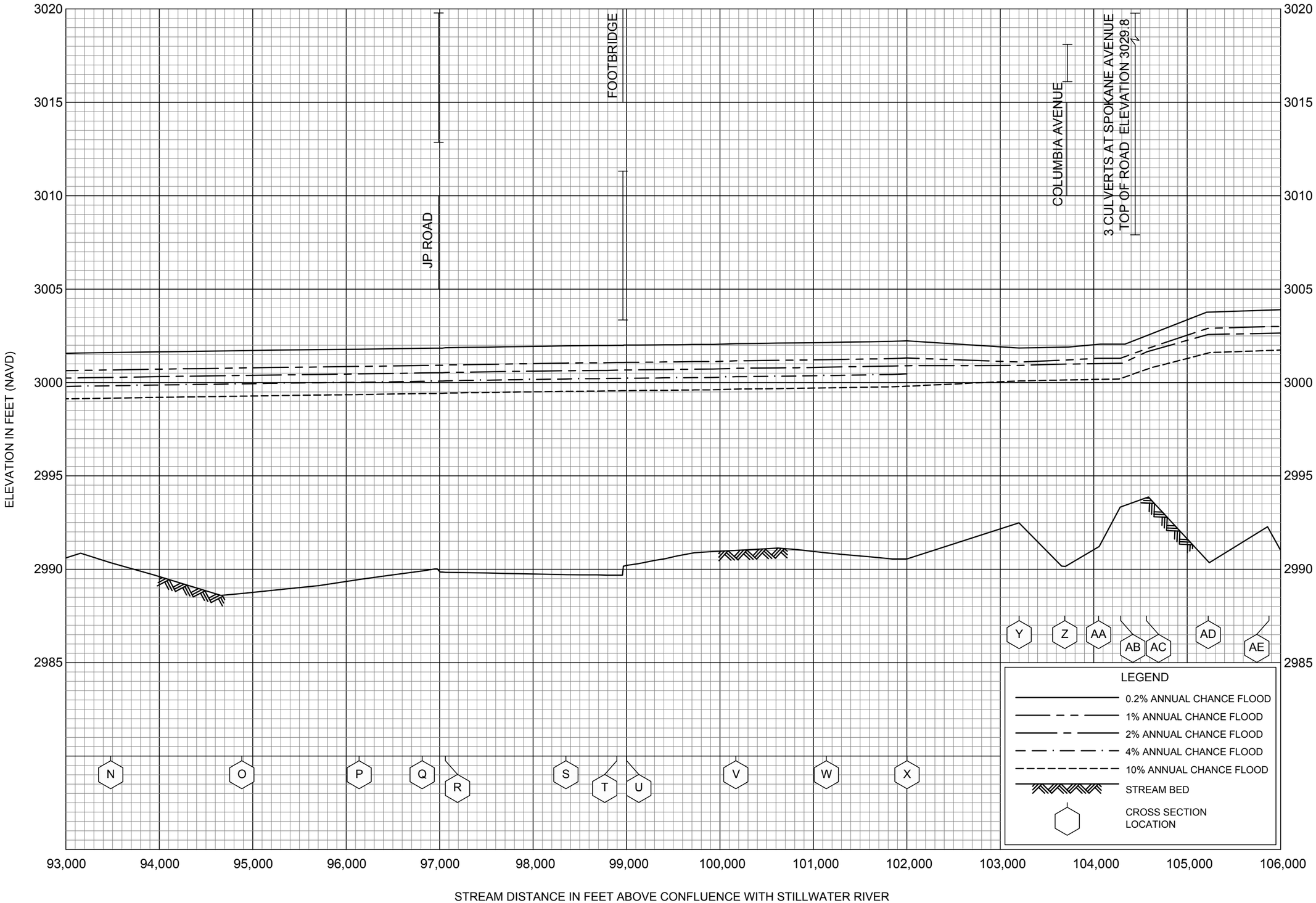
WHITEFISH RIVER AT WHITEFISH

FEDERAL EMERGENCY MANAGEMENT AGENCY

FLATHEAD COUNTY, MT

AND INCORPORATED AREAS

58P



FLOOD PROFILES

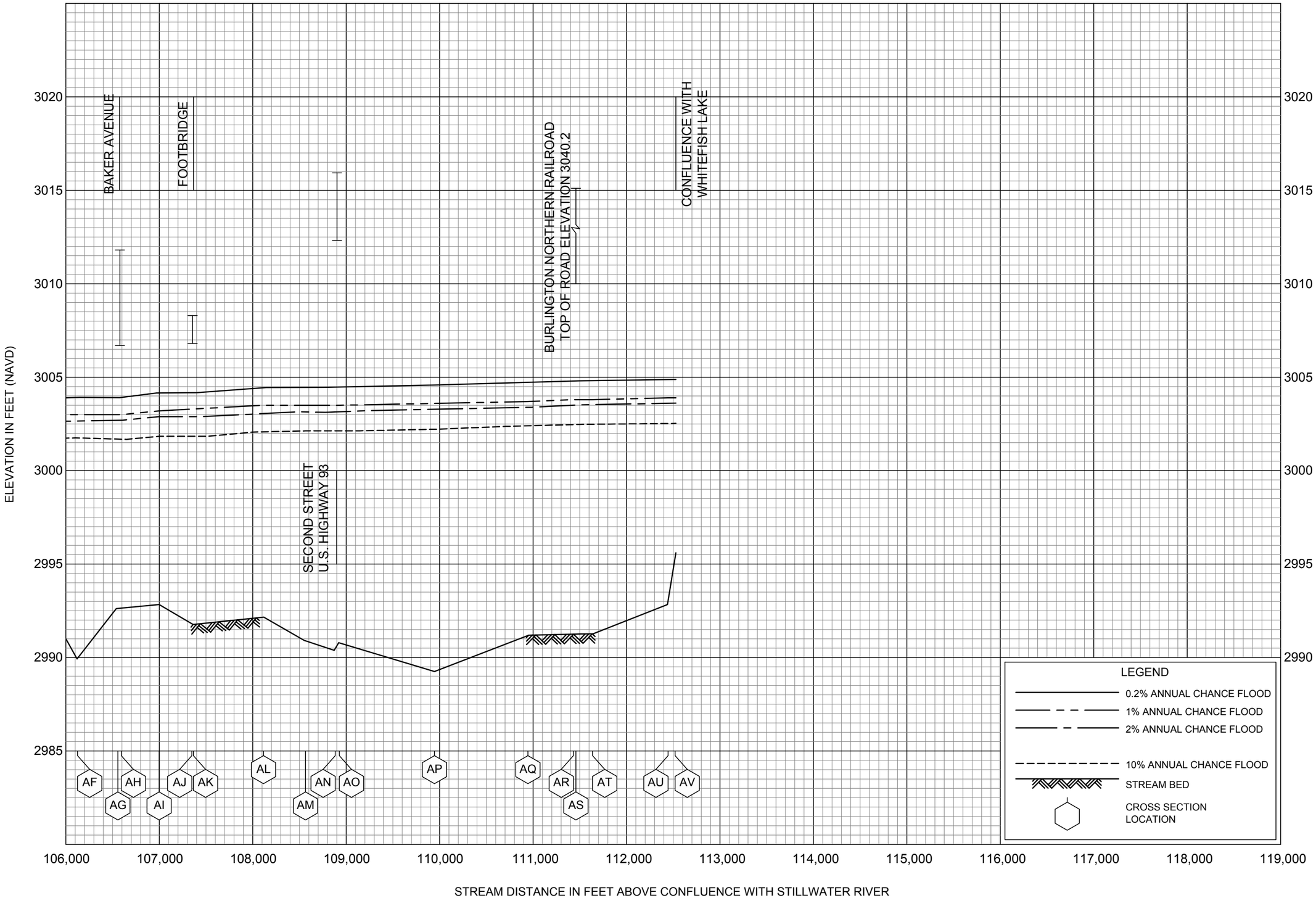
WHITEFISH RIVER AT WHITEFISH

FEDERAL EMERGENCY MANAGEMENT AGENCY

FLATHEAD COUNTY, MT

AND INCORPORATED AREAS

59P



FLOOD PROFILES

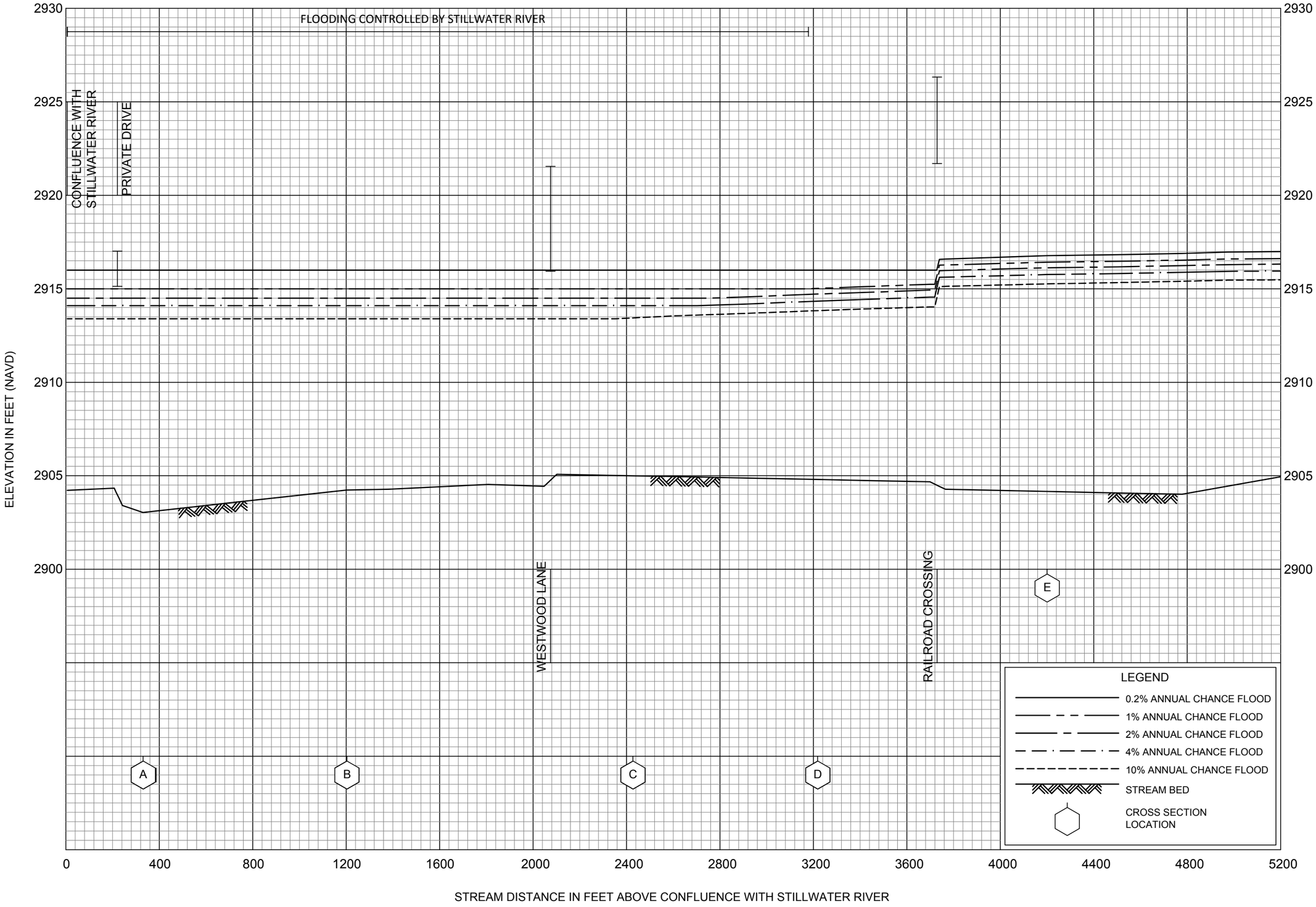
WHITEFISH RIVER AT WHITEFISH

FEDERAL EMERGENCY MANAGEMENT AGENCY

FLATHEAD COUNTY, MT

AND INCORPORATED AREAS

60P



FLOOD PROFILES

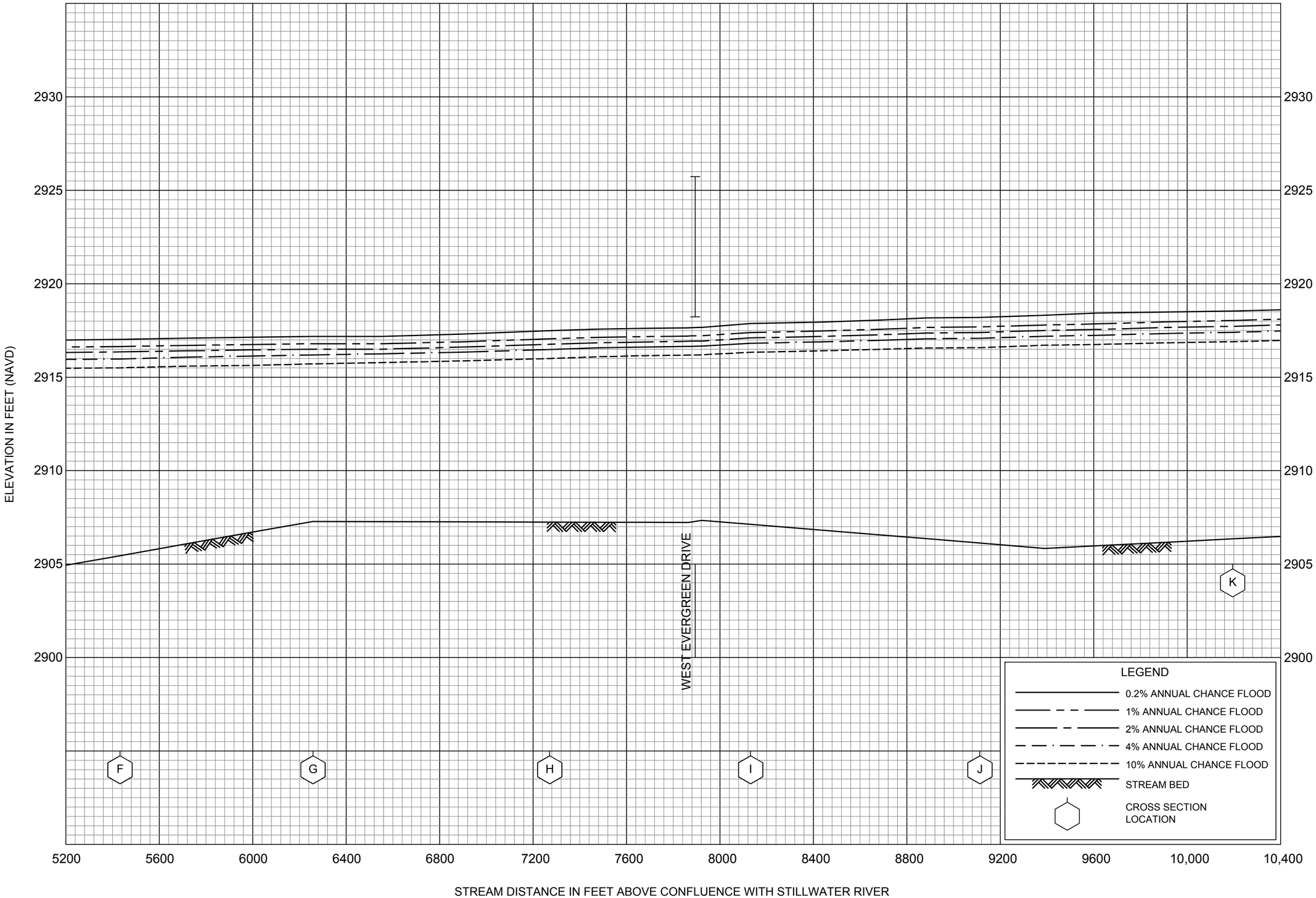
WHITEFISH RIVER NEAR KALISPELL

FEDERAL EMERGENCY MANAGEMENT AGENCY

FLATHEAD COUNTY, MT

AND INCORPORATED AREAS

61P



FLOOD PROFILES

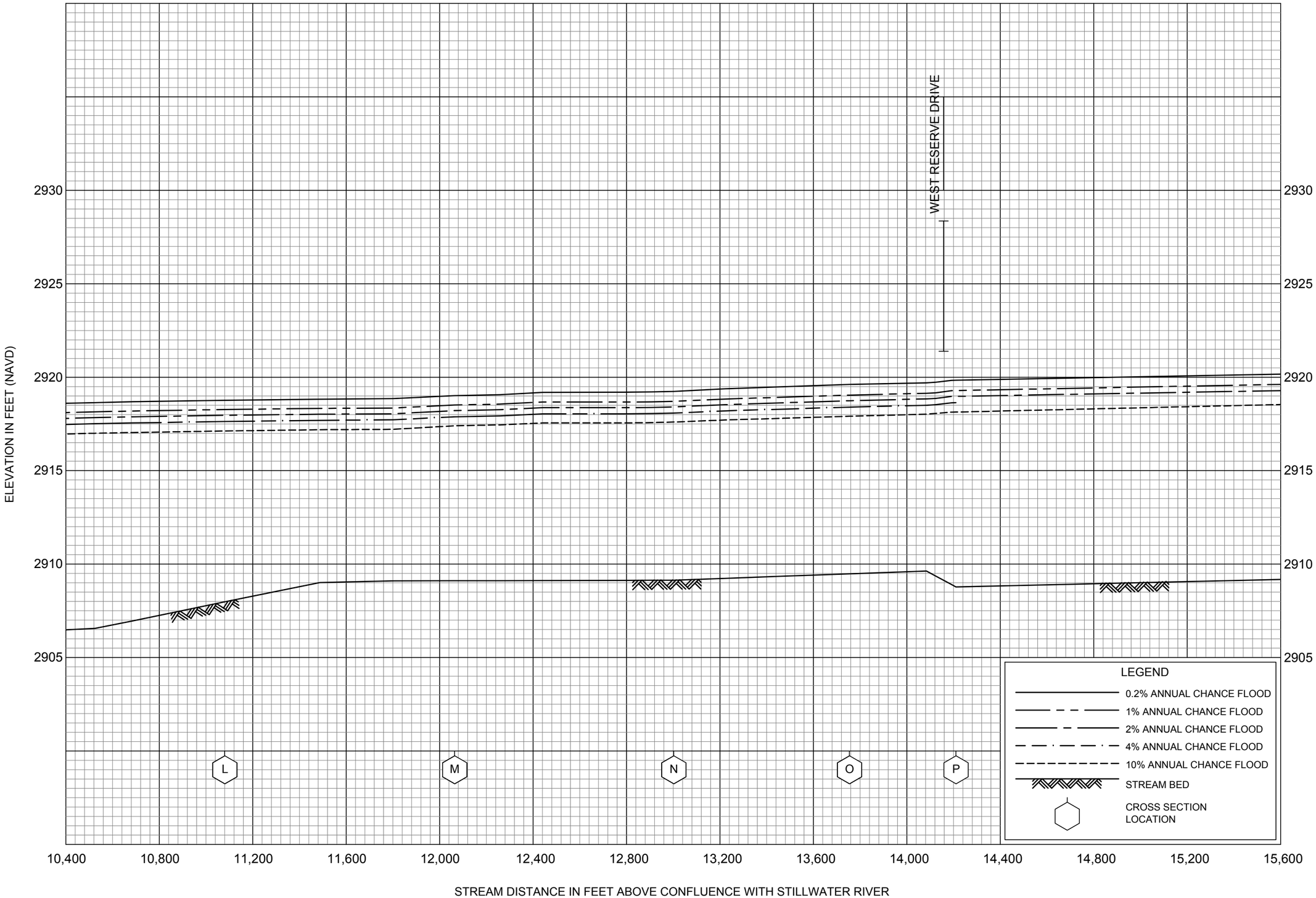
WHITEFISH RIVER NEAR KALISPELL

FEDERAL EMERGENCY MANAGEMENT AGENCY

FLATHEAD COUNTY, MT

AND INCORPORATED AREAS

62P



FLOOD PROFILES

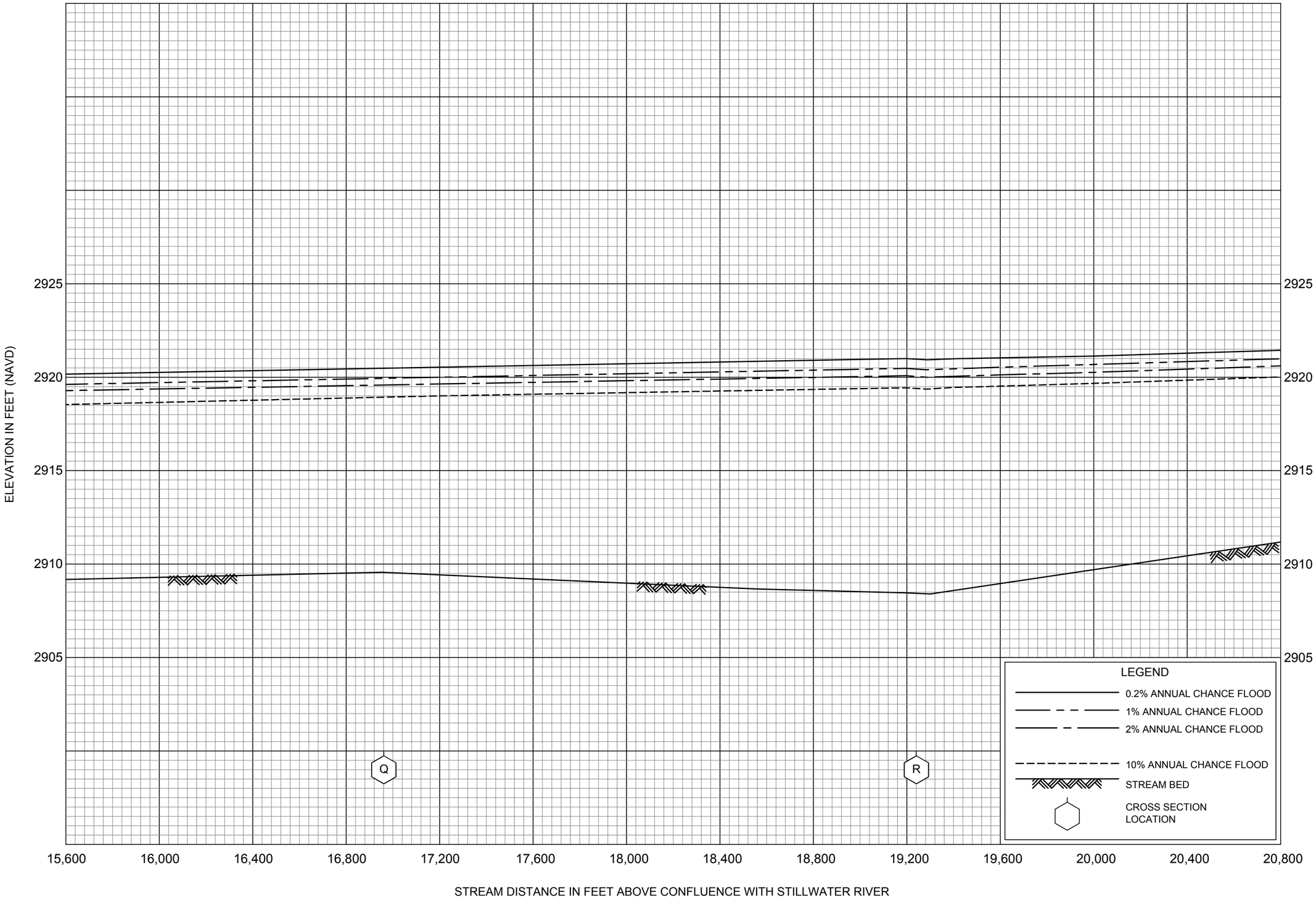
WHITEFISH RIVER NEAR KALISPELL

FEDERAL EMERGENCY MANAGEMENT AGENCY

FLATHEAD COUNTY, MT

AND INCORPORATED AREAS

63P



FLOOD PROFILES

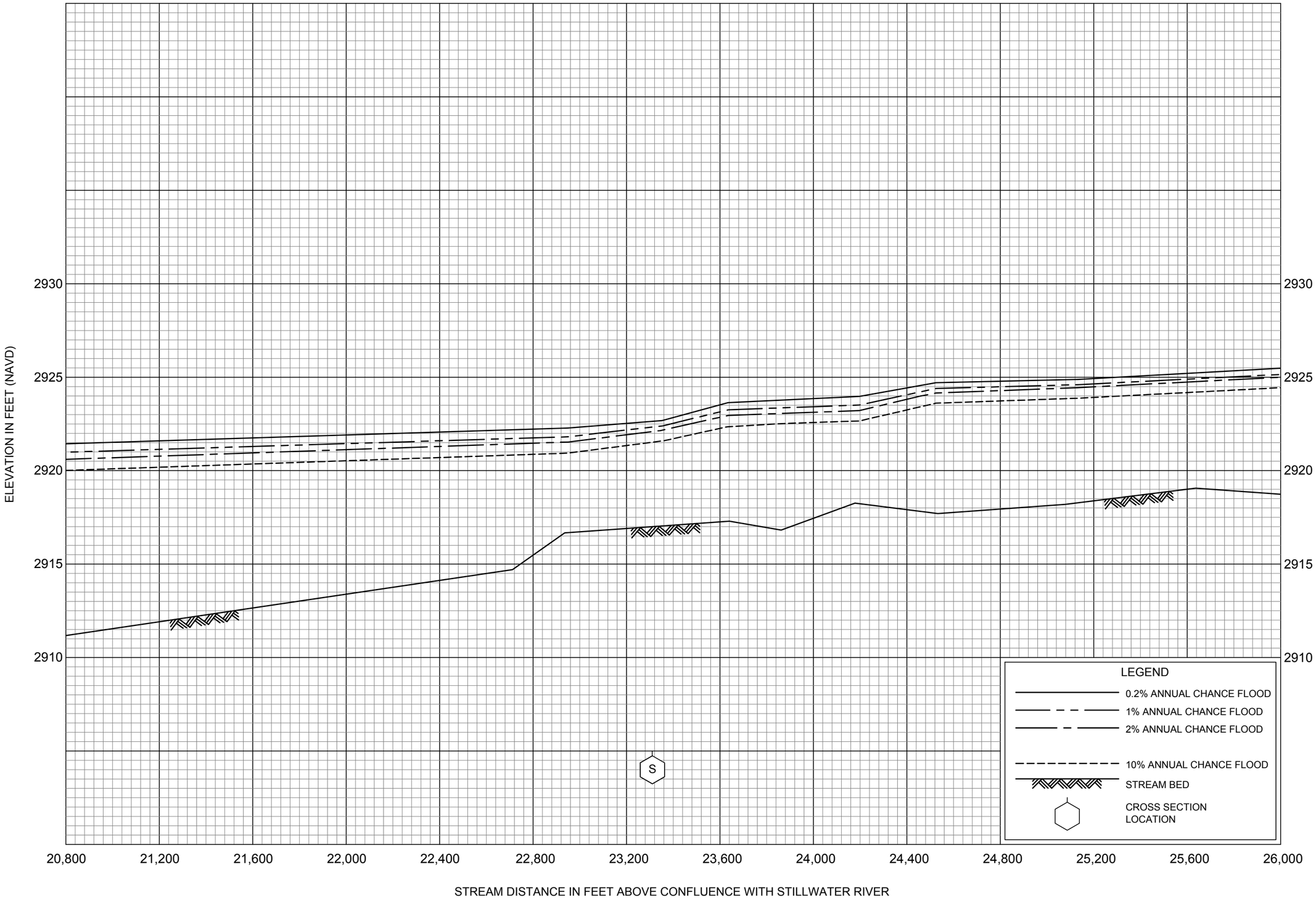
WHITEFISH RIVER NEAR KALISPELL

FEDERAL EMERGENCY MANAGEMENT AGENCY

FLATHEAD COUNTY, MT

AND INCORPORATED AREAS

64P



FLOOD PROFILES

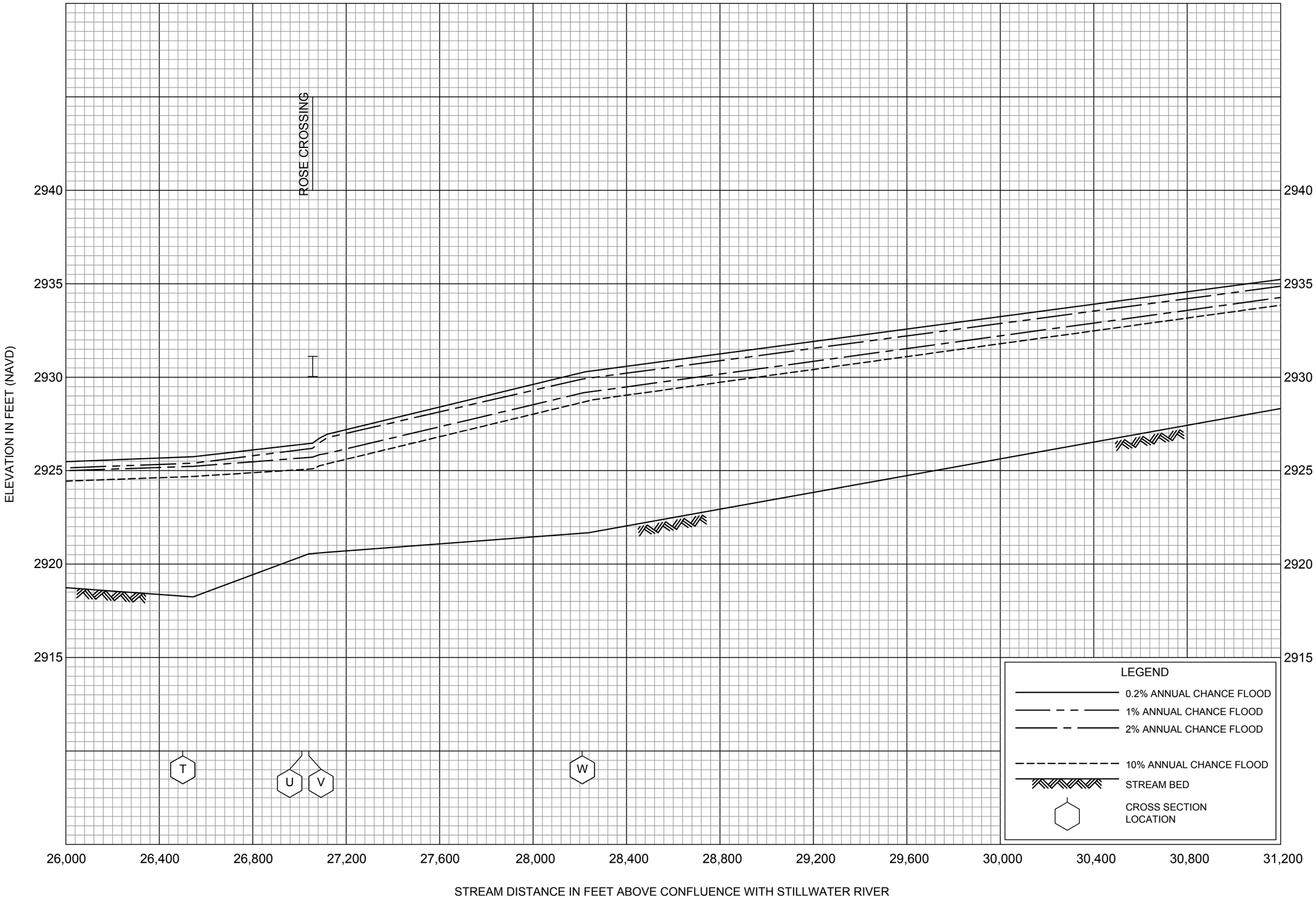
WHITEFISH RIVER NEAR KALISPELL

FEDERAL EMERGENCY MANAGEMENT AGENCY

FLATHEAD COUNTY, MT

AND INCORPORATED AREAS

65P



FLOOD PROFILES

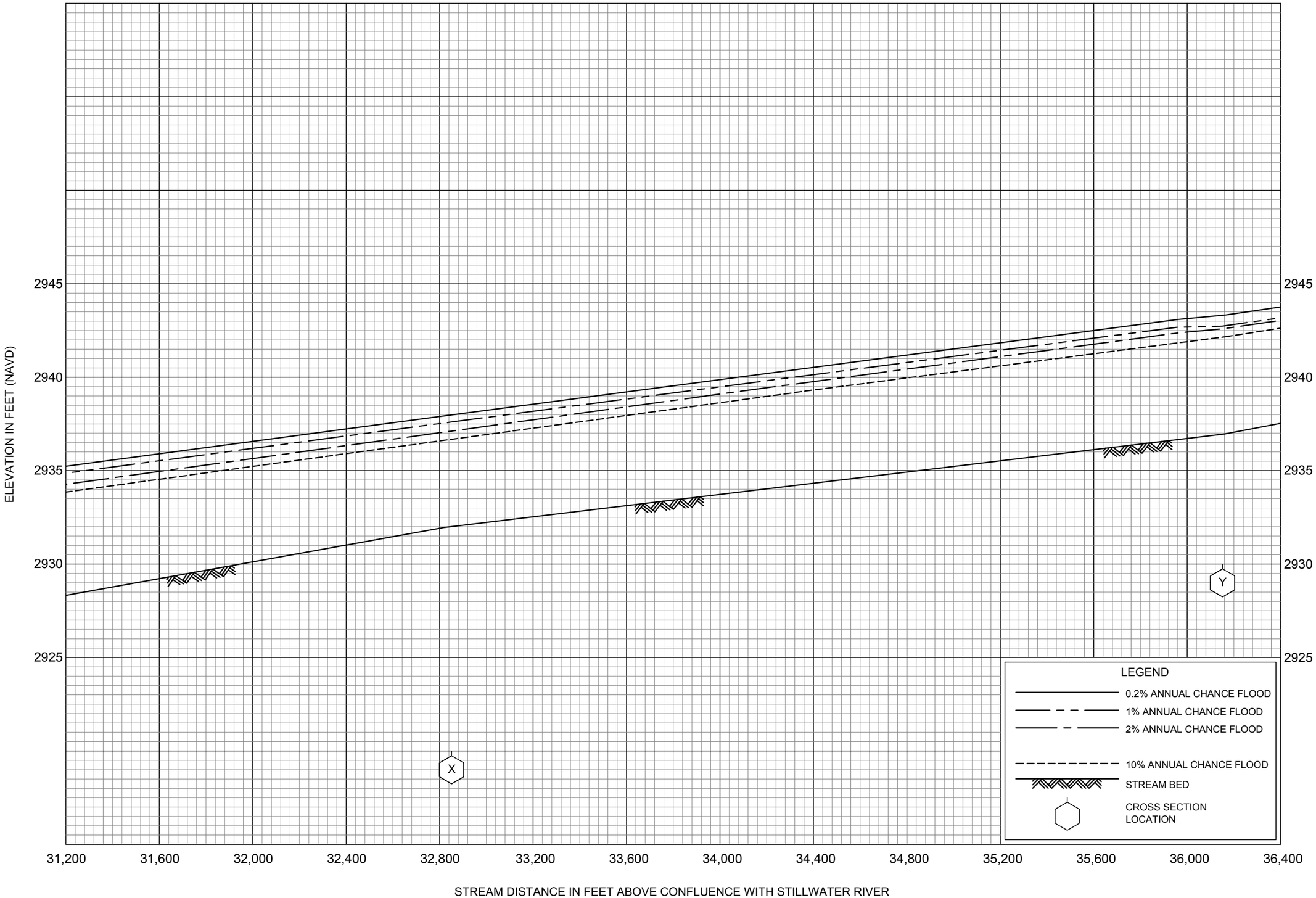
WHITEFISH RIVER NEAR KALISPELL

FEDERAL EMERGENCY MANAGEMENT AGENCY

FLATHEAD COUNTY, MT

AND INCORPORATED AREAS

66P



FLOOD PROFILES

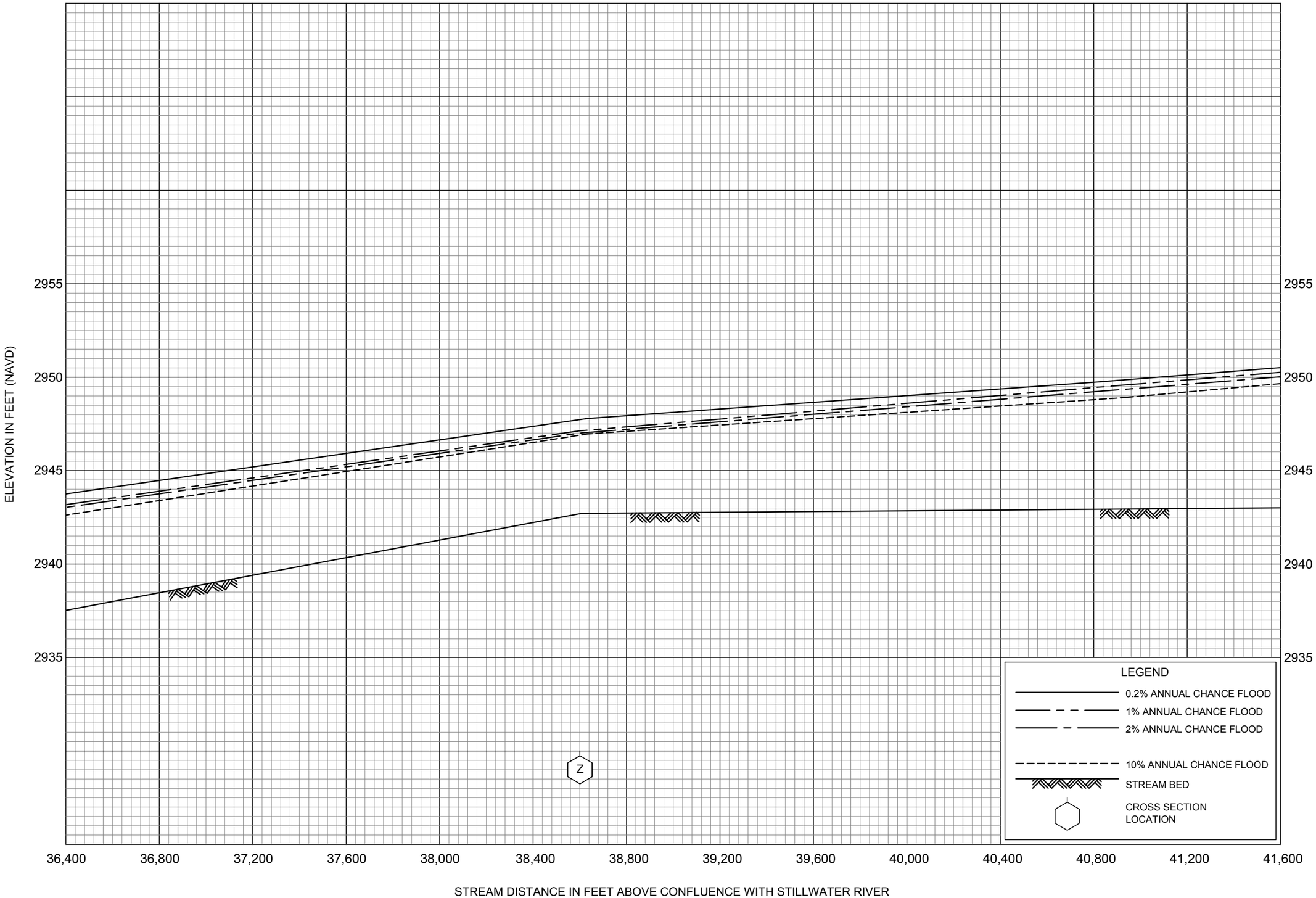
WHITEFISH RIVER NEAR KALISPELL

FEDERAL EMERGENCY MANAGEMENT AGENCY

FLATHEAD COUNTY, MT

AND INCORPORATED AREAS

67P



FLOOD PROFILES

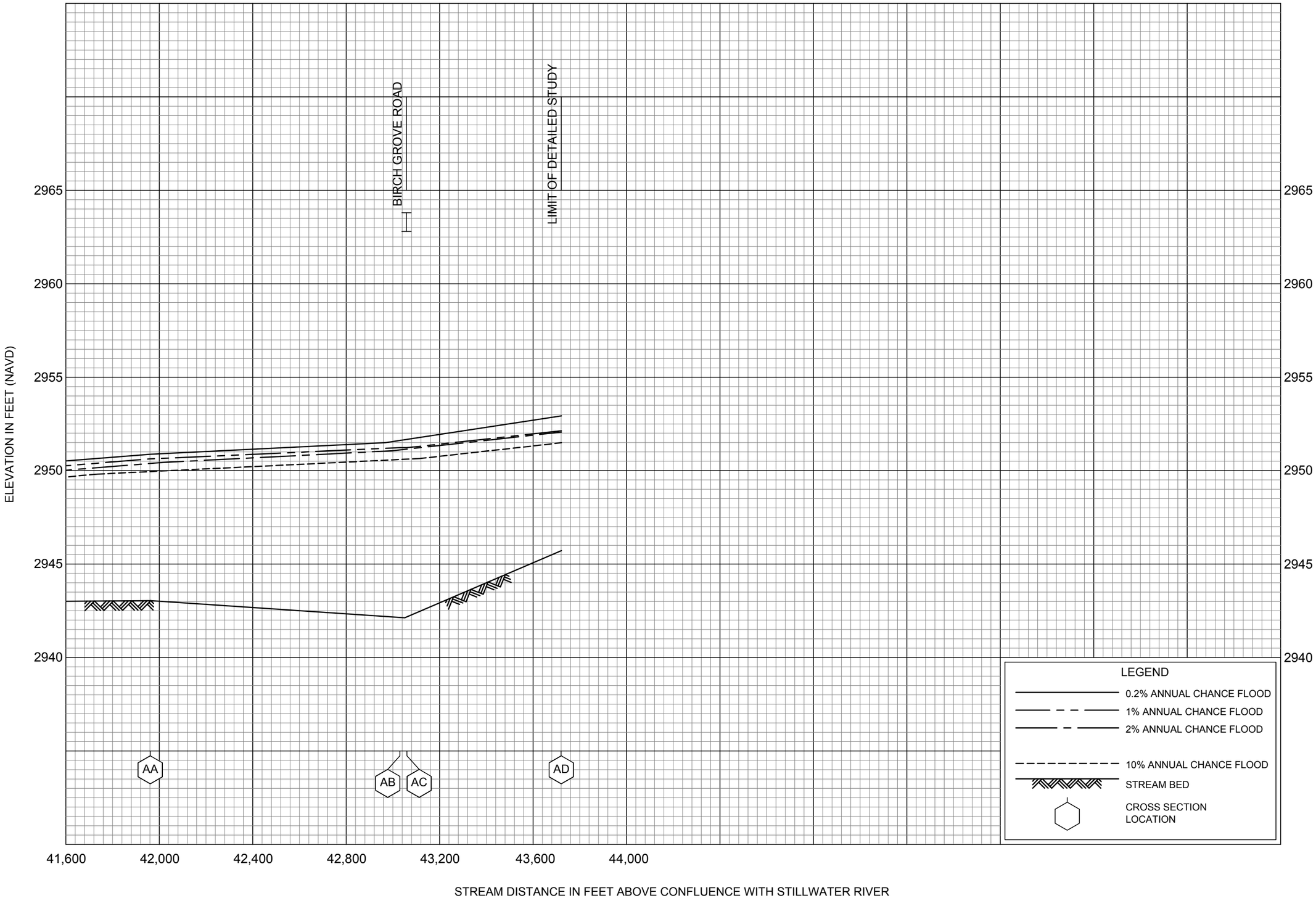
WHITEFISH RIVER NEAR KALISPELL

FEDERAL EMERGENCY MANAGEMENT AGENCY

FLATHEAD COUNTY, MT

AND INCORPORATED AREAS

68P



FLOOD PROFILES

WHITEFISH RIVER NEAR KALISPELL

FEDERAL EMERGENCY MANAGEMENT AGENCY

FLATHEAD COUNTY, MT

AND INCORPORATED AREAS

69P

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P.O. Box 158 • Whitefish, MT 59937 • (406) 863-2400 • Fax: (406) 863-2419

September 15, 2015

Mayor Muhlfeld and City Councilors
City of Whitefish
Whitefish, Montana

2015 Annual Rate and Fee Adjustments for the Water, Wastewater and Solid Waste Utilities

Introduction/History

The City Council adopted Resolution 13-29 on October 7, 2013. This resolution stipulates that water and sewer rates shall be automatically adjusted on October 1st of each year based on the Consumer Price Index for Water, Sewer and Trash Collection Services. These numbers are reported by the U.S. Department of Labor each December for the twelve-month period ending December 31 of the preceding year.

Resolution 13-29 also stipulates that solid waste collection fees shall be automatically increased by 3% on October 1st each year through 2016, corresponding with our current service contract with North Valley Refuse. A copy of Resolution 13-29 is attached.

Current Report

Annual inflationary rate adjustments allow revenues to keep pace with steadily rising costs for many items such as labor, equipment, and materials. Relatively small periodic increases help mitigate the impact of abrupt rate hikes that might otherwise be necessary to catch up with inflation or to finance major capital projects.

A table from the Bureau of Labor Statistics' report on the Consumer Price Index for All Urban Customers is attached, indicating the CPI for Water, Sewer and Trash Collection Services for the 12 month period ending December 2014 was **4.6%**. Based on the language set forth in Resolution 13-29, water and wastewater services rates and charges shall therefore be increased by 4.6%, as shown on the attached rate schedule, which becomes effective October 1, 2015.

These water and sewer rate increases will result an additional charge of approximately $3.98 per month for a typical residential customer and are estimated to generate additional annual revenues of $132,250 and $110,400 for the Water and Wastewater Funds, respectively.

Also in accordance with Resolution 13-29, garbage collection services rates and charges will be increased by 3.0%, as shown on the attached rate schedule, which becomes effective October 1, 2015. It should be noted that there was a formula error in the rate matrix which resulted in some of the rates shown on the previous year's rate table being slightly off. These discrepancies only affected a small percentage of customers who had multiple containers. The rate table for 2015-2016 has been corrected and any customers who were overcharged based on the previous rate table will be credited accordingly.

This annual 3% increase will result in an additional charge of approximately $0.27 per month for a typical residential customer and generate roughly $24,147 in additional annual revenue for the Solid Waste Fund.

A copy of the FY 16 Budget Summary is attached for reference purposes. Please note, the beginning cash, revenue, and ending cash values for the Water, Wastewater, and Solid Waste Funds do not reflect these increased rates and fees.

Financial Requirement

This matter does not involve a financial requirement for the Water or Wastewater Funds, although significant consequences could result if effective revenues were allowed to decline due to inflation.

Likewise, this matter does not involve a financial requirement for the Solid Waste Fund, although the 3% increase in user fees, corresponding to the 3% increase in payments to our contract hauler, will allow us to maintain cash reserves.

Recommendation

In accordance with Resolution 13-29, should City Council accept these automatic rate and fee increases for the Water, Wastewater and Solid Waste Funds, no action is necessary. If the Council chooses to reduce or forego any of these changes, they can so direct staff and a new resolution can be prepared for consideration at the October 5, 2015 City Council meeting.

Sincerely,

Craig C. Workman, P.E.
Director of Public Works

RESOLUTION NO. 13-29

A Resolution of the City Council of the City of Whitefish, Montana, specifying rate increases for water, wastewater and garbage collection services beginning October 1, 2013.

WHEREAS, as established by Resolution Nos. 06-51 and 07-12, on October 1 of every year, the City water and wastewater rates and charges are to be automatically increased, based on the increase, if any, in the U.S. Department of Labor's Water, Sewer and Trash Collection Services Consumer Price Index for All Urban Consumers (Consumer Price Index) for the twelve-month period ending the preceding December 31; and

WHEREAS, as established by Resolution No. 11-52, beginning on October 1, 2012, and continuing through October 31, 2016, the four-year term of the City's agreement with Montana Waste Systems, Inc., d/b/a North Valley Refuse, the City garbage collection rates and charges are to be automatically increased by 3% annually; and

WHEREAS, during the September 16, 2013 Regular Meeting, the City Council was notified of the 5.7% rate increase in the Consumer Price Index and discussed whether to implement the 2013 automatic annual inflationary rate increases of 5.7% for water and wastewater services, and 3% for garbage collection services, in order to generate adequate funds to operate the utilities and charge each customer class their fair share of the costs; and

WHEREAS, under Title 69, Chapter 7 of the Montana Code Annotated, and under the terms of City Resolution Nos. 06-51, 07-21, and 11-52, the City of Whitefish is authorized to regulate the City's municipal water, wastewater, and garbage collection rates and charges and to change such rates and charges as may be deemed by the City Council to be reasonable and just; and

WHEREAS, at a lawfully noticed hearing on October 7, 2013, after receiving public comment and reviewing staff reports, and having considered the 5.7% increase of the Consumer Price Index, the study of the cost of water and wastewater services, and forecasted expenses, the Whitefish City Council determined that beginning October 1, 2013, the municipal water and wastewater rate increases would be 5.7%, and the garbage collection rate increase would be 3%; and

WHEREAS, beginning October 1, 2014, and continuing thereafter, the City water and wastewater services rates and charges will be automatically increased, based on the increase, if any, in the Consumer Price Index, as provided by Resolution Nos. 06-51 and 07-12.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Whitefish, Montana, as follows:

Section 1: Those rates and charges as reflected on Exhibit "A", attached hereto and incorporated herein by reference, are hereby adopted and approved by the City Council of

the City of Whitefish and shall be implemented for water, wastewater, and garbage collection services billed after October 1, 2013.

Section 2: In addition to the rate increase reflected on the attached Exhibit, on October 1 of every year, beginning October 1, 2014, and continuing thereafter indefinitely, the City water and wastewater services rates and charges will be automatically increased, based on the increase, if any, in the Consumer Price Index, all as provided by Resolution Nos. 06-51 and 07-12. The City Council will be notified of the amount of the increase based on the Consumer Price Index.

Section 3: In addition to the rate increase reflected on the attached Exhibit, on October 1, 2014, and continuing through October 31, 2016, the term of the City's agreement with Montana Waste Systems, Inc., d/b/a North Valley Refuse, the City garbage collection services rates and charges will be automatically increased by 3% annually.

Section 4: This Resolution shall take effect immediately upon its adoption by the City Council, and signing by the Mayor thereof.

Section 5: Once this Resolution becomes final, the City Public Works Department is authorized and directed to implement the adjustments reflected in the attached Exhibit, and the automatic increases described in Sections 2 and 3 above.

PASSED AND ADOPTED BY THE CITY COUNCIL OF THE CITY OF WHITEFISH, MONTANA, ON THIS 7TH DAY OF OCTOBER, 2013.

John M. Muhlfeld, Mayor

ATTEST:

Necile Lorang, City Clerk

Table 3. Consumer Price Index for all Urban Consumers (CPI-U): U.S. city average, detailed expenditure categories -Continued

(1982-84=100, unless otherwise noted)

Item and Group	Relative importance, December 2013	Unadjusted indexes		Unadjusted percent change to Dec. 2014 from—		Seasonally adjusted percent change from—		
		Nov. 2014	Dec. 2014	Dec. 2013	Nov. 2014	Sep. to Oct.	Oct. to Nov.	Nov. to Dec.
Expenditure category								
Other food away from home [1 2]	.315	174.653	174.949	2.0	0.2	-0.1	0.2	0.2
Alcoholic beverages	1.010	239.551	238.856	1.3	-.3	.1	.8	-.3
Alcoholic beverages at home	.597	198.337	197.387	.7	-.5	-.2	1.0	-.4
Beer, ale, and other malt beverages at home	.274	215.680	215.011	.7	-.3	-.1	.7	-.3
Distilled spirits at home	.073	193.336	192.522	.9	-.4	.3	.5	.0
Whiskey at home [3]	-	206.725	206.904	1.5	.1	.2	-.2	.1
Distilled spirits, excluding whiskey, at home [1 3]	-	186.918	186.376	.8	-.3	.1	.0	-.3
Wine at home	.250	169.873	168.717	.6	-.7	-.6	1.5	-.4
Alcoholic beverages away from home [1]	.412	328.088	328.025	2.2	.0	.5	.5	.0
Beer, ale, and other malt beverages away from home [1 2 3]	-	162.254	162.107	2.1	-.1	.2	.6	-.1
Wine away from home [1 2 3]	-	177.064	177.053	2.0	.0	.1	.7	.0
Distilled spirits away from home [1 2 3]	-	173.416	173.488	2.2	.0	.7	.4	.0
Housing	41.448	234.315	234.658	2.5	.1	.2	.2	.2
Shelter	32.029	273.233	273.598	2.9	.1	.2	.3	.2
Rent of primary residence [6]	6.977	280.123	280.874	3.4	.3	.2	.3	.2
Lodging away from home [2]	.795	141.711	138.799	6.3	-2.1	.7	.0	.2
Housing at school, excluding board [6 7]	.169	502.248	502.226	2.7	.0	.4	.2	.3
Other lodging away from home including hotels and motels	.626	289.430	281.985	7.3	-2.6	.8	-.1	.2
Owners' equivalent rent of residences [6 7]	23.900	280.840	281.288	2.6	.2	.2	.2	.2
Owners' equivalent rent of primary residence [6 7]	22.505	280.811	281.261	2.6	.2	.2	.2	.2
Tenants' and household insurance [1 2]	.358	143.657	144.970	5.6	.9	-.1	.1	.9
Fuels and utilities	5.158	229.680	231.150	3.0	.6	-.1	-.1	.6
Household energy	3.980	195.703	197.092	2.5	.7	-.4	-.4	.6
Fuel oil and other fuels [1]	.275	313.270	297.829	-13.7	-4.9	-2.3	-2.0	-4.9
Fuel oil [1]	.173	329.681	303.844	-19.1	-7.8	-4.0	-3.5	-7.8
Propane, kerosene, and firewood [8]	.102	343.747	342.350	-4.6	-.4	-.5	-1.8	-1.4
Energy services [6]	3.705	197.459	199.592	3.7	1.1	-.2	-.3	1.0
Electricity [6]	2.872	202.889	204.275	3.1	.7	.5	.1	.8
Utility (piped) gas service [6]	.834	178.558	182.908	5.8	2.4	-2.7	-1.7	1.5
Water and sewer and trash collection services [2]	1.177	208.562	209.414	4.6	.4	.6	.7	.6
Water and sewerage maintenance [6]	.902	478.295	480.698	5.6	.5	.8	.9	.7
Garbage and trash collection [1 9]	.275	427.808	428.187	1.4	.1	.2	.0	.1
Household furnishings and operations	4.262	122.694	122.237	-.9	-.4	.4	-.2	-.3
Window and floor coverings and other linens [1 2]	.278	62.881	61.338	-3.6	-2.5	-.3	-.6	-2.5
Floor coverings [1 2]	.047	108.083	107.817	.8	-.2	-1.2	-.7	-.2
Window coverings [1 2]	.055	74.646	72.199	-2.3	-3.3	-.1	3.4	-3.3
Other linens [1 2]	.176	49.425	48.044	-5.2	-2.8	-.1	-1.9	-2.8
Furniture and bedding [1]	.787	114.649	114.983	-1.6	.3	.7	.1	.3
Bedroom furniture [1]	.276	131.716	131.275	-2.4	-.3	.0	-.2	-.3
Living room, kitchen, and dining room furniture [1 2]	.373	86.708	87.322	-1.9	.7	1.4	.3	.7
Other furniture [2]	.128	73.983	74.289	.8	.4	-.1	-1.1	.0
Infants' furniture [1 3 5]	-	NA	NA	-	-	-	-	-
Appliances [2]	.288	80.329	79.679	-5.2	-.8	.2	-1.3	-.6
Major appliances [2]	.159	88.506	88.705	-6.9	.2	-.2	-2.5	.3
Laundry equipment [3]	-	99.073	99.811	-7.4	.7	-.7	-4.4	1.3
Other appliances [1 2]	.124	69.216	67.795	-3.1	-2.1	.4	-.1	-2.1
Other household equipment and furnishings [2]	.503	59.857	59.145	-3.9	-1.2	.3	-1.1	-.9
Clocks, lamps, and decorator items [1]	.275	48.551	47.754	-5.8	-1.6	.8	-1.8	-1.6
Indoor plants and flowers [10]	.106	126.548	127.435	1.9	.7	.0	.9	.3
Dishes and flatware [1 2]	.045	54.652	52.681	-6.7	-3.6	-.5	-3.8	-3.6
Nonelectric cookware and tableware [2]	.077	92.084	91.257	-3.7	-.9	.8	-1.2	-.5
Tools, hardware, outdoor equipment and supplies [2]	.715	90.966	90.985	.1	.0	.5	-.1	.0
Tools, hardware and supplies [1 2]	.189	100.447	100.822	.8	.4	.2	-.5	.4
Outdoor equipment and supplies [2]	.371	86.487	86.365	-.3	-.1	.9	.1	-.3
Housekeeping supplies [1]	.860	186.940	186.667	-.8	-.1	.6	-.3	-.1
Household cleaning products [1 2]	.343	118.956	119.232	-.9	.2	.7	.4	.2
Household paper products [1 2]	.251	169.410	168.823	-.7	-.3	.2	-.6	-.3
Miscellaneous household products [1 2]	.267	119.198	118.675	-.7	-.4	.8	-.8	-.4
Household operations [1 2]	.831	164.101	163.689	2.8	-.3	.8	.0	-.3
Domestic services [1 2]	.277	154.610	154.837	1.2	.1	.4	.2	.1
Gardening and lawncare services [1 2]	.269	169.012	169.012	4.4	.0	1.6	.0	.0

See footnotes at end of table.

Water & Sewer Rates

(Effective 10/1/2015)

WATER	Proposed		Current	
Rate Code Description	Base	Usage	Base	Usage
Inside City				
IN .625"	$25.66	$4.05	$24.53	$3.87
IN .625" Low Income/Senior	$6.41	$4.05	$6.13	$3.87
IN .750"	$37.88	$4.05	$36.21	$3.87
IN .750" Low Income/Senior	$9.47	$4.05	$9.05	$3.87
IN 1"	$53.75	$4.05	$51.39	$3.87
IN 1" Low Income/Senior	$13.44	$4.05	$12.85	$3.87
IN 1.5"	$164.94	$4.05	$157.69	$3.87
IN 1.5" Low Income/Senior	$41.24	$4.05	$39.43	$3.87
IN 2"	$272.47	$4.05	$260.49	$3.87
IN 3"	$326.23	$4.05	$311.88	$3.87
IN 4"	$538.83	$4.05	$515.13	$3.87
Pressurized Zone				
PZI .625"	$29.32	$5.15	$28.03	$4.92
PZI .625" Low Income/Senior	$7.33	$5.15	$7.01	$4.92
PZI .750"	$43.98	$5.15	$42.05	$4.92
PZI .750" Low Income/Senior	$11.00	$5.15	$10.52	$4.92
PZI 1"	$63.53	$5.15	$60.74	$4.92
PZI 1" Low Income/Senior	$15.89	$5.15	$15.19	$4.92
PZI 1.5"	$177.16	$5.15	$169.37	$4.92
PZI 1.5" Low Income/Senior	$44.29	$5.15	$42.34	$4.92
Outside City				
OUT .625"	$32.99	$5.95	$31.54	$5.69
OUT .625" Low Income/Senior	$8.25	$5.95	$7.89	$5.69
OUT .750"	$47.66	$5.95	$45.56	$5.69
OUT .750" Low Income/Senior	$11.90	$5.95	$11.38	$5.69
OUT 1"	$70.87	$5.95	$67.75	$5.69
OUT 1" Low Income/Senior	$17.71	$5.95	$16.93	$5.69
OUT 1.5"	$191.83	$5.95	$183.39	$5.69
OUT 2"	$317.67	$5.95	$303.70	$5.69
Sprinkler				
.625" IN	$11.00	$2.56	$10.52	$2.45
.625" OUT	$14.66	$4.52	$14.02	$4.32
.625" PZ	$14.66	$3.67	$14.02	$3.51
.750" IN	$15.89	$2.56	$15.19	$2.45
.750" OUT	$20.77	$4.52	$19.86	$4.32
.750" PZ	$21.99	$3.67	$21.02	$3.51
1" IN	$26.88	$2.56	$25.70	$2.45
1" OUT	$34.20	$4.52	$32.70	$4.32
1" PZ	$36.65	$3.67	$35.04	$3.51
1.5" IN	$67.20	$2.56	$64.24	$2.45
1.5" OUT	$86.74	$4.52	$82.93	$4.32
1.5" PZ	$67.20	$3.67	$64.24	$3.51
2" IN	$113.63	$2.56	$108.63	$2.45
2" OUT	$145.40	$4.52	$139.01	$4.32
2" PZ	$113.63	$3.67	$108.63	$3.51
4" IN	$228.48	$2.56	$218.43	$2.45
SPRINKLER MAX (12,000 gallons per month)		$2.56		$2.45

Water & Sewer Rates

(Effective 10/1/2015)

SEWER	Proposed		Current	
Rate Code Description	Base	Usage	Base	Usage
Inside City				
SC-1 IN	$21.64	$3.63	$20.69	$3.47
SC-1 IN Low Income/Senior	$5.41	$3.63	$5.17	$3.47
LAUNDRY	$21.64	$3.63	$20.69	$3.47
SC-2 IN	$37.85	$6.45	$36.19	$6.17
SC-2 IN Low Income/Senior	$9.48	$6.45	$9.06	$6.17
SC-3 IN	$44.14	$9.06	$42.20	$8.66
SC-3 IN Low Income/Senior	$11.04	$9.06	$10.55	$8.66
GRINDERS	$55.16	$13.78	$52.73	$13.17
GRINDERS Low Inc/Sr	$13.80	$13.78	$13.19	$13.17
STEP PACK RAT	$57.33	$17.03	$54.81	$16.28
STEP PKRAT Low Inc/Sr	$14.34	$17.03	$13.71	$16.28
Outside City				
SC-1 OUT	$25.28	$5.59	$24.17	$5.34
SC-2 OUT	$42.42	$8.90	$40.55	$8.51
SC-3 OUT	$48.65	$10.77	$46.51	$10.30
STEP REST HAVEN	$61.54	$21.96	$58.83	$20.99
BIG MOUNTAIN	$74.21	$8.90	$70.95	$8.51

Service Class (SC) is determined by number of lift stations and/or complexity of system.

City of Whitefish Solid Waste Collection Rates

RESIDENTIAL CONTAINER RATES

	Frequency - # of Containers and/or # of Pick-ups				
Type/Size	**1**	**2**	**3**	**4**	**5**
1 Container	$ 9.29	$ 16.37	$ 23.46	$ 30.55	$ 37.64
1 Bear Cart	$ 11.20	$ 20.22	$ 29.23	$ 38.25	$ 47.26

COMMERCIAL CONTAINER RATES

	Frequency - # of Containers and/or # of Pick-ups				
Type/Size	**1**	**2**	**3**	**4**	**5**
1 Container	$ 7.09	$ 14.18	$ 21.28	$ 28.37	$ 35.46
1 Bear Cart	$ 9.01	$ 18.03	$ 27.04	$ 36.06	$ 45.07
300 Gallon	$ 24.83	$ 49.65	$ 74.46	$ 99.31	$ 124.13
300 Gal Shared	$ 12.41	$ 24.83	$ 33.33	$ 49.65	$ 62.07
1.5 Yard	$ 51.53	$ 98.75	$ 145.98	$ 193.21	$ 240.43
1.5 Yd Shared	$ 25.77	$ 49.37	$ 72.99	$ 96.60	$ 120.21
2 Yard	$ 57.97	$ 107.85	$ 157.76	$ 207.65	$ 257.53
2 Yd Shared	$ 28.98	$ 53.93	$ 78.87	$ 103.82	$ 128.76
2 Yard Bear	$ 63.91	$ 113.80	$ 163.69	$ 213.58	$ 263.48
2 Yd Bear Shared	$ 31.96	$ 56.90	$ 81.84	$ 106.79	$ 131.73
3 Yard	$ 61.84	$ 113.08	$ 157.76	$ 207.65	$ 257.53
3 Yd Shared	$ 30.91	$ 56.54	$ 82.17	$ 107.80	$ 133.43
3 Yard Bear	$ 68.28	$ 119.53	$ 170.80	$ 222.06	$ 273.31
3 Yd Bear Shared	$ 34.15	$ 59.76	$ 85.40	$ 111.02	$ 136.65
4 Yard	$ 85.01	$ 158.51	$ 232.02	$ 305.52	$ 379.02
4 Yd Shared	$ 42.51	$ 79.26	$ 116.01	$ 152.76	$ 189.51
4 Yard Bear	$ 91.97	$ 165.48	$ 238.99	$ 312.49	$ 385.99
4 Yd Bear Shared	$ 45.98	$ 82.74	$ 119.49	$ 156.24	$ 192.99
6 Yard	$ 113.36	$ 211.49	$ 309.60	$ 407.73	$ 505.86
6 Yd Shared	$ 56.68	$ 105.74	$ 154.80	$ 203.85	$ 252.91
6 Yard Bear	$ 121.41	$ 219.54	$ 317.66	$ 415.78	$ 513.90
6 Yd Bear Shared	$ 60.71	$ 109.76	$ 158.82	$ 207.88	$ 256.94
8 Yard	$ 144.28	$ 270.10	$ 395.92	$ 521.73	$ 647.55
8 Yd Shared	$ 72.13	$ 135.04	$ 197.95	$ 260.85	$ 323.76

For commercial rates, add number of businesses multiplied by $5.50 for the admin charge
All commercial accounts within the City shall be charged a minimum fee of $6.50

GENERAL FEES

Special Pick-Ups (Off Route)

Standard Cart - Per Lift	$ 8.18
Bear Cart-Per Lift	$ 10.11
300 Gallon-Per Lift	$ 25.91
1.5 Yard-Per Lift	$ 25.91
2 Yard-Per Lift	$ 34.20
3 Yard	$ 50.76
4 Yard	$ 54.64
6 Yard	$ 59.01
8 Yard	$ 63.38

Extra Pick-up on Site Outside of Container

Standard-Per Lift	$ 8.18
Bear Cart-Per Lift	$ 10.11
300 Gal-Per Lift	$ 14.64
1.5 Yard-Per Lift	$ 14.64
2 Yard-Per Lift	$ 16.39
3 Yards-Per Lift	$ 17.84
4 Yards-Per Lift	$ 21.70
6 Yards-Per Lift	$ 28.15
8 Yards-Per Lift	$ 34.58

GENERAL FEES-CONTINUED

Change from Regular Cart to Bear Cart:		$	51.53	
New or Additional Cart:	Regular Cart	$	68.96	
	Bear Cart	$	113.52	
Cleaning of Carts:	1st Cart	$	14.21	
	Additional Cart	$	9.83	each
Delivery Fee-Change out 300g thru 8Yd		$	32.62	not applicable to new construction
Damaged Containers:				
Standard Cart		$	110.21	
Bear Cart		$	196.53	
300 Gal		$	557.13	
1Yd to 8Yd Refurbished		$	497.03	
Bear 1 Yd - 8 Yd		$	824.85	

CARDBOARD RATES

	Frequency - # of Containers and/or # of Pick-ups				
Type/Size	**1**	**2**	**3**	**4**	**5**
1.5 Yard	$ 18.75	$ 37.49	$ 56.24	$ 74.98	$ 93.73
2 Yard	$ 18.75	$ 37.49	$ 56.24	$ 74.98	$ 93.73
3 Yard	$ 25.04	$ 50.08	$ 75.11	$ 100.15	$ 125.19
4 Yard	$ 25.04	$ 75.11	$ 75.11	$ 100.15	$ 125.19
6 Yard	$ 31.23	$ 62.47	$ 93.70	$ 124.93	$ 156.17
8 Yard	$ 37.53	$ 75.07	$ 112.60	$ 150.14	$ 187.68

Cardboard Special Pick-ups

2 Yard	$	4.33
3 Yard	$	5.78
4 Yard	$	5.78
6 Yard	$	7.21
8 Yard	$	8.67

Concrete Units	$	11.95	per month per unit
Locks	$	1.60	per month per lock

MWS bills customers directly who have compactors and cardboard recycling .

All overnight or weekly residential rental units shall be charged at commercial rates.

An admin fee per residence is included in the Residential rate. An admin fee of $5.50 per business is not included in the Commercial rate.

Extra collection charges for garbage outside of containers, special pickups, and cleaning of carts are charged the cost of collection billed to the City plus a $1.00 administration fee. The $1.00 is included in rate schedule.

Extra Pick-ups charges will be waived for two weeks after December 25 for residential pickups.

All new accounts requiring service at a location not previously served or accounts requesting additional cart(s) will be assessed a one-time charge of the cost of the cart(s) billed to the city plus a $5.00 set-up fee. The $5.00 fee is included in the rate schedule.

Change from regular cart to bear cart, delivery fee for change out 300g thru 8yd, and damaged containers will be assessed the charge of the cost to the city plus a $5.00 admin fee. The $5.00 fee is included in the rate schedule.

Budget Summary by Main Revenue Source
City of Whitefish Preliminary Budget
Fiscal Year 2016

8/12/2015 11:44

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
4		Resources				Requirements									
5–7	Fund	Beginning Available Cash	Revenue & Other Financing Sources	Transfers	Total	Personal Services	Materials & Services	Capital Outlay	Transfers	Debt Service	Conting.	Total Approp Budget	Ending Available Cash	Total Approp. & Unapprop	Change in Cash
8															
9	**Property Tax Supported Funds:**														
10	General	886,994	3,599,073	679,023	5,165,090	787,352	192,040	10,000	3,605,609		17,500	4,612,501	552,589	5,165,090	(334,405)
11	Library	100,131	185,396	34,371	319,898	152,888	66,581				36,500	255,969	63,929	319,898	(36,202)
12	Law Enforcement	0	510,960	2,085,000	2,595,960	2,028,518	504,212	50,000		5,566	2,000	2,590,296	5,664	2,595,960	5,664
13	Fire & Ambulance	308,127	2,776,998	835,000	3,920,125	2,296,655	840,475	350,000		148,434		3,635,565	284,560	3,920,125	(23,567)
14	Parks/Rec	121,621	1,158,618	651,238	1,931,477	878,356	771,796	39,000		32,453	10,000	1,731,605	199,872	1,931,477	78,251
15	**Total**	1,416,872	8,231,046	4,284,632	13,932,550	6,143,770	2,375,105	449,000	3,605,609	186,453	66,000	12,825,936	1,106,614	13,932,550	(310,259)
16												Change in Cash	(310,259)		
17						Total Operating Budget =		8,518,875			Ending Cash as a % of Budget		12.0%		
18	**Other Tax, Fee & Assessment Supported Funds:**														
19	Resort Tax	1,751,547	11,680,592		13,432,139			10,123,900	679,023	807,748		11,610,671	1,821,468	13,432,139	69,921
20	Tax Inc Dist	2,504,964	5,437,191	213,084	8,155,239	228,696	989,961	959,802	5,430,788		100,000	7,709,247	445,993	8,155,239	(2,058,971)
21	Bldg Codes	13,110	582,000		595,110	407,285	49,900	25,000				482,185	112,925	595,110	99,815
22	Street Fund	1,437,460	1,343,228		2,780,689	735,958	953,926	423,343			50,000	2,163,227	617,462	2,780,689	(819,999)
23	Street Lighting #1	43,282	76,837		120,119	26,236	53,627					79,863	40,255	120,119	(3,026)
24	Street Lighting #4	19,170	74,042		93,212	26,236	56,027	332				82,595	10,617	93,212	(8,554)
25	Impact Fees	400,304	233,000		633,304			108,150	468,139			576,289	57,014	633,304	(343,289)
26	Sidewalk	126,041	400		126,441			126,441				126,441	0	126,441	(126,041)
27	Stormwater	738,620	74,600		813,220		33,267	485,000				518,267	294,953	813,220	(443,667)
28	**Total**	7,034,498	19,501,890	213,084	26,749,473	1,424,411	2,136,709	12,251,968	6,577,951	807,748	150,000	23,348,787	3,400,686	26,749,473	(3,633,812)
29															
30						Total Operating Budget =		3,561,120							
31	**Enterprise Funds:**														
32	Water	3,938,020	3,631,710		7,569,730	974,274	792,544	1,889,200		579,096		4,235,114	3,334,616	7,569,730	(603,404)
33	Wastewater	2,103,246	5,105,039		7,208,285	929,386	958,491	3,528,152		367,859		5,783,888	1,424,397	7,208,285	(678,849)
34	Solid Waste	148,414	811,400		959,814	83,498	716,304					799,802	160,012	959,814	11,598
35	**Total**	6,189,680	9,548,149	0	15,737,829	1,987,158	2,467,339	5,417,352	0	946,955	0	10,818,804	4,919,025	15,737,829	(1,270,655)
36															
37						Total Operating Budget =		4,454,497							
38	**Other Funding Source Funds:**														
39	City Hall/Parking Structure	2,369,909	9,578,000	2,340,135	14,288,044			14,288,044				14,288,044	0	14,288,044	(2,369,909)
41	Housing Authority	1,308	527,500		528,808		528,808					528,808	0	528,808	(1,308)
42	WF Trail Construct	19,069	194,000		213,069			194,000				194,000	19,069	213,069	0
43	Park Acq & Dev	349,187	619,706	226,600	1,195,493			1,023,500				1,023,500	171,993	1,195,493	(177,194)
44	TIF Debt Svc	720,419	6,000	3,119,108	3,845,528					112,394		112,394	3,733,134	3,845,528	3,012,714
45	Victim/Wit	49	15,000		15,049		15,000					15,000	49	15,049	0
46	Misc. S.I.D.	127,921	44,000		171,921					171,921		171,921	0	171,921	(127,921)
47		3,587,862	10,984,206	5,685,843	20,257,911	0	543,808	15,505,544	0	284,315	0	16,333,667	3,924,244	20,257,911	336,382
48															
49	**Total**	18,228,913	48,265,291	10,183,560	76,677,763	9,555,339	7,522,961	33,623,864	10,183,560	2,225,471	216,000	63,327,194	13,350,569	76,677,763	(4,878,344)
50															

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MANAGER REPORT

September 16, 2015

CITY COUNCIL MEETINGS NOW BROADCAST LIVE ON WHITEFISH COMMUNITY RADIO

With the first City Council meeting in our new location on September 8th, Whitefish Community Radio began broadcasting City Council meetings live on their system. Whitefish Community Radio plans to broadcast all City Council meetings on their internet based radio system.

To listen to the City Council meetings live at 7:10 p.m. on the first and third Monday's of each month (unless it is a holiday), citizens can just go to www.whitefishcommunityradio.com and they can listen there or download the app to their mobile device (instructions are in the "Connect" drop down menu).

RESORT TAX COLLECTIONS

Resort Tax collections for July were down by 0.3% or $942 compared to July of 2014. July was also the first month of the Resort Tax being at 3% instead of 2%, so Dana Smith reformatted her monthly Resort Tax report and graphs to show both the 2% Resort Tax for historical comparisons and the additional 1% Resort Tax collections along with new monthly totals. The chart and graphs are attached to this report in the packet.

WAYFINDING GATEWAY SIGN INSTALLED ON HWY 93 NORTH

With the Highway 93 North – Whitefish West project mostly completed by the Montana Department of Transportation and their contractor Schellinger Construction, our Public Works crew installed the second gateway sign that was a part of the Wayfinding Sign project. A picture of the sign is shown below' it is located by Grouse Mountain Park on Hwy 93 North. The Parks and Recreation Department will likely add some topsoil and seed or sod in the future and may do more if they can.

PICKLEBALL COURTS AT MEMORIAL PARK

The Parks and Recreation Department contracted with Triton Construction to build four (4) new pickleball courts at Memorial Park. The construction was completed last week in time for the courts to be used for the Whitefish Summer Games. There were 41 pickleball teams that registered for the Whitefish Summer Games.

Pickleball is similar to tennis with a smaller court and hard racquets and a harder ball. Pickleball is gaining in popularity with the active, aging baby-boom population and part of a strategy for keeping people active without the stress of tennis.

There is a picture of the pickleball courts in action below. The courts cost a total of $31,185 for construction and the cost was paid for from the Parks and Recreation allocation of the Resort Tax for Park Capital Improvements. The courts have already brought a lot of new activity to Memorial Park.

SURPLUS PROPERTY AUCTION RESULTS FROM SEPTEMBER 5TH

The surplus property auction on Saturday, September 5th went very well. Overall, the gross proceeds were $30,917. After deduction of auctioneer's 15% commission and his advertising and employees' costs, we netted $25,521. The Fire and Ambulance Fund got the most money, $12,767.51 from their vehicles and building items such as the Fire bay garage doors. The City Hall/Parking Structure Construction Fund received $6,045.76.

Pretty much everything sold including baseboard trim, air conditioning units, the boiler, all jail cells, the vault doors, the PBX telephone system, fluorescent lights, ceiling heaters, shelving, garage doors, 78 doors and door jambs, windows inside the former Coldwell-Banker building, paneling, furniture, junk, etc.

Some notable items were:

PBX telephone system - $175
Pine doors from Coldwell-Banker building - $65 each X 5 = $325
Fire garage doors - $65, $140, $500, $500, $100, $200,

Lennox furnace - $275
Siren tower (without siren) - $190
Generator - $550
1979 Dodge Fire Brush Truck - $7,400
1977 Dump Truck - $4,900
Ambulance - $4,600
Cemetery Irrigation Pipe - $450
Antennae tower behind jail - $75.00
Flag pole - $250
City Hall elevator - $400
Fire suppression system for City Hall - $75.00
Bullet proof glass in old Police Department - $25.00
Boiler - $100
Jail cells - $350, $200, and 8 *150 ($1,750 total)
Basement vault door and frame - $900
Upstairs vault door and frame - $1,900
Council dais and staff counter - $10
Old Library dumb waiter - $75
City Attorney Door - $20
Old tin on the back side of 410 East 2nd Street - $25

MEETINGS

Only internal and staff meetings during the past two weeks.

UPCOMING SPECIAL EVENTS

Two Bear Marathon – Sunday, 9/19 on City trails and streets

REMINDERS

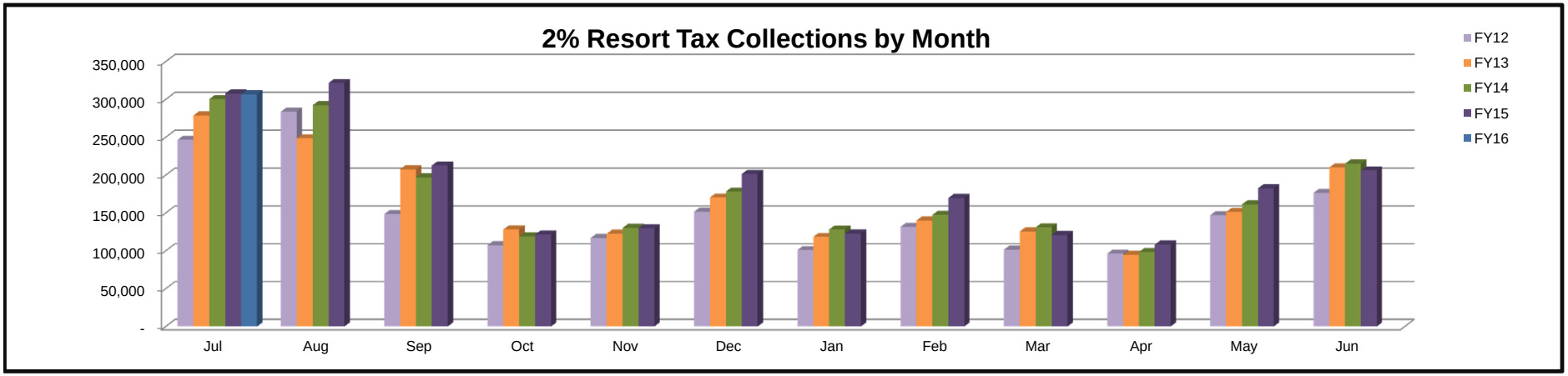
Chuck

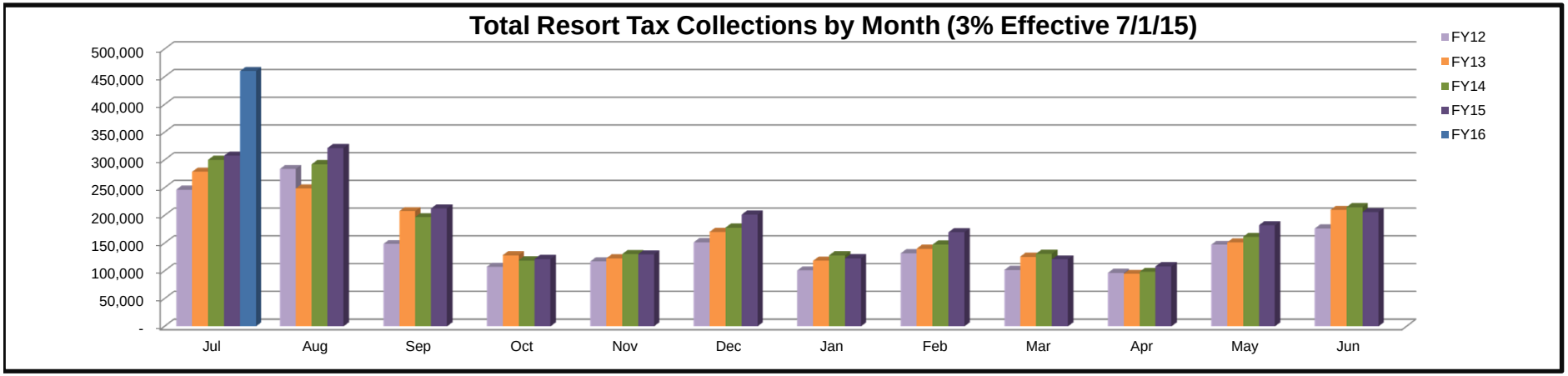
Respectfully submitted,
Chuck Stearns, City Manager

Resort Tax Report
Reported in the Month Businesses Paid Tax

Month/Year	Lodging	Bars & Restaurants	Retail	Collected	% Chng Mnth to Pr Yr Mnth	% Chng Quarter to Pr Yr Quarter	Additional 1% Resort Tax Effective July 1, 2015: Lodging	Bars & Restaurants	Retail	Collected	Total Collected (3% Resort Tax for FY16)	Interest	Total
Jul-13	81,828	98,642	120,028	300,497	7.7%		-	-	-	-	300,497	496	300,993
Aug-13	77,809	108,131	106,422	292,362	17.6%		-	-	-	-	292,362	434	292,796
Sep-13	50,377	77,416	69,328	197,120	-5.1%	7.4%	-	-	-	-	197,120	434	197,554
Oct-13	16,851	48,015	54,271	119,137	-7.1%		-	-	-	-	119,137	434	119,571
Nov-13	6,831	47,701	75,780	130,312	6.3%		-	-	-	-	130,312	2654	132,966
Dec-13	21,782	64,884	91,585	178,251	4.6%	1.5%	-	-	-	-	178,251	404	178,655
Jan-14	16,848	54,481	56,839	128,169	8.2%		-	-	-	-	128,169	404	128,573
Feb-14	22,323	58,758	66,487	147,568	5.3%		-	-	-	-	147,568	404	147,972
Mar-14	15,770	64,178	51,114	131,061	4.2%	5.8%	-	-	-	-	131,061	409	131,470
Apr-14	10,065	41,894	46,458	98,417	4.0%		-	-	-	-	98,417	455	98,872
May-14	18,993	58,791	83,683	161,467	6.6%		-	-	-	-	161,467	455	161,922
Jun-14	44,865	69,190	101,053	215,107	2.4%	4.1%	-	-	-	-	215,107	455	215,562
					YTD Compared to Last Year								
Total FY14	**$ 384,342**	**$ 792,081**	**$ 923,047**	**$ 2,099,470**	or	**5.12%**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 2,099,470**	**$ 7,438**	**$ 2,106,908**
FY13 vs FY14	11.2%	4.5%	3.3%	5.1%	$	102,265	n/a	n/a	n/a	n/a	5.1%	TaxableSalesFY14 $	110,498,402
Jul-14	84,053	104,935	118,876	307,864	2.5%		-	-	-	-	307,864	440	308,304
Aug-14	93,049	117,674	111,016	321,739	10.0%		-	-	-	-	321,739	498	322,236
Sep-14	49,804	84,149	78,813	212,767	7.9%	6.6%	-	-	-	-	212,767	246	213,013
Oct-14	18,589	50,665	52,266	121,519	2.0%		-	-	-	-	121,519	604	122,123
Nov-14	8,530	43,076	78,311	129,917	-0.3%		-	-	-	-	129,917	359	130,276
Dec-14	20,944	74,617	105,885	201,446	13.0%	5.9%	-	-	-	-	201,446	293	201,739
Jan-15	15,285	52,940	54,543	122,768	-4.2%		-	-	-	-	122,768	281	123,049
Feb-15	25,805	74,286	69,705	169,795	15.1%		-	-	-	-	169,795	166	169,961
Mar-15	16,336	51,183	53,368	120,887	-7.8%	1.6%	-	-	-	-	120,887	227	121,114
Apr-15	11,755	50,637	45,835	108,227	10.0%		-	-	-	-	108,227	263	108,490
May-15	23,911	61,756	96,773	182,441	13.0%		-	-	-	-	182,441	288	182,728
Jun-15	39,483	78,394	88,316	206,194	-4.1%	4.6%	-	-	-	-	206,194	301	206,495
					YTD Compared to Last Year								
Total FY15	**$ 407,543**	**$ 844,313**	**$ 953,707**	**$ 2,205,564**	or	**5.05%**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 2,205,564**	**$ 3,966**	**$ 2,209,529**
FY14 vs FY15	6.04%	6.59%	3.32%	5.05%	$	106,094	n/a	n/a	n/a	n/a	5.1%	Taxable Sales FY15 $	116,082,301
Jul-15	78,513	111,068	117,342	306,922	-0.3%		39,256	55,534	58,671	153,461	460,383	377	460,760
Aug-15				-						-	-		-
Sep-15				-						-	-		-
Oct-15				-						-	-		-
Nov-15				-						-	-		-
Dec-15				-						-	-		-
Jan-16				-						-	-		-
Feb-16				-						-	-		-
Mar-16				-						-	-		-
Apr-16				-						-	-		-
May-16				-						-	-		-
Jun-16				-						-	-		-
					YTD Compared to Last Year								
Total FY16	**$ 78,513**	**$ 111,068**	**$ 117,342**	**$ 306,922**	or	**-0.31%**	**$ 39,256**	**$ 55,534**	**$ 58,671**	**$ 153,461**	**$ 460,383**	**$ 377**	**$ 460,760**
FY15 vs FY16	-6.59%	5.84%	-1.29%	-0.31%	$	(942)	n/a	n/a	n/a	n/a	49.5%	Taxable Sales FY16 $	16,153,785
FY16 % of Collections	26%	36%	38%				26%	36%	38%				
Grand Total	**$ 4,840,977**	**$ 10,148,301**	**$ 12,217,156**	**$ 27,206,434**			**$ 39,256**	**$ 55,534**	**$ 58,671**	**$ 153,461**	**$ 27,359,895**	**$ 759,760**	**$ 28,120,581**
% of Total Collections	18%	37%	45%				26%	36%	38%			2.8%	Average since '96

Resort Tax Report
Reported in the Month Businesses Paid Tax





Total Taxable Sales Since 1996
$ 1,439,994,459

Total Collected
$ 28,799,889

5% Admin
$ 1,439,994

Public Portion
$ 27,359,895

Staff Report

To: Mayor Muhlfeld and City Councilors

From: Dana Smith, Finance Director Dana

Date: September 14, 2015

Re: Year-end (4th Quarter) Financial Report for Fiscal Year 2015

This year-end financial report provides a summary version of the financial results of the City through the fourth quarter of fiscal year 2015. The first section is an overview of the City's financial condition specifically related to property tax supported funds. Subsequent sections provide further analysis and details for the year-ended June 30, 2015.

Financial Condition – Property Tax Supported Funds

An analysis of available cash in property tax supported funds provides an effective insight into the City's financial condition. The following table lists the FY2013 year-end cash balance in column (a), the FY2014 year-end cash balance in column (b) and the FY2015 year-end cash balance in column (c) for comparison purposes.

Cash Balance in Property Tax Supported Funds

	a	*b*	*c*	*d (c-b)*
	June 30, 2013 Cash Balance	June 30, 2014 Cash Balance	June 30, 2015 Cash Balance	One Year Change
General	$651,131	$890,170	$886,991	($3,179)
Parks & Recreation	$325	$325	$122,621	$122,296
Law Enforcement	$70,381	$38,541	$0	($38,541)
Library	$23,640	$59,348	$100,131	$40,783
Fire & Ambulance	$623,901	$299,865	$308,127	$8,262
Building Code	$7,617	$1,670	$13,110	$11,440
	$1,376,995	$1,289,919	$1,430,980	$141,061

Total cash in property tax supported funds as of June 30, 2015 increased by $141,061 or 11% compared to the balance on June 30, 2014. This increase was primarily due to the significant increase of cash balance in the Parks & Recreation Fund and the Library Fund. The City continues to be in good financial condition. The revenues and expenditures tracked as expected during the FY2015 with some minor deviations discussed within this report. Despite the minor deviations, all fund expenditures were at or below the approved budget authority. The significant changes in cash balances from the prior year are discussed in detail below.

General Fund – The General Fund cash balance compared to the prior year decreased by $3,179 or 1.0%. Despite the slight decrease in the cash balance, revenues and expenditures tracked as expected during the fiscal year. The FY2015 Adopted Budget allowed for a

decrease in the cash balance of the General Fund by year-end, but due to the savings in expenditures, the receipt of additional revenues, the payments received from other fund to pay off past loans, the cash balance did not decrease by a significant amount as projected.

Parks & Recreation Fund – The Parks & Recreation cash balance improved considerably during FY2015. The cash balance increased $122,296, or 37629%. The Department continues to strive to make each adult recreation program self-supporting, as well as the community ice rink. As of June 30, 2014, expenditures exceeded revenues by about $199,665, essentially making the ice rink rely on revenue and cash from other Parks Department activities/accounts. However, as of June 30, 2015, expenditures exceeded revenues by only $3,805. This change was a $195,860 improvement in net revenues compared to the prior year.

Law Enforcement Fund – The Law Enforcement Fund had a $0 cash balance as of June 30, 2015. The cash balance would have been negative (-$13,447.47) had a short-term loan from the General Fund not been made at year-end. This is due to the FY2014 and FY2015 budgets both permitting the spending down of the fund's cash balance and the timing issues surrounding revenue collection verse expenditures when accounting for reimbursement type grants. The COPS grant, including the School District's contribution for the SRO, overtime reimbursements, and other revenue that applied to FY2015 but was received by the City in July/August of 2015 totaled $26,797. Therefore, the short-term loan has been paid off and the Law Enforcement Fund now has a positive cash balance.

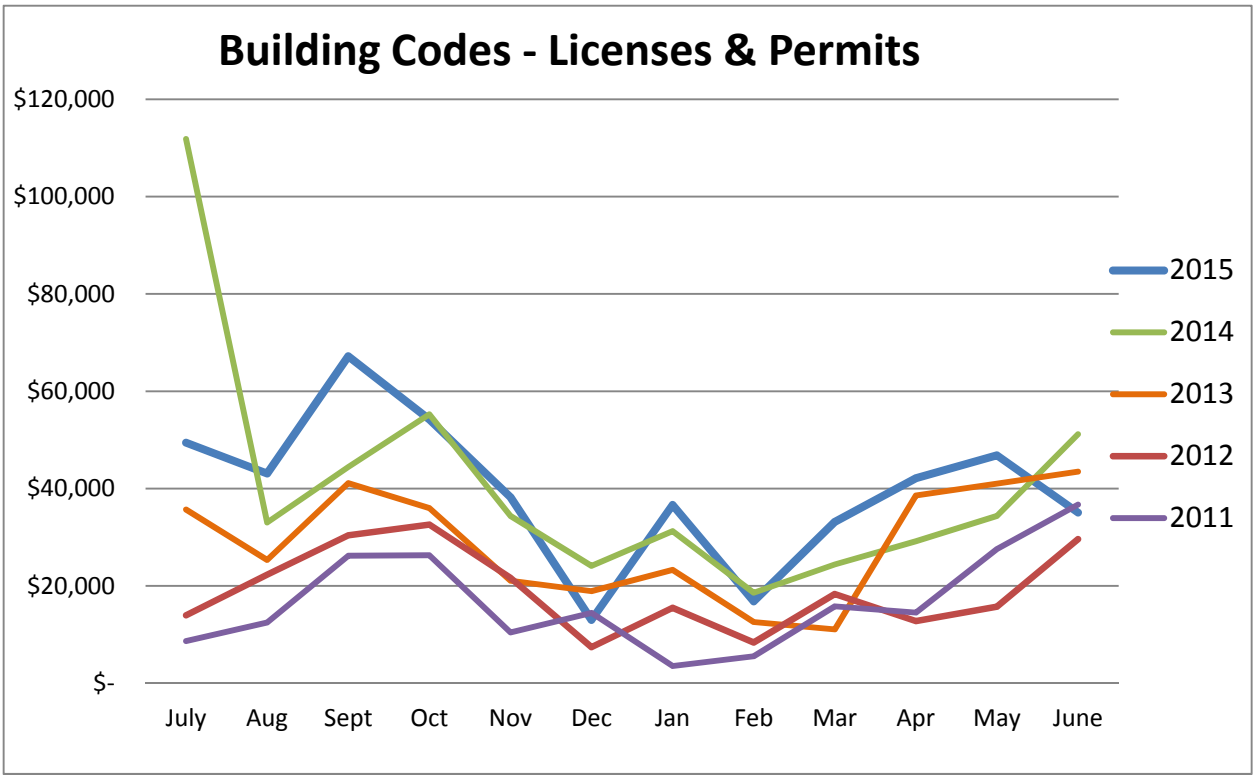
Library Fund – The Library cash balance increased $40,783, or 69% over the prior year. With the approved increase in property tax revenues in FY2015, the Library has been able to begin building cash reserves to cover unexpected costs, such as the needed repairs and book replacements that occurred this winter due to frozen pipes and flooding in the Library building.

Fire & Ambulance Fund – Similar to the Law Enforcement Fund, the Fire and Ambulance Fund started the year off with a lower cash balance than prior years due to the use of cash on hand in FY2014. The FY2015 budget also anticipated a $69,655 spend-down of cash balance. However, compared to the prior year, the Fire & Ambulance Fund has seen a slight increase in cash of $8,262, or 3%. This was due to higher than anticipated revenue collections (property taxes and ambulance service) and savings of about $25,600 in expenditures.

Building Code Fund – Although not directly supported by property tax revenues, in prior years the Building Code Fund received loans from the General Fund to support operations during the recession. The loans were essentially comprised of property tax revenue. Monitoring the financial condition of the Building Fund is important as it looks to repay the loan from the General Fund. With the continued higher revenue amounts (see below), the Building Code Fund paid off $150,542 of the long-term loan from the General Fund during FY2015. The balance of the loan as of June 30, 2015 totaled $21,158. Also, with the loan remaining at year-end being minimal and in an attempt to accurately portray the cash balance in the property tax supported funds, the Building Fund will no longer be categorized as a property tax supported fund for FY2016.

In July of FY2014, the license and permit revenue in the Building Code Fund received an unusually large amount of revenue. This dramatic increase was the result of one significant project (high school) in the City that brought in approximately $52,186 in licenses and permit

revenue. When comparing the prior year with FY2015, a $16,297 decrease in revenue occurred. Licenses and permit revenue, however, finished the year at 113% of the budget with revenues exceeding expenditures.



Year-End Financial Highlights

- The Columbia Falls Building Code Contract revenues at year-end totaled $69,811 or 175% of the FY2015 Budget.
- Ambulance Service Charges were 105% of the budgeted revenue and exceeded the prior year by $45,637 or 5%.
- Zoning Plan Review Fees finished the year at 130% of the budgeted revenue to be received in FY2015, which totaled $110,513.
- The Resort Tax collections are up by $125,705 or 6.02% compared to the prior year fiscal year.
- Metered water sales exceeded the prior year by $204,063, or 8%, while sewer service charges exceeded the prior year by $103,006, or 11%.
- Property Tax revenue received in FY2015 exceeded the budget by 2% in the General Fund and Tax Increment Fund and by 3% in the Fire and Ambulance Fund due to the collection of protested and delinquent taxes.

Expenditure Review

The total expenditures in each fund at the end of the year were at or below the expected percentage of budget authority to be used (100%). The following line-items were higher than expected, but were monitored throughout the year to ensure the cause and potential for reoccurrence in the future was addressed:

- *General Fund*
  - The total Municipal Court expenditures were 92% of the budgeted appropriations for FY2015. However, the Repair and Maintenance Services account was 234%, or $2,581, over budget at year-end. This is due to unanticipated repairs required for the ESC building, which have been split between the Court, Police, and Fire & Ambulance. This need has been addressed in the FY2016 Budget with an increase of $2,080 in the Repair and Maintenance Services account compared to FY2015 Budget.

  - The Cemetery's Other Purchased Services account was 219% over budget at the end of the year. This overspending was due to the City providing the cost of installation for the donated memorial wall at the Cemetery. The overall Cemetery program completed the year at 89% of the total budgeted expenditures.

- *Street Fund*
  - Stand By/Call Back Time was 301% of the budget at the end of the year. However, the total spent during FY2015 was only $980 more than the prior year. The budget from FY2014 to FY2015 reduced the available appropriations for this line-item by $6,324.

  - Overtime for Ice and Snow Removal was 217% of the budget as of March 31, 2015 and has remained the same through June 30, 2015. Compared to the prior year, the overtime for this line-item is $5,864 more at the end of FY2015. In addition, Salaries and Wages were at 222% of the budget. However, regular and overtime pay required for ice and snow removal is expected to vary based on the snow fall each year. The snow storm in early January 2015 resulted in a remarkable amount of snowfall in a short time frame that required a considerable amount of overtime. The increased costs were offset by the lower fuel costs throughout FY2015.

- *Parks & Recreation Fund*
  - The City Beach Repairs and Maintenance Supplies account was 136% of the budget for FY2015, which is due to the unexpected deck and roof repairs during the year. Despite these cost, the City Beach program overall came in under budget by $22,438, or was at 85% of the budget at year-end.

  - The Bike & Pedestrian Path Repair & Maintenance Supplies account was 130% of the budget as of June 30, 2015. However, this is only $204 more than the amount spent in FY2014.

  - The Community Ice Rink exceeded its budget authority provided in the FY2015 Budget by $54,285, or 15% more than budgeted. This

overspending, however, was expected since the season was extended mid-FY2015. Operating Supplies, Utility Services, and Repair & Maintenance Services were all over budget at 124%, 113%, and 308%, respectively. The actual dollar change from the prior year was an increase of $3,531 for Operating Supplies (a reasonable increase for the extended season), a decrease of $25,674 for Utility Services (likely due to the new evaporative condenser and differences in temperatures compared to prior year), and an increase of $18,258 for Repair & Maintenance Services (fixing equipment issues during the year and progress being made on the repair/maintenance list prepared by Parks & Rec. Dept.). Although this program was over budget, other savings throughout the Parks & Recreation Department made it so a budget amendment was not needed for the Park & Recreation Fund as a whole.

- *Library Fund*
  - Overall the Library Fund only spent 83% of the budgeted appropriations with revenue coming in at 112% of the anticipated revenue collections. However, the Repair & Maintenance Service line-item at the end of the year totaled $8,642 and was 412% of appropriations. In addition, the Library Materials account was $10,713 or 214% of the budget. The increased spending for both line-items was primarily due to the unanticipated flood damage that resulted from two separate frozen pipes this winter. The department worked with MMIA to recover the cost of repairing the building and replacing of inventory that was lost due to water damage. The Library received $6,156 after the deductible was met.

- *Law Enforcement Fund*
  - Professional Services at year-end totaled $35,703 and was 510% of appropriations for this line-item. This was due to the unanticipated legal costs associated with employment matters for the Police Department.

  - Due to an unanticipated equipment grant that provided the Department the opportunity to replace/update the videos in some of the patrol cars, the Machinery & Equipment account was over budget. The Law Enforcement Fund over all finished the year at 98% of the approved expenditure budget even with these unexpected costs.

- *Fire and Ambulance Fund*
  - Despite having only spent 99% of the budgeted authority for FY2015 and revenues totaling 101% of the anticipated revenue collection, the Overtime expenditures for both Fire and Ambulance services were 121% of the budget at the end of the year and have increased by $20,130 from the prior year totals.

  - Repair & Maintenance Services for the Fire Protection and Rescue Services were over budget at 223% as of June 30, 2015. The additional spending occurred due to necessary repairs to the older fire engines, additional work on the brush truck, and other maintenance services needed for the Emergency Services Center. The Repair & Maintenance Services

for Ambulance Services was also higher than expected at 225% of the budget at the end of the year. The costs for this line-item included repairs to older equipment and other maintenance services needed for the Emergency Services Center, such as snow plowing, pest control, lawn maintenance, and unanticipated repairs to the ESC HVAC system.

- *Water Fund*
  - The Repair & Maintenance Services account as of June 30, 2015 was 321% of the total appropriations for that line-item. This was primarily due to the lightning damage at the water treatment plant that occurred during summer 2014. These unexpected expenses were submitted to the City's insurance provider for reimbursement.

  - The Utility ROW Fees paid by the Water Fund to the Street Fund exceeded the budget by $18,823 due to the revenue received exceeding the budget in FY2015. The ROW Fee is a calculated based on a percentage of Water Service Charges. This also resulted in revenues exceeding expenditures in the Street Fund by the same amount.

- *Sewer Fund*
  - Overtime expenditures and Stand By/Call Back Time expenditures were 243% and 142% of the budget at the end of the year. The Overtime expenditures for FY2015 were $7,319 more than FY2014. This is further compounded since the FY2015 budget was $3,697 less than the FY2014 budget. The Stand/Call Back Time expenditures were $508 compared to the prior year, but the FY15 Budget was reduced by $2,517.

Long-term Debt

Information below depicts the changes in long-term debt for the City of Whitefish from June 30, 2012 through June 30, 2015.

Outstanding Debt Summary					
	Rate/TIC	**June 30, 2015**	**June 30, 2014**	**June 30, 2013**	**June 30, 2012**
Revenue Bonds					
TIF Refunded (ESC)	2.62%	$ 7,183,000	$10,715,000	$ 12,020,000	$13,285,000
Water	~2.1%	$ 2,793,000	$ 3,272,000	$ 3,740,000	$ 4,261,000
Sewer	~2.3%	$ 2,659,218	$ 2,638,764	$ 2,328,000	$ 2,788,000
Special Assessments					
SID166	4.18%	$ 725,000	$ 795,000	$ 865,000	$ 935,000
Intercap Loans					
Ice Rink	1.25%	$ 79,363	$ 110,575	$ 62,697	
Police Vehicle	1.25%	$ 10,935	$ 16,339		
Fire Engine/Pumper	1.25%	$ 672,318	$ 202,453		
Ambulance	1.25%	$ 123,520	$ 153,780		
Capital Lease		$ 0	$ 3,794	$ 7,357	
	Total	$ 14,246,354	$ 17,907,705	$ 19,023,054	$21,269,000
	$ Change	$ (3,661,551)	$ (1,115,349)	$ (2,245,946)	$ (1,093,000)
	% Change	-21.0%	-5.9%	-10.6%	-4.9%

In June 2015 the City refunded the Tax Increment Urban Renewal Revenue and Refunding Bonds, Series 2009 (ESC Project), which is now referred to as the Tax Increment Urban Renewal Revenue Refunding Bond Series 2015A and 2015B. The interest rate decreased from a remaining average of 4.275% to 2.62%.

The FY2015 budget also included the following additional debt that was not incurred during the year and therefore was budgeted in FY2016: additional draws on the Sewer revenue bond for the River Lakes Force Main Project, a Sewer revenue bond in the amount of $996,527 for Phase II of the Whitefish West Project, and a Water revenue bond of $472,700 also for Phase II of the Whitefish West Project.

Additional Detailed Analysis

The following discussion further highlights the attached spreadsheets.

General Fund Revenue (line 9 to 17)

Total General Fund revenues collected during the year totaled 100% of the anticipated revenues in the FY2015 budget and increased by 3% from the prior year, or $112,413. The increase was mostly due to the growth in property tax revenue and the state entitlement share. Miscellaneous revenues, charges for services, and property tax relief transferred from the Resort Tax Fund have all decreased from the prior year.

Due to a timing difference, the miscellaneous revenues decreased in FY2015 (J14) compared to FY2014. The FY2014 amount includes the FY2013 golf course lease payment that would typically have been paid in June of the previous fiscal year, but was actually paid in July. Therefore, two payments were received in FY2014 and only one was received in FY2015.

The charges for services revenue decreased by 11% in FY2015, which was mainly due to the decrease in planning fees from $83,345 in FY2014 to $33,846 in FY2015. This again was likely due to the significant high school project in FY2014.

When resort tax collections increase, the property tax relief also increases. However, due to more accurate budgeting of expected revenues in FY2014, the actual property tax relief decreased in FY2015. In FY2013 the resort tax collections exceeded the budgeted revenue by a higher dollar amount, which increased the FY2014 property tax relief by a significant amount. This variation will occur due to any amount collected over the budgeted revenues in a fiscal year being applied to property tax relief in the following year.

General Fund Expenditures, Net Revenue, & Cash (line 20 to 33)

Total General Fund expenditures remained on track throughout the year and by year-end the Fund had expended 98% of the FY15 budget. Expenditures were 8%, or $327,236, higher than the end of the prior year, a result of the approved increase in transfers from the General Fund to the Parks, Law Enforcement, and Fire/Ambulance Funds. Although revenues increased, expenditures have also increased, but at a higher rate. These changes resulted in expenditures exceeding revenues in the General Fund (H32). The spend-down of cash was expected due to the FY15 budget allowing a $344,102 spend-down of cash balance by year-end if all revenues were collected and all appropriations were expended. However, not all revenue was collected (some specific items exceeded their budgets offsetting those not collected) and expenditures came in about $104,690 less than the budget. In addition, the Building Code Fund made a large payment of about $150,500 on its long-term loan and the

Parks and Recreation Fund paid off its short-term loan balance of about $55,900 that was needed at the end of FY2014 to cover the negative cash balance. Thus, the cash balance only decreased by $3,179 in FY2015.

The General Fund cash balance was $886,991 compared to $890,170 at the end of the prior year (see J33). The graph on page 1 of the spreadsheets shows the General Fund cash balance trends for the past 5 years. December, January, June, and July are months that tend to have higher cash balances due to the collection of property taxes. Building cash reserves in the General Fund and all other property tax supported funds to a minimum of 10%, or preferably 15% or more, each year is important to ensure an adequate cash balance throughout the year.

Other Property Tax Supported Funds (p.2, line 71 to 108)
The funds supported by property taxes in total have continued to see revenues exceeding expenditures (H108).

When compared to a year ago, these funds had an overall increase in cash with detailed discussion above for each fund. Also compared to the prior year balances, overall revenues and expenditures increased. A significant portion of the increase in expenditures is attributed to the purchase of the Fire Department's new water tender and water pumper that was financed via an INTERCAP loan, the increase in salaries and wages, and other capital expenditures. Other items that had an impact include an increase of 0.8 mills for the Library in FY2015, the growth in property tax mill value, and a steady revenue stream from the Building Department.

Other Tax, Fee, & Assessment Supported Funds (p.2, line 114 to 144)
These funds located on the second half of page 2 of the spreadsheet, receive no general property tax support.

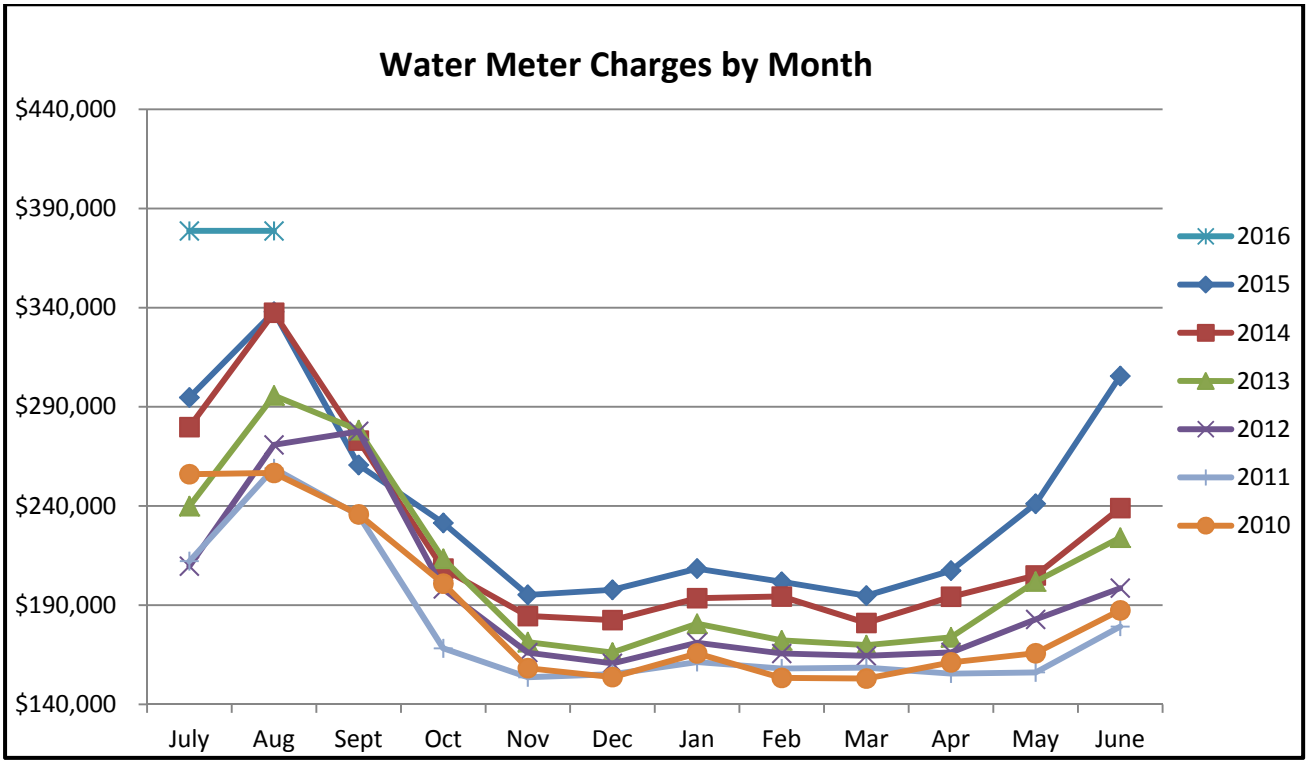
Resort Tax collections at the end of the fiscal year were 106% of the budgeted revenues while expenditures were at 75% of appropriations. Some of the projects budgeted in FY2015 were carried forward into FY2016.

Street and Alley revenues exceeded expenditures in FY2015. The Fund expended only 50% of its budget, which led to a significant increase of net revenues compared to the prior year (see J123). The majority of the street overlay projects (about two years' worth) were moved to FY2016 since most of the work was completed in the summer months of 2015 after fiscal year end 2015. With the completion of the street overlays, cash balance is expected to decrease in FY2016.

Impact Fees have seen a $65,697 decrease (J132) from the prior year revenues. This decrease is due to a significant increase (approximately $60,000) in impact fees collected from one project of considerable size (high school) in the City in FY2014. When compared to FY2013, the FY2015 impact fees are 21% higher. Impact Fee expenditures increased during the last quarter of the fiscal year when budgeted transfers to other funds were recorded. The largest portion, $384,356, was transferred to the City Hall/Parking Structure Construction Fund. The impact fees for the city hall were collected and maintained in reserves in the Impact Fee Fund until the majority of construction was expected to being ion the project. Additional transfers are budgeted in FY2016.

Enterprise Funds (p.3)

Metered water sales were up 8%, while wastewater service charges were up 5%. The revenue for both Water and Wastewater amounts were expected to grow in FY2015 due to the approved rate increase of 3.6% for Water and Wastewater rates, which was effective October 1, 2014. In addition, May and June of 2015 were very hot and dry months compared to prior years, which resulted in a higher rate of growth in revenues from water sales at 18% and 28%, respectively. The graph below depicts the increase in sales during the last quarter of FY2015 and the continued trend into FY2016 for July and August.



Capital expenditures in the Water Fund are 13% higher and capital expenditures in the Wastewater Fund are 12% less than the prior year. These type of expenditures are expected to vary each year based on the number and timing of the approved projects. A total of $3,333 of Water Impact Fees and $495,715 of Wastewater Impact Fees were spent during FY2015 on capital projects. An additional $201,193 was paid for projects using the final amounts of the Plant Investment Fees in the Water Fund during the first quarter of the year.

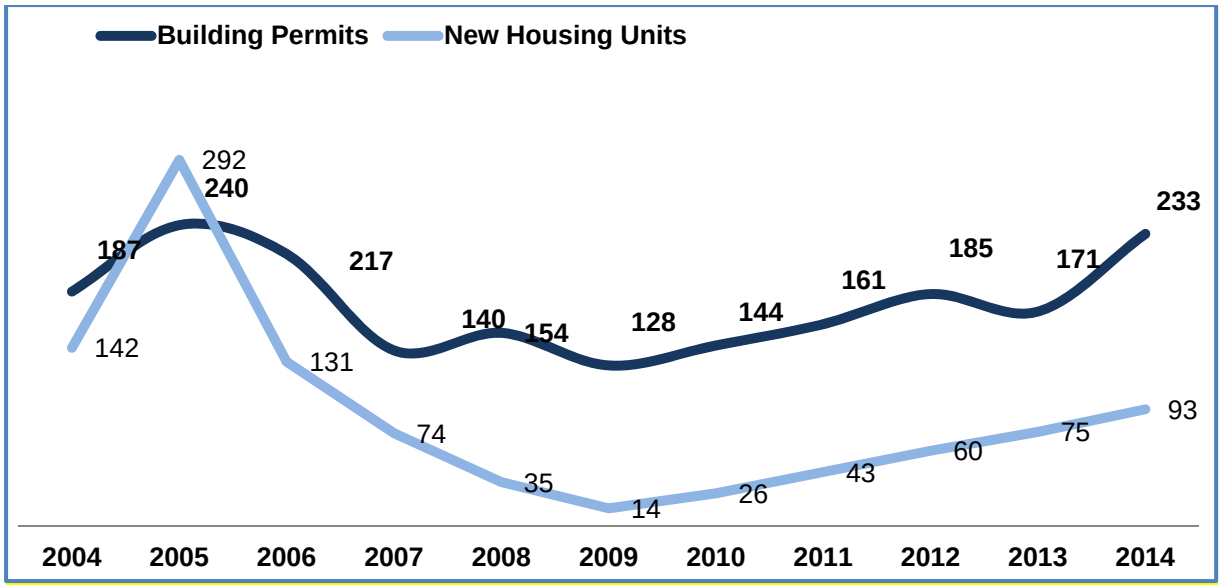
The increase in Solid Waste revenues has continued into the fourth quarter as expected due to the 3% rate increase that was effective October 1, 2014. Revenues collected totaled 106% of the FY2015 budget as of June 30, 2015. The expenditures also tracked as expected during the year with 100% of the available appropriations expended.

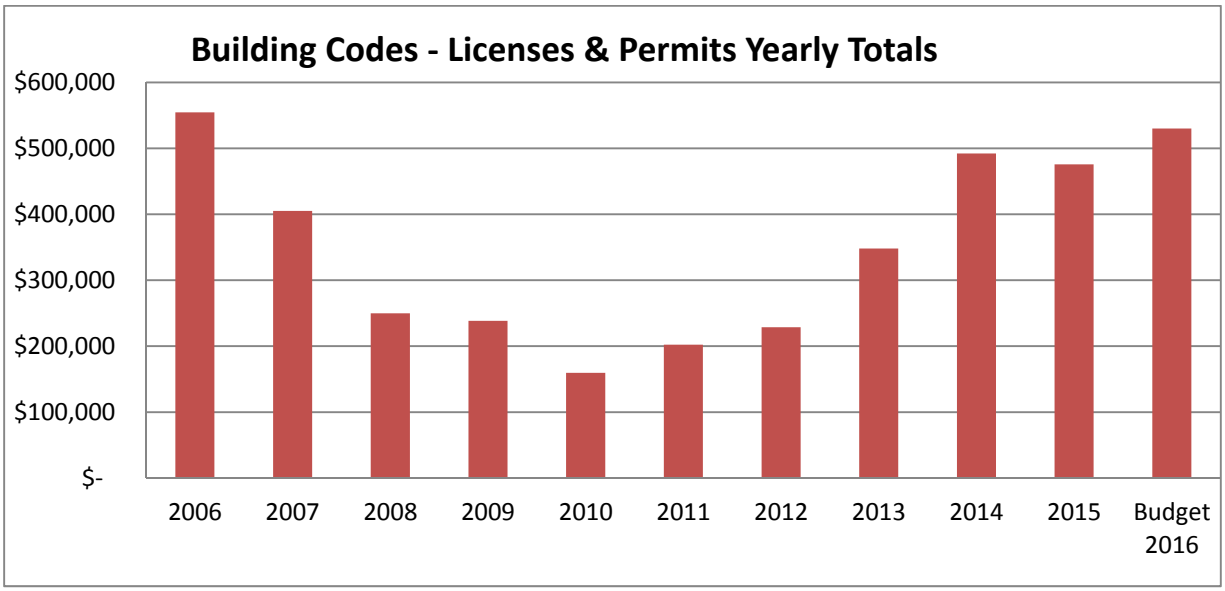
Economic Trends

Since the recession of late 2007, the City has experienced a slow, but steady recovery. Consumer spending and new housing are both key indicators of economic activity. At the end of FY2015, economic growth continues to be evident through the increase in Resort Tax Collections and building permit revenue.

Compared to the collections of FY2014, Resort Tax collections were up 6%, or $125,705, in FY2015. The increase in collections is further broken down as follows: 10% increase in lodging, 3% increase in retail, and 8% increase in restaurants and bars.

The following graph depicts the growth of new construction and the change in valuation within the City by calendar year.



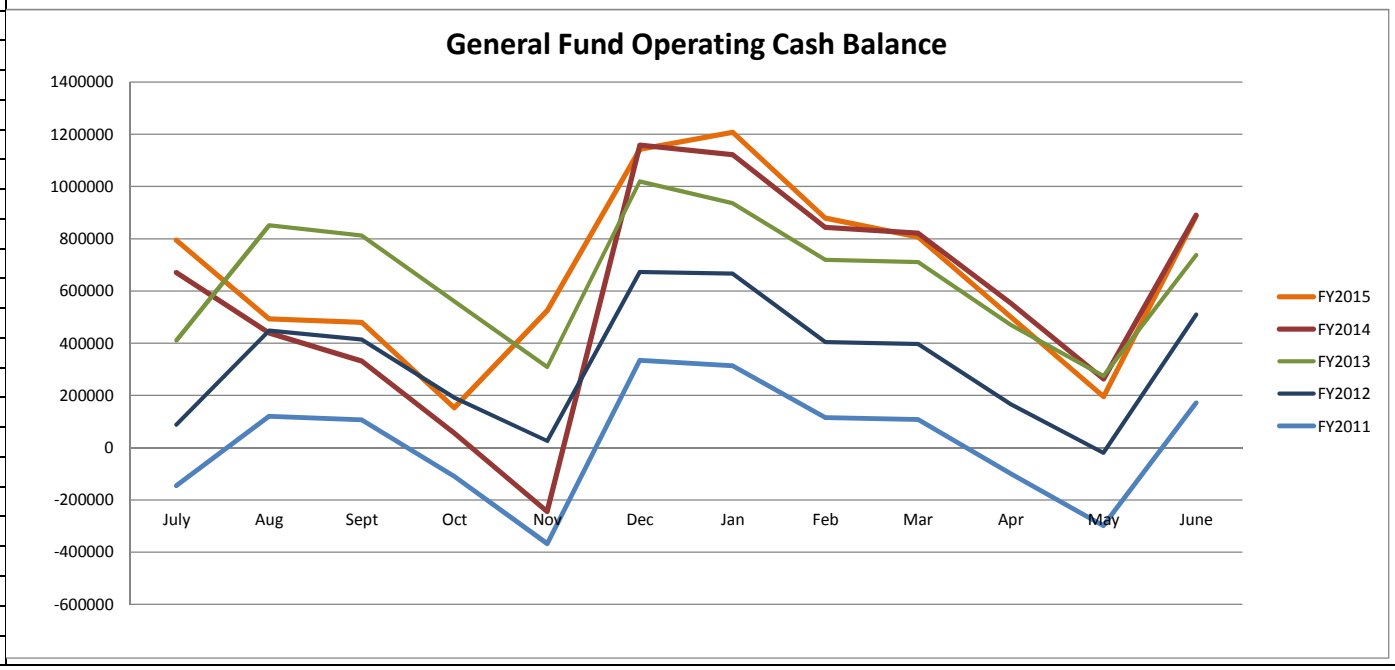


Please contact me if you have any questions regarding this report or the year-end financial results of the City.

City of Whitefish
Quarterly Financal Review
4th Quarter of Fiscal Year 2015
April 1, 2015 - June 30, 2015

100% of Fiscal Year Complete

General Fund Revenues	YTD June 30, 2013		YTD June 30, 2014		YTD June 30, 2015			
	Dollars	**% of Budget**	**Dollars**	**% of Budget**	**Dollars**	**% of Budget**	**Chng Prev YR**	**% Chng Prev Yr**
Property Taxes	$1,885,753	99%	$1,859,906	96%	$2,052,415	102%	$192,509	10%
Total Licenses and Permits	$63,053	106%	$62,134	103%	$66,490	110%	$4,356	7%
Intergovernmental Revenue	$757,000	100%	$777,218	100%	$802,208	98%	$24,990	3%
Charges for Services	$218,123	174%	$281,942	136%	$252,258	105%	($29,684)	-11%
Fines and Forfeitures	$251,958	106%	$216,265	84%	$204,938	90%	($11,326)	-5%
Miscellaneous	$32,596	90%	$78,082	193%	$41,380	88%	($36,702)	-47%
Investment Earnings	$14,944	60%	$21,663	108%	$14,535	97%	($7,128)	-33%
Resort Tax & SID RevolvingTransfer In	$598,007	100%	$693,432	100%	$668,831	100%	($24,601)	-4%
Total General Fund Revenues	$3,821,435	102%	$3,990,642	100%	$4,103,055	100%	$112,413	3%
General Fund Expenditures								
Municipal Court	$259,160	88%	$261,595	93%	$271,155	92%	$9,560	4%
Prosecution Services	$101,742	104%	$110,771	113%	$94,285	86%	($16,487)	-15%
Administrative Services	$71,170	99%	$78,089	96%	$78,533	99%	$444	1%
Legal Services	$34,382	95%	$37,312	95%	$40,285	94%	$2,973	8%
Community Planning	$267,357	88%	$322,331	92%	$350,384	88%	$28,052	9%
Transfer to Park Fund	$536,106	100%	$603,000	100%	$693,919	100%	$90,919	15%
Transfer to Law Enforcement Fund	$1,795,000	100%	$1,845,000	100%	$1,885,000	100%	$40,000	2%
Transfer to Fire Fund	$494,594	100%	$575,000	100%	$815,000	100%	$240,000	42%
Transfer to Library Fund	$34,371	100%	$34,371	100%	$34,371	100%	$0	0%
Cemetary/Other	$64,544	77%	$138,195	115%	$69,970	85%	($68,226)	-49%
Total General Fund Expenditures	$3,658,426	99%	$4,005,665	99%	$4,332,901	98%	$327,236	8%
General Fund Revenues Less Expenditures	$163,009		($15,023)		($229,845)		($214,822)	
General Fund Operating Cash Balance	$651,131		$890,170		$886,991		($3,179)	0%
Prop Tax Supported Funds (no General) Net	$75,580		$21,829		$314,186		$292,357	
Prop Tax Supported Funds (no General) Cash	$725,864		$399,749		$543,989		$144,240	
Total General & Prop Tax Supported Funds Net	$238,589		$6,806		$84,340		($231,783)	
Total General & Prop Tax Supported Funds Cash	$1,376,995		$1,289,918		$1,430,980		$141,061	



	A	D	E	F	G	H	I	J	K
68	**Property Tax Supported Funds**	June 30, 2013		June 30, 2014		June 30, 2015			
69		**Dollars**	**% of Budget**	**Dollars**	**% of Budget**	**Dollars**	**% of Budget**	**Chng Prev YR**	**% Chng Prev Yr**
71	Parks and Rec Operating Cash Balance	$325		$325		$122,621		$122,296	37629%
72	Parks, Rec & Community Services Revenues	$1,350,712	91%	$1,575,089	95%	$1,656,738	98%	$81,649	5%
73	Parks, Rec & Community Services Exp.	$1,446,758	97%	$1,551,130	99%	$1,492,002	94%	($59,128)	-4%
74	Revenues less Expenditures	($96,046)		$23,960		$164,736		$140,776	
75									
76	Law Enforcement Operating Cash Balance	$70,381		$38,541		$0		($38,541)	-100%
77	Law Enforcement Revenues	$2,232,911	100%	$2,211,993	100%	$2,345,728	97%	$133,736	6%
78	Law Enforcement Expenditures	$2,235,130	99%	$2,262,106	101%	$2,395,791	98%	$133,685	6%
79	Revenues less Expenditures	($2,219)		($50,113)		($50,063)		$51	
80									
81	Library Operating Cash Balance	$23,640		$59,348		$100,131		$40,783	69%
82	Library Revenues	$201,745	96%	$229,140	105%	$233,399	112%	$4,259	2%
83	Library Expenditures	$186,387	93%	$192,739	92%	$193,517	83%	$778	0%
84	Revenues less Expenditures	$15,358		$36,402		$39,883		$3,481	
85									
86	Fire & Ambulance Cash Balance	$623,901		$299,865		$308,127		$8,262	3%
87	Fire & Ambulance Taxes, Penalty and Interest	$515,049	99%	$508,047	96%	$563,026	103%	$54,979	11%
88	Ambulance Services Revenue	$891,494	105%	$1,000,763	105%	$1,046,400	105%	$45,637	5%
89	Total Fire & Ambulance Revenue	$2,763,168	76%	$3,284,145	90%	$3,713,607	101%	$429,462	13%
90	Fire & Ambulance Expenditures	$2,667,521	69%	$3,495,304	89%	$3,712,061	99%	$216,757	6%
91	Revenues less Expenditures	$95,647		($211,159)		$1,547		$212,705	
92									
93	Building Codes Operating Cash Balance	$7,617		$1,670		$13,110		$11,440	685%
94	Payable to the General Fund	($401,848)		($171,699)		($21,158)		$150,542	88%
98	License and Permits Revenues	$348,226	112%	$492,131	159%	$475,834	113%	($16,297)	-3%
99	Building Codes Expenditures without C. Falls	$280,052	98%	$312,298	101%	$357,046	97%	$44,748	14%
100	*Columbia Falls Contract Revenues*	$32,175	124%	$71,844	239%	$69,811	175%	($2,033)	-3%
101	*Columbia Falls Contract Expenditures*	$37,770	99%	$28,938	100%	$30,516	102%	$1,577	5%
102	Revenues less Expenditures	$62,840		$222,739		$158,084		($64,656)	
103									
104	**Total Property Tax Supported Funds (not including General Fund)**								
105	Total Property Tax Supported Cash	$725,864		$399,749		$543,989		$144,240	36%
106	Total Property Tax Supported Revenue	$6,929,198		$7,864,343		$8,495,119		$630,776	8%
107	Total Property Tax Supported Expenditures	$6,853,618		$7,842,514		$8,180,933		$338,419	4%
108	Revenues less Expenditures	$75,580		$21,829		$314,186		$292,357	
109									
110	**Other Tax, Fee & Assessment Supported Funds**								
114	Resort Tax Operating Cash Balance	$2,142,223		$1,888,666		$1,751,546		($137,120)	-7%
115	Resort Tax Collections	$1,966,426	114%	$2,087,995	108%	$2,213,700	106%	$125,705	6%
116	Resort Tax Investment Earnings	$5,528	37%	$7,474	125%	$3,967	79%	($3,507)	-47%
117	Resort Tax Expenditures and Transfers	$2,252,711	77%	$2,376,916	78%	$2,419,194	75%	$42,278	2%
118	Revenues less Expenditures	($280,758)		($281,447)		($201,527)		$79,920	
119									
120	Street and Alley Operating Cash Balance	$1,043,944		$1,107,015		$1,437,460		$330,445	30%
121	Street and Alley Revenues	$1,363,646	103%	$1,308,409	99%	$1,427,276	104%	$118,867	9%
122	Street and Alley Expenditures	$1,216,086	73%	$1,241,652	72%	$1,102,767	50%	($138,885)	-11%
123	Revenues less Expenditures	$147,560		$66,757		$324,509		$257,752	
124									
125	Tax Increment Operating Cash Balance	$2,015,177		$2,325,843		$2,504,964		$179,121	8%
126	Tax Increment Property Taxes, Penalty & Interest	$4,211,911	100%	$4,275,978		$4,714,248	102%	$438,269	10%
127	Total Tax Increment Revenues	$4,412,594	100%	$4,544,135	99%	$5,157,374	103%	$613,239	13%
128	Tax Increment Expenditures & Transfers	$4,627,620	73%	$4,403,324	80%	$4,678,975	77%	$275,651	6%
129	Revenues less Expenditures	($215,026)		$140,811		$478,399		$337,588	
130									
131	Impact Fees Cash Balance	$426,435		$664,563		$400,304		($264,259)	-40%
132	Impact Fee Collections - Revenues	$178,170	143%	$281,707	219%	$216,010	93%	($65,697)	-23%
133	Impact Fee Collections - Expenditures	$1,935	1%	$43,578	12%	$480,269	63%	$436,690	1002%
134	Revenues less Expenditures	$176,235		$238,128		($264,259)		($502,387)	
135									
136	Street Lighting #1 Operating Cash Balance	$63,934		$44,933		$43,282		($1,651)	-4%
137	Street Lighting District #1 (Rsdntl) Revenues	$71,419	108%	$73,659	96%	$79,888	104%	$6,230	8%
138	Street Lighting District #1 (Rsdntl) Exp.	$50,673	48%	$92,607	97%	$81,704	98%	($10,904)	-12%
139	Revenues less Expenditures	$20,746		($18,949)		($1,815)		$17,134	
140									
141	Street Lighting #4 Operating Cash Balance	$66,352		$30,843		$19,170		($11,673)	-38%
142	Street Lighting District #4 (Cmmrcial) Revenues	$56,745	99%	$61,086	100%	$69,615	103%	$8,528	14%
143	Street Lighting District #4 (Cmmrcial) Exp.	$61,389	69%	$96,544	75%	$81,452	90%	($15,092)	-16%
144	Revenues less Expenditures	($4,644)		($35,457)		($11,837)		$23,621	

	A	D	E	F	G	H	I	J	K
150	**Enterprise Funds**	June 30, 2013		June 30, 2014		June 30, 2015			
151		**Dollars**	**% of Budget**	**Dollars**	**% of Budget**	**Dollars**	**% of Budget**	**Chng Prev YR**	**% Chng Prev Yr**
152									
153	Water Cash Balance	$2,436,567		$3,214,973		$3,937,405		$722,432	22%
154	Water - Metered Water Sales	$2,486,936	106%	$2,672,390	111%	$2,876,452	115%	$204,063	8%
155	Water - Operating Revenues	$2,842,696	112%	$3,129,382	119%	$3,286,865	119%	$157,483	5%
156	Water - Operating Expenditures	$1,430,278	90%	$1,524,922	95%	$1,635,197	95%	$110,275	7%
157	Operating Revenues less Expenditures	$1,412,418		$1,604,460		$1,651,668		$47,208	
159									
160	Non Operating Revenue	$205,137	20%	$101,507	30%	$1,559	1%	($99,948)	-98%
161	Water Capital Expenditures	$1,668,819	63%	$307,566	24%	$348,699	21%	$41,133	13%
162	Water Debt Service	$116,080	46%	$307,411	57%	$543,835	97%	$236,424	77%
163									
164									
165	Wastewater Cash Balance	$1,272,911		$1,670,796		$2,102,631		$431,835	26%
166	Wastewater - Sewer Service Charges	$2,051,208	108%	$2,179,964	105%	$2,282,970	108%	$103,006	5%
167	Wastewater - Operating Revenues	$2,276,967	114%	$2,437,233	110%	$2,346,913	103%	($90,320)	-4%
168	Wastewater - Operating Expenditures	$1,499,236	93%	$1,515,530	91%	$1,448,930	82%	($66,600)	-4%
169	Operating Revenues less Expenditures	$777,731		$921,703		$897,983		($23,720)	
171									
172	Non Operating Revenue	$225,192	482%	$10	0%	$284,984	19%	$284,974	2993428%
173	Wastewater Capital Expenditures	$443,580	35%	$884,810	43%	$777,907	30%	($106,903)	-12%
174	Wastewater Debt Service	$139,952	63%	$128,910	43%	$232,536	80%	$103,627	80%
175									
176									
177	Solid Waste Operating Cash Balance	$75,266		$110,522		$149,645		$39,123	35%
178	Solid Waste Revenues	$744,850	100%	$775,581	104%	$812,193	106%	$36,611	5%
179	Solid Waste Expenditures	$709,351	96%	$739,187	100%	$767,995	100%	$28,808	4%
180	Revenues less Expenditures	$35,499		$36,394		$44,198		$7,803	
181									
182									
183	**Capital Project Funds**								
184									
185	City Hall/Parking Structure Project Cash Balance	$2,027,194		$2,252,701		$2,369,909		$117,208	5%
186	City Hall/Parking Structure Project - Revenues	$255,142	96%	$257,153	100%	$639,657	256%	$382,504	149%
187	City Hall Project/Parking Structure - Expenditures	$20	0%	$31,646	8%	$557,450	63%	$525,804	1662%
188	Revenues less Expenditures	$255,121		$225,507		$82,208		($143,299)	
195									
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United States Department of the Interior

NATIONAL PARK SERVICE
Glacier National Park
West Glacier, Montana 59936

IN REPLY REFER TO:

1.A.1.Perm

AUG 2 8 2015

Whitefish City Council
418 E. Second St.
Whitefish, MT 59937

Dear Whitefish City Council:

Waterton-Glacier International Peace Park (IPP) is in the process of completing a joint application for designation as an *International Transboundary Dark Sky Preserve* (ITDSP) by the International Dark Sky Association(IDA) for both Waterton and Glacier and the–Royal Astrological Society of Canada (IDA-RASC) for Waterton. We are writing to request your support as a community partner in this process, which will earn the park an important designation and help to preserve Waterton and Glacier's already outstanding night-sky resources.

Waterton-Glacier IPP was created by a joint effort of the United States and Canada in 1932, when the Rotary International Clubs of Montana and Alberta honored the two nations' longstanding relationship of peace and goodwill by designating Waterton and Glacier national parks as the world's first international peace park. The two parks continue to cooperate to protect the natural resources found within their boundaries, and the dark sky designation is being pursued in the spirit of this partnership and in conjunction with National Park Service policy and practice. Waterton-Glacier IPP would be the first transboundary area to be designated by IDA.

Other national parks that are certified IDA Dark Sky Parks include Big Bend National Park, Capitol Reef National Park, Chaco Culture National Historical Park, Death Valley National Park, and Natural Bridges National Monument to name but a few.
The purpose of acquiring the International Transboundary Dark Sky Preserve designation is to increase awareness of, improve and preserve Waterton-Glacier IPP's extraordinary nighttime resources through night-sky education and management policies that reduce light pollution.

Support from neighboring communities is an important component of the joint application process. Your support is voluntary but shows your support of the park's efforts to protect, preserve, promote, and interpret our vanishing night sky resources. Your support would, in no way, require you to adopt or regulate lighting standards in your community. However, if you wish to explore night sky friendly lighting in your communities we would be more than happy to collaborate with you.

TAKE PRIDE IN AMERICA

Glacier National Park is seeking support from communities surrounding the park. If you are interested in supporting this endeavor, we would request either a *Resolution of Support* or *Letter of Endorsement* from you to include in the joint application. If you would like additional information on this important process, my staff or I would be more than happy to take the opportunity to present on this designation to the council.

If you have any questions or need additional information please contact Iree Wheeler by email at iree_wheeler@partner.nps.gov, or Mark Biel at mark_biel@nps.gov, 406-888-7919. Letters may be mailed to Glacier National Park, Attention: Superintendent, P.O. Box 128, West Glacier, MT 59936.

Thank you for your continued support of Glacier National Park.

Sincerely,

Jeff Mow
Superintendent

RESOLUTION NO. 15-___

A Resolution of the City Council of the City of Whitefish, Montana, accepting and approving the Whitefish Community Wastewater Management Program as prepared by the Whitefish Community Wastewater Committee

WHEREAS, the City Council created the Whitefish Community Wastewater Committee by Resolution No. 12-15 on July 16, 2012 with the following purpose:

A. Identify, monitor, and coordinate issues of wastewater management for the Whitefish Community;

B. Identify spatial and temporal extent of septic leachate contamination to the shoreline area of Whitefish Lake;

C. Provide a scientific basis for identifying ecological threats to Whitefish Lake; and

D. Prepare an ad hoc committee report with recommendations to the Whitefish City Council regarding wastewater management, septic systems, nutrient trading, and wastewater conveyance issues including:

1. Timeline of deliverables that takes into account the complexity of the issues and timing of funding opportunities.

2. Address short-term goals (such as education and outreach) and long-term goals (such as management options and/or policy setting).

3. Review current funding options and grant application deadlines so the committee can position the City to meet important deadlines.

4. Monitoring component to assess and disseminate information from ongoing investigations by the Whitefish Lake Institute and other science-based and technical organizations.

5. Prepare a list of resource agencies and decision makers to be included on communications of the committee; and

WHEREAS, the committee met a number of times during 2012 and 2013 and issued a Whitefish Community Wastewater Management Program Report in July, 2013; and

WHEREAS, the Whitefish City Council held work sessions on the progress and topics of the Whitefish Community Wastewater Committee on August 19, 2013 and November 18, 2013; and

WHEREAS, it will be in the best interests of the City of Whitefish, and its inhabitants, to accept and approve the Whitefish Community Wastewater Management Program and implement the program as time and budget allows.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Whitefish, Montana, as follows:

Section 1: All of the recitals set forth above are hereby adopted as Findings of Fact.

Section 2: The City Council of the City of Whitefish, Montana, hereby accepts and approves the Whitefish Community Wastewater Management Program report as attached as Exhibit A.

Section 3. The City Council will begin in 2015 by implementing a combination of Alternative 1, which involves an Education & Outreach component, and Alternative 2 which addresses septic leachate through a neighborhood level engineering approach. Further, City Council may choose to address the feasibility of implementing within city limits the Property Conveyance Regulation Option found in Alternative 3, Section 6.7.4 of the management plan.

Section 4: This Resolution shall take effect immediately upon its adoption by the City Council, and signing by the Mayor thereof.

PASSED AND ADOPTED BY THE CITY COUNCIL OF THE CITY OF WHITEFISH, MONTANA, ON THIS _____ DAY OF _____, 2015.

_____
John M. Muhlfeld, Mayor

ATTEST:

_____
Necile Lorang, City Clerk

Exhibit A

WHITEFISH COMMUNITY WASTEWATER MANAGEMENT PROGRAM

FINAL DRAFT

31 July 2013

Photo courtesy: gravityshots.com

Prepared for:
Whitefish City Council

Prepared by:
the Whitefish Community Wastewater Committee

This document provides recommendations to Whitefish City Council regarding wastewater management, septic systems, nutrient trading, and wastewater conveyance. Per City of Whitefish Resolution 12-15, this Program Draft includes:

- Implementation Timeline
- Funding Options
- Short-term goals (E&O, planning)
- Long-term goals (expanded E&O, management options & regulations)
- Monitoring component
- *List of Resource Agencies and Decision Makers* included in communications of the committee

The Flathead County Health Department currently manages permitting and all issues pertaining to septic systems in Flathead County. For the purposes of this *Program Draft*, the governing body is identified as "Whitefish Community Wastewater Management Program Administrator." Because this *Program Draft* suggests possible additional efforts regarding septic systems for the City of Whitefish and the 2005 Whitefish Planning Jurisdiction, the potential Whitefish Community Wastewater Management Program Administrator is often identified in addition to the Flathead County Health Department. The Whitefish City Council will review the options provided by the committee regarding program implementation and management, and will engage and work on these issues in conjunction with the Flathead County Health Department.

COMMITTEE MEMBERS

Voting Members:
Ben Cavin, Carver Bay/East Lakeshore area representative
Andy Feury, Community Member at Large, Committee Chair
Denise Hanson, P.E., Community Member at Large
Pam Holmquist, Flathead County Commissioner
Bill Kahle, Whitefish City Councilor
Jim Laidlaw, Lion Mountain area representative
John Muhlfeld, Mayor of Whitefish
Jan Metzmaker, Flathead Basin Commission Board Member
Ryan Purdy, Lazy Bay area representative
Point of Pines, never filled

Ex-officio (Non-Voting) Members:
Greg Acton, Public Works Department designee, Alternate – John Wilson
Wendy Compton-Ring, Planning Department designee
Tom Cowan, P.E., Septic-system Engineer
Carl Denny, M.D., Whitefish Water District
Rich Knapp, City Manager designee
Karen Reeves, Whitefish Lake Institute Board Member
Joe Russell, Flathead County Health Department
Frank Sweeney, Whitefish Lake Institute Board Member

Facilitators:
Mike Koopal: Executive Director, Whitefish Lake Institute and Lori Curtis: Science & Education Director, Whitefish Lake Institute

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1. INTRODUCTION

1.1. Executive Summary

The Whitefish Community Wastewater Committee is an ad hoc committee of the Whitefish City Council tasked with delivering to the City Council recommendations regarding wastewater conveyance and management, septic systems, and nutrient trading. The committee was charged with providing funding considerations, education & outreach options, management options, and a plan for ongoing monitoring. This "Whitefish Community Wastewater Management Program" is the resulting deliverable. Given the scientific evidence provided by the Whitefish Lake Institute's *Investigation of Septic Leachate to the Shoreline Area of Whitefish Lake* which corroborated several previous studies, the committee agrees that the problem of aging and/or failing septic systems needs to be addressed.

The Program offers three alternatives to address the problem. These alternatives range from a minimal resource program of taking no action with the exception of Education & Outreach to a neighborhood program addressing areas prioritized by the committee, to a comprehensive program that addresses cleaning up the prioritized areas and includes policy approaches to prevent or curtail further contamination. Each alternative has varying resource requirements and varying degrees of potential effectiveness. It is important to note that these alternatives need not be chosen exclusively. Any individual section or combination of sections of the identified alternatives may be implemented in concert with any other alternative. In short, the alternatives are offered as a "menu" of options. If the City decides to act on Alternative 2 or 3, they will likely require the assistance of a contractor to manage the effort.

This Program Draft includes historical wastewater treatment information and background on public health issues. It also includes a description of the current state of the City's wastewater infrastructure. It briefly defines the various federal, state, county and city regulations. It also details funding options and funding processes critical to addressing issues of septic leachate pollution. These details were included for the purpose of providing the most complete illustration of the current situation. The WCWC is delivering this Program to the Whitefish City Council for review and determination of action.

It was initially planned that the WCWC would sunset after the delivery of this document, and the technical facilitators' work would be considered complete. Given the timing of the first City Council Working Session, the WCWC filed and received approval for an extension of the committee through the end of 2013. The facilitators' initial consultant agreement is fulfilled with the delivery of this Program Draft. However, the facilitators may be engaged through a new agreement for further work should the WCWC and/or City Council deem it appropriate. The facilitators will attend the August City Council Working Session as part of the existing agreement.

1.2. Background

1.2.1. As a result of the *Investigation of Septic Leachate to the Shoreline Area of Whitefish Lake* (Curtis & Koopal, 2012) report prepared by the Whitefish Lake Institute (herein WLI) which corroborated prior studies, the City of Whitefish formed an ad hoc committee—the Whitefish Community Wastewater Committee (herein WCWC)—to prepare a report and make recommendations to the Whitefish City Council regarding wastewater management. This program was developed 1) to protect human health, the health of the Whitefish economy, and Whitefish Lake from trending further toward cultural eutrophication from wastewater inputs, and 2) to provide a comprehensive and equitable strategy for ensuring properly installed, operated, and maintained septic and sewer systems.

1.2.2. There are three alternatives to consider in response to the findings of the WCWC. These alternatives are further described in Sections 4-6 of this plan. The alternatives can be used individually or in combination with all or part of the other alternatives. It is important to note that there are numerous funding opportunities to address the costs associated with the chosen alternative.

1.2.3. Alternative 1 is to take no action beyond Education & Outreach. Alternative 2 addresses the Whitefish Lake Watershed by concentrating on cleaning up areas of known septic leachate contamination identified in the septic leachate report and/or as prioritized by the WCWC. Alternative 3 could include the activities of Alternative 2, but also adds measure to curtail or prevent future contamination from failing and/or aging septic systems through policy approachesThis program

reiterates a number of existing state, county, and city regulations, while also recommending programs that could—over time--simplify the process of identifying and bringing up to date aging and/or failing septic systems. Existing regulations are noted by two-letters within parenthesis throughout the document as follows: MT= State of Montana, FC=Flathead County, CW= City of Whitefish. The regulation may be used in a sentence that adapts it to use by another management entity.

1.2.4. The WCWC compiled a *List of Resource Agencies and Decision Makers* to include in communications of the committee. The list is attached as Addendum A. It is the responsibility of the committee members and the resource agency and decision makers receiving communications of the committee to communicate the work product of this committee to their appropriate constituents.

1.3. Purpose of Committee

1.3.1. The committee formed under Resolution 12-15 to identify, monitor, and coordinate wastewater management issues for the community of Whitefish, and to deliver to the City Council a plan with recommendations regarding wastewater conveyance and management, septic systems, and nutrient trading. The report is to include funding considerations, education & outreach options, management options, and a plan for ongoing monitoring. This "Whitefish Community Wastewater Management Program" serves as the deliverable for this committee.

1.3.1.1. The committee was asked to address the defined issues for the "community of Whitefish." The committee has interpreted the "Community of Whitefish" to include areas that directly influence Whitefish and Whitefish Lake.

1.3.2. Resolution 12-15 (Addendum B)

1.3.3. There are a few issues that may seem related to this program for which the WCWC does not have jurisdiction and which do not fall within the scope of the committee. They include:

1.3.3.1. Annexation: It is not within the scope of this committee to make recommendations regarding annexation.

1.3.3.2. City Services & Fees: It is not within the scope of this committee to make recommendations regarding the provision of City services or the setting of fees for these services.

1.3.3.3. Whitefish Planning Jurisdiction: It is not within the scope of this committee to make recommendations or comment on the ongoing legal dialogue between the City of Whitefish and Flathead County regarding the planning jurisdiction.

1.4. Investigation of Septic Leachate to the Shoreline Area of Whitefish Lake Summary & Map

1.4.1. Executive Summary (Addendum C)

WLI conducted an investigation for the Whitefish County Water District under the Department of Natural Resources and Conservation Renewable Resource Grant & Loan program to determine the spatial and temporal extent of septic leachate to the shoreline area of Whitefish Lake (Curtis & Koopal, 2012). The study employed a toolbox of techniques to describe septic leachate, including; fluorometry, dissolved organic carbon (DOC), fluorometry/DOC ratio (F/DOC), *E. coli* enumeration, human DNA biomarkers, conductivity, total dissolved solids (TDS), and GIS methodologies. The study concluded with the development of a *Septic Leachate Contamination & Risk Assessment Map* which identifies confirmed sites of septic leachate contamination as well as areas of low, medium, and high potential for future contamination. This assessment is scientifically corroborated by past studies (as found in section 1.5) of a long-standing local issue.

1.4.2. Risk Assessment Map: Attached as Addendum D

1.5. Prior Studies

1.5.1. 1976 The Montana Department of Natural Resources and Conservation (DNRC) has, since 1976, measured total phosphorus, nitrates, and nitrogen entering Whitefish Lake from Swift Creek.

1.5.2. 1977 U.S. Environmental Protection Agency: The US Environmental Protection Agency (EPA) conducted a National Eutrophication Survey in which Whitefish Lake was classified as *oligotrophic*, but the EPA warned that any significant increased nutrient loading to the lake could result in degradation of water quality, and they urged that "every effort be made to limit phosphorus inputs to the lake" (U.S. Environmental Protection Agency, 1977). An oligotrophic lake has low nutrient content, therefore low primary productivity, low algal production, and clear, high-quality, drinkable water that also supports numerous fish species.

1.5.3. 1981 Flathead County Sanitarian: Dye tests conducted by the Flathead County Sanitarian in 1981 confirmed that septic tank effluent was entering Whitefish Lake from a number of sites along the east

lakeshore. In addition, the Sanitarian determined that septic systems were failing in a number of areas other than along the lakeshore (Whitefish County Water and Sewer District, 1984).

1.5.4. 1984 US Environmental Protection Agency: In September of 1984, the EPA's Region 8 Water Division requested laboratory analysis of color infrared aerial photographs of Whitefish, including the developed sections of the Whitefish Lake shoreline. The photos were stereoscopically examined for indications of malfunctioning septic systems. In October of 1984, several suspected failing septic systems were inspected. The ground observations provided an added level of detail that identified and isolated issues other than septic failure—such as Fairyring fungus, natural grass species patterns, and old filled-in drainage channels—so that actual septic system failures were correctly identified. Results of the study showed 85 possible failed septic systems of the 147 investigated, 55 with high confidence (U.S. Environmental Protection Agency, 1985). These historical results corroborate our current findings at sites where older septic systems remain in operation.

1.5.5. 1984 Flathead Biological Station: A limnological study of Whitefish Lake in the early 1980s by the Flathead Lake Biological Station indicated that the lake was in a transitory phase toward eutrophication (Golnar & Stanford, 1984). They reported that most metrics measured at that time (primary productivity, phytoplankton structure and density, total organic carbon, and total nitrogen) were within the typical ranges of an oligotrophic water body. However, oxygen depletion in the *hypolimnion* (the dense bottom layer of water—below the *metalimnion* (the transition layer between surface and deep water)—in a thermally stratified lake) during late summer, combined with high total phosphorus concentrations in the *epilimnion* (the top-most layer in a stratified lake) were associated with *mesotrophic* lakes (lakes with intermediate productivity, generally clear with submerged plant life and a medium level of nutrients).

1.5.6. 1986 Flathead Biological Station: A study sponsored by the Whitefish County Water and Sewer District and conducted by the Flathead Lake Biological Station investigated septic contaminated groundwater seepage as a nutrient source to Whitefish Lake (Jourdonnais *et al*. 1986). That study found evidence of septic contaminated groundwater and surface water along shoreline locations around the lake. The Jourdonnais *et al* report was instrumental in providing baseline data for comparison in the WLI 2012 study. The study was also used to support a grant application to extend the sewer system along a portion of the east shore of Whitefish Lake. This work was completed in the late 1980s.

1.5.7. 2003 Flathead Lake Biological Station: The Flathead Lake Biological Station returned to Whitefish Lake to gather data in 1986, 1987, and 1993, and select data were later reported in their Whitefish Lake Water Quality Report (Craft *et al*, 2003).

1.5.8. 2005 WLI formed with the objective of implementing a long-term Whitefish Lake Water Quality Monitoring Program. The goal of the program is to provide a comprehensive understanding of the lake resource by consistently gathering physical, chemical, and biological data for the lake and its tributaries over time and to gain an understanding of Whitefish Lake watershed processes. While the program takes into account past studies, it offers a higher level of consistency and coordination, a baseline data set, and an integrated long-term analysis of the lake. Prior studies on Whitefish Lake have been generally limited in duration and/or scope.

1.6. Trend analysis

1.6.1. Public, Economic, & Environmental Health

1.6.1.1. The City of Whitefish finds that regulating the treatment and disposal of wastewater and that the design, construction, use, alteration, maintenance, and repair of on-site wastewater treatment systems on or near Whitefish Lake will help in the control of human diseases and environmental pollution.

1.6.1.2. The regulations described in this program were developed to define and enforce the proper treatment of sewage, and are deemed necessary for the protection of the public, economic, and environmental health of the community of Whitefish.

1.6.1.3. The economic success of the services and retail enterprises sectors in Whitefish are driven by the appeal of the local geography. The high quality of Whitefish Lake and its tributaries and other waterways, surrounding forested lands, parks and recreation areas, abundance of wildlife, and numerous year-round sporting and recreation activities provide a desirability for living and visiting offered by few places in the US. The strength and durability of the Whitefish

economy are therefore highly dependent on the health of the environment. Additionally, the City of Whitefish gets a portion of its municipal water supply from Whitefish Lake at certain times of the year. As Whitefish Lake is a headwater for Flathead Lake, its health is of concern throughout the region. For all of these reasons, it is important to protect the health of the lake.

1.6.1.4. As described in the *Investigation of Septic Leachate to the Shoreline Area of Whitefish Lake* (Curtis & Koopal, 2012) …there are several constituents of concern to human health from wastewater, including biological contaminants (bacteria & viruses); synthetic organic contaminants (algaecides, pesticides, and herbicides); and inorganic contaminants such as phosphorus, nitrogen, metals (lead, tin, zinc, copper, iron, cadmium, and arsenic), sodium, chlorides, potassium, calcium, magnesium, and sulfates (U.S. Environmental Protection Agency, 1984). Pathogenic viruses are a major concern because they can enter groundwater from numerous sources, the most common being livestock waste, landfill effluent, and septic systems. Infective viruses have been shown to move 50 m (164 ft) in depth from septic tanks to drinking wells, and controlled studies have shown horizontal movement of up to 1.6 km (just under one mile) (Dodds, 2002). Deborde et al (1999) demonstrated that the poliovirus moved approximately 20 m (65.6 ft) in a course cobble aquifer resulting in a virus mortality rate of less than 1%. Soil properties, temperature, organic matter, microbial activity, and virus survival times all potentially influence the spread of viruses through groundwater.

1.6.1.5. Another set of health concerns emanating from groundwater contamination come from nitrates. High nitrate concentrations in drinking water have been linked in studies to Methemoglobinemia and “blue baby” syndrome (Avery, 1999), hypertension (Malberg et al, 1978), central nervous system birth defects (Dorsch et al, 1984), certain cancers (Hill et al, 1972) non-Hodgkin’s lymphoma (Ward et al, 1996 & Weisenberger, 1991), and diabetes (Parslow et al, 1997). Additional research is needed to further understand these linkages, but concern for nitrate related health risks from sewage outfall remains high. Some high nitrate readings have been recorded in the west Flathead Valley.

1.6.1.6. In addition to creating general human health hazards, one of the other main concerns regarding septic systems is the potential for long-term chronic nutrient, pollutant and bacterial loading to lakes. Bacteria, degradable organic compounds, synthetic detergents, and chlorides can enter and contaminate water and can increase eutrophication of lakes. The eutrophication process in lakes is natural. Typically as lakes age, nutrients, sediment, and plant material accumulates, slowly filling a lake’s basin. The basin eventually—over centuries—becomes inhabited by terrestrial vegetation. The timing is highly variable, depending on the climate and characteristics of the basin and its watershed. However, by altering nutrient and sediment inputs, humans have greatly increased the rate at which eutrophication takes place. Depending on the lake and degree of human impact on it, this cultural eutrophication can take place in a much shorter timeframe. Cultural eutrophication occurs when the addition of nitrates, phosphates, and sediment above natural background levels promotes excessive plant growth and decay, showing preference to algae and plankton over other aquatic plants. Enhanced growth of algae and phytoplankton can lead to a partial lack of available dissolved oxygen (hypoxia) or a total lack of available dissolved oxygen (anoxia) needed by fish and other aquatic life forms to survive, thereby disrupting normal ecosystem functioning. Algae normally produce oxygen through photosynthesis, but under eutrophic conditions, water clarity is reduced, as is underwater light needed by algae to produce oxygen. When algae lose the ability to produce oxygen, they begin to consume it, reducing available dissolved oxygen for other aquatic life forms. Further complications also arise as algae blooms die and precipitate to the lake bottom where bacterial and microbial decomposers further deplete available dissolved oxygen. Eutrophication can rapidly turn a lake into an anoxic and lethal environment. In addition to impacting fisheries, eutrophication also decreases the value of lakes for swimming, boating, fishing, and aesthetic enjoyment which can have significant economic impacts.

1.7. Current Wastewater Facilities & Infrastructure - Excerpted from the *Investigation of Septic Leachate to the Shoreline Area of Whitefish Lake* (Curtis & Koopal, 2012).

1.7.1. <u>City of Whitefish Sewer Infrastructure</u>

1.7.1.1. The City of Whitefish sewer system includes about 46 miles of conventional gravity sewer mains, 17 lift stations, 13 duplex grinder pump stations which each serve 1020 residences, and two septic tank pump systems on the east shore of Whitefish Lake. The wastewater treatment plant is located on 40 acres south of town alongside the Whitefish River and has a capacity of 1.8 million gallons per day. The system collects wastewater, delivers it to the main sewage lift station then to an aerated lagoon treatment system for the removal of phosphorus, finally discharging the water to the Whitefish River.

1.7.1.2. Lift station installation dates range from 1960 to 2003, with the main lift station having undergone a rehabilitation effort in 2003. The lagoons were built in 1979. An alum based phosphorus removal process was added and improvements to the main lift station were made in 1986. The lagoons were upgraded in 2002 with sludge removal and new aeration filters. In 2009, an automated 5mm bar screen was installed to replace the 2" bar screen that required manual cleaning. A second clarifier was also brought online. In 2012, the State is mandating disinfection before effluent enters the Whitefish River. (Cassidy *et al*, 2008). The City has continued to contract with engineers to identify wastewater system weaknesses and make improvements to the system including the 2011 project to rehabilitate 11,400 linear feet of sewer mains.

1.7.1.3. The bulk of the sewer system includes conventional gravity sewers, augmented by lift stations where required by terrain (Figure 3). Lift stations located in close proximity to the lake include Mountain Park, Boat House, Birch Point, City Beach, Viking, Monk's Bay, and Houston Point. According to an engineering report prepared for the City of Whitefish (Anderson-Montgomery, 2005), the City's gravity sewers have performed satisfactorily with the exceptions of typical root intrusions, cracked pipe sections, and occasional joint separations in older vitrified clay pipe sections. Manholes have been upgraded or replaced as needed due to structural deterioration. Hydraulic performance of the existing gravity system is good and the capacity of the treatment plant is sufficient to serve current customers and growth through the year 2020 (City of Whitefish, 2012).

1.7.2. <u>Septic System Installations</u>

1.7.2.1. Flathead County started requiring septic permits in 1970, even though the permitting process was voluntary for the first two years. As a result, it is not possible to determine septic system density pre-1970 (Flathead County, 2006).

1.7.2.2. Data from the Flathead County Department of Environmental Services reported there was a 44% increase in septic system installations from 2000-2005. There were 668 permits issued for new septic systems in 2005. After an increase to 727 new permits in 2006, issued permits declined continuously from 611 in 2007 down to 245 in 2011 (Flathead County, 2012).

1.7.2.3. The county's septic system permit database was updated in 2011 to capture previously unavailable information, and the county Geographic Information System (GIS) Septic System Permit Map was updated with this information. Although there remain numerous unknowns about septic system age and placement around Whitefish Lake, this updated information is the most current data available from Flathead County on relative density and age of septic systems around the lake. For this study, our GIS analyst researched and analyzed all other septic system databases and combined them to provide the most comprehensive view of septic system density around Whitefish Lake.

1.7.2.4. Since the earliest on-site wastewater regulations in Flathead County in 1969, regulations for septic systems have been continuously revised based on new science and technology. Each revision has represented improvements in construction standards and technologies with an emphasis on treatment, and has resulted in a tightening of regulations. Until 2005, most systems consisted of a tank and gravity flow drainfield. Currently, all systems use uniform pressure distribution in the drainfields requiring the use of a pump or siphon to pressurize the system. Since 2002, in compliance with the state Water Quality Act, an analysis on the impacts of water from nitrates and phosphorus is done prior to the issuance of any septic permit (Cassidy *et al*, 2008).

2. SCOPE & AUTHORITY

2.1. Geographic Scope of Program

2.1.1. This program and its regulations apply to any person or entity constructing, using, maintaining, altering, or repairing new, existing, or abandoned on-site wastewater treatment systems. The program addresses on-site wastewater management throughout the Whitefish Lake Watershed, and in the case of Alternative 2 and 3, includes the Whitefish Planning Jurisdiction. If Alternative 3 is selected, the geographic scope would need to be further fleshed out.

2.2. Management Authority

2.2.1. Program Management Authority

2.2.1.1. The Management Authority will depend on the Alternative chosen. If Alternative 2 is selected, the City will most likely need to partner with other entities. If Alternative 3 is selected, the City Council will work with Flathead County to determine the jurisdictional body that will have management authority over the final Whitefish Community Wastewater Management Program. Given the current legal dialogue regarding the Whitefish Planning Jurisdiction, the management authority for this Program is herein identified as the Whitefish Community Wastewater Program (WCWMP) Administrator.

2.2.2. Current State & Local Regulatory Authorities (in Montana, the State, counties, and cities all currently have the authority and responsibility to regulate subsurface wastewater treatment systems (SWTS) (U.S. EPA, 2006). Regulating authorities in Whitefish include the State of Montana, Flathead County, and the City of Whitefish. Their general regulations are listed below. This program will recommend changes and or additions to existing ordinances, and may suggest establishing additional regulations.

2.2.2.1. Montana (ARM 17.36.9 On-Site Subsurface Wastewater Treatment Systems (http://www.mtrules.org/gateway/Subchapterhome.asp?scn=17%2E36.9): Circular DEQ4 Montana Standards for Subsurface Wastewater Treatment Systems (www.deq.mt.gov/wqinfo/Circulars/DEQ42004Edition.pdf);TMDLs; DEQ Voluntary National Guidelines for Management of Onsite and Clustered (Decentralized) Wastewater Treatment Systems (water.epa.gov/infrastructure/septic/upload/onsite_handbook.pdf)

2.2.2.1.1. Setback, depth to groundwater, and septic size requirements; groundwater mixing zone regulations: subdivision requirements; DEQ approved system, non degradation guidelines, management guidelines

2.2.2.1.2. Construction or alteration of on-site wastewater treatment systems must, in addition to any regulations herein, conform to Circular DEQ-4 and A.R.M. 17.36.900.

2.2.2.2. Flathead County (Regulations for Onsite Sewage Treatment Systems – effective 1/1/05): Attached as Addendum E.

2.2.2.2.1. Flathead County regulations were written pursuant to Title 50-2-116: Powers and duties of Local Boards; they cover all sewage treatment systems in Flathead County except "Municipal and Publicly owned Treatment Systems." Listed herein is a sampling of some of the key Flathead County regulations. The City of Whitefish proposes that residents in the City and in the Whitefish Planning Jurisdiction follow all Flathead County regulations while considering additional regulations specific to the City of Whitefish. These regulations may be more stringent as necessary to protect the health and economy of the community of Whitefish. The City of Whitefish may consider recommending a Memorandum of Understanding (MOU) with Flathead County to support these efforts outside the City limits but within the Whitefish Planning Jurisdiction.

2.2.2.2.2. Flathead County Regulations require that wastewater must be treated so that:

2.2.2.2.2.1. It will not contaminate any existing or future drinking water supply,

2.2.2.2.2.2. It will not be accessible to insects, rodents, or other possible carriers which may come into contact with food or drinking water,

2.2.2.2.2.3. It does not pose a health hazard by being accessible to children,

2.2.2.2.2.4. It will not pollute or present the potential to contaminate any surface or ground water,

2.2.2.2.2.5. It will not give rise to a nuisance due to odor, insect or animal attraction,

2.2.2.2.2.6. It will not violate laws or regulations concerning water quality protection or sewage treatment/disposal.

2.2.2.3. City of Whitefish (Whitefish Water Quality Regulations; Whitefish Area Lake & Lakeshore Protection Regulations; Whitefish Growth Policy; Zoning & Subdivision Regulations)

2.2.2.3.1. The Whitefish Water Quality Regulations (Addendum F) are designed to apply development standards to lots or parcels with the greatest chance of affecting water quality. The regulations are intended to:

2.2.2.3.1.1. Protect and improve the quality of Whitefish area's water bodies, including lakes, streams, and the Whitefish River, which are central to the community's identity and values; and

2.2.2.3.1.2. Protect public safety, public and private property, and water quality from threats of geologic instability and erosion; as well as provide other protections unrelated to this program.

2.2.2.3.2. The regulations are applicable to:

2.2.2.3.2.1. Any new or expanded residential, commercial or industrial development proposal within two hundred (200) horizontal feet of a lake, river, wetland, stream or stormwater conveyance; and applies to lots or parcels that were created by whatever means prior to April 3, 2006 or after March 3, 2008.

2.2.2.3.2.2. Authority for the regulations is contained in MCA 76.2.301 (Municipal Zoning Authorized) and MCA 76.2.304 (Criteria and Guidelines for Zoning Regulations).

2.2.2.3.3. The Whitefish Area Lake and Lakeshore Protection Regulations (attached as Addendum G) designated under City of Whitefish City Codes Title 13, Chapters I-IV to provide regulations and enforcement, and are adopted under the authority of the State of Montana, Montana Code Annotated 75-7-2-7, which requires local governing bodies to adopt regulations regarding the issuance or denials of permits for work in lakes within their jurisdiction, including land which is within twenty (20) horizontal feet of the mean annual high water elevation. The purpose of the regulation is to:

2.2.2.3.3.1. Protect the fragile, pristine character of Whitefish area lakes and the intertwined adjacent riparian and upland areas;

2.2.2.3.3.2. Conserve and protect natural lakes because of their high scenic and resource value;

2.2.2.3.3.3. Conserve and protect the value of lakeshore property;

2.2.2.3.3.4. Conserve and protect the value of the lakes for the state's residents and visitors who use them (Ord. 09-08, 7-20-2009)

2.2.2.3.3.5. The Regulations describe in Chapter 2: Permit Requirements, Section 13-2-1 activities requiring permits, which includes "L. Installation of water lines, sewer lines, or other utility lines or facilities; and Chapter 4: Administration and Enforcement, Section 13-4-1 which explains the creation, composition, and compensation of the committee as "…a special planning board in compliance with section 75-7-211 Montana Code Annotated empowered to review and comment on all activities within the jurisdiction of the Whitefish Lake and lakeshore regulations.

2.2.2.3.4. In addition to the above mentioned regulations, the Whitefish Growth Policy describes services provided by the City, broad concepts and guidelines, and implementation strategies, as well as addressing water quality and sustainability, and other environmental protections.

2.2.2.3.5. If appropriate, final wastewater management regulations may be recommended for inclusion in the existing Zoning & Subdivision regulations.

2.3. Administration

2.3.1. Short Term Administration

2.3.1.1. Short Term Administration of final WCWMP as approved by City Council and adopted by the City of Whitefish for Alternative 1 will include all work up to delivery of this program to City Council. For Alternative 2 or 3, it will include all work up to and including Project Grant Funding Training through the Water, Wastewater and Solid Waste Action Coordinating Team - W2ASACT (Addendum H); and development of a calendar for Preliminary Engineering Report

(PER) Planning Grant Applications, PER Requests for Proposals (RFPs), and Project Funding Grants and Loans—all work prior to the "Uniform Application." The Uniform Application is one of the important outcomes of W2ASACT. It allows for communities and municipalities to use one main application to apply for funding from a number of federal, state, and local agencies. The process greatly reduces duplication of funding solicitation work effort.

2.3.1.1.1. PER's are intended to provide alternatives based on the specifics of each area. It should be noted that the prioritization of PER completion does not necessarily parallel the sequence for on-the-ground word or the funding of such work. In other words, the PERs could supply information that would change the priority of work in the different neighborhoods. See Figure 3 for PER Focus Areas.

2.3.2. Long Term Administration

2.3.2.1. Long Term Administration of final WCWMP as approved by City Council and adopted by the City of Whitefish for Alternative 2 will include all work from the "Uniform Application" through construction management. For Alternative 3, it will include the adoption and administration of policy.

2.3.2.2. Long Term Administration of final WCWMP as approved by City Council and adopted by the City of Whitefish includes:

2.3.2.2.1. The Whitefish Community Wastewater Program Administrator will create an administrative structure to manage the Whitefish Community Wastewater Program. The administrative structure will likely include participation from or partnerships with

2.3.2.2.1.1. Flathead County

2.3.2.2.1.2. Whitefish County Water District

2.3.2.2.1.3. Third Party Engineering Consulting Firm(s)

2.3.2.2.1.4. WLI

2.3.2.2.1.5. One or more of the relationships may require the development of a Memorandum of Understanding (MOU)

2.4. Program Funding

2.4.1. Short Term Program Funding

2.4.1.1. Funding Sources currently available for conducting PERs include

2.4.1.1.1. DNRC Planning Grants

2.4.1.1.2. Treasure State Endowment Program(TSEP) Planning Grants

2.4.1.1.3. The City of Whitefish

2.4.1.2. The following entities were identified as potential sponsors of planning grant applications for PER(s) based on their qualifications to sponsor applications.

2.4.1.2.1. City of Whitefish: East Lakeshore, Viking Creek (Some of these areas have City of Whitefish services)

2.4.1.2.2. Whitefish County Water District: Lion Mountain, Point of Pines (These areas are not serviced by the City of Whitefish sewer system)

2.4.1.2.3. Flathead County: Lazy Bay (This area is not serviced by the City of Whitefish sewer system)

2.4.1.3. Based on the final timeline of activities, appropriate entities and their staff will be assigned to

2.4.1.3.1. Complete planning grant (PER) applications,

2.4.1.3.2. Solicit Requests for Proposals (RFQs) for project work

2.4.1.3.3. Administer planning grant funds,

2.4.1.3.4. Complete the W2ASACTUniform Application for project funding, and

2.4.1.3.5. Manage project funds.

2.4.2. Long Term Program Funding

2.4.2.1. Long Term Program Funding will come from multiple grant and loan sources to cover:

2.4.2.1.1. <u>Program Infrastructure Costs</u> such as septic system upgrades, replacements, and additions to the City sewer infrastructure.

2.4.2.1.1.1. PERs completed during the Short Term Administration will identify options for specific areas which may include: Individual system replacement – regular, Individual system replacement – Level II, Upgrade to Communal System, Connect

to City Sewer (Including City of Whitefish service extension possibilities, initial hook-up fees, and ongoing costs to residents)

2.4.2.1.1.2. PERs completed during the Short Term Administration will determine Scope of Work requiring funding, including identifying the number of Tier I, Tier II, and Tier III septic systems to be replaced and/or improved.

2.4.2.1.2. Management Costs: for staffing to develop and implement the Program

2.4.2.1.3. The City of Whitefish will determine funding sources (working with W2ASACT) and will work on a Uniform Application for program infrastructure funding. Funding sources will likely include

2.4.2.1.3.1. The City of Whitefish

2.4.2.1.3.2. DNRC RRGL Project Grants

2.4.2.1.3.3. TSEP Construction Grants

2.4.2.1.3.4. MT State Revolving Fund (SRF)

2.4.2.1.3.5. Federal and State Loans

2.4.2.1.3.5.1. USDA Rural Development Grants & Loans

2.4.2.1.3.6. SID or RSID

2.4.2.1.3.7. Nutrient Trading Program: The State of Montana adopted a policy for nutrient trading which will provide numeric criteria for nutrients (nitrogen and phosphorus) in an effort to reduce nutrient loading and meet wastewater facility compliance criteria. There will be options for wastewater facility compliance including point to non-point source pollution credit exchanges. A nutrient trading program could allow the City to obtain compliance credits for financially enabling homeowners with failing or aging septic systems to hook up to the City sewer system where available. Where the sewer is unavailable, it could reduce costs to the City allowing the City to provide financial incentives to homeowners to join a communal septic system, or upgrade to current individual on-site septic system technology.

2.4.2.1.3.7.1. The economic and natural resource benefits of nutrient trading appear to be very promising for the community. By participating in a nutrient trading program, the City would directly reduce the amount of expenditure required to meet nutrient loading criteria for its wastewater facility plant-while also providing a vehicle to cover part of the cost for individuals to connect to the City sewer system. Participation in this program would reduce nutrient loading to Whitefish Lake and the Whitefish River from non-point source pollution, and will protect the water quality and beneficial uses of Whitefish Lake. The City was awarded a grant to explore the concept of nutrient trading as a tool for net economic benefit to the community and to protect and improve water quality.

2.5. Implementation Timeline

2.5.1.1. Program Implementation timing will be defined by the availability of funding sources. Funding availability is driven by legislative cycles. A proposed timeline with grant and loan funding cycles and proposal submission dates follows in two formats, Figure 1 and Figure 2

2.5.1.2. Program administrative infrastructure must be in place prior to completing the Uniform Application

2.5.1.3. Because the overall Whitefish Community Wastewater Program encompasses extensive, costly, and time-consuming components, the Program will likely be implemented in phases. The Program must therefore prioritize project areas based on threats to public, economic, and environmental health, funding availability, as well as the City's ability to manage program components.

WCWC FUNDING, PER & PROJECT IMPLEMENTATION CALENDAR

2013			
July 1	Renewable Resource Lg Watershed Planning Grant* (For overall watershed project plan)	$50K - $100K	Application Due (Odd years)
July or later	Renewable Resource Large Watershed Planning Grant		Grant Funded
July or later	Begin to write watershed plan		
2014			
July	Deliver Watershed Plan to DNRC		Must be done in one year
2015			
FCFS once Funding In place	TSEP Planning Grants	$15K ea	Applications Due
May 15	RRGL Project Planning Grants (3) For (*proposed*) : PER 1: City of Whitefish applies for East Lakeshore Drive PER 2: Whitefish Water & Sewer District applies for Lion Mountain PER 3: Flathead County applies for Lazy Bay	$20K ea	Applications Due (Odd years)
Spring-Early Summer	TSEP Planning Grants		Grants Funded
July 1 or later	RRGL Project Planning Grants		Grants Funded
July-December	Engineer conducts PERs 1, 2, 3		
2016			
May 15	Renewable Resource Project Grant $100K (For doing actual septic system upgrade work)		Uniform Application Due
April/May	TSEP Construction Grants (For doing actual septic system upgrade work)	$500K-$750K	Uniform Application Due
2017			
May 15	RRGL Project Planning Grants (3) For (*proposed*) : PER 4: Point of Pines PER 5: Viking Creek	$20K ea	Applications Due (Odd years)
July 1	Renewable Resource Project Grant Begin Infrastructure projects		Grant Funded
As approved by legislature	TSEP Construction Grants Begin Construction projects		Grant Funded

* Watershed Plan further define areas and assess habitat, quantify population, establish flow and loading criteria, summarize physical attributes of area, summarize known problems with on-site waste disposal, review funding mechanisms, consider nutrient trading potential, continue public education; all applicable to next step which is PER.

Figure 1. WCWC Funding, PER, and Project Implementation Calendar

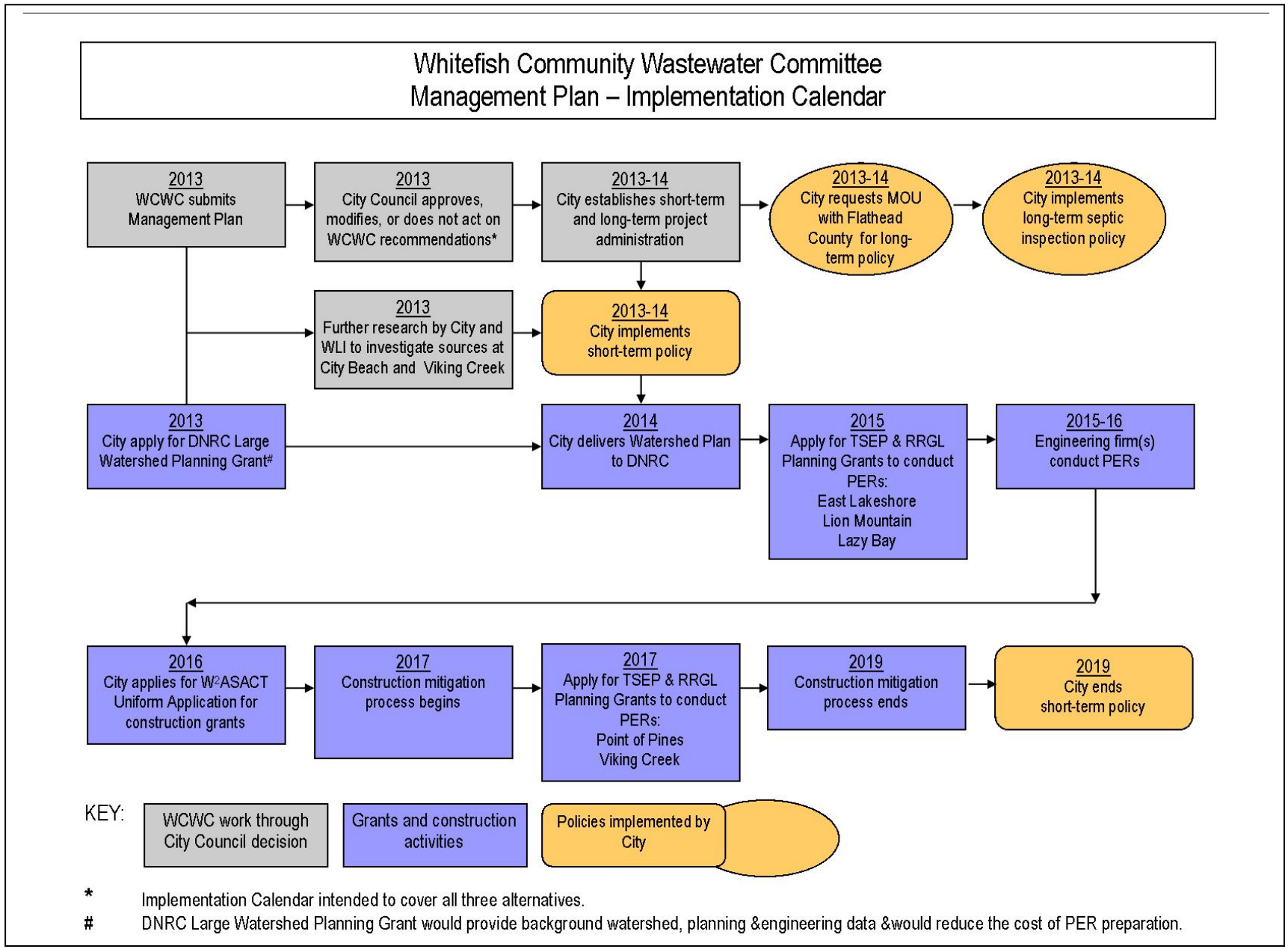

Figure 2. WCWC Management Plan Visual Implementation Calendar

3. EDUCATION & OUTREACH
   3.1. Short Term Education Goals
      3.1.1. Public awareness, involvement, and support of the Whitefish Community Wastewater Management Program will be important to its successful execution. The WCWC will work to make the Public aware of the committee's existence and its development of a Whitefish Community Wastewater Management Program and its financial assistance component. Efforts will focus on community awareness about wastewater management around and affecting the Whitefish Lake Watershed, and its effect on the Flathead Watershed. This will be accomplished through:
         3.1.1.1. A monthly column in the Whitefish Pilot: Published columns attached as Addendum I.
         3.1.1.2. Articles, letters to the editor, and press releases
         3.1.1.3. Holding Community Forums
            3.1.1.3.1. Results of March 2013 Community Forum are attached as Addendum J.
   3.2. Provide informational web links to septic system information on City of Whitefish and Flathead County websites so the public can begin to understand the issues and some of the potential solutions. Homeowners have a number of options depending on their situation. Because the implementation of this program is a lengthy process, homeowners with current septic system issues may need to act before a final program is in place. Some of the options available include updating an older septic system to a modern more efficient one, joining a communal on-site wastewater management system, or hooking up to City sewer if it is available. There are varying costs associated with each of these options, and in some cases there may be grants or loans available to help individuals accomplish their upgrades. The committee recommends that as much information as possible be provided on the City of Whitefish website.
   3.3. Long Term Education Goals
      3.3.1. Describe to the Public water quality goals around which criteria setting will be based, and for which policy standards will be developed to drive implementation of those water quality goals. Relate goals to human health, economic viability, and environmental health.
      3.3.2. Provide information on the Program through:
         3.3.2.1. Direct mailings to homeowners in and near priority areas
         3.3.2.2. Inserting program information in municipal utility bill mailings
         3.3.2.3. Postings in heavily trafficked public places (library, etc.)
         3.3.2.4. Outreach Events
            3.3.2.4.1. DEQ O&M Program (Joe Meek)
            3.3.2.4.2. Professional Septic System and City Sewer System Provider events
               3.3.2.4.2.1. Wastewater Systems 101 w/Septic System Tours (factory & on-site installations)
               3.3.2.4.2.2. City Sewer 101w/Wastewater Treatment Facility Tour
      3.3.3. Public/Homeowner Information
         3.3.3.1. Presentations to community organizations, HOAs, realtors,
         3.3.3.2. Septic System Care Fact Sheet & Checklist
            3.3.3.2.1. Describe importance of what is input into the system
            3.3.3.2.2. Describe modern water saving plumbing fixtures
         3.3.3.3. Provide "Septic System Installer Checklist"
         3.3.3.4. Provide "Choosing a Septic System Care Provider Checklist"

4. ALTERNATIVE 1
   4.1. Alternative 1 is to take no action beyond Education & Outreach. While this alternative requires minimal human-and limited financial resources, it is very limited in addressing the current or future health of the lake or the health and safety of the community. The septic leachate pollution issues on Whitefish Lake would continue to exist and lake ecosystem conditions would continue to decline. The community of Whitefish would prolong addressing the pollution issue and would likely spend more money and resources addressing a larger problem at a later date.

5. ALTERNATIVE 2
   5.1. Alternative 2 addresses the Whitefish Lake Watershed by concentrating on cleaning up neighborhood level areas identified in the septic leachate report and as prioritized by the WCWC. This alternative will mitigate contamination in the areas already identified. It does not require additional staff and can be handled by the

City of Whitefish and their project partners and outside consultants through the processes currently in place to address infrastructure improvements. It will not, however, address septic leachate groundwater pollution inputs from areas outside of those identified, nor will it address future septic system failures.

5.1.1. All current available information was used to develop a geographic scope within the Whitefish Lake Watershed that prioritizes problem areas identified by scientifically supported level of concern in the WLI investigation. These areas that have been identified as follows:

5.1.2. Tier I

5.1.2.1. Lazy Bay: High fluorometric values, high *E. coli* and positive human DNA markers coupled with a high density of aging septic systems *provide substantial evidence to pursue a Preliminary Engineering Report (PER).*

5.1.2.2. Lion Mountain: High fluorometric values, and high *E. coli* coupled with a high density of aging septic systems on a fractured bedrock bedding plane *provide substantial evidence to pursue a PER.*

5.1.2.3. East Lakeshore Drive (Gaines Point to Big Mtn. Road turn-off): This area had medium fluorometric values and has medium to high density of aging septic systems depending on localized area. In addition, Jourdonnais et al (1986) found this area with significantly high fluorometric and conductivity values. Carver Engineering also noted anecdotal evidence that found soils of Alpine Village to be poor for septic system suitability. *The combination of reports provide evidence that pursuing a PER for this area is warranted, however, the geographic scope needs to be clearly defined.*

5.1.3. Tier II

5.1.3.1. City Beach Bay: The positive human DNA biomarker found in this area was interpreted as drift from City Beach or from failure of the City sewer system due to the lack of septic systems in the area. *The best approach in this area is to not include in a PER but to have the City of Whitefish Public Works investigate/rule out a sewer system breach.*

5.1.3.2. Viking Creek: The positive human DNA biomarker found in this area was interpreted as possible failure of the sewer system or from an upper watershed source. *The best approach in this area is to have the City of Whitefish Public Works investigate/rule out a sewer system breach, and for WLI to conduct a synoptic sampling of Viking Creek to rule out an upper watershed source. The committee has identified this area for a PER.*

5.1.3.3. The City of Whitefish completed their investigation of City Beach and Viking Creek in mid-May and provided results of that work in Addendum K.

5.1.4. Tier III

5.1.4.1. Point of Pines: Due to medium range fluorometric values and a relatively medium to high density of aging septic systems near the lake this area is in need of mitigation. In 2012, a community wastewater facility was completed on DNRC land with partial hook-up occurring. There was no WLI data collection point south of Point of Pines; however, there is a medium density of aging septic systems in the area. *The approach in this area could be served by a PER, however the cost benefit of drafting a PER for the small population served, lends itself to mitigation through a long-term policy approach or a lower PER prioritization.*

5.1.5. General: Prioritization of risk assessment was driven by science. A number of factors (not any one factor) were analyzed in the *Investigation of Septic Leachate to the Shoreline Area of Whitefish Lake* study to develop this risk assessment and the resulting geographic scope tiers. This tier structure will remain in effect unless or until further research provides additional information to suggest re-categorization, or City Council chooses to re-categorize,.

Figure 3. Preliminary Engineering Report Focus Areas – This represents a very generalized scope of neighborhood boundaries.

6. ALTERNATIVE 3

6.1. Alternative 3 utilizes policy to curtail or prevent future contamination from aging or failing septic systems through policy. While this alternative offers the best overall long-term outcome for the resource, it would require the addition of staff, the establishment of a new program that would extend into the Whitefish Planning Jurisdiction, and working in cooperation with the Flathead County Health Department to enhance current regulations. This alternative proposes implementations of a similar program to assess and maintain septic systems that has been executed in Lewis & Clark County, Montana. Included in this alternative are Policy & Regulations, Permit Procedures & Requirements, System Requirements, Inspection Programs, Operations & Maintenance, and Enforcement. It is important to note that

6.2. POLICY & REGULATIONS

(NOTE: 69% of the regulations described herein already exist, while 31% are newly recommended. Of the newly recommended regulations, one (# 6.7) is a proposed septic system maintenance and inspection program. Existing regulations are noted by two-letters within parenthesis as follows: MT= State of Montana, FC=Flathead County, CW= City of Whitefish. Newly recommended regulations are noted as (Proposed)

6.2.1. Public Health Threat Regulations

6.2.1.1. It is a violation of this regulation to construct, repair, use, or alter any onsite wastewater treatment or disposal system that may:

6.2.1.1.1. Discharge wastewater to ground, surface, or any state water; (FC)

6.2.1.1.2. Contaminate any drinking water supply; (FC)

6.2.1.1.3. Cause a public health risk as a result of carriers of disease to humans, such as insects or animals; (FC)

6.2.1.1.4. Cause a public health hazard by being accessible to humans or animals; (FC)

6.2.1.1.5. Violate any federal, state, or local regulation governing water pollution; (FC)

6.2.1.1.6. Pollute or contaminate state waters, in violation of Section 75-5-605, MCA; (MT

6.2.1.1.7. Degrade state waters, in violation of Section 75-5-303, MCA; or (MT)

6.2.1.1.8. Cause a nuisance due to odor, unsightly appearance, or other aesthetic consideration (FC)

6.2.2. Guidelines & Limitations for Septic

6.2.2.1. Homeowners are to use centralized (City or communal) wastewater collection when available, unless physically or economically impractical (NOTE: The City will need to determine a definition for “economically impractical) (Proposed)

6.2.2.2. No new lakeside individual on-site septic system shall be installed, repaired, or rehabilitated where a communal septic system is available or where connection to city sewer infrastructure is available, except where an individual system is a cost effective alternative that has been defined through the PER process (Proposed)

6.2.2.3. System function criteria will serve as basis for guidelines (Proposed)

6.2.3. Sewer Connectivity Requirements

6.2.3.1. If wastewater collection is available through the City of Whitefish within a distance of 200 feet of the property line of a property for connection to collect a new source of wastewater, or replacement for a failed system, and the City approves the connection, wastewater must be discharged to the City sewer system. (Proposed)

6.2.3.2. A public system is not considered “readily available” if there is evidence demonstrating that connection to the system is physically or economically impractical, or that easements are not obtainable. (Proposed)

6.2.3.3. A connection is considered “economically impractical” if the cost of connection to the public system equals or exceeds three times the cost of installation of a proposed onsite wastewater treatment system approved by The City or County. (Proposed)

6.2.4. Prohibited Activities & Systems

6.2.4.1. It is a violation of these regulations to construct, repair, use, or alter any onsite wastewater treatment system without strict compliance with the provisions of these regulations and the possession of a valid permit issued pursuant to these regulations. (FC)

6.2.4.2. It is a violation of these regulations to begin construction prior to the issuance of a letter of approval or valid on-site wastewater treatment permit. (FC)

6.2.4.3. It is a violation of these regulations to discharge any untreated wastewater from private septic systems to any ditch, stream, pond, lake, natural or artificial waterway, county drain, groundwater, abandoned well, sinkhole, storm water conveyance, or swale. (MT, except for last 3)

6.2.4.4. Construction Prohibitions

6.2.4.4.1. Construction on any parcel of land prior to the issuance of a valid on-site wastewater treatment system permit is a violation of these regulations and will result in penalties. (FC)

6.2.4.4.2. Construction may not begin on any parcel of land unless all applicable permits are obtained from all government agencies. (FC)

6.2.4.5. Occupancy Prohibitions

6.2.4.5.1. It is a violation of these regulations to occupy or allow occupation of any dwelling unit or other structure served by a piped water supply unless the structure is connected to:

6.2.4.5.1.1. An on-site wastewater treatment system approved by the WCWMP Administrator, or (Proposed)

6.2.4.5.1.2. An on-site wastewater treatments system approved under earlier regulations or ordinances, or resolutions, or (Proposed)

6.2.4.5.1.3. An on-site wastewater treatment system installed prior to the enactment of any State, County, or City regulations, or (Proposed)

6.2.4.5.1.4. An on-site wastewater treatment system approved through a variance granted by the County or City, or (Proposed)

6.2.4.5.1.5. the public sewer system provided by the City of Whitefish

6.2.4.5.2. Prohibited Systems

6.2.4.5.2.1. The installation of cesspools for the disposal of wastewater is specifically prohibited. (Proposed)

6.2.4.5.2.2. Wastewater holding tanks may not be used as a permanent method of wastewater disposal (Proposed). Currently, Flathead County regulations state: "holding tanks will not be considered where new construction is proposed. Their only use will be for replacement of existing systems where current regulations cannot be met and variances cannot be granted due to the potential adverse impact that a sewage treatment system might have on ground or surface waters and/or the health of any person. The only exception to the above rule shall be where connection of the structure shall be made to a public or municipal system within one year of issuance of a temporary permit." (FC)

6.2.4.5.2.3. The installation of any system must comply with specifications and regulations in Circular DEQ-4 (2004) (MT)

6.2.5. System Failures & Abandonments

6.2.5.1. Failing sewage treatment systems are clearly defined to include sewage or effluent flows that enter surface or ground waters without adequate treatment or removal of bacteria, virus, and other contaminants of danger to public health or the environment. (FC)

6.2.5.2. The owner of the premises must report a failed system to the WCWMP Administrator. (Proposed)

6.2.5.3. Use of a failed wastewater treatment system violates these regulations

6.2.5.4. Upon determining that a system has failed, the WCWMP Administrator shall give written notice of the violation to the owner of the property.(Proposed)

6.2.5.5. Upon receipt of written notice, the owner shall stop the flow of wastewater if possible. (NEW)

6.2.5.6. The owner shall deliver—within 30 days of receipt of notice of violation of a system failure—a remediation plan for the repair and restoration of the failed wastewater treatment system. (Proposed)

6.2.5.6.1. An owner who fails to deliver a remediation plan within 30 days of receipt of notice of violation, or who fails to repair and restore the failed wastewater system within 90 days shall be considered in violation of these regulations. (Proposed)

6.2.5.6.2. The owner of the property may voluntarily vacate the premises instead of repairing or replacing the failed system provided that all surface contamination is properly

remediated, and the failed system is made inoperable. The abandoned tank must be pumped and then removed or filled with sand and/or gravel, or another approved fill material. (Proposed)

6.2.5.6.3. If any part of the system repair requires a variance from this regulation, or if other special circumstances exist, the property owner/tenant must provide a written plan to the WCWMP Administrator within 30 days of receipt of notification of violation. The WCWMP Administrator may approve an extension. (Proposed)

6.2.5.6.4. The WCWMP Administrator may require the owner and/or occupant to remove and dispose of contaminated soil. The WCWMP Administrator must approve any disposal or removal. (Proposed)

6.2.5.6.5. Before making repairs or replacing a failed system or any of its component parts, an owner/tenant shall acquire a permit. (FC)

6.2.5.6.5.1. The WCWMP Administrator may require a site evaluation to ensure that repair or replacement of the failed system complies with all current regulations. (FC)

6.2.5.6.5.2. The owner and or occupant shall comply with all requirements and pay all fees associated with the site evaluation and permit. (FC)

6.2.5.6.5.3. The WCWMP Administrator may permit use of components of the failed system that meet current requirements. (FC)

6.2.5.6.5.4. The WCWMP Administrator may require submittal of proof of compliance with the permit. (FC)

6.2.5.7. Abandonment of septic systems requires the sewer line be disconnected between the building and the septic tank; the septic tank pumped, destroyed by filling with an inert solid, the lid crushed into the tank, and the tank filled with sand or soil. It may also be removed from the premises or re-used if in suitable condition. (FC)

6.3. PERMIT PROCEDURES & REQUIREMENTS

6.3.1. Installer Certification

6.3.1.1. Flathead County and the Whitefish Community Wastewater Program Administrator require that all sewage treatment systems must be constructed, altered, or repaired only by persons holding valid Flathead County Sewage Treatment System Contractor's License. A homeowner constructing altering or repairing an individual sewage treatment system for his/her own residence upon his/her own property is exempt from this requirement. However, the owner must construct the system in full compliance with the regulations and design construction standards. Detailed plans showing the proposed layout, construction method and materials to be used must be provided to the County. A person who owns several parcels of land and who builds structures on these parcels for sale, rent or lease and not for the purpose of their residing in said structures shall not be considered a "homeowner." (FC)

6.3.1.2. Flathead County Contractor's Licenses are granted upon completion of applicant providing appropriate information, passing a required examination, and payment of a license fee. Contractor's Licenses may be denied or revoked based on rules of Flathead County. (FC)

6.3.2. New Systems

6.3.2.1. Flathead County's permitting regulations govern the design, installation, and operation of septic and other sewage treatment systems and establishes the minimum criteria for standards and require that applications for sewage treatment system permits or site evaluations must be made only by the owner or lessee of the property for which the system is proposed or his/her duly authorized agent or assigns and shall be in writing bearing the applicant's signature, and must follow all requirements listed in section 4.5 of the Flathead County Regulations. (FC)

6.3.2.2. A permit is required for any person to construct, alter, repair and/or operate any sewage treatment system within Flathead County unless the system is either a municipal or publicly owned sewage treatment system. (FC)

6.3.2.3. All new septic systems within Flathead County, except those previously reviewed under the Sanitation in Subdivision Act, shall comply with those standards as required under the Administration Rules of Montana (ARM) Title 17, Chapter 30, Sub-chapter 5, Mixing Zones in Surface and Groundwater and Sub-chapter 7, Nondegradation of Water Quality. (FC)

6.3.2.4. New onsite wastewater treatment systems must comply with all Flathead County regulations. (FC)

6.3.2.5. New systems must also comply with all Whitefish Area Lake and Lakeshore Protection Regulations. (CW)

6.3.2.6. If a sewage treatment system for which a permit has been issued has not been installed, inspected and approved by Flathead County within 12 months, said permit shall expire and be void. Should the permit expire, the applicant may reapply. The new permit shall be subject to all the requirements that exist at the time the new application is made. (FC)

6.3.3. Alterations & Replacements

6.3.3.1. Alterations to existing onsite wastewater systems must comply with all regulations at the time of alteration. Replacements must be made in accordance with all new system regulations and abandonments of old system regulations. (FC)

6.3.4. Denials & Variances

6.3.4.1. Flathead County Regulations for Onsite Wastewater Treatment Systems provides for denials of permits in Section 6 and variances in Section 11. (FC)

6.4. SYSTEM REQUIREMENTS

6.4.1. Site Requirements

6.4.1.1. The site and installation of a sewage treatment system and each part thereof shall be such that, with reasonable maintenance, it will function in a sanitary manner and will not create a nuisance or constitute a hazard to public health, or endanger the safety of any actual or potential domestic water supply, or directly enter the waters of the State of Montana. In determining a suitable location of the system, consideration shall be given to the size and shape of the lot, soil conditions, slope of the land, depth to groundwater, proximity to existing and future water supplies, existing sewage treatment systems and State waters, depth to bedrock and/or other impervious materials and to areas for expansion or replacement of the treatment system. Minimum site requirements are published in Section 9 of the Flathead County Regulations for Onsite Sewage Treatment Systems. (FC)

6.4.1.2. Additional requirements of the Whitefish Water Quality Regulations, and the Whitefish Area Lake and Lakeshore Protection Regulations may apply to certain properties based on proximity to the lakeshore and geologic foundation such as slope. (CW)

6.4.2. Septic Tank Requirements

6.4.2.1. All onsite wastewater treatment systems must include a septic tank to provide primary treatment.

6.4.2.1.1. The septic tank must receive all wastewater from the structure being served.

6.4.2.1.2. All septic tanks must be designed and constructed in compliance with the specifications defined in the Flathead County regulations (FC)

6.4.2.1.3. All septic tanks must be equipped with an effluent filter, and (Proposed)

6.4.2.1.4. All septic tanks must have risers to grade. (Proposed)

6.4.2.2. Septic Tank Sizing

6.4.2.2.1. The minimum tank size for residential flows is determined in Figure 4 and is described in Circular DEQ-4. (MT)

Figure 4. Minimum size for residential flows

NUMBER OF BEDROOMS	MINIMUM TANK SIZE, GALLONS
1-3	1000
4-5	1500
6-7	2000
8	2250
9	2500
Add 250 Gallons for each additional bedroom after 9	

6.4.3. Treatment Field Requirements

6.4.3.1. Treatment field requirements are described in Section 9 of the Flathead County Regulations for Onsite Sewage Treatment Systems. (FC)

6.4.3.2. Treatment field minimum requirements are based on the soil characteristics of the site and the estimated wastewater flow to the proposed system. (FC)

6.4.3.3. The number of bedrooms is used to estimate the daily wastewater flow for residential structures.

6.4.3.3.1. The minimum allowable daily flow for any residence is based on two bedrooms. (FC)

6.4.3.4. Soil texture, structure, and type is determined using soil data obtained through on-site evaluations by professional engineers. (FC)

6.4.3.5. The linear feet requirement of a treatment field may be reduced through the use of a Level II filtration system. (FC)

6.5. INSPECTIONS

6.6. Inspection of Newly Installed Septic Systems

6.6.1. Once a permit has been issued by Flathead County or the Whitefish Community Wastewater Program Administrator for an onsite sewage treatment system, the applicant may begin construction. All systems shall be inspected by Flathead County or the Whitefish Community Wastewater Program Administrator prior to backfilling any portion of the system. For engineer designed systems, presence of design engineer or his/her representative is mandatory at this inspection. It shall be the responsibility of the applicant, or the applicant's contractor, to notify Flathead County or the Whitefish Community Wastewater Program Administrator twenty-four (24) hours in advance of the anticipated completion time of the construction of the system for the purpose of arranging a time for inspection. Requests for inspections must be made for normal Flathead County or Whitefish Community Wastewater Program Administrator work hours. (FC)

6.6.2. By issuance of a septic system permit, the owner of the property consents to the re-inspection by Flathead County or the Whitefish Community Wastewater Program Administrator during the operational life of the system to determine the system is operating in compliance with regulations. If not in full compliance, the owner is notified and has 15 days (unless a longer timeframe is approved by the County) to correct the problem. Noncompliance is subject to the County Attorney enjoining the violation, and to fines of up to $500/day. (FC) Note: Should we include something about making appointments with owner for inspection?)

6.6.3. Inspections of newly installed septic systems must comply with all the rules of Section 8 of the Flathead County Regulations for Onsite Sewage Treatment Systems. (FC)

6.7. Septic System Ongoing Maintenance Inspection Program (NEW: This entire program is a new recommendation to simplify septic system maintenance for owners and the agencies responsible for management and compliance. It is based on successful programs implemented elsewhere in Montana and other states. See Lewis & Clark County Septic System Maintenance Program online at: http://www.lccountymt.gov/health/environmental-services/septic-maintenance.html

6.7.1. In an effort to identify malfunctioning or failing septic systems, to extend the life of septic systems, and to protect human health, groundwater and surface water resources, the Whitefish Community Wastewater Program Administrator will implement a Septic System Maintenance Inspection Program

6.7.1.1. <u>Whitefish Community Wastewater Program Administrator Responsibilities</u> - The WCWP Administrator will need to:

6.7.1.1.1. Provide staff to oversee the implementation and ongoing administration of the inspection program,

6.7.1.1.2. Identify budget for inspection program

6.7.1.1.3. Create online database for tracking inspections of septic systems; system failures and upgrades.

6.7.1.1.4. Identify trained personnel to inspect systems (city staff and/or private inspectors)

6.7.1.1.5. Determine the Scope of the Work necessary to bring a failed system into compliance. Such Scope of Work may include, but is not be limited to:

6.7.1.1.5.1. performing soil and percolation tests and other necessary site analyses;

6.7.1.1.5.2. specification of the failed system components to be repaired, replaced and/or upgraded;

6.7.1.1.5.3. design of the system or components to be repaired, replaced and/or upgraded;

6.7.1.1.5.4. obtaining all applicable federal, state and local permits and approvals required to complete the work;

6.7.1.1.5.5. seeking bids and awarding contracts for assessment, design, consulting and construction work and materials in accordance with applicable laws, regulations and requirements;

6.7.1.1.5.6. minimizing any disruption of utility service, and reasonably restoring the property to as near its original condition as practicable; and

6.7.1.1.5.7. engaging such other services and procuring such other materials as shall be reasonably necessary to complete the project in a good and workmanlike manner.

6.7.2. Property Owner Responsibilities - Through the Septic System Maintenance Inspection Program, property owners will be required to perform one of the following maintenance tasks for their septic system, 1) Septic System Inspection (see 7.2.2.1): Hire an independent, licensed septic system maintenance and operation professional to perform a comprehensive inspection of their septic system. OR, 2) complete the Septic System Assessment Form (7.2.2.2) to answer a series of household use questions that lead to the assignment of a score to determine septic tank pumping frequency.

6.7.2.1. Septic System Inspection: Obtain an operations and maintenance inspection performed by a certified septic system operations and maintenance professional at an interval not to exceed five (5) years, and the septic tank pumped as determined by the inspection.

6.7.2.1.1. The results of the inspection, the septic tank pumping record, and applicable fees must be provided to the WCWMP Administrator through an online database or in writing for review.

6.7.2.1.2. The Administrator will work with homeowners on any problems encountered during the inspection. Deficiencies noted during the inspection must be corrected as noted herein.

6.7.2.1.3. Critical Deficiencies: The owner/occupant of an onsite wastewater treatment system with "critical" deficiencies must repair or replace the system *immediately*. These deficiencies include, but are not limited to:

6.7.2.1.3.1. Sewage being discharged to ground surface;

6.7.2.1.3.2. Sewage being discharged to surface water or a cesspool;

6.7.2.1.3.3. Septic tanks that are leaking, collapsing, or overflowing;

6.7.2.1.3.4. Sewage backed up into the structure;

6.7.2.1.3.5. Septic tank lids are broken or missing;

6.7.2.1.3.6. Effluent pump not functioning;

6.7.2.1.3.7. Floats or controls in effluent pump tank missing or not functioning;

6.7.2.1.3.8. Distribution lines leading into or out of the septic tank and/or drainfield are broken, collapsed, or blocked;

6.7.2.1.3.9. Broken or collapsed lines within a drainfield;

6.7.2.1.3.10. Tree roots within any part of the system;

6.7.2.1.3.11. System electrically unsafe.

6.7.2.1.4. Serious Deficiencies: The owner/occupant of an onsite wastewater treatment system with "serious" deficiencies must repair or replace the system *within 30 days of inspection*. These deficiencies include, but are not limited to:

6.7.2.1.4.1. High water alarm inoperable;

6.7.2.1.4.2. Septic tank baffles missing or broken;

6.7.2.1.4.3. Floats or controls I the effluent pump tank not positioned properly;

6.7.2.1.4.4. Effluent filters blocked, missing, or broken.

6.7.2.1.5. Moderate Deficiencies: The owner/occupant of an onsite wastewater treatment system with "moderate" deficiencies must repair or replace the system *before the next required operations and maintenance inspection*. These deficiencies include, but are not limited to:

6.7.2.1.5.1. Access lids from septic tank not to grade;

6.7.2.1.5.2. Cleanouts not accessible;

6.7.2.1.5.3. Access ports or risers not available for distribution systems;
6.7.2.1.5.4. Drainfield used for parking, driving, heavy livestock traffic;
6.7.2.1.5.5. Drainfield and/or septic tank not easily accessible;
6.7.2.1.5.6. Free space not adequate between inlet and baffle (2-4 inches);
6.7.2.1.5.7. Tank not installed properly so that the outlet is lower than the inlet;
6.7.2.1.5.8. Tank not set level.

6.7.2.2. Septic System Assessment: Frequency would range from three (3) to five (5) years based on the results of the assessment. The system owner sends the assessment and pumping record to the WCWMP Administrator by mail or through an online database for review. The manager will work with homeowners on any problems encountered during the assessment.

6.7.2.2.1. Septic tank pumping frequency is based on the following criteria:

6.7.2.2.1.1. High Frequency: A score of 25-36 Assessment points which requires the septic tank to be pumped at least once every three (3) years;
6.7.2.2.1.2. Medium Frequency: A score of 12-24 Assessment points which requires the septic tank to be pumped at least once every four (4) years;
6.7.2.2.1.3. Low Frequency: A score of 0-11 Assessment points which requires the septic system to be pumped at least once every five (5) years.

6.7.2.2.2. Criteria used to determine pumping frequency will include, but are not limited to:

6.7.2.2.2.1. System age;
6.7.2.2.2.2. System type;
6.7.2.2.2.3. Water softening units and/or garbage disposals;
6.7.2.2.2.4. Water usage and conservation measures;
6.7.2.2.2.5. Scum layer thickness;
6.7.2.2.2.6. Date of most recent septic tank pumping and/or inspection;
6.7.2.2.2.7. Number of people served by the system;
6.7.2.2.2.8. Location of septic system

6.7.3. Existing System Date Activated Regulation Option– This will define required actions based on specific septic installation origination dates. Data sources that can provide system installation dates, not just permit dates would be required. This is a new recommendation.

6.7.3.1. If system was built & installed pre 1999, specific actions required are:

6.7.3.1.1. Site Inspection by a specific date
6.7.3.1.2. Upgrade or replacement to be made by a specific date

6.7.3.2. If system built & installed post 1999, specific actions required are:

6.7.3.2.1.1. Follow rules of the Septic System Maintenance Inspection Program

6.7.4. Property Conveyance Regulation Option - This is a new recommendation

6.7.4.1. This regulation requires that septic system design & operating conditions are included in the real estate disclosure process; & requires septic system inspection and mitigation prior to transfer of property.

6.7.4.1.1. LEGISLATIVE NOTE: In an effort to encourage work on septic system issues around the state, Environmental Policy Director Joe Kolman drafted an interim study that Representative Ed Lieser would like to sponsor. A Joint Resolution of the Senate and House of Representatives of the State of Montana, the study would look at options to permit, inspect, and maintain septic systems. The draft discusses general septic system issues on Whitefish Lake, the results of the WLI study, and requests the Legislative Council designate an appropriate interim committee (or direct staff resources) to: evaluate state and local permitting, inspection, and maintenance regulations as compared to other states, and to examine government and non-government options for same.

6.8. OPERATIONS & MAINTENANCE

6.8.1. General Requirements: These general requirements exist to ensure that onsite wastewater treatment systems are operated and maintained in a manner that protects public health, ensures proper functionality of the systems, and prevents system failure. This section describes each

participant's responsibilities in carrying out the final program, including all or part of the newly recommended Septic System Ongoing Maintenance Inspection Program described in 7.2 above.

6.8.2. Owner/Occupant O&M Responsibilities

6.8.2.1. The owner/occupant shall insure that wastewater discharged to the onsite wastewater treatment system does not exceed the current permitted design capacity of the employed system.

6.8.2.2. The owner/occupant shall report instances of onsite wastewater treatment system failures to the WCWMP Administrator in accordance with the Failed System Regulations provided herein.

6.8.2.3. The owner/occupant must prevent adverse impacts to the system, including the primary and replacement soil treatment areas caused by use, activities, or other situations including, but not limited to:

6.8.2.3.1. Encroachments such as buildings, structures, or materials;

6.8.2.3.2. Vehicle traffic;

6.8.2.3.3. Domestic animal management activities;

6.8.2.3.4. Surface or storm water;

6.8.2.3.5. Compaction, excavation, grading, cutting, or ditching of soil on top of or adjacent to a system in violation of the horizontal setback requirements contained herein.

6.8.2.4. The owner/occupant shall monitor the use of the system to ensure conformance with these regulations

6.8.2.5. Owner/occupant shall, within 45 days of written notice, comply with the Septic System Maintenance Inspection Program and either obtain an Assessment for Septic Tank Pumping Frequency, and pump the septic tank at the interval required by the Assessment criteria, OR obtain an operation and maintenance inspection performed by a certified operation and maintenance professional at an interval not to exceed every five (5) years.

6.8.3. Operations & Maintenance Service Provider Responsibilities

6.8.3.1. O&M service providers may perform their services only when their certification is in good standing and in conformance with these regulations. Certification is a privilege extended to an Operations & Maintenance (O&M) service provider and is not a right.

6.8.3.2. Certification means that the O&M service provider has demonstrated sufficient knowledge of these regulations to perform an operation and maintenance inspection in compliance with these regulations.

6.8.3.3. O&M service providers have a duty to keep current on changes to these regulations.

6.8.3.4. To become certified, an applicant must:

6.8.3.4.1. Complete an application;

6.8.3.4.2. Pay the non-refundable fee;

6.8.3.4.3. Attend a WCWMP approved certification course (to be developed);

6.8.3.4.4. Pass the certification exam.

6.8.3.5. Performance criteria for O&M service providers include:

6.8.3.5.1. Performs operations and maintenance service in accordance with these regulations;

6.8.3.5.2. Possess equipment that allows for the proper inspection of septic systems;

6.8.3.5.3. Submit operations and maintenance reports on forms or by other methods specified by the WCWMP Administrator;

6.8.3.5.4. Submit deficiency reports on forms or by other means within two (2) working days after completing the inspection;

6.8.3.5.5. Provide payment of fees within thirty (30) days after maintenance is completed;

6.8.3.5.6. Submit complete, truthful, and accurate inspection and maintenance reports to the WCWMP Administrator and owner.

6.8.4. Whitefish Community Wastewater Program Administrator O&M Responsibilities

6.8.5. Whitefish Community Wastewater Program Administrator will:

6.8.5.1. Develop forms and reporting systems to facilitate conformance with these regulations;

6.8.5.2. Maintain records for all required operations and maintenance activities completed and submitted to the WCWP Administrator according to these regulations;

6.8.5.3. Provide upon request, records concerning the operations, maintenance, and compliance of any onsite wastewater treatment system;

6.8.5.4. Provide written notification to owners and occupants that they are required to perform operation and maintenance tasks for their system;

6.8.5.5. Require complete and accurate inspection reports or contract information, and require correction and re-submittal of information corrected by the provider or owner;

6.8.5.6. Respond to reports of "Critical" deficiencies within two (2) business days, "Serious" deficiencies within ten (10) business days, and "Moderate" deficiencies within twenty (20) business days;

6.8.5.7. Perform oversight and periodic review of certified providers to determine conformance with these regulations;

6.8.5.8. Investigate and track issues of public health significance caused by malfunctioning or failing systems;

6.8.5.9. Take necessary and responsible action to eliminate or mitigate public health concerns caused by malfunctioning or failing systems.

6.8.5.10. Review and update this program every two years.

6.9. ENFORCEMENT

6.9.1. Effectiveness

6.9.1.1. The most effective and defensible regulatory programs are based on clear policy; are incentive-based, providing funding options to reduce financial and other hardships of community members; and have an appropriate enforcement component. It is the intention of the WCWC that the WCWMP fulfills the requirements of effectiveness by clearly defining the program, making available all funding options and incentives, and defining responsibilities and enforcement.

6.9.2. Access Rights

6.9.2.1. By issuance of a Flathead County septic system permit, the owner of the property consents to the re-inspection of their septic system during the operational life of the system to determine the system is operating in compliance with regulations. Property owners therefore are required to provide access during regular business hours to inspectors. (FC)

6.9.2.2. It is the responsibility of the owner/occupant to give Flathead County and/or the Whitefish Community Wastewater Program Administrator free access to the property at reasonable times for the purpose of making such inspections as are necessary for determining compliance with these regulations. (FC)

6.9.2.3. No person may molest or resist representatives of Flathead County or the Whitefish Community Wastewater Program Administrator in the discharge of their duty, including inspections made before, during, and after the installation and final approval of a system. (FC)

6.9.3. Violations

6.9.3.1. It is a violation of these regulations to:

6.9.3.1.1. Own or operate a malfunctioning sewage treatment system; (FC)

6.9.3.1.2. Install or alter a sewage treatment system without a valid permit or written Flathead County Health Department approval; (FC)

6.9.3.1.3. Construct or maintain any dwelling or other occupied structure which is not equipped with adequate facilities for the sanitary disposal of sewage; (FC)

6.9.3.1.4. Violate any provision of these regulations. (FC)

6.9.3.2. If the Flathead County Health Department or the Whitefish Community Wastewater Program Administrator discovers there has been a violation of any provision of these regulations or if the requirements of a sewage treatment system have been willfully violated, the governing body shall give notice of such violation to the responsible person or persons. Such notice shall be in writing and shall specify any violations. The notice shall spell out the required corrective action and provide a reasonable time for correction, considering the severity of the violation and its public health significance. Service of such notice shall be by means of regular mail and shall be considered complete upon personal service or mailing by the governing body. If after the notice has been served, the deficiencies have not been fully corrected to the satisfaction of the governing body in the specified time period, the governing body shall provide such information to the County Attorney for appropriate legal action including, but not limited to, action to enjoin (take legal action) the violation. (FC)

6.9.4. Enforcement & Penalties

6.9.4.1. Enforcement authorities

6.9.4.1.1. Flathead County Health Department

6.9.4.1.2. Whitefish Community Wastewater Program Administrator

6.9.4.2. Fines

6.9.4.2.1. Any person who violates any provision of these regulations or any provision of any regulation adopted by the City of Whitefish pursuant to that authority granted by this regulation shall upon conviction be punished a fine not less than $50 or more than $500 (Committee needs to solidify recommendation - Flathead County is $50 - $500) per day of violation. Each day of violation constitutes a separate offense. The first day of the violation shall be the date of the notice of violation.

6.9.4.2.2. Similar to the Flathead County Regulations, Whitefish poses fines for violations including up to thirty (30) days in jail, a $500 fine, or both.

7. MONITORING

7.1. Two types of monitoring are suggested in conjunction with the Whitefish Community Wastewater Management Program; 1) Public Works sewer infrastructure inspections & exfiltration investigations, and 2) Whitefish Lake septic leachate monitoring.

7.1.1. Sewer Infrastructure: The City conducts ongoing sewer inspections to determine the condition of the wastewater infrastructure and to identify maintenance and rehabilitation needs. An extensive review of the system and recommendations for repairs and upgrades was made in 2006 (Anderson-Montgomery). The City conducted additional inspections of the sewer system in the identified problem areas in 2013 to evaluate system components and to identify any problems that might be contributing to sewer wastewater entering groundwater and the lake. No problems were identified.

7.1.2. Whitefish Lake Septic Leachate Monitoring: WLI will develop recommendations for a Long-Term Whitefish Lake Wastewater Monitoring Plan to measure effects of wastewater systems on the lake and its tributaries.

8. BUDGET

8.1. The City of Whitefish will create a budget to recognize expected project costs which will be further enumerated as the final program becomes clearer. Alternatives 2 & 3 will be subject to the costs of grant writing and eventually a cost-share with grants and loans, and may also be subject to the costs of a FTE or contractor to manage the program.

9. NEXT STEPS

9.1. The Whitefish Community Wastewater Committee was tasked with delivering to the City Council recommendations regarding wastewater conveyance and management, septic systems, and nutrient trading, including funding considerations, education & outreach options, management options, and a plan for ongoing monitoring. This “Whitefish Community Wastewater Management Program” is hereby delivered to fulfill that goal. It is now the task of the City Council to review the Program Draft for possible action.

It is with great respect for the enormity of the issue and for the demands on the county and city staff responsible for the health of our citizens that this Program Draft was developed. The WCWC members agree that the problem of aging septic systems needs to be addressed in order to protect human and economic health. The committee also recognizes that there is no one simple solution, and all actions come with a range of effectiveness and associated resource requirements. We believe however, that there are a number of actions that can be taken—over time—to address the issue of septic pollution. And, we have identified numerous proven funding programs designed to help municipalities address costly and time-consuming projects such as improving wastewater treatment. It is the hope of the WCWC that the alternatives proposed in this Program Draft will serve as a starting place for discussions between the City of Whitefish and Flathead County to implement the shared goals of a healthier community. The WCWC members appreciate the opportunity to serve on this ad hoc committee.

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10. ACRONYMNS

ARM	Administrative Rules of Montana
DEQ4	Montana Standards for Subsurface Wastewater Treatment Systems.
GIS:	Geographical Information Systems
HOA:	Home Owners Association
MCA:	Montana Codes Annotated
MOU:	Memorandum of Understanding
MSPA	Montana Subdivision & Platting Act
O&M:	Operations & Maintenance
PER:	Preliminary Engineering Report
RFP:	Request for Proposal
SRF:	State Revolving Fund
SWTS :	Subsurface Wastewater Treatment Systems
TSEP:	Treasure State Endowment Program
W2ASACT:	Water, Wastewater and Solid Waste Action Coordinating Team
WLI:	Whitefish Lake Institute
WCWC:	Whitefish Community Wastewater Committee
WCWMP:	Whitefish Community Wastewater Management Program

11. GLOSSARY OF TERMS

ABANDONED SYSTEM - A system is considered to be abandoned when it meets one of the following criteria: The system has not been used for two (2) years, or The use of the system has been discontinued because of connection to an improved, on-site system or a public sewer system. Systems for recreational cabins or dwellings used regularly, but infrequently, shall not be considered abandoned.

ALTERATION shall mean physically changing a system by relocating, modifying, repairing, extending or replacing, all or portions of a system.

APPROVED shall mean accepted by the jurisdictional body in writing.

ASSESSMENT FOR SEPTIC TANK PUMPING FREQUENCY means the form that the system owner uses to report information to the WCWMP about household and system use practices. The reported information is then used by the WCWMP Administrator to determine the frequency at which the owner must have the septic tank(s) pumped.

BEDROCK is the solid rock underlying unconsolidated surface materials. It is typically insufficient for the adequate treatment and disposal of wastewater.

BEDROOM shall mean any room that is or can be used for sleeping or any room or space such as a den, study, storage area, or other area, which can be easily converted to a bedroom. An unfinished basement shall be considered as an additional bedroom.

CERTIFIED INSTALLER is any individual who has attended required training and demonstrated an adequate knowledge of the regulations governing on-site wastewater treatment by passing all required examinations and paid the required certification fees.

CESSPOOL means a seepage pit without a septic tank to pre-treat the wastewater.

CONSTRUCTION shall mean the building or renovation of any structure intended for human occupancy that would result in an increase in wastewater flow; the drilling of a well or the provision of water to a site intended for human occupancy; or work on or the installation of any part of an on-site wastewater treatment system.

CRITICAL DEFICIENCY means an instance of non-compliance noted during an operation and maintenance inspection or risk assessment that is considered an immediate public health threat and poses concerns for public and environmental safety.

DWELLING refers to any structure, building or portion thereof, which is intended or designed for human occupancy and that must be supplied with water by a piped water system.

EMERGENCY is any situation that poses a threat to the health of the public or the environment by allowing untreated wastewater to be exposed to the ground surface or discharged to the aquifer.

FAILED SYSTEM means an on-site wastewater system that no longer provides the treatment and/or disposal for which it was intended, or violates any of the requirements of ARM. 17.36.913.

FLOODPLAIN means the area adjoining the watercourse or drainway that would be covered by the floodwater of a flood of one-hundred year frequency except for sheet flood areas that receive less than one (1) foot of water per occurrence and are considered Zone B areas by the Federal Emergency Management Agency. The floodplain consists of the floodway and the flood fringe, as defined in the A.R.M. Title 36, Chapter 15.

GRAY WATER is any wastewater other than toilet wastes or industrial chemicals, and includes but is not limited to shower and bath wastewater, kitchen wastewater, and laundry wastewater.

GROUNDWATER OBSERVATION is water level observation in a properly constructed well conducted for a long enough period of time to detect a peak and then a sustained decline in water level. Water level observing must be performed in accordance Circular with DEQ 4 in Appendix C.

INSTALLERS shall mean those persons who are involved in the actual physical construction of on-site wastewater treatment systems.

LEVEL II TREATMENT means a wastewater treatment system that must provide a higher degree of treatment than conventional systems, including the removal of at least sixty (60) percent of nitrogen as measured from the raw effluent load to the system. The term does not include treatment systems for industrial waste.

LICENSED SEPTAGE HAULER means a person licensed by the State of Montana to remove and transport wastewater from onsite wastewater treatment systems to an approved facility.

MAINTENANCE means routine or periodic action taken to assure proper system performance, extend system longevity, and/or assure a system meets performance requirements.

MODERATE DEFICIENCY means an instance of non-compliance during an operation and maintenance inspection or risk assessment that has the potential to interfere with the overall performance of the system and may interfere with proper operation and maintenance of the onsite wastewater treatment system.

MONITORING may refer to the periodic or continuous checking of an onsite wastewater treatment system, which is performed by observation and measurements, to determine if the system is functioning as intended and if system maintenance is needed. Monitoring also includes maintaining accurate records that document monitoring activities. Monitoring may also refer to the routine or periodic measurement of chemical and/or physical properties of a waterbody, conducted by scientists to measure changes to that waterbody.

MUNICIPAL SEWER SYSTEM is defined in MCA §7-13-2201 through §7-13- 2351, the term "municipality" includes a consolidated city and county, city, or town and includes all corporations organized for municipal purposes within the districts.

NON-CERTIFIED INSTALLER means any individual who has not attended required training and demonstrated an adequate knowledge of the regulations governing on-site wastewater treatment by passing all required examinations and paid the required certification fees. Non-certified also refers to any certified installer who has had his/her certification revoked.

OCCUPANCY means the fact or condition of using or residing in a building or part of a building that is served by a piped water supply, including residential, commercial, or any other type of building.

ON-SITE WASTEWATER TREATMENT SYSTEM refers to any form of subsurface wastewater treatment and all wastewater treatment systems for individual residences.

OPERATION means the act or process of operating or functioning or using an onsite wastewater treatment system.

OPERATION AND MAINTENANCE SERVICE PROVIDER refers to a qualified person certified by Flathead County or the Whitefish Community Wastewater Program Administrator to perform operation and maintenance inspections and repairs not requiring a permit on onsite wastewater treatment systems.

OWNER refers to a person or person who has legal title to, or possession of, real property, a building, structure, or place of business.

OWNERS AGENT refers to a person or business that an owner authorizes to represent them.

PERMEABILITY refers to the capacity of the soil to transmit fluids. The degree of permeability depends upon the amount, size and shape of the soil pores and their interconnections. Permeability is measured by the rate at which a fluid of standard viscosity can move a given distance through an interval of time.

PERMIT means the written authorization from the Whitefish Community Wastewater Program Administrator or Flathead County to install a new on-site wastewater treatment system or repair, replace, expand, alter, or improve an existing on-site wastewater treatment system or any part thereof.

PERSON shall mean any individual, corporation, company, association, society, firm, partnership, joint stock company or any branch of state, federal or local government; or any other entity that rents or leases property subject to this regulation.

PIPED WATER SYSTEM means a plumbing system that conveys water from a source, including but not limited to wells, cisterns, springs, or surface water to a structure.

PRIVATE SEWER means a sewer receiving the discharge from one building sewer and conveying it to the public sewer system or a wastewater treatment system.

PUBLIC SYSTEM means a system for: collection, transportation, treatment, or disposal of wastewater that serves 15 or more families or 25 or more persons daily for a period of at least 60 days in a calendar year. In estimating the population served, the reviewing authority shall multiply the number of living units times the county average of persons per living unit based on the most recent census data

PUMPING RECORD refers to the record or report provided by the licensed septage hauler that records the date of removal of wastewater and the size and condition of the septic tank(s) and/or dosing tank(s).

REPLACEMENT SYSTEM means an on-site wastewater treatment system proposed to replace a failed, failing, or contaminating system.

SEASONAL shall mean occupancy of a residence for not more than one hundred twenty (120) days in a calendar year and which would not qualify as the primary residence of a taxpayer for federal income tax purposes related to capital gains on the sale or exchange of residential property.

SEPTIC TANK means a storage-settling tank in which settled sludge is in immediate contact with the wastewater flowing through the tank while the organic solids are decomposed by anaerobic action.

SERIOUS DEFICIENCY means an instance of non-compliance noted during an operation and maintenance inspection or risk assessment that has the potential to result in a type deficiency and may create damage to the onsite wastewater treatment system.

SEWER DISTRICT is defined in MCA §7-13-2201 through §7-13-2351 as a unit of local government separate and distinct from a municipality, but a district may be treated as a municipality when applying for a grant, a loan, or other financial assistance from the state.

SITE EVALUATION means an evaluation to determine if a site suitable for the installation of a subsurface wastewater treatment system.

SLOPE means the rate that a ground surface declines in feet per 100 feet. It is expressed as percent of grade.

STATE WATERS is a body of water, irrigation system, or drainage system, either surface or underground; however, this does not apply to irrigation waters where the waters are used up within the irrigation system and the waters are not returned to any other state waters.

SUBDIVISION means a division of land or land so divided which creates one or more parcels containing less than 160 acres, exclusive of public roadways, in order that the title to or possession of the parcels may be sold, rented, leased, or otherwise conveyed and includes any re-subdivision and condominium or area, regardless of size, which provides permanent multiple space for recreational camping vehicles or mobile homes.

SUBSURFACE WASTEWATER TREATMENT SYSTEM means the process of wastewater treatment in which the effluent is applied below the soil surface or into a mound by an approved distribution system.

SURFACE WATER refers to any body of water whether fresh or saline, including watercourses such as impoundments, lakes, streams, irrigation ditches, or ponds.

SYSTEM means all components of any wastewater treatment system from the point of exit from the structure/dwelling to the end of the distribution network (including but not limited to: pipe, septic tank, dose tank, pumps, manifold, distribution box, perforated pipe, chambers).

UNSTABLE LAND FORMS refers to areas showing evidence of mass down-slope movement such as debris flows, landslides, rock falls, and hummock hill slopes with undrained depressions up-slope. Unstable landforms may exhibit slip surfaces roughly parallel to the hillside; landslide scars and curving debris ridges; fences, trees, or telephone poles that appear tilted; and tree trunks that bend uniformly as they enter the ground.

VARIANCE means the granting of an exception to the minimum requirements set out in these regulations, or to the requirements in Title 17, Chapter 36, Subchapter 9 of the Administrative Rules of Montana, or to the requirements in Circular DEQ-4.

WASTEWATER means a combination of liquid wastes that may include chemicals, house wastes, wash water, human excreta and animal or vegetable matter in suspension or solution.

WASTEWATER TREATMENT SYSTEM or WASTEWATER DISPOSAL SYSTEM means a system that receives wastewater for purposes of treatment, storage, or disposal. The term includes, but is not limited to pit privies and experimental systems

WELL means any artificial opening or excavation in the ground, however made, by which ground water is sought or can be obtained or through which it flows under natural pressures or is artificially withdrawn.

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(Decision makers & first tier implementers to be kept in the loop re committee communications & activities)

Last updated 11/10/12

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RESOLUTION NO. 12-15

A Resolution of the City Council of the City of Whitefish, Montana, establishing an ad hoc Whitefish Community Wastewater Committee.

BE IT RESOLVED by the City Council of the City of Whitefish, Montana, as follows:

Section 1: There is hereby established a Whitefish Community Wastewater Ad Hoc Committee (the "Committee").

Section 2: The purpose and duties of the Committee shall be as follows:

A. Identify, monitor, and coordinate issues of wastewater management for the Whitefish Community;

B. Identify spatial and temporal extent of septic leachate contamination to the shoreline area of Whitefish Lake;

C. Provide a scientific basis for identifying ecological threats to Whitefish Lake; and

D. Prepare an ad hoc committee report with recommendations to the Whitefish City Council regarding wastewater management, septic systems, nutrient trading, and wastewater conveyance issues including:

1. Timeline of deliverables that takes into account the complexity of the issues and timing of funding opportunities.

2. Address short-term goals (such as education and outreach) and long-term goals (such as management options and/or policy setting).

3. Review current funding options and grant application deadlines so the committee can position the City to meet important deadlines.

4. Monitoring component to assess and disseminate information from ongoing investigations by the Whitefish Lake Institute and other science-based and technical organizations.

5. Prepare a list of resource agencies and decision makers to be included on communications of the committee.

Section 3: Membership of the Committee shall be as follows:

A. The Committee shall have up to ten (10) voting members. Members shall consist of one (1) or two (2) Whitefish City Councilors and/or Mayor, appointed by the Whitefish City Council, one (1) Flathead County Commissioner (or designee) appointed by the Flathead County Commissioners, one (1) Flathead Basin Commission Board Member, one (1) representative from each of the affected sampling areas, Lazy Bay, Lion Mountain, Carver Bay/East Lakeshore, and Point of Pines (four (4) citizens), and two (2) at-large members from the community of Whitefish and its extraterritorial area.

The City Clerk shall make a notation of a member's representation category to facilitate appointment to categories not represented.

B. The Committee shall also have up to nine (9) ex-officio (non-voting) members as follows: the City Manager or designee, one (1) representative from Whitefish City Public Works, one (1) representative from Whitefish City Planning Department, one (1) representative from Flathead County Health Department, one (1) septic system engineer, one (1) representative from Whitefish Water District, and two (2) representatives from the Whitefish Lake Institute appointed by the Whitefish Lake Institute.

C. The City Council shall be entitled to appoint those individuals that it determines most qualified, regardless of representation category. The City Council may appoint one of its members to serve as an ex officio (non-voting) member of the Committee.

D. Committee members shall receive no compensation.

Section 4: The Committee shall begin its deliberations as soon as practical after creation of the Committee. The Committee shall be disbanded no later than of July 31, 2013, or earlier if the City Council completes its consideration of the Committee's report prior to that date.

Section 5: A member of the Committee may be removed by the City Council, after a hearing for misconduct or nonperformance of duty. Absences from three (3) consecutive meetings, including regular and special work sessions, or absences from more than fifty percent (50%) of such meetings held during the calendar year shall constitute grounds for removal. Circumstances of the absences shall be considered by the City Council prior to removal. Any person who knows in advance of his or her inability to attend a specific meeting shall notify the Committee Chair at least twenty-four (24) hours prior to any scheduled meeting.

Section 6: Any vacancy on the Committee shall be filled by the unexpired term in the same manner as the original appointment.

Section 7: This Resolution shall take effect immediately upon its adoption by the City Council, and signing by the Mayor thereof.

PASSED AND ADOPTED BY THE CITY COUNCIL OF THE CITY OF WHITEFISH, MONTANA, THIS 16th DAY OF JULY, 2012.

John M. Muhlfeld, Mayor

ATTEST:

Necile Lorang, City Clerk

The Whitefish Lake Institute conducted this investigation for the Whitefish County Water District under the Department of Natural Resources Renewable Resource Grant & Loan program to determine the spatial and temporal extent of septic leachate to the shoreline area of Whitefish Lake. The study also provides a scientific basis for identifying ecological threats to the lake, economic threats to the community of Whitefish, and potential public health risks resulting from decreased water quality. Synoptic sampling of 20 sites—including one midlake reference site—occurred on 9 sample dates starting in May 2011 and concluding in October 2011. The results of this investigation are intended as actionable information for resource decision makers and Whitefish citizens concerning septic system usage around Whitefish Lake. Whitefish Lake is located in northwestern Montana in the larger Flathead Watershed which is part of the Columbia River Basin.

Septic "leachate" is the liquid that remains after wastewater drains though septic solids. The liquid contains elevated concentrations of bacteria and organic compounds from waste, detergents, and other household materials. When properly placed, functioning, and maintained, septic systems are designed to collect wastewater to neutralize these contaminants before they enter ground or surface water systems. Decomposition of waste begins in the septic tank and ends in a leachfield after undergoing a series of treatments whereby wastewater is chemically, physically, and biologically processed to remove contaminants. Modern septic systems are considered cost-effective for wastewater treatment, however issues such as improper initial system design, impermeability of soil, improper soil drainage class, improper vertical distance between the absorption field and the water table, improper slope, or improper maintenance may lead to system failure.
Even when properly installed and maintained, septic systems have a finite life expectancy.

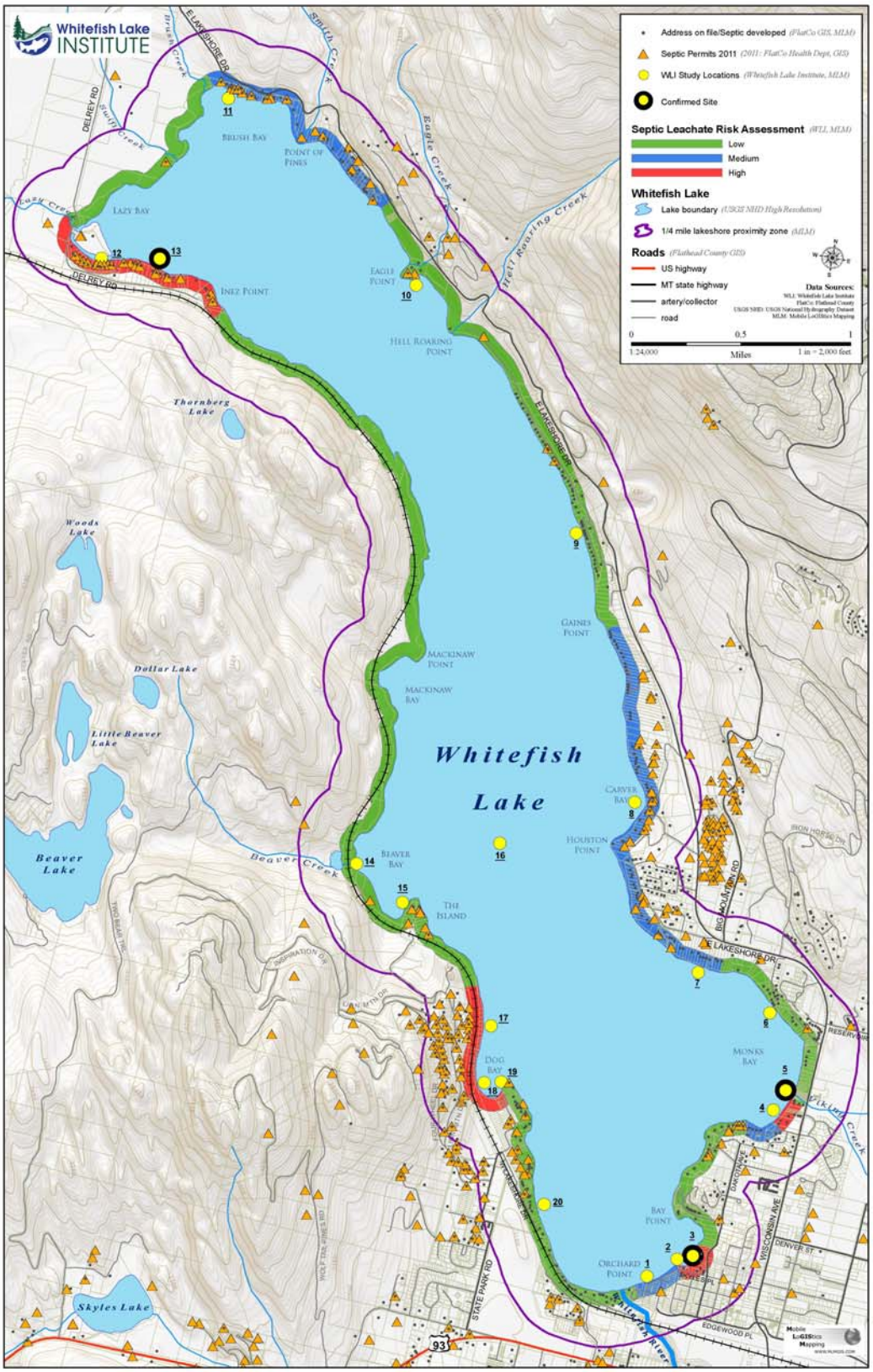
In addition to basic cleaning components, 97% laundry detergents in the U.S. contain Optical Brightening Agents (OBAs). OBAs are added to laundry soaps, detergents, and other cleaning agents because they adsorb to fabrics and materials during the washing and cleaning processes making clothes appear brighter. Laundry wastewater is the largest contributor of OBAs to wastewater systems. The presence of OBAs in wastewater with laundry effluent as a component is therefore considered an excellent indicator of septic or sewage system failure. Because the specific light spectrum emitted from OBAs found in cleaning products is easily measurable, it is one of the key data parameters used in tracking ineffective sewage treatment from septic systems.
Numerous studies have shown that septic leachate is transported by groundwater flow through lake-bottom sediments into lake water, elevating nutrient concentrations (Kerfoot and Brainard 1978; Belanger *et al*. 1985; Jourdonnais and Stanford 1985 *in* Jourdonnais *et al*. 1986). Previous studies specific to Whitefish Lake have indicated septic system failures, and confirmed the presence of OBAs from household cleaning products commonly found in septic leachate. This investigation was designed to build on the techniques and results of prior studies, but employ newer data collection techniques along with bacterial source tracking methodologies. Because septic leachates are known to contain elevated concentrations of both organic and inorganic compounds, the study employed a toolbox of techniques, including; fluorometry, dissolved organic carbon (DOC), fluorometry/DOC ratio (F/DOC), *E. coli* enumeration, human DNA biomarkers, conductivity, total dissolved solids (TDS), and GIS methodologies and tools. In addition to data collection and analysis, a historical record for the study area was established.

In total, we identified three confirmed areas of septic leachate contamination, including Site 3: City Beach Bay, Site 5: Viking Creek, and Site 13: Lazy Bay. We identified two areas of high potential for septic leachate contamination, including Site 12: Lazy Channel and Site 18: Dog Bay State Park Seep. Four areas were identified as having medium potential for septic leachate contamination, including Site 2: City Beach Seep, Site 4: SE Monk's Bay, Site 11: Brush Bay, and the East Lakeshore from Gaines Point south to north Monk's Bay, including Site 8: Carver Bay and Site 7: SE Houston Pt. The remaining 10 shoreline sites are considered to have a low potential for contamination by septic leachate (Figure 24). A study conducted in 1985 reported signs of chronic contamination from shoreline developments at Sites 2: City Beach Seep, 18: Dog Bay State Park Seep, 5: Viking Creek, and the approximate location of Site 14: Central Beaver Bay, correlating directly with results of this study.

Our results suggest that the three confirmed sites, along with the two sites with high potential and four sites with medium potential have also shown contamination in prior studies, and represent locations where action should be considered. The study concluded with the development of a *Septic Leachate Contamination & Risk Assessment Map* (Figure 24) which identifies confirmed sites of septic leachate contamination as well as areas of low, medium, and high potential for future contamination.

General and site specific recommendations included herein, largely based on examples from other wastewater management programs, are provided as examples of actions that can be taken to support the common goal of protecting Whitefish Lake water quality. They include Education & Outreach and Regulatory programs.

ADDENDUM D
RISK ASSESSMENT MAP



ADDENDUM E
FLATHEAD COUNTY REGULATIONS FOR ONSITE SEWAGE TREATMENT SYSTEMS

PART I FLATHEAD COUNTY
REGULATIONS FOR ONSITE SEWAGE TREATMENT SYSTEMS

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FLATHEAD COUNTY

REGULATIONS FOR ONSITE SEWAGE TREATMENT SYSTEMS

PURPOSE OF REGULATIONS

The Flathead City-County Board of Health understands the importance of proper treatment and disposal of sewage. Diseases such as dysentery, infectious hepatitis, typhoid, paratyphoid, and various types of diarrheal infections are transmitted from one person to another through fecal contamination of food , water and other vectors. This can occur by the improper treatment and disposal of sewage. Every effort must be made to prevent such hazards. Important to this is the proper treatment of sewage and not just the disposal of sewage.

Safe treatment and disposal of all sewage is necessary to protect the health of the individual family and the community and to prevent the occurrence of public health nuisances. To accomplish satisfactory results such waste must be treated and disposed of so that:

1. It will not contaminate any existing or future drinking water supply,
2. It will not be accessible to insects, rodents, or other possible carriers which may come into contact with food or drinking water,
3. It does not pose a health hazard by being accessible to children,
4. It will not pollute or present the potential to contaminate any surface or ground water,
5. It will not give rise to a nuisance due to odor, insect or animal attraction.
6. It will not violate laws or regulations concerning water quality protection or sewage treatment/disposal.

The Flathead City-County Board of Health has developed the following regulations and construction standards to insure the proper design, installation and operation of sewage treatment systems and to alleviate possible public health hazards associated with improper treatment and disposal of sewage.

SECTION 1 - Authority and Scope of Regulations

1.1 These regulations have been written pursuant to Title 50-2-116 - Powers and duties of Local Boards - (j) "adopt necessary regulations and fees for the control and disposal of sewage from private and public buildings not currently connected to any municipal system (fees shall be deposited with the County Treasurer)".

1.2 These regulations cover ALL sewage treatment systems in Flathead County except "Municipal and Publicly owned Sewage Treatment Systems", as defined herein.

1.3 The permit system established through these regulations governs the design, installation and operation of sewage treatment systems. Operation shall mean the system is functioning properly in compliance with the regulations at the time the permit is issued. The permit is not to be construed as being a building permit or any other permit that may be required by other agencies to erect a structure in Flathead County.

1.4 The permit itself establishes the minimum criteria for the standards adopted in Flathead County. The Department does not design the systems and the recommendations set forth in the permit do not bind or obligate the county to guarantee the satisfactory operation of any system.

1.5 At any time throughout this permit system process, the Flathead City-County Health Department may require the applicant to provide verification of compliance, or the ability to comply with other agencies', districts', or governmental entities' bylaws, ordinances, zoning laws, rules or regulations when deemed pertinent and appropriate by the Department.

SECTION 2 - Effective Date and Review Procedures

2.1 All provisions established under this regulation shall become effective as of January 1, 2005.

2.2 At any time, the Board may propose additions or revisions to these regulations. Changes proposed to the regulation by the Board shall be processed for adoption, as prescribed by existing County Administrative Regulations.

SECTION 3 - Definitions

3.1 "Abatement Order" shall mean a written order to (1) cease an act(s) which is in violation or causes a violation of these regulations or (2) to do an act(s) so as to comply with these regulations; it shall specify which section of these regulations is being violated or must be complied with and it shall be delivered in the manner prescribed in Section 13.2.

3.2 "Adequate Facilities" shall mean a subsurface sewage treatment system or other facilities approved by the Department.

3.3 "Alteration" shall mean physically changing a sewage treatment system by lengthening, shortening, widening, building structures over or changing the flow into a system by changing use of a dwelling unit. . Changing the use of a dwelling unit may include, but not be limited to, adding living quarters, adding structures or changing the use in such a manner as to alter the wastewater characteristics for which the system was permitted. This shall not be construed to mean changing dwellings in a campground or a trailer court currently licensed by the State Department of Health and Environmental Sciences. Conversion of a campground to a mobile home park shall be considered an alteration requiring Department approval. Alteration shall also mean the conversion of an existing dwelling unit into multiple units.

3.4 "Applicant" shall mean any person, institution, public or private corporation, partnership or other entity that submits an application for a permit to install, alter, construct or repair a sewage treatment system.

3.5 "Bedrock" shall mean a consolidated rock formation of impervious material that may exhibit a jointed, fractured or cohesive structure. It shall also include the above material in a decomposing state.

3.6 "Board" shall mean the Flathead City-County Board of Health.

3.7 "Class 1 System" shall mean an individual sewage treatment system.

3.8 "Class 2 System" shall mean a shared, multi-user or public sewage treatment system with design flow of less than 1000 gallons per day.

3.9 "Class 3 System" shall mean a shared, multi-user or public sewage treatment system with design flow of 1000 or more gallons per day.

3.10 "Composting Toilet" shall mean a unit that consists of a toilet seat and cover over a riser which connects to a watertight compartment or vault that contains or will receive composting materials sufficient to reduce waste by aerobic decomposition.

3.11 "Conventional System" shall mean a sewage treatment system composed of a septic tank and standard soil absorption trenches.

3.12 "Department" shall mean the Flathead City-County Health Department.

3.13 "Dosing" shall mean storage and periodic, high rate discharge of sewage or effluent from one sewage treatment unit to the next.

3.14 "Failing Sewage Treatment System" shall mean any sewage treatment system not properly functioning and shall include but not be limited to:

(1) Sewage treatment systems whose sewage or effluent flows or enters surface waters or groundwaters without adequate treatment or removal of bacteria, virus, and other contaminants of danger to public health or the environment.

(2) Systems that have sewage or effluent overflow from any of their component parts that ponds or flows on the ground surface.

(3) Systems that back sewage or effluent into any portion of the building or plumbing system.

3.15 "Fill" shall mean soil materials that have been displaced from their original location by other than natural processes.

3.16 "Final effluent treatment" shall mean the natural treatment derived through the process of effluent release to the environment.

3.17 "Floodplain" shall mean the area adjoining the watercourse or drainway which would be covered by the floodwater of a flood of 100-year frequency, except for sheetflood areas that receive less than one (1) foot of water per occurrence and are considered "Zone B" by the Federal Emergency Management Agency.

3.18 "Greywater" shall mean any waste water other than toilet or industrial wastes and includes, but is not limited to, shower and bath wastes, kitchen wastewater, usual household chemicals and laundry wastes. Industrial wastes containing industrial chemicals are not considered as greywater.

3.19 "Groundwater Table" shall mean the upper surface of groundwater in the zone of saturation of a geologic formation. The upper surface of a perched water table is included in this definition.

3.20 "Health Officer " shall mean the legally established authority as designated by the Flathead City-County Board of Health.

3.21 "High Seasonal Groundwater Level" shall mean the minimum depth, during any period of the year to the groundwater table as measured from the natural ground surface.

3.22 "Holding Tank" shall mean a watertight receptacle for the retention of sewage before, during or after treatment where an effluent is not generated.

3.23 "Impervious or Restrictive Layer" shall mean a layer of material that prevents water or root penetration and/or has a percolation rate slower than one hundred twenty (120) minutes per inch.

3.24 "Individual Sewage Treatment System" shall mean a system designed to serve one single family dwelling or a structure used for a single commercial use which employs and/or serves less than 25 people per day or a single commercial use which employs and/or serves 25 or more people per day less than 60 days per year.

3.25 "Infiltrative surface" means the undisturbed soil interface beneath the drainrock or leaching chamber.

3.26 "Level 2 treatment" means a subsurface wastewater treatment system that:
(a) removes at least 60% of total nitrogen as measured from the raw sewage load to the system; or
(b) discharges a total nitrogen effluent concentration of 24 mg/L or less.
The term does not include treatment systems for industrial waste.

3.27 "Licensed Contractor" shall mean a person that holds a current license, issued by the Department, to install, alter or repair sewage treatment systems under the terms of these regulations.

3.28 "Mobile Home Park" shall mean a tract of land providing space and water and/or sewer service to two (2) or more mobile home lots for lease or rent to the general public.

3.29 "Multi-user Sewage Treatment System" shall mean all systems that serve 3 - 14 families or service connections, but not over 24 people.

3.30 "Municipal Sewage Treatment System" shall mean a system that is the sole responsibility of an incorporated city or town government.

3.31 "Owner" shall mean the person who is the legal titleholder of land onto which a sewage treatment system has been or is to be placed.

3.32 "Permit" shall mean a written authorization issued by the Department allowing construction, alteration, installation or repair and operation of a sewage treatment system under the provisions of this regulation.

3.33 "Person" shall mean any individual, public or private corporation, institution, partnership or other legal entity.

3.34 "Pit Privy" shall mean an excavated pit which receives undiluted sanitary sewage.

3.35 "Premises" shall mean a definite portion of real property with its appurtenances, also to include a building or part of a building. This shall include, but not be limited to, residential dwellings, mobile homes, recreational vehicles, commercial or industrial structures, apartment, condominiums, and townhouses.

3.36 "Primary Treatment" shall mean the initial process by which suspended solids are settled out of the wastewater.

3.37 "Publicly Owned Sewage Treatment System" shall mean a system that is the sole responsibility of a Special Improvement Sewer District created in accordance with Montana Law.

3.38 "Public Sewage System" means a system which serves 15 or more families, or 25 or more persons for a period of at least 60 days out of the calendar year.

3.39 "Sealed component" shall mean a receptacle which is watertight on the sides, bottom and possibly the top in which wastewater is held for primary treatment or effluent is held for intermittent conveyance to an additional treatment component.

3.40 "Secondary Treatment" shall normally mean any process or facility to further reduce the suspended or dissolved organic and/or inorganic solids in the effluent from a "Primary Treatment" facility or process. This can take many forms, one of which is a subsurface drainfield.

3.41 "Septage" shall mean material removed from a septic tank, cesspool, portable toilet, Type III marine sanitation device or similar treatment works that receives only domestic sewage. Domestic septage does not include liquid or solid material removed from a septic tank, cesspool or similar treatment works that receives either commercial wastewater or industrial wastewater and does not include grease removed from a grease trap at a restaurant.

3.42 "Septic Tank" shall mean a watertight accessible covered receptacle designed and constructed to receive sewage from a structure or structures, settle solids from the liquid, to anaerobically digest organic matter and store digested solids through a period of retention and allow the clarified liquids to discharge to other treatment units for final disposal.

3.43 "Sewage" shall mean a combination of liquid wastes that may include usual household chemicals, domestic wastes, human excreta, animal or vegetable matter in suspension or solution, and other solids in suspension or solution, which is discharged from a dwelling, building or other establishment. Within the scope of this definition sewage shall also include greywater.

3.44 "Sewage Treatment System" shall mean a system for sanitary collection, transportation, treatment and disposal of sewage, operated in accordance with State and Local Board of Health Regulations.

3.45 "Shared Sewage Treatment System" means a sewage treatment system which receives wastewater from 2 living or commercial units with a total service population of less that 25 people per day, or more than 25 people per day for less than 60 days per year.

3.46 "Site Evaluation" shall mean the physical inspection of the property to determine suitability for installation of sewage treatment systems.

3.47 "Soil Profile" shall mean a detailed description of the soil strata to a specific depth. The description can be expressed using the U.S. Department of Agriculture's Soil Classification System or the Unified Soil Classification System.

3.48 "Standard Soil Absorption Trench" or "Drainfield Trench" shall mean a ditch or trench with vertical sides and substantially flat bottom dug to a width of two (2) feet and to a maximum depth of three (3) feet.

3.49 "Subdivision" shall mean a division of land as defined in the most current revision of the Sanitation in Subdivisions Act (76-4-101 thru 76-4-131, M.C.A. 1995) and/or its Regulations (Title 17, Chapter 36, Sub-Chapters 1, 3 and 6 ARM), now and as hereafter amended.

3.50 "Subsoil Drain" shall mean foundation drains, french drains, vertical drains, or other drainage systems designed to lower a groundwater table.

3.51 "Surface Water" shall mean any natural or man made body of water or watercourse, including lakes, ponds, rivers, creeks, streams and swamps.

3.52 "Temporary Permit" shall mean a permit authorizing installation of an interim sewage treatment system.

3.53 "Test Hole or Test Pit" shall mean an open pit dug to sufficient size and depth to permit thorough examination of the soil to determine a soil profile.

3.54 "Vault Toilet" is a water tight tank that is approved by the Department for temporary storage of undiluted sanitary waste.

SECTION 4 - Application and Permits

4.1 A permit issued by the department is required for any person to construct, alter, repair and/or operate any sewage treatment system within Flathead County unless the system is either a municipal or publicly owned sewage treatment system.

4.2. All applications for permits shall be made to the Department. The Department will be furnished a copy of all plans. Individual sewage treatment plans will be processed at the County level. Multi-user and Public Sewage system plans will be reviewed by the Department and forwarded to the State Health Department, if required, for their review, approval and returned to the Department. Permits shall be issued upon compliance by the applicant with all provisions of these regulations. Upon completion of the review process, approval and payment of the appropriate fee, one copy of the permit will be provided to the applicant.

4.3 All sewage treatment systems in Flathead County shall utilize uniform pressure distribution. Plans and specifications shall be prepared by a professional engineer or a sewage treatment system designer certified by the Department.

4.4 Non-degradation - All new septic systems within Flathead County , except those previously reviewed under the Sanitation in Subdivisions Act, shall comply with those standards as required under the Administration Rules of Montana (ARM) Title 17, Chapter 30, Sub-chapter 5, Mixing Zones in Surface and Groundwater and Sub-chapter 7, Nondegradation of Water Quality.

4.5 Application for a sewage treatment system permit or site evaluation shall be made only by the owner or lessee of the property for which the system is proposed or his/her duly authorized agent or assigns and shall be in writing bearing the applicant's signature. Applications shall be made on forms provided by the Department and shall include the following:

(1) Legal description of property for which construction, alteration, or repair is proposed. (Lot and Block numbers in a platted subdivision, or if applicable the Tract Nos.; and a quarter-quarter breakdown of a Section plus the Section, Township and Range). The applicant MUST ALSO PROVIDE a visual representation of the property. This may be a copy of a Certificate of Survey that created the property, a copy of the Plat, Deed Exhibit, or a copy of the Section map. This material may be obtained at the Plat Room of the County Clerk and Recorder's Office at the owner's expense.

(2) Parcel Size

(3) Names, current addresses and telephone numbers of the applicant, and those legally responsible for the operation and maintenance of the system.

(4) Address of the property on which the system is to be installed.

(5) A site plan indicating whether public and/or private sewer and water systems will be used. Include the design and location of proposed sewer and water systems showing their relation to site elevations, water wells or surface water bodies, including those located on adjacent properties within 100 feet of the property line, proposed and existing buildings, driveways, parking areas, other utility lines, and lot boundaries. Show the site available for a replacement system, or include a plan to correct possible system failure.

(6) Proof that the proposed structure will be in compliance with current zoning regulations in that specific area is required.

(7) Payment of site evaluation fee.

4.6 Minimum lot size requirement - A proposal to use both an individual onsite wastewater treatment system and water supply for each single family residence or 700 gpd of design wastewater flow for commercial and

other non-residential uses on a lot which is smaller than 1 acre may be approved only if all regulatory requirements including separations and setbacks can be met.

Parcels for which additional development is proposed must provide:

1) at least 1 additional acre for each single family residence or 700 gpd of design wastewater flow for commercial and other non-residential uses if served by an individual water supply and sewer service or,

2) at least an additional 20,000 ft^2 for each single family residence or 700 gpd of design wastewater flow for commercial and other non-residential uses if either the water or sewer is provided by a shared, multi-user or public system.

If the property proposed for the sewage treatment system installation, alteration or repair and operation has not been reviewed and does not have a Certificate of Subdivision Plat approval, a site evaluation may be conducted by the Department to determine the suitability of the property and the area designated for the sewage treatment system installation, alteration or repair before issuing a permit under these regulations. The applicant shall grant the Department access to the property for the purpose of determining site suitability.

NOTE: The presence of a Certificate of Subdivision Plat Approval on a specific property does not obligate the Department to issue a sewage treatment system permit without a site evaluation if the information provided is found to be inaccurate or additional information from the immediate area regarding soil, groundwater, etc., indicates the physical conditions are different than represented by the Certificate of Subdivision Approval.

(1) On any existing tract of land in Flathead County, whether it be an individual tract or a lot in a platted subdivision where new construction is proposed requiring a sewage treatment system, area must be made available for a 100% replacement of the original system in the event that failure occurs or the applicant must provide the Department with a plan or procedure to correct the system failure should it ever occur. The plan or procedure must be approved by the Department prior to issuing the permit for the original or primary system.

NOTE: New construction on any tract of land or subdivision lot, regardless of when it was created, where the new construction proposed is for multiple family structures, multiple dwellings or for commercial or industrial structures shall be required to have area available for a 100% replacement of the original system.

(2) The Department may require that the applicant have a test hole dug in the area of the proposed sewage treatment system installation, alteration or repair. The depth of the test hole will be dependent upon the type of information the Department feels is necessary for that specific situation. The Department may require that the applicant provide more than one (1) test hole depending upon the variability of the soils, the type of information necessary, and/or the anticipated size of the drainfield area.

(3) After or during the inspection of the property, the Department may require that the applicant provide additional information. The reasons for this request shall be provided to the applicant. This additional information may include, but is not limited to, percolation tests, more detailed soil analyses, groundwater monitoring or a system designed by a professional engineer.

(4) If groundwater monitoring is deemed necessary based on information received during the site evaluation, derived from Soil Conservation Service (SCS) material or from experience with that specific area, groundwater monitoring shall be carried out to determine the depth to high seasonal groundwater during its period of occurrence, in order to determine compliance with these regulations (see Section 9.5).

(5) If information received during a site evaluation, or if any information received indicates that a conventional system cannot be installed so as to fully comply with these regulations, the Department may require that the applicant seek the assistance of a professional engineer to design a system complying with these regulations.

(6) Permits for multi-user systems which are designed to serve multiple lots or parcels shall not be issued until an ownership, maintenance and operation agreement acceptable to the Department has been submitted. Furthermore, final approval of the installation shall not be given until the agreement has been filed with the County Clerk and Recorder.

(7) If any portion of a sewage treatment system must encroach within 10 feet of a property line, written permission from the neighboring property owner must be obtained prior to issuance of a sewage treatment system permit.

(8) If any portion of a sewage treatment system will be located on another parcel of land, an easement filed with the County Clerk and Recorder will be required prior to issuance of a sewage treatment system permit.

(9) The Department may require the material discussed in this section be provided by persons trained in the related field(s).

4.7 The Department shall not issue a permit until all pertinent site data and required design plans have been received, reviewed and determined to be in full compliance with all provisions contained in these regulations and applicable State Regulations. If the Department does not have qualified personnel or facilities to perform adequate review of a particular plan, it shall secure review and evaluation by an independent engineer to the extent deemed necessary. Cost of such review will be borne by the Department. One set of plans approved by the Department, will be retained. At the time the Department determines the proposal outlined in the application complies with the regulation, a permit will be prepared and signed by the Department. A permit is not considered as issued until the applicant has paid the appropriate permit fee.

4.8 Permit and Site Evaluation Fees

(1) A site evaluation fee may be required and must be submitted with the initial applications.

(2) Applicants shall be required to pay the permit fee prior to issuance of the permit.

(4) Fees shall be in accordance with a Schedule of Fees adopted by the Flathead City-County Board of Health, a copy of which shall be available at the Health Department.

(5) Fees are to defray costs, to the extent deemed appropriate by the Board for evaluation of the site and system, administration, necessary inspection and re-inspection from initial application through construction and operational start-up.

4.9 Temporary Permit - A permit to install and operate a temporary sewage treatment system may be issued by the Department when municipal or public sewer is proposed to be made available to the subject property within six (6) months. Additional time must be granted through a variance with the Board of Health. Financial hardship shall not be considered as the basis for issuance of a temporary permit. Issuance of a temporary permit shall be subject to any or all of the following conditions as deemed appropriate by the Department through written agreement:

(1) Annexation to the municipality or district.

(2) The Department may require a form of security to assure compliance with 4.7(1). The form of security may be:

(a) Cash or other collateral readily convertible to cash at face value deposited in an escrow account or with the Department.

(b) Certificate of deposit payable to the Department.

c) The owner shall provide the Department with a letter of credit from a bank or other reputable institution or individual certifying the following:

1) That the creditor guarantees funds in an amount of 125% of the projected cost of completing all required improvements;
2) That if the owner fails to complete the specified improvements within the required period, the creditor will immediately pay the Department upon presentation of a sight draft without further action, an amount of cash necessary to finance the completion of those improvements, up to the limit of credit stated in the letter;
3) That the letter of credit may not be withdrawn or reduced in amount until released by the Department

(d) A commercial bond, or

(e) Other security acceptable to the Board.

The amount of the security shall be 125% of the total estimated project cost and the estimated cost shall be determined by a licensed professional engineer or licensed contractor, whichever is deemed appropriate by the Department. If the Department determines that the holder of a temporary permit has not complied with the terms of the permit or agreement, it may withdraw the security and use these funds to construct the improvements or correct any deficiencies necessary to bring the permit holder's system into compliance with the permit or agreement.

4.10 Re-use of Existing Septic Systems - Sewage treatment systems no longer in use due to the removal or destruction of a structure may be permitted for re-use provided the following criteria are met:

(1) There is a permit for the existing system in the FCCHD files.

(2) The system is in compliance with all current separation and setback requirements.

(3) The system is in compliance with current construction standards.

(4) The system appears to have adequate capacity for the proposed use as related to current minimum standards, and

(5) Application is made and a new permit is issued.

Sewage treatment systems within the 100 year floodplain may be replaced provided all other setback and separation requirements are met. However, if any portion of the applicant's property is located out of the floodplain, the applicant may be required to locate all or a portion of the replacement system in this area.

4.11 A sewage treatment system which the Department determines must be abandoned shall have:

(1) The sewer line disconnected between the building and the septic tank.

(2) The septic tank destroyed by filling with an inert solid, removed from the premises or re-used if the tank is in suitable condition.

(3) Written certification by the owner to the Department that the system has been abandoned in accordance with the conditions referenced above.

SECTION 5 – Expiration and Revocation of Permits

5.1 If a sewage treatment system for which a permit has been issued has not been installed, inspected and approved by the Department within 12 months, said permit shall expire and be void. Should a permit expire, the applicant may reapply. The new permit shall be subject to all requirements that exist at the time the new application is made.

5.2 The permit for a sewage treatment system which has been inspected and approved will be revoked if the system has not been put into operation within three (3) years at the permitted or lesser level of use. A new application must be made to renew any revoked permit. The application for renewal will be reviewed prior to permitting to ensure compliance of the existing system with the regulation in effect at the time of application and that the connection to a structure can be made in compliance with those regulations. A fee for renewal of the permit will be required. An inspection of the connection to a structure may also be required.

NOTE: The Department is not obligated to issue a new permit to an applicant who has allowed a previously issued permit to expire or be revoked even though the new permit application utilized the same specifications and information as on the previously issued and expired permit. A new permit will not be issued if information becomes available indicating that a previously approved system or permit cannot now be approved or re-issued and be in full compliance with the regulations that exist at the time of reapplication.

5.3 The installation, alteration, repair or operation of a sewage treatment system after the initial permit has been voided shall constitute a violation of these regulations.

5.4 Any changes in plans, details or specifications of construction not approved by the Department after the permit has been issued, shall invalidate the permit.

5.5 There will be no reimbursement to any applicant of fees received for the issuance of the permit.

5.6 The Department may void a permit before its normal expiration date when any of the facts or conditions upon which the permit specifications were based are found be constitute a violation of these regulations.

SECTION 6 - Denial of Permits

6.1 The Department may disapprove an application for a permit if the Department determines:

(1) That the sewage treatment system, as proposed, will not comply with the requirements or specifications of these regulations, or,

(2) That the applicant has failed to supply all data necessary to make a determination as to whether or not the proposed sewage treatment system complies with the requirements or specifications of these regulations and had failed to provide such information within ninety (90) days after a written notice for such additional information has been made by the Department, or,

(3) That the applicant has failed to pay the required fees and has failed to make such payment within ninety (90) days after notice to the applicant by the Department that the permit has been prepared and can be issued upon payment of the appropriate fee.

6.2 If a tract of land is presently being reviewed under the Sanitation in Subdivisions Act, a permit

cannot be issued for any structure on that tract of land until the review of said subdivision has been completed and the subdivision approved.

6.3 A permit may be denied if it is found that any provision of a Certificate of Subdivision Approval has been violated or there is departure from any criteria set forth in the approved plans and specifications of said subdivision.

6.4 A permit may be denied if it is found that such installation is in conflict with the requirements of the Sanitation in Subdivisions Act or its regulations, or if such installation is intended as a means of avoiding the requirements of the Sanitation in Subdivisions Act or its regulations.

6.5 A permit to construct a sewage treatment system for a structure on any tract of land, regardless of size, where there already exists another structure or structures, serviced by a separate sewage system(s), shall be denied if the applicant cannot provide substantiating evidence that there is available area for the construction of said system and there is sufficient area to construct a 100% replacement system for that system and for any other sewage treatment system on that tract of land.

6.6 If an approved municipal or other publicly owned sewage collection and treatment system is readily available within a distance of 200 feet of the property line for connection to a new source of wastewater, or as a replacement for a failed treatment system, and the owner (management entity) of the publicly owned collection and treatment system approves the connection, the applicant must connect. A connection is considered as not readily available if:

(1) The cost of the connection, as determined by the Department, is greater than three times the cost of the installation of an onsite wastewater treatment system that could be approved for the site, or

(2) Connection to the public system is physically impractical, or

(3) Necessary easements cannot be obtained.

6.7 If it is determined by the Department that the primary purpose of a proposed septic system is to avoid annexation to a municipality, the permit shall be denied.

6.8 Any denial of a permit shall be made with reasons for such denial and shall be given to the applicant within fifty (50) days of the receipt of a completed application.

SECTION 7 - Contractor Licensure

7.1 It shall be unlawful for any person, except as delineated in this section, to construct, alter or repair an individual or multi-user sewage treatment system within Flathead County unless that person holds a valid Flathead County Sewage Treatment System Contractor's License. A homeowner constructing, altering or repairing an individual sewage treatment system for his/her own residence upon his/her own property is exempt from this requirement. However, it must be understood by the owner that the system must be constructed in full compliance with these regulations and design and construction standards. Detailed plans showing the proposed layout, construction method and materials to be used must be provided to the Department. A builder who owns several parcels of land and who builds structures on these parcels for sale, rent or lease and not for the purpose of their residing in said structures, shall not be considered a "homeowner".

7.2 All first time applications for contractor licenses shall be made to the Department who may grant the license upon completion of the following:

(1) Name, address and telephone numbers of the applicant.

(2) Passing the required examination.

(3) Receipt of the license fee payment.

All applications for license renewal shall contain all the elements of a first time application except that the examination requirement may be waived if the applicant has demonstrated knowledge of good sewage system design and/or installation in the year immediately preceding the application.

7.3 Contractor licenses shall be valid from January 1 through December 31 for the year stated on the license and shall be renewable by March 1 of the following year. Licenses are not transferable.

7.4 Contractor licenses may be denied for any of the following reasons:

(1) Having constructed or altered a sewage treatment system without a valid permit, and/or,

(2) Having a license revoked within twelve (12) months preceding the application, and/or,

(3) Failure to meet the terms of License Applications.

7.5 Contractor licenses are the property of the Department and may be revoked by the Department at any time for the following reasons:

(1) Installation of a sewage treatment system prior to the issuance of a septic system permit, and/or,

(2) Failure to gain approval for a sewage treatment system installation, and/or,

(3) Having provided false evidence or information to obtain a septic permit or gain approval of a septic installation.

7.6 In the event that any portion of Section 7.5 has been violated and revocation of the license is deemed appropriate, the Department shall notify the licensee in writing that the license has been revoked. Reasons for the revocation shall be specified in the letter.

7.7 Appeal to the Board. A contractor whose license has been revoked by the Department may appeal that decision to the Board of Health. After receiving the appeal, the Board shall allow the appellant to present his/her appeal before the Board at its next regularly scheduled meeting, provided that such request is received ten (10) days prior to the scheduled meeting date. At this meeting, the appellant may appear in person, be represented by another person, or may appeal to the Board in writing. The Board shall, within fifteen (15) days after hearing and/or reviewing the appeal, respond to the applicant in writing stating its decision and the reasons therefore. The Board's decision shall be determined as final.

7.8 The term of revocation will be for one calendar year from the date of violation. Relicensure shall be permitted only after completion of the requirements set forth in Section 7.2.

SECTION 8 - Inspection & Operation of Sewage Treatment Systems

8.1 Once a permit has been issued by the Department for sewage treatment system, the applicant may begin construction. All systems SHALL be inspected by the Department PRIOR to backfilling any portion of said system, unless specific permission has been granted by the Department to backfill a portion of the system. For engineer designed systems, presence of the design engineer or his representative is mandatory at this inspection. It shall be the responsibility of the applicant, or the applicant's contractor, to notify the Department twenty-four

(24) hours in advance of the anticipated completion time of the construction of the system for the purpose of arranging a time for inspection. Requests for inspections must be made for normal Department work hours.

8.2 By the issuance of a permit, the owner of the property consents to the re-inspection by the Department of the sewage treatment system during its operational life. This consent shall be binding upon the owner's successors, heirs and assigns in interest. Re-inspections shall be conducted during regular business hours. The purpose of the re-inspection is to determine that the sewage treatment system is operating in compliance with these regulations.

8.3 During the Department's inspection of the sewage treatment system the inspector shall diagram the distance, dimensions and capacities of all component parts of the system on the Department's copy of the application and evaluate the conformity of the construction and operation of the system relative to all provisions of these regulations and the plans and specifications approved for that permit.

8.4 Should the inspector find that any aspect of the construction or operation of a sewage treatment system is not in full compliance with these regulations and/or the plans and specifications filed with the permit, he/she shall describe these deficiencies in detail in writing on the Department's copy of the inspection record. The Department shall then notify the applicant or owner immediately of all deficiencies and require that corrective action be taken. A re-inspection shall be made upon notification by the applicant or the applicant's contractor, as specified in this Section, to ensure that the deficiencies have been corrected and that the system has been brought into compliance with these regulations and/or the specifications of the permit. A re-inspection fee shall be paid prior to the re-inspection.

8.5 The deficiencies as described by the Department must be corrected within fifteen (15) days, unless a longer compliance schedule is approved by the Department. Noncompliance with the above schedule or use of the system shall constitute a violation of these regulations. (See Section 12 - Violations, Penalties and Enforcement)

8.6 Final approval for engineer designed systems shall not be granted until the design engineer furnishes a complete set of as-built drawings and written certification to the Department that the project was completed as shown therein. Information required for the certification shall include that obtained by the engineer during an inspection conducted after final completion of the project. The certification and as-built drawings shall be provided to the Department within 10 days following the final inspection.

8.7 The property owner shall be responsible for proper operation, maintenance and cleaning of the system and/or abatement of any nuisance arising from its failure, unless jurisdiction for responsibility has been transferred to a public, quasi-public or private entity or political subdivision. The issuance of a permit does not constitute assumption by the Department or its employees of liability for the failure of any sewage treatment system nor does it imply any guarantee by the Department that the system will function properly.

8.8 The Board of Health or Department may require the owner of an individual or multi-user sewage treatment system to maintain and submit to the Department records of inspection, maintenance, cleaning and testing performed on the system as deemed necessary by the Board or Department for any system requiring maintenance beyond normal pumping and filter cleaning frequency, for any system designed to treat wastewater that exceeds residential strength, any system that utilizes Level 2 or greater treatment technology, or any system that may not be functioning or being operated properly.

8.9 Sewage treatment systems are designed to accept domestic wastes, not to include toxic chemical wastes, e.g., developing solutions from photographic activity, industrial wastes, washdown of chemical containers, etc. Water from roof drains, groundwater, surface runoff, gutters, sump pumps, etc., shall not be discharged into a sewage treatment system and should be purposely directed to discharge to locations that will not in any way affect a sewage treatment system or pollute State waters. NOTE: Greywater must be treated as sewage and disposed of through an approved sewage treatment system.

SECTION 9 - Minimum Requirements for Class 1 - 3 Sewage Treatment Systems

9.1 General

(1) The sewage treatment system shall consist of an inlet line from a point two (2) feet outside the foundation wall to the septic tank or other approved primary treatment device, possibly an intermediate treatment device and a final effluent treatment system usually consisting of a subsurface absorption field.

(2) All effluent treatment systems utilizing a subsurface absorption field shall employ uniform pressure distribution.

(3) Wastewater flows:

(a) - Residential wastewater flows

Minimum design wastewater flow from a single family dwelling unit in Flathead County is 350 gallons per day. For dwelling units which have more than 3 bedrooms, the design wastewater flow shall be increased by 100 gallons per day per additional bedroom.

(b) - Nonresidential wastewater flow

Typical daily flows for a variety of commercial, institutional, and recreational establishments are presented in Tables 5 -1, 5-2 and 5-3 of circular DEQ 4. For design purposes, the typical flows must be used as minimum design flows. Greater design flows may be required where larger flows are likely to occur, such as resort areas. Design flow must be computed using the total number of units in the proposed facility times the typical daily flow in the tables, with no reduction allowed for occupancy rates. Where the system includes several different types of uses from the tables, each use must be computed separately, and the design flow must be based on the sum of all of the uses. A means of flow measurement (such as flow meters or pump run-time meters) may be required.

As an alternative to the flows listed in the tables, design flow may be based on actual water use data from similar facilities. Because this water use data will typically be monthly averages, the peak design flow must be a minimum of 1.5 times the average flow. System components may be added (or enlarged) to address peak flows to allow drainfields to be sized based on average flow.

(4) Upon failure of any portion of a sewage treatment system, the Department may require upgrading of any other portion of the system in addition to the failed component.

(5) Installation of a pit privy is prohibited in Flathead County.

(6) Installation and use of a vault toilet shall be limited to serving a structure which does not have water piped into the building.

9.2 Location

(1) The location and installation of a sewage treatment system and each part thereof shall be such that, with reasonable maintenance, it will function in a sanitary manner and will not create a nuisance nor constitute a hazard to public health nor endanger the safety of any actual or potential domestic water supply, nor directly enter the waters of the State of Montana. In determining a suitable location of the system, consideration shall be given to the size and shape of the lot, soil conditions, slope of the land, depth to groundwater, proximity

to existing and future water supplies, existing sewage treatment systems and State waters, depth to bedrock and/or other impervious materials and to areas for expansion or replacement of the treatment system.

(2) Minimum distances/separations have been established for location of the various component parts of the sewage treatment system and these distances/separations are shown in Table 1.

TABLE 1 - MINIMUM SETBACK AND SEPARATION DISTANCES

FROM:	TO: Septic Tank Pump Chamber Other Sealed Components (feet)	TO: Absorption System (feet)
Well [a]	50	100
100-year Floodplain	5	100
Surface Water [b]	50	100[a]
Foundation Wall	10	10
Water Lines	10	10
Property Lines [c]	10	10
Absorption System	10	---
Slopes in excess of 25%	10	25
Groundwater Table [d]	(e)	4 [a][f]
Bedrock [d]	(e)	4 [a][f]
Impermeable or Impervious Layer [d]	(e)	4 [a][f]
Subsoil Drains	10	10
Cisterns [a]	25	50

(a) Variances to these setbacks will not be considered for new construction.

(b) Surface Water - This distance shall be measured horizontally from the high water mark.

(c) For proposed installations where any portion of the sewage treatment system will be located less than 10 feet from the property line, written permission must be obtained from the adjoining owners.

(d) Groundwater Table - Depth to groundwater table shall be measured during its highest period of occurrence (high seasonal groundwater level).

(e) The Department may require that special design criteria and construction techniques be utilized when septic tanks, pumping chambers and sealed lines are proposed to be located within two (2) feet of the groundwater table, bedrock, impermeable soils, or extremely coarse soils (gravels).

(f) 4 feet - The separation to groundwater, bedrock and/or impermeable or impervious layer shall be measured from the infiltrative surface.

(3) No component of any sewage treatment system shall be located under driveways, parking areas or areas subject to heavy loading and no vehicles shall be driven over the system after installation, except those portions properly installed to accept traffic loads. No component part of any sewage treatment system shall be installed in an area that might later be used for building additions, garages, sheds or other structures that will restrict immediate access to any portion of the system for necessary maintenance and repair. NOTE: No absorption system shall be placed under driveways, roadways, parking areas or areas that may be subject to continued/periodic vehicular traffic, regardless of design and installation.

(4) Soil absorption fields shall be adequately protected (e.g., fenced) to prevent trampling by livestock or damage from vehicular traffic.

(5) Floodplain: No soil absorption system shall be located within 100 feet of a 100 year floodplain of any river, lake, stream, pond, or watercourse and from any swamp or seep as delineated by the most current Federal Emergency Management Agency (FEMA) floodplain maps available and accepted for use in Flathead County or other method of delineation described in subsection (b).

(a) Where FEMA floodplain maps are available the shaded zones as shown on the map shall generally be considered as a guideline in determining the area within the 100-year floodplain. In those areas where there are questions due to either the scale of mapping or variation in topography, the 100-year floodplain boundary shall be further delineated by obtaining a Letter of Map Amendment through FEMA. Elevations as determined by a licensed surveyor or licensed engineer may be required to verify that the proposed sewage treatment system site meets the location requirements set forth in Table 1.

(b) If any portion of a proposed system is within two thousand (2000) horizontal feet and twenty (20) vertical feet of a live stream draining an area of twenty-five (25) square miles or more and no official FEMA floodplain delineation or floodplain studies of the stream have been made, the applicant shall be requested to furnish a report delineating the base flood elevation of the 100-year floodplain to the Water Resources Division of the Montana Department of Natural Resources and Conservation. After the Water Resources Division has reviewed and approved the report delineating the floodplain, the applicant shall submit it to the Department.

(c) The horizontal setback to the 100-year floodplain may be waived in the event that the sewage treatment system drainfield is a minimum of 100 feet from the river, stream or other water body's average yearly highwater mark and the bottom of the drainfield will be at least two feet above the 100 year base flood elevation as determined by methods described above.

(d) Sewage treatment systems within the 100 year floodplain may be replaced provided all other setback and separation requirements are met. However, if any portion of the applicant's property is located out of the floodplain, the applicant may be required to locate all or a portion of the replacement system in this area.

(e) Replacements of sewage treatment systems within the 100 year floodplain shall be for only what the system has been serving or the use for which the system was permitted. No increase in use shall be allowed.

(f) The unpermitted filling of wetlands (e.g., ponds, watercourses, swamps) or the 100 year floodplain for the purpose of attaining the setback requirements set forth in Table 1 is prohibited.

(6) The sewage treatment system shall not be located in any swales or depressions where surface runoff may flow or accumulate. Careful consideration must be made to prevent any accumulation of water over the sewage treatment system by properly landscaping to direct drainage away from the system.

(7) The Department may require that special design criteria and construction techniques be utilized when septic tanks, pumping chambers and sealed lines are proposed to be located within two (2) feet of the groundwater table, bedrock, impermeable soils, or extremely coarse soils (gravels).

9.3 Groundwater: If groundwater is within seven (7) feet of the natural ground surface or if there is any reason to believe groundwater will be within seven (7) feet of the ground surface at any time of the year, groundwater monitoring holes shall be provided to a depth of at least eight (8) feet in the area of the absorption field to determine the high seasonal groundwater level (see Section 6 - Denial of Permits).

9.4 Bedrock/Impervious Material - If there is reason to believe that bedrock or other impervious material is within seven (7) feet of the natural ground surface, test holes shall be provided to accurately determine the depth to bedrock or other impervious material.

NOTE: If information is obtained indicating that a four (4) foot separation between the infiltrative surface and high seasonal groundwater, bedrock or other impervious materials cannot be provided in the area of the proposed sewage treatment system, a permit to install a conventional sewage treatment system shall be denied (see Section 6 - Denial of Permits).

9.5 Slope Restrictions - Natural slopes greater than 15% but less than 25 % shall preclude the use of sub-surface sewage treatment systems unless evidence is submitted substantiating that soil and groundwater conditions are such that there will be no visible outflow of liquid downslope from the installation of the sewage treatment system. Such material shall be submitted by an engineer, soils scientist, or geologist. Natural slopes greater than 25% will not be considered for sewage treatment system installation.

9.6 Holding Tanks: As defined in 3.23, holding tanks will not be considered where new construction is proposed. Their only use will be for replacement of existing systems where current regulations cannot be met and variances cannot be granted due to the potential adverse impact that a sewage treatment system might have on ground or surface waters and/or the health of any person. The only exception to the above rule shall be where connection of the structure shall be made to a public or municipal system within one year of issuance of a temporary permit (see Section 4.8).

9.7 If it is the finding of the Department that further installation of sewage treatment systems in an area may adversely affect or injure any property, the health or safety of any person, surface or groundwaters, or will conflict with the purposes of these regulations, the Board of Health may restrict, prohibit or impose additional conditions upon the installation of new sewage treatment systems within the affected area.

SECTION 10 - Special Districts

Within the limits of its authority, the Board of Health may enter into agreements with County Water and Sewer Districts for the purpose of mitigating public health hazards, improving, protecting and preserving water quality.

SECTION 11- Variances and Appeals

11.1 Appeal to the Health Officer: Should a sewage treatment system permit be denied or should any affected person wish to appeal the application or operation of any part of these regulations, the applicant or appellant may appeal such denial or the affected person may appeal the application or operation of the regulations within ten (10) days in writing to the Health Officer.

(1) The burden of proof shall be placed upon the applicant or appellant to show that the denial of the permit or application or operation of these regulations was contrary to these regulations or based upon incorrect information or incorrect interpretation of information.

(2) The Health Officer shall decide within thirty (30) days whether the denial will be upheld or the appeal granted. Reasons for any decision will be provided to the applicant or appellant in writing.

11.2 Appeal to the Board of Health. Should an appeal to the Health Officer result in a denial of the appeal, the appellant may make an appeal to the Flathead City-County Board of Health. After receiving the appeal, the Board shall allow the appellant to present his/her appeal before the Board at its next regularly scheduled meeting, provided that such request is received ten (10) days prior to the scheduled meeting date. At this meeting, the appellant may appear in person, be represented by another person, or may appeal to the Board in writing. The Board shall, within fifteen (15) days after hearing and/or reviewing the appeal, respond to the

applicant in writing stating its decision and the reasons therefore. The Board's decision shall be determined as final.

11.3 Application for Variance. An application for a variance to these regulations may be made to the Board within sixty (60) days of a denial of an application for a permit. The Health Officer shall receive all applications for variances.

11.4 The Health Officer shall maintain and be custodian of all records of the Minutes of the Board and findings and decisions of the Board. All records shall be open to the public. An application for a variance shall be in writing.

11.5 At least 10 days prior to the date of the hearing on the application for a variance, the Health Officer shall transmit a copy of said application to the members of the Board. The Department shall submit its advisory opinion on said application to the members of the Board prior to the date of hearing.

11.6 Conditions Governing Variances: The Board shall have the authority to grant a variance from a requirement of these regulations unless it clearly conflicts with state or federal law.

(1) Before any variance can be granted, the Board shall make written findings of fact based upon evidence produced at the public hearing setting forth and showing that the following circumstances exist:

(a) That special conditions and circumstances exist which are peculiar to the land such as size, shape, topography or location not applicable to other lands in the same area and that literal interpretation of the provisions of these regulations would deprive the property owner of rights commonly enjoyed by other properties similarly situated under the terms of these regulations;

(b) That special conditions and circumstances did not result from the actions of the applicant;

(c) That granting the variance requested will not confer a special privilege to the applicant or his property that is denied other applicants or property owners;

(d) That granting the variance will not adversely affect or injure any adjacent properties, will not conflict with the purpose of these regulations and will not adversely affect the health or safety of any person or be contrary to the six factors set out under "Purposes of Regulations";

(e) That the reasons set forth in the application justify the granting of the variance and that the variance is the minimum variance that can be granted under the regulations;

(f) That there does not exist for the applicant a reasonable alternative method of complying with these regulations.

(2) The fact that the property may be utilized more profitably will not be an element of consideration before the Board.

(3) In granting any variance, the Board may prescribe conditions and safeguards that insure that the purpose and intent of these regulations shall not be violated. Violation of such conditions and safeguards when made part of the terms under which the variance is granted shall be deemed a violation of these regulations and punishable under Section 12 "Violations, Penalties and Enforcement".

11.7 The Health Officer shall notify the applicant in writing that the variance was denied or that the specific variance was granted and any conditions and safeguards that were made part of the terms under which the variance was granted.

SECTION 12- Violations, Penalties and Enforcement

12.1 General Prohibitions - It shall be a violation of these regulations to:

(1) Own or operate a malfunctioning sewage treatment system;

(2) Install or alter a sewage treatment system without a valid permit or written Departmental approval;

(3) Construct or maintain any dwelling or other occupied structure which is not equipped with adequate facilities for the sanitary disposal of sewage;

(4) Removed sewage or effluent from a system and disposed of it onto any site which has no prior approval for septage disposal;

(5) Violate any provision of these regulations.

12.2 Notice of Violation - If the Department discovers there has been a violation of any provision of these regulations or if the requirements of a sewage treatment system have been willfully violated, the Department shall give notice of such violation to the responsible person or persons. Such notice shall be in writing and shall specify any violations. The notice shall spell out the required corrective action and provide a reasonable time for correction, considering the severity of the violation and its public health significance. Service of such notice shall be by means of regular mail and shall be considered complete upon personal service or mailing by the Department. If after the notice has been served, the deficiencies have not been fully corrected to the satisfaction of the Department in the specified time period, the Department shall provide all such information to the County Attorney for appropriate legal action including, but not limited to, action to enjoin the violation.

12.3 Misrepresentation - Any permit or approval granted under these regulations which was based upon misrepresentation, failure to make a material fact or circumstances known or should have been known by the applicant or his agent, shall be void. Any construction, alteration, repair or use of a sewage treatment system after the permit for said system has been voided shall constitute a violation (see Section 12.2).

12.4 Any person who violates any provision of these regulations or any provision of any regulation adopted by the Flathead City-County Board of Health pursuant to the authority granted by this regulation, shall upon conviction be punished by a fine of not less than fifty dollars ($50) or more than five hundred dollars ($500) per day of violation. Each day of violation constitutes a separate offense. The first day of violation shall be the date of the notice of violation.

SECTION 13 - Severability and Conflicts

13.1 Conflict of Ordinances, Effect of Partial Invalidity: In any case where a provision of this regulation is found to be in conflict with a provision of any zoning, building, fire, safety or health regulation or code of the State of Montana, Flathead County, or any municipality within Flathead County, existing on the effective date of this regulation, the provision which, in the judgment of the Board, establishes the higher standard for the protection of the health and safety of the people, shall prevail.

13.2 If any section, paragraph, sentence, clause or phrase of this regulation should be declared invalid for any reason whatsoever, such invalidity shall not affect the remaining portions of this regulation, which shall remain in full force and effect, and to this end, the provisions of this regulation are hereby declared to be severable.

ADDENDUM F

WHITEFISH WATER QUALITY PROTECTION REGULATIONS

Whitefish Water Quality Protection Regulations

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ADOPTED by WHITEFISH CITY COUNCIL: Ordinance 08-04, March 3, 2008; Amended by Ordinance 08-18; Amended by Ordinance 08-25; Amended by Ordinance 09-04; Amended by Ordinance 12-04

11-3-29A. Purpose and Intent:

It is the purpose of this section to apply development standards to lots or parcels with the greatest chance of affecting water quality:

1. Maintain the community's ability to manage stormwater through protection of "critical conveyances".

2. Protect and improve the quality of the Whitefish area's water bodies, including lakes, streams, and the Whitefish River, which are central to the community's identity and values.

3. Protect public safety, public and private property, and water quality from threats of geologic instability and erosion.

4. Protect and preserve the lawful use and enjoyment of private property.

To accomplish these objectives, this section will set forth a series of standards and regulations to maintain the ability of critical conveyances to carry stormwater; to limit sediment, nutrients and other pollutants entering the area's streams and lakes; to properly condition and, where necessary, prohibit development in geologically unstable areas adjacent to water bodies.

The intent of these regulations is to promote lawful and responsible land development. These regulations allow the restoration of streams, stream banks, slopes, and wetlands; sound forest management; and the clearing and removal of hazardous vegetation to protect life and property.

11-3-29B. Administration:

1. Applicability:

Any new or expanded residential, commercial or industrial development proposal within 200 horizontal feet of a lake, river, wetland, stream or stormwater conveyance shall comply with this section. Any lots or parcels that were created by whatever means prior to April 3, 2006 or after March 3, 2008 shall be required to comply with this section.

The following developments, activities and associated uses shall be exempt from the provision of this section:

a. Those activities necessary to prevent an immediate threat to public health, safety, or welfare, or that pose an immediate risk of damage to private property and that require remedial or preventive action in a time frame too short to allow for compliance with the requirements of this section. After the emergency, the person or agency undertaking the action shall report any impacts to the water quality protection area to the director within five (5) days of the activity. The director may require submittal of a water quality protection area report or geotechnical letter to guide restoration or mitigation for these impacts. Final approval of the report, restoration and mitigation shall be in accordance with provisions of this section.

b. Operation, maintenance, repair, modification, or addition to existing structures, infrastructure improvements, utilities, public or private roads, dikes, levees, or drainage systems, if the activity applies best management practices and does not further encroach within a water quality protection area or buffer and there is no increased risk to life or property as a result of the action. As applicable, new facilities must comply with subsections 11-3-33 (erosion control) and 11-7-10E (mitigation for impacts). Operation and maintenance includes minor landscaping, native plant landscaping, buffer restoration, bank stabilization with native plant landscaping and vegetation management, provided that such management actions are part of regular and ongoing maintenance and do not expand farther into the water quality protection area or buffer.

c. Agricultural activities, as defined in Montana Code Annotated 76-2-902. This includes timber harvesting, thinning, and regeneration on land without residential structures. Timber harvesting on forestlands that are proposed for conversion to other uses must be in compliance with Montana Code Annotated 77-5-301 - 307, the Montana streamside management zone law. Violations of Montana Code Annotated 77-5-301 - 307 must be remediated to the satisfaction of the Montana department of natural resources and conservation prior to submittal of development permits under this section.

d. Educational and research activities that do not degrade the functions and values of a water quality protection area or buffer, and conservation or restoration activities to protect or restore these functions and values.

e. Development of a lot contained within a preliminary plat or planned unit development approved by the Whitefish city council prior to April 2, 2008, pursuant to the approved building site plan or building pad, if the building site plan or building pad are specifically located on the lot, but only to the extent that such development is located within the building site plan or building pad. The zoning administrator may, on a case by case basis, approve minor modifications to the building site plan or building pad. However, this exemption does not exempt a property owner from the requirements of subsection 11-3-33 of this section.

2. Relationship to Other Regulations:

a. These water quality protection regulations shall apply as an overlay and in addition to zoning and other regulations adopted by the city.

b. Any individual water quality protection area adjoined by another type of water quality protection area shall have the buffer and meet the requirements providing the most protection to the water quality protection areas involved. When any provision of this section or any existing regulation, easement, covenant, or deed restriction conflicts with this section, that which provides more protection to the water quality protection areas shall apply.

c. The city shall not approve any permit or otherwise issue any authorization to alter the condition of any land, water, or vegetation, or to construct or alter any structure or improvement in, over, or on a water quality protection area or associated buffer, without first ensuring compliance with the requirements of this section.

d. Compliance with the provisions of this section does not constitute compliance with other federal, state, and local regulations and permits that may be required, nor does it relieve an applicant from the duty to avoid harm to neighboring or downstream properties or create a duty to neighboring or downstream properties on the part of the city. The applicant is responsible for complying with these other requirements and duties, apart from the process established in this section.

3. Administrative Rules:

Applicable departments within the city are authorized to adopt such administrative rules and regulations as are necessary and appropriate to implement this section and to prepare and require the use of such forms as are necessary for its administration.

4. Permitting:

Development within 200-feet of a water quality protection area that is not exempt under Section 11-3-29B(1) shall obtain a permit prior to the start of any proposed activity pursuant to Section 11-7-10.

5. Reasonable Use Exception:

When the requirements of this section, or these requirements in combination with zoning and other development standards, would render a legally existing lot or parcel of record incapable of providing any legal and reasonable use, as defined in this subsection, a reasonable use exception (RUE) shall be issued by the director if the criteria in this subsection are met. A "legal and reasonable use" is defined as one that is allowed by the applicable zoning district and consistent with similar uses in the same general area, taking into account the most recent construction trends in the general area. For dwelling units, a legal and reasonable use may disturb no more than five thousand (5,000) square feet or fifteen percent (15%) of the parcel, whichever is greater, by structures or other land alteration, including grading, utility installations and landscaping, but not including the area used for an on site sewage disposal system.

a. An application for a reasonable use exception shall be made to the city and shall include a water quality protection area identification form; water quality protection area report or geotechnical letter, as applicable; and any other related project documents, such as permit applications to other agencies. The application shall document what can be developed on the property in compliance with the strict provisions of this section and other zoning and development standards, and shall explain why this would not permit any reasonable use of the property. It shall include the date the applicant purchased the property or otherwise obtained the right to develop or use it, and restrictions or conditions on use or development in existence on that date. The burden of proof shall be on the applicant to bring forth evidence in support of the application and to provide sufficient information on which any decision has to be made on the application.

b. Following receipt of a complete and accurate submittal, within thirty (30) days the director shall grant or deny a request for an RUE in writing with findings of fact pursuant to the determinations set forth in subsection B9c of this section.

c. In reviewing applications for RUEs, the director shall determine that all of the following criteria are met:

(1) The lot, tract, or parcel is a legal lot of record.

(2) All reasonable use of the property is preempted under the strict provisions of this section, or the combination of this section and zoning and

development standards, for reasons other than actions by the applicant after the effective date hereof.

(3) There are no reasonable development alternatives readily available to the applicant that meet the standards of these regulations.

(4) The RUE does not pose a threat of significant injury to occupiers of the land, other properties, or the natural resources protected by this section.

(5) Impacts associated with the RUE are the minimum necessary to allow for reasonable use of the property, and will be reasonably and effectively mitigated through conditions of approval.

d. An RUE shall not be approved solely to improve views and vistas or proximity to amenities when viable alternatives exist. Preference shall be given to modifying or waiving development standards that do not impact water quality protection areas or the safety of the occupiers of the land or other properties.

e. Approval or denial of any RUE may be appealed to the board of adjustment pursuant to section 11-7-5 of this title. An approved RUE shall be recorded with the Flathead County clerk and recorder prior to any construction activity. The RUE shall be valid for three (3) years and the director may approve up to two (2) 1-year extensions, provided the applicant can demonstrate progress is being made on the project. If construction has not begun during the approval period, the RUE shall expire.

6. Variances:

A variance from the requirements of this section may be authorized through a planned unit development or a neighborhood plan or, in other cases, by the director, in conjunction with the public works department, if the applicant provides clear and compelling evidence that the result would better protect or restore the functions and values of affected water quality protection areas than would application of standard criteria or in the case where these regulations conflict with state or federal regulations.

7. Public Agencies And Utilities:

If the application of this section would prohibit a development proposal by a public agency or public utility, the agency or utility may apply for a reasonable use exception, which shall follow the procedures and criteria of subsection B9 of this section, as applicable, and shall also demonstrate that application of this section would otherwise unreasonably restrict the ability to provide services to the public.

8. Mapping:

The city shall maintain planning level maps indicating the best available information as to the location location of water quality protection areas. In addition to these maps, the following may be used as a guide for locating water quality protection areas:

a. Topographic maps published by the U.S. geological survey;

b. Flood insurance rate maps published by the federal emergency management agency;

c. Surficial geologic map of the upper Flathead River Valley (Kalispell Valley) area, Flathead County, northwestern Montana, published by the Montana bureau of mines and geology;

d. Soil survey of the upper Flathead valley area, Montana, published by the U.S. soil conservation service; and

e. Soil survey of Flathead national forest area, published by the U.S. forest service and the natural resource conservation service, in cooperation with Montana agricultural experiment station.

f. Topographic mapping through the Flathead Basin Mapping Project, 2009, maintained by Montana Natural Resource Information System.

All of these sources are to be used for planning purposes by the city, project applicants and property owners, but may be superseded by new data and do not eliminate the need for on site evaluation for the presence of water quality protection areas.

9. Density Calculation:

Density shall be calculated based on the gross acreage of the site. Land restricted from development within water quality protection areas or their buffers may be used to meet requirements for open space other than active recreation under section 12-4-11 of this code. Where development is partly prohibited due to the presence of water quality protection areas, as defined in this section, an applicant may be permitted to transfer up to one hundred percent (100%) of the density attributable to the undevelopable area of the property to another portion of the same property, where the director finds that this is consistent with the city's growth policy and that the following standards are met:

a. The increased density does not significantly harm the water quality protection areas on site or on adjacent properties;

b. The increased density does not significantly harm wildlife habitat, including migration corridors;

c. The increased density does not significantly harm the character and qualities of the existing neighborhood; and

d. Where applicable, the increased density makes efficient use of infill property.

Where the above standards are met, the normal standards of the underlying zoning district for minimum lot size, setbacks, and lot coverage may be modified to accommodate the increased density.

10. Enforcement and Penalties:

a. Reasonable access to the site shall be provided to the city for the purpose of inspections during any proposal review, restoration, emergency action, or monitoring period. The director shall present proper credentials and make a reasonable effort to contact any property owner before entering onto private property. Except in emergencies or when the director determines that there may be an imminent threat to environmental resources, such reasonable effort shall include written notice by certified letter seven (7) days in advance of a planned site inspection.

b. When a water quality protection area or its buffer has been altered in violation of this section, all ongoing development work shall stop and the water quality protection area or buffer shall be restored. The city shall have the authority to issue a stop work order to cease all ongoing development work, and order restoration, rehabilitation, or replacement measures at the owner's or other responsible party's expense to compensate for violation of provisions of this section. All development work shall remain stopped until a restoration plan is prepared and approved by the city.

c. If development work continues, the city shall have the authority to seek all legal and equitable relief necessary to enforce this section. Restoration plans shall be prepared by a qualified professional using the best available science and shall describe how the actions proposed meet the minimum requirements described in subsection B14d of this section. As necessary, the director shall, at the violator's expense, seek expert advice in determining the adequacy of the plan. Inadequate plans shall be returned to the applicant or violator for revision and resubmittal.

d. At a minimum, performance standards for restoration shall be as follows:

(1) For alterations to critical stormwater conveyances, or streams, wetlands, and lakes and their buffers, restoration shall return the affected environment to the historic conditions or the conditions existing at the time

of the initiation of the project; if that is infeasible, restoration shall replace, enhance, or provide substitute resources or environments, following the criteria for mitigation in Section 11-7-10D, where applicable.

(2) For alterations to steep or unstable slopes, the following minimum performance standards shall be met for restoration:

(A) The hazard shall be reduced to a level equal to, or less than, the predevelopment hazard;

(B) Any risk to public safety or other water quality protection areas resulting from the alteration shall be eliminated or minimized; and

(C) To the extent feasible, the hazard area and buffers shall be replanted with native vegetation sufficient to minimize the hazard.

e. Any person convicted of violating any of the provisions of this section shall be guilty of a misdemeanor. Each day or portion of a day during which a violation of this section is committed or continued shall constitute a separate offense. Any development carried out contrary to the provisions of this section shall constitute a public nuisance and may be enjoined as provided by the statutes of the state of Montana. The city may levy civil penalties against any person, party, firm, corporation, or other legal entity for violation of any of the provisions of this section. The civil penalty shall be assessed at a maximum rate of one thousand dollars ($1,000.00) per day per violation.

11-3-29C. Stream, Lake and Wetland Buffers And Setbacks:

1. Standard Buffers and Setbacks:

A buffer is an area of land adjacent to a lake, wetland or stream, including the Whitefish River intended to protect the water quality area, while a setback is a smaller area of land adjacent to the buffer intended to protect buffers from human disturbance where structures are prohibited and only limited alterations are allowed.

Except where modified through a reasonable use exception under subsection B5 of this section or a variance under subsection B6 of this section, buffers and setbacks for streams, wetlands, and lakes are hereby established as follows. All buffers shall include the entire floodplain. Widths shall be measured on the horizontal plane perpendicular to the edge of the water quality protection area. Developments in compliance with buffer and setback requirements or allowed uses in this section shall not be required to submit a water quality protection area report unless specifically noted below.

Waterbody:	Buffer:	Setback:
Whitefish River *Section C(1)(a)*	75' or top of bank, whichever is greater	Variable, but no less than 20-feet
Other perennial streams *Section C(1)(b)*	100' with 25' increase/decrease for high/low intensity land use	10'
Intermittent streams *Section C(1)(c)*	50'	10'
Whitefish Lake *Section C(1)(f)*	20' with water quality plan to meet performance standard of 75' buffer	10'
Other lakes *Section C(1)(g)*	75'	10'
Wetlands *Section C(1)(d)*	100', with 25' increase/decrease for high/low intensity land use	10'

a. Whitefish River: The buffer shall be the top of bank (where evident) or seventy five feet (75') from the ordinary high water mark, whichever is greater. If there is an associated wetland along the river, the seventy five feet (75') shall be measured from the edge of the wetland. If any structure is proposed within two hundred feet (200') of the buffer on a property that abuts the river, a geotechnical letter consistent with subsection D of this section shall be required. Such an analysis may also be required if the director of public works

determines, based on field observation and in consultation with the applicant, that a proposed structure beyond this setback may be damaged by slope failure, slumping or other geologic instability, or that it may contribute to such instability on other properties. Unless an approved geotechnical letter concludes that a larger setback is necessary, the setback shall equal the rear yard setback in the applicable zone, but in no case shall it be less than twenty feet (20').

b. All Other Perennial Reaches Of Streams: All other perennial reaches of streams, including, but not limited to, Beaver, Cow, Eagle, Haskill, Hellroaring, Lazy, Smith, Swift, Viking, and Walker Creeks and their tributaries: The buffer shall extend one hundred feet (100') from the ordinary high water mark, except that the buffer for Second Creek upstream of the city's water supply intake shall be two hundred feet (200'). These buffers shall be increased by twenty five feet (25') for multi-family, industrial and commercial development; they shall be reduced by twenty five feet (25') for passive recreational uses such as parks or for low density residential development on lots 2.5 acres or greater and cannot be subdivided into lots less than 2.5 acres. There shall be no permitted reduction in the buffers for Second Creek. The setback shall be ten feet (10'), with no encroachment on the buffer allowed.

c. All Intermittent Streams: The buffer shall extend fifty feet (50') from the ordinary high water mark. The setback shall be ten feet (10'), with no encroachment on the buffer allowed.

d. Wetlands: For single-family residential development, the buffer shall be one hundred feet (100') for all wetlands not exempted under subsection C1e of this section. These buffers shall be increased by twenty five feet (25') for multi-family, industrial, and commercial development; they shall be reduced by twenty five feet (25') for passive recreational uses such as parks or for low density residential development on lots 2.5 acres or greater and cannot be subdivided into lots less than 2.5 acres. The setback shall be ten feet (10'), with no encroachment on the buffer allowed.

e. Exempt Wetlands: All isolated wetlands rated as category III or category IV using the Montana wetland assessment method, as developed and updated by the Montana department of transportation, and that are less than one thousand (1,000) square feet shall be exempt from these regulations. All such wetlands between one thousand (1,000) square feet and ten thousand (10,000) square feet shall have no buffer and setback restrictions and may be filled or otherwise degraded, if impacts are fully mitigated based on Section 11-7-10. Existing storm ponds that were former wetlands, provided a fifteen foot (15') setback is maintained from the edge of the pond, are exempt.

f. Whitefish Lake: The buffer and setback shall be regulated under title 13 of this code. All development of property within seventy five feet (75') of the lake shall

submit a water quality protection plan developed by a qualified professional, which shall make recommendations regarding stormwater management, impervious surface, grading and filling, and vegetation protection and restoration so that the estimated discharge of sediment, nutrients, and other pollutants to the lake during and after construction would be no greater than if the site had a seventy five foot (75') buffer, using a methodology approved by the director of public works. This plan may reference or incorporate other documentation required by the city. Requirements for a water quality plan may be waived by the public works director for minor disturbances.

g. All Other Lake Shorelines That Are Not Wetlands: The buffer shall be seventy five feet (75') from the mean high water mark. The setback shall be ten feet (10'), with no encroachment on the buffer allowed.

2. Restriction on Subdividing:

Land that is located wholly within a wetland or its buffer may not be subdivided. Land that is located partially within a wetland or its buffer may be divided provided that each resulting lot has sufficient buildable area outside of, and will not affect, the wetland or its buffer.

3. Restoration Incentive:

Except for Whitefish Lake, buffer widths may be reduced up to twenty five percent (25%) if the buffer is restored or enhanced from a preproject condition that is disturbed (e.g., dominated by invasive species), so that functions of the postproject buffer are equal or greater. For single-family homes on existing lots of record, the restoration plan must be developed by a qualified professional for the relevant water quality protection area and must be approved by the director. For all other development, the restoration plan must also meet requirements in Section 11-7-10.

4. Buffer Averaging:

Except for Whitefish Lake, the director shall have the authority to average buffer widths on a case by case basis, where a qualified professional demonstrates to the director's satisfaction that all of the following criteria are met:

a. The total area contained in the buffer after averaging is no less than that contained within the buffer prior to averaging;

b. Decreases in width are generally located where riparian functions may be less sensitive to adjacent land uses, and increases are generally located where riparian functions may be more sensitive to adjacent land uses, to achieve no net loss or a net gain in functions; and

c. The averaged buffer, at its narrowest point, shall never be less than fifty percent (50%) of the standard width or fifty feet (50') for the Whitefish River.

5. Allowed Activities in Buffers:

The director shall permit the following uses within a stream, wetland, or lake buffer, provided they meet the standards set forth below and are not prohibited by any other applicable law. Certain allowed activities require a water quality protection plan approval. Activities along perennial streams, including the Whitefish River, may also require review and approval from the Flathead Conservation District:

a. For lake buffers, activities specifically authorized under title 13, "Lake And Lakeshore Protection Regulations", of this code.

b. Viewing structures, if they are no greater than one hundred (100) square feet, have no permanent foundation, and have impacts mitigated by planting an area with native vegetation at least equal in size to the area disturbed by the structure, preferably in the same buffer.

c. Walkways and trails, provided pathways minimize adverse impacts on water quality. As applicable, trails must comply with subsections 11-3-33 (erosion control) and 11-7-10 (mitigation for impacts). Paths should be designed using the best management practices and obtain permits when necessary. Unless required by the Americans with disabilities act or otherwise approved in the city's adopted master trails plan, they should generally be parallel to the perimeter of the water body, located in the outer twenty five percent (25%) of the buffer area, avoid removal of mature trees, and be limited to pervious surfaces no more than four feet (4') in width. City paths/trails also require approval of a water quality protection permit. A walking path to a lake, stream, or wetland may be permitted for single-family homes on existing lots of record provided impacts are mitigated based on recommendations by a qualified professional for the relevant water quality protection area, which must be approved by the director. For all other developments, mitigation for such a path must also meet requirements in Section 11-7-10.

d. Pesticides and fertilizers may be applied in buffers under the following conditions:

(1) Pesticides shall be applied according to the manufacturer's label. There are specific materials labeled for use that are appropriate applications in aquatic, ditch bank/edge areas and upland environments. All others shall be prohibited. The applicator shall ensure that the pesticide application is applied in accordance with the restrictions of the label for its intended use, targeted vegetation and/or area being treated.

(2) No fertilizer shall be applied to any buffer unless suggested as part of a buffer enhancement/mitigation plan. Such plan shall provide soils sample analysis indicating a need for the fertilizer and the composition of macronutrients (N, P, K), a schedule of application and measures to ensure the fertilizer does not reach adjacent water bodies. Fertilizer applied shall be no more than is needed for plant uptake.

e. Forest management. Tree removal within the buffer area for the following shall require the submittal of a tree removal plan to the zoning administrator for review and approval prior to removing trees.

(1) Tree removal for the health of the stand, including fuel reduction, habitat improvement, removal of diseased wood, and thinning for acceleration of multi-age, multi-story characteristics. Trees planted by the current property owner may be removed at the sole discretion of that property owner and need not be replaced unless they were required as mitigation or through an enforcement action under this section.

(2) Tree removal for limited view enhancement, meaning filtered views and/or view corridors from key vantage points, such as decks, balconies, and picture windows, achieved by pruning or limbing or, as a last resort, limited tree removal. Trees removed shall be replaced with additional trees at least three inches (3") in trunk diameter as measured eight inches (8") above ground level, unless installation of such trees would create erosion or slope stability hazards that cannot be adequately controlled or mitigated. Conifers removed shall be replaced by conifers. Replacement trees and shrubs shall be located in the same general area of the site as the trees removed, to the extent consistent with purposes for removal, and shall be sufficient in number to provide a comparable area of root coverage, once established.

g. Stream crossings, if necessary to provide access to property and if impacts are fully mitigated consistent with an approved water quality protection areas report.

h. Stormwater management facilities may be allowed within the outer twenty five percent (25%) of buffers, provided that:

(1) No other location with less impact is feasible; and

(2) Mitigation for impacts is provided to achieve no net loss or a net gain in functions.

i. Connection lines to utilities, if required by the city or utility, with a restoration plan for disturbed soils and vegetation approved by the director.

j. Bioengineering or soft armoring techniques for streambank stabilization is preferred.

6. Allowed Activities in Setbacks:

In addition to activities identified in subsection C5 of this section, the following uses are allowed in a stream, wetland, or lake setback, provided they are not prohibited by any other applicable law:

a. Activities specifically authorized within lake setbacks under section 11-3-27 of this chapter.

b. Recreational structures such as play apparatus or patios at grade and associated safety devices (railings, steps, etc.).

c. Vehicular access for maintenance or essential emergency services.

d. Lawns, gardens, and the application of associated fertilizers, herbicides, and pesticides are allowed.

e. Incidental outdoor storage of nonhazardous materials.

f. Tree removal is not restricted, but tree retention and management are highly encouraged, as is the planting of native trees.

11-3-29D. Slopes And Geologic Instability:

If a project is proposed on a lot or parcel with slopes greater than ten percent (10%) and is within two hundred feet (200') of a lake, wetland or intermittent or perennial stream, the applicant shall submit a geotechnical letter, as described below.

1. Geotechnical Letter:

a. The letter shall include an assessment of the existing geologic and geotechnical site conditions, including surface water runoff, groundwater, soil types, erosion, and slope stability.

b. The qualified professional shall prepare conclusions and recommendations for the proposed development and any mitigation necessary to address existing site conditions that may need to be modified due to the proposed development.

c. Maintenance Responsibility. Perpetual maintenance of all stabilization measures and their design effectiveness is the express responsibility of the property owner and all heirs and assigns. Failure to maintain these measures and their design effectiveness shall constitute a violation of this section pursuant to section 11-7-12 of this title.

2. Exemption:

For the following residential development applications within 200-feet of a lake, wetland or stream, the director shall waive the requirements of this subsection:

a. An addition less than two hundred (200) square feet in size.

b. Detached unoccupied auxiliary buildings such as garages and sheds 600 square feet or less.

c. Decks attached to structures where no additional load bearing weight is added to an adjacent slope.

d. Other small or minor disturbances, as determined by the director.

11-3-29E. Critical Stormwater Conveyances:

1. Restricted Area:

No building, structure, excavation, filling, or development of any kind, and no terrain disturbance that would interfere with stormwater flow shall be allowed within critical stormwater conveyances, as defined by this section, unless otherwise approved through a reasonable use exception under subsection B8 of this section, a variance under subsection B9 of this section, or by the director of public works as part of a detailed drainage study.

2. Applicability:

This section applies only to critical stormwater conveyances that have been identified on the city's most current maps, or to critical stormwater conveyances identified by the director of public works based on field observation, with the precise location of the conveyance to be determined on a site by site basis, as described in subsection E of this section.

3. Location:

Precise location of critical stormwater conveyance boundaries shall be determined on a site by site basis by the director of public works based on estimated flows for a 25-year storm (having a 4 percent chance of occurring in any given year), in consultation with the property owner and/or project proponent and reviewing the most recent city stormwater conveyance mapping, within thirty (30) days of a request by the property owner. The property owner may hire a qualified professional to establish the precise location of the boundaries and submit the determination for the city's review and approval.

4. Setback:

New structures or terrain disturbance that would interfere with stormwater flow are also prohibited within fifteen feet (15') of designated critical stormwater conveyances. Patios, driveways, and landscaping that would not significantly interfere with stormwater flow are allowed.

5. Property Access:

Structures necessary for vehicle access are allowed within critical stormwater conveyances and setback areas if they do not reduce conveyance capacity.

6. Pesticide and Fertilizer Application:

a. Pesticides shall be applied according to the manufacturer's label. There are specific materials labeled for use that are appropriate applications in aquatic,

ditch bank/edge areas and upland environments. All others shall be prohibited. The applicator shall ensure that the pesticide application is applied in accordance with the restrictions of the label for its intended use, targeted vegetation and/or area being treated.

b. Fertilizer applied shall be no more than is needed for plant uptake, taking into account the nutrient content of the soils.

7. Restricted Activities:

Removal and/or disturbance of existing ground vegetation and trees within critical stormwater conveyances, and filling and excavation of areas adjacent to critical stormwater conveyances, shall not be conducted in such a manner as to negatively impact the conveyance through additional runoff, erosion, or sedimentation. No storage or vehicle parking of any kind shall be allowed within a critical stormwater conveyance.

Chapter 1
GENERAL LAKE AND LAKESHORE PROTECTION PROVISIONS

13-1-1: TITLE AND AUTHORITY:
13-1-2: PURPOSE:
13-1-3: JURISDICTION:
13-1-4: INTERPRETATION:
13-1-5: DEFINITIONS:

13-1-1: TITLE AND AUTHORITY:

These regulations shall be known and referred to as the *WHITEFISH AREA LAKE AND LAKESHORE PROTECTION REGULATIONS*, and are adopted under the authority of the state of Montana, Montana Code Annotated 75-7-207, which requires local governing bodies to adopt regulations regarding the issuance or denial of permits for work in lakes within their jurisdiction, including land which is within twenty (20) horizontal feet of the mean annual high water elevation (see figure 1 of this section).

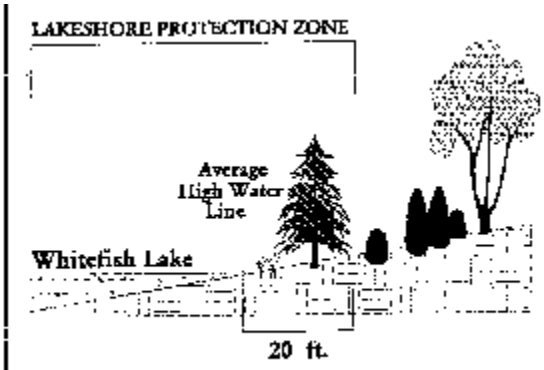


Figure 1. Lakeshore Protection Zone

(Ord. 09-08, 7-20-2009)

13-1-2: PURPOSE:

The purpose of these regulations is to:

A. Protect the fragile, pristine character of Whitefish area lakes and the intertwined adjacent riparian and upland areas;

B. Conserve and protect natural lakes because of their high scenic and resource value;

C. Conserve and protect the value of lakeshore property;

D. Conserve and protect the value of the lakes for the state's residents and visitors who use and enjoy them. (Ord. 09-08, 7-20-2009)

13-1-3: JURISDICTION:

These regulations govern any work which alters Whitefish Lake, Lost Coon Lake and Blanchard Lake, and the land which is within twenty (20) horizontal feet of the mean annual high water elevation of these lakes. The mean annual high water elevation for Whitefish Lake has been established according to statute 75-7-202(4) at three thousand and seventy nine-hundredths feet (3,000.79') msl (NAVD 1988), which is equivalent to two thousand nine hundred ninety seven feet (2,997.00') msl (NGVD 1929). The mean annual high water elevation on Lost Coon Lake is three thousand one hundred four feet (3,104') msl (NAVD 1988), which is equivalent to 3,100.21 feet msl

(NGVD 1929). The mean annual high water elevation of Blanchard Lake is three thousand one hundred forty four and eight-tenths feet (3,144.80') msl (1988 datum) which is equivalent to three thousand one hundred forty one feet (3,141') msl (1929 datum). (Ord. 09-08, 7-20-2009)

13-1-4: INTERPRETATION:

These regulations supplement all other regulations, and the permit issued hereunder does not supersede or negate the necessity for obtaining floodplain permits or other permits as may be required by other governmental units having jurisdictional responsibilities over a lake or its lakeshore. Where any provision of these regulations imposes more stringent regulations, requirements or limitations than imposed or required by any other regulation, resolution, ordinance or statute, the provisions of these regulations shall govern. (Ord. 09-08, 7-20-2009)

13-1-5: DEFINITIONS:

Whenever the following words or phrases appear in this title, they shall be given meanings attributed to them by this section. When not inconsistent with the context, words used in the present tense shall include the future, the singular shall include the plural and the plural the singular, the word “shall” is always mandatory, and the word “may” indicates a use of discretion in making a decision.

ADMINISTRATIVE PERMIT: A document issued by the administrator for such activities and projects, when constructed within the approved design guidelines, are deemed to have an insignificant impact on the lake and lakeshore per subsections 13-2-5B6 and B7 of this title.

ADMINISTRATOR: Administrator of the planning office for the governing body (Whitefish city council) which has jurisdiction over that portion of the lakeshore for which the permit application is made.

APPLICANT: The person or persons making applications to the governing body for a permit. On a permit in which a letter of authorization is provided to allow a contractor or other individual to act on behalf of the property owner, both the property owner and other individual or contractor shall be considered to be the applicant.

BOAT RAIL SYSTEM: A facility consisting of tracks extending from or across the lakeshore protection zone into the lake which is designed to facilitate launching or retrieving boats.

BOAT RAMP: A facility consisting of a pad extending from or across the lakeshore protection zone into the lake which is designed to facilitate launching or retrieving boats.

BOAT SHELTER: A permanent structure which provides shelter for boats and which has not more than ten percent (10%) of any side or end wall area enclosed. A breakwater adjoining a shelter shall not be considered a part of a wall.

BOATHOUSE: A permanent structure which provides housing and shelter for boats and which has more than ten percent (10%) of any side or end wall area enclosed.

BUILDING: A structure having a roof supported on columns or walls for storage, shelter, support or enclosure of persons, animals or chattels.

BUOY: A float moored to the bottom, used to moor boats, mark channels, etc.

CONSTRUCTED AREA: That portion of the lake and lakeshore protection zone covered by any constructed structure such as a dock, deck, walkway, patio, boathouse, boat shelter, water trampolines, shore station cover, floating boat lift or floating personal watercraft docking station or covered by any nonnative material or substance that would not naturally occur at this point, such as concrete, asphalt, or dry laid stone.

DOCK: A platform, either nonfloating or floating, which extends into, over or across the water to provide for boat moorage, access to a moorage area, swimming facilities or other related activities.

DOCK LENGTH: The total length of the dock including any access gangways (see figure 4 below).

DOCK WING: That portion of a dock and deck which lies generally parallel to the shoreline with its main function as a wave break or to provide a boat slip or sheltered area as opposed to primarily provide access out to deep water (see figure 4 below).

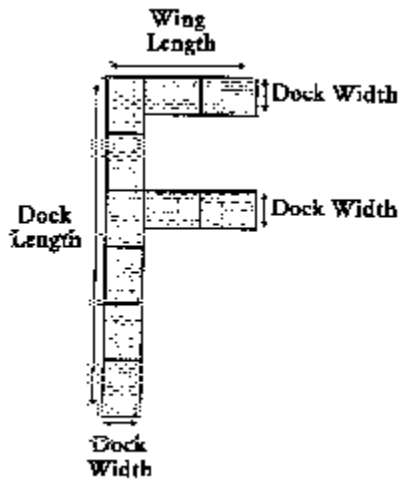


Figure 4. Dock Wing and Length

DREDGING: The process of excavating material from the lake bottom and thereby increasing the depth of a portion of the lake bottom. The term shall include the process of extending the lake area landward by excavating material from the lakeshore protection zone and thereby lowering the elevation of that portion of that zone.

DWELLING UNIT: All permanent, semipermanent and temporary buildings, guest quarters, cabins, apartments, mobile homes, campers, trailers, motor homes or similar facilities, including appurtenant structures, which provide sleeping and/or cooking facilities.

FAIR MARKET VALUE: The price that a willing purchaser would pay a willing seller, assuming that both parties are well informed and well advised, and neither is under a particular compulsion to buy or sell.

FILLING: The process of discharging material onto a lake bottom and thereby raising the elevation of a portion of the lake bottom including the elimination of an aquatic environment or a wetland environment by extending the dry land area into such aquatic or wetland area. This term shall include the process of discharging material onto the lakeshore protection zone and thereby raising the elevation of that portion of that zone.

FLOATING BOAT LIFT: A single or multisectional, self-floating system designed to support a boat or personal watercraft.

GOVERNING BODY: The Whitefish city council.

HAND TOOLS: For the purpose of routine or seasonal work on a nonconforming structure (see definition of Maintenance), hand tools would generally include implements that can be readily carried and operated by a single person, including power tools that operate with a battery, electricity or gasoline/diesel fuel.

IMPERVIOUS: Not permeable, impenetrable by water.

IMPROVEMENT: An addition made to property (real estate) or a change in its condition which is intended to enhance its value, aesthetics, utility, or to adapt it for new or further purposes.

LAGOONS: An artificial boat harbor created by excavating the shoreline, removing earth material and thereby extending an aquatic environment into a dry land area.

LAKE: A body of standing water, and the area within its lakeshore, occurring naturally rather than by virtue of constructed impoundments (although a natural lake whose level is raised and whose area is increased by the construction of impoundments includes the additional level and area), having a water surface area of at least twenty (20) acres for at least six (6) months in a year of average precipitation as such averages are determined by the United States geological survey, not used exclusively for agricultural purposes and navigable by canoes and small boats.

LAKE FRONTAGE: For the purpose of administering these regulations, lake frontage shall be based on the linear feet of lake frontage of the lot or tract to be developed as well as any adjoining undeveloped lots under the same ownership. "Common waterfront property ownership" shall be defined as multiple contiguous lots under one family or related ownership, including fractional ownership in a corporation, partnership or other legal entity. Lake frontage shall be determined from records at the Flathead County assessor's office, subdivision plats, certificates of survey, or may be measured as a straight line between two (2) lot lines at the point where mean annual high water intersects each lot line.

LAKESHORE PROTECTION ZONE: The lake, lake bed and the land area which is within twenty (20) horizontal feet of the parameter of the lake and adjacent wetlands when the lake is at the mean annual high water elevation (see figure 6 of this definition).

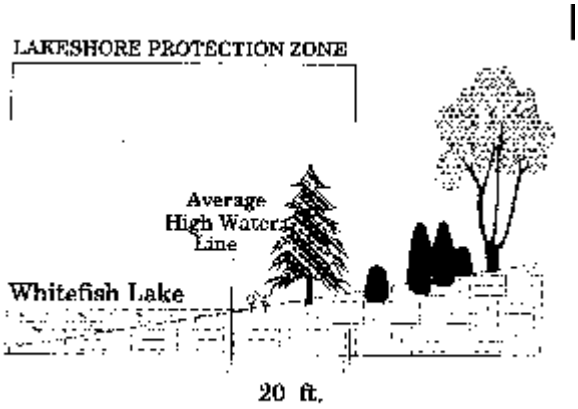


Figure 6. Lakeshore Protection Zone

MAINTENANCE: Routine or seasonal work or upkeep involving tightening, adjusting or minor replacement of boards, shingles, broken windows, cleanup of debris such as branches and leaves, restacking fallen rock, or similar activities. Painting or staining is allowed only on nonconforming structures built prior to 1978 and located landward of the mean high water line. Routine maintenance only requires hand tools. Any dredging, filling or excavation is not considered maintenance.

MARINA, PRIVATE: A marina facility which serves the needs of a homeowners' association, private housing development, resort facility, or other limited group, and provides overnight dockage or moorage.

MARINA, PUBLIC: A marina facility which provides boat slips and/or services, without restriction, to the general public.

MEAN ANNUAL HIGH WATER ELEVATION: The mean average of the highest elevation of a lake of at least five (5) consecutive years, excluding any high levels caused by erratic or unusual weather or hydrologic conditions. A highest elevation caused by operation of a dam or other impoundment counts towards the establishment of the mean annual high water elevation. For the purpose of these regulations, the mean annual high water elevation for Whitefish Lake has been established at three thousand and seventy nine-hundredths feet (3,000.79') msl (NAVD 1988), which is equivalent to two thousand nine hundred ninety seven feet (2,997.00') msl (NGVD 1929). The mean annual high water elevation on Lost Coon Lake is three thousand one hundred four feet (3,104') msl (NAVD 1988), which is equivalent to three thousand one hundred and twenty one-hundredths feet (3,100.21') msl (NGVD 1929). The mean annual high water elevation of Blanchard Lake is three thousand one hundred forty four and eight-tenths feet (3,144.80') msl (1988 datum) which is equivalent to three thousand one hundred forty one feet (3,141') msl (1929 datum).

NATIVE PLANTS: A terrestrial plant species that has persisted within one hundred feet (100') of mean high water of Whitefish, Lost Coon or Blanchard Lakes prior to influence by humans. A resource file on native plants is available from the jurisdictional planning office.

PERMIT: A document issued by the governing body verifying compliance with the requirements and provisions of these requirements.

PERSON: Any individual, firm, corporation, partnership, institution or entity; the state and its departments and any political subdivision of the state.

PLANNING BOARD: The Whitefish city/Flathead County planning board.

REAL VALUE: For the purpose of maintenance and/or repair of a nonconforming structure, the real value shall be determined to be the fair market value of the structure, exclusive of foundation, prior to any changes or damage.

RECONSTRUCTION: To rebuild an existing facility such that at the time of reconstruction in excess of fifty percent (50%) of the real value of the facility, excluding foundation, is replaced. Reconstruction of a nonconforming structure is prohibited. See definitions of Maintenance and Repair.

REPAIR: To restore an existing facility to sound condition by replacing component parts of the facility and maintaining the exact design, size and configuration as was original prior to repair. All repair materials shall conform with subsection 13-3-1A, "Construction Materials", of this title.

RETAINING WALL: Any structure built essentially parallel and contiguous to the shoreline of a lake which is designed to protect the landmass inland from the structure, from erosion or wave action and protect the lake from siltation.

RIPARIAN BOUNDARY: A projection of the side property lines from their point of intersection with the perimeter of the lake (at its mean annual high water elevations), lakeward at right angles to the natural shoreline. Where a structure has been built into the lake and the structure has caused the buildup of an artificial shoreline, the artificial shoreline cannot be utilized to establish the riparian boundary (see figure 7 of this definition).

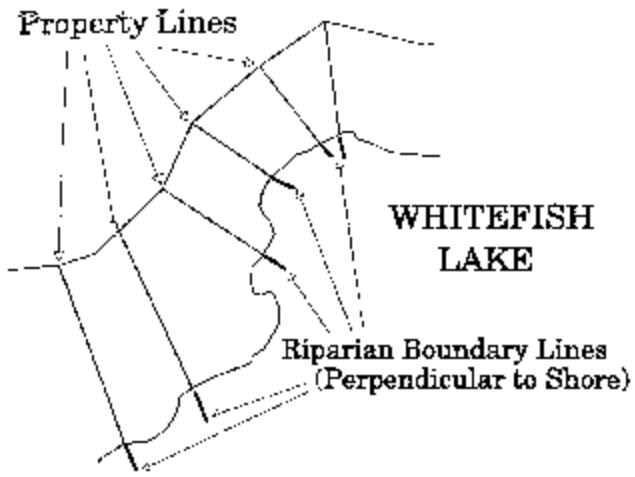


Figure 7. Riparian Boundary Lines

RIPRAP: A layer, facing, or protective mound of stones, or rock or other materials randomly placed to prevent erosion, scour or sloughing of a structure or embankment. Riprap shall be limited to areas where active shoreline erosion is clearly present, and requires a permit.

SEWAGE PUMPOUT FACILITY: A facility specifically provided to pump out and receive the contents of holding tanks onboard boats, with "holding tanks" understood to mean any retention system on a boat which is designed to hold sewage and which must be emptied from time to time.

SHORE STATION: A seasonal, portable, metal or wood frame carriage which is designed to hoist boats or personal watercraft from the water and to store boats or personal watercraft over the water or on the lakeshore.

SIDE WALL AREA (OF A DOCK): The side wall of that portion of a dock which is generally perpendicular to the shoreline.

STRUCTURE: That which is built or constructed, an edifice or building of any kind or any piece of work artificially built up or composed of parts joined together in some definite manner and either attached to or supported by the ground or floating on the water (e.g., dock, buoys, etc.).

SWIMMING DOCK: A type of dock which does not abut the shoreline or extend above the water to the shoreline, used typically for swimming and related activities (see definition of Dock).

WETLANDS: Water-land interface areas which are inundated or saturated by surface and/or ground waters at a frequency and duration of time periods sufficient to establish and, under natural conditions, support a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include, but are not limited to, swamps, marshes, bogs and similar areas. Wetland areas may be separated from the main body of water by manmade barriers or natural berms. The water elevation of a wetland area is related to the elevation of the lake water.

WORK: Activity that changes the condition of the lakeshore protection zone or structures within the lakeshore protection zone. (Ord. 09-08, 7-20-2009)

Chapter 2
PERMIT REQUIREMENTS

13-2-1: PERMIT REQUIRED:
13-2-2: EXEMPTIONS FROM PERMIT REQUIREMENTS:
13-2-3: PROHIBITED CONSTRUCTION OR INSTALLATIONS:
13-2-4: ADDITIONAL REQUIREMENTS:
13-2-5: APPLICATION REVIEW PROCEDURES:
13-2-6: POLICY CRITERIA FOR ISSUANCE OF A PERMIT:
13-2-7: POLICY CONSIDERATIONS:

13-2-1: PERMIT REQUIRED:

No person shall proceed with any work on, or alteration or disturbance of, a lake, lake bed, or lakeshore until he/she has obtained, and has physical possession of a valid "lakeshore construction permit" from the governing body. The person who performs or authorizes such work, and the property owner, are responsible for assuring that a valid permit has been obtained from the governing body.

The permit issued shall be displayed during work activity so that it is conveniently visible to the public.

Without limitation, the following activities, when conducted within the lake, lake bed or lakeshore protection zone, are examples of work for which a permit is required:

A. Construction of channels or ditches;

B. Excavation;

C. Dredging, to remove muck, silt sediment, rock or vegetation;

D. Filling, including artificial beach creation;

E. Construction of lagoons;

F. Construction of living quarters, buildings, or other impervious surfaces;

G. Construction of boat service facilities, including the installation of fuel pumps or sewage pumpout facilities;

H. Construction of elevated structures (example: decks, overhangs), including extensions into the airspace;

I. Construction of retaining walls and breakwaters;

J. Construction, installation or additions to docks;

K. Installation of boat and personal watercraft shore stations, boat rail systems, boat ramps, boat storage and parking facilities, buoys and floating docks, and floating trampolines;

L. Installation of water lines, sewer lines or other utility lines or facilities;

M. Any major clearing or removal of natural vegetation;

N. Reconstruction of existing facilities;

O. Stockpiling brush, trees, vegetation, construction materials or debris;

P. Moving a dock, shore station, or buoy to another location on the lake;

Q. Operation of machinery, with the exception of recreational watercraft and equipment used for seasonal removal/installation of docks;

R. Any other work not herein mentioned that may have an impact on a lake, lake bed or lakeshore. (Ord. 09-08, 7-20-2009)

13-2-2: EXEMPTIONS FROM PERMIT REQUIREMENTS:

The following types of work are not required to obtain a permit, but shall comply with the construction criteria of these regulations:

A. Repair Work: Repair work which qualifies as routine maintenance (see section 13-1-5, "Definitions", of this title) or, if a nonconforming structure, complies with subsection 13-3-1Z of this title.

B. Buoys: Buoys placed in a lake on a temporary basis (not exceeding 10 days) in a calendar year.

C. Emergency Work:

1. Emergency work where a condition exists that poses an imminent threat to property, structures, or improvements, provided that:

a. The work being done is only what is necessary to mitigate the immediate threat; and

b. The conditions which constitute the threat were caused by extenuating circumstances which could not be readily anticipated and which do not reoccur on an annual basis.

2. The following procedures shall be followed where emergency work is performed:

a. The person proposing to do emergency work shall notify the governing body as to the nature of the emergency, description of the work to be done and the location of the site. If the work date falls on a normal working day (Monday through Friday, excluding holidays), notification must be made prior to beginning work. If the work date falls on a nonworking day (Saturday, Sunday and holidays), notification must be made on the next working day. Notification shall be made by phone and in writing.

b. The administrator shall review the notification. If the administrator determines that the work is emergency work, the administrator shall sign the notification and send a copy of it to the applicant and the lakeshore protection committee.

c. If work done under the emergency provision goes beyond the minimum necessary to mitigate the danger, or if work is done where no emergency condition existed, such work shall be considered a violation of these regulations.

D. Real Estate Signs: Real estate signs less than six (6) square feet in size. (Ord. 09-08, 7-20-2009)

13-2-3: PROHIBITED CONSTRUCTION OR INSTALLATIONS:

The following types of work, new construction, and installations are prohibited in the lakeshore protection zone:

A. Boathouses;

B. Boat shelters;

C. Pump houses;

D. Crib dock;

E. Pilings;

F. Covering beach with impervious nonnative material (material which does not allow water absorption);

G. Any installation of asphalt;

H. Satellite dishes;

I. Permanent or temporary buildings;

J. Hot tubs;

K. Fuel storage tanks;

L. Decks;

M. Roads, driveways, or parking areas; and

N. Signs. (Ord. 09-08, 7-20-2009)

13-2-4: ADDITIONAL REQUIREMENTS:

A. Restoration: A person who performs work in the lake, lake bed or lakeshore without a permit for that work shall, if required by the governing body, restore the lake, lake bed, or lakeshore to its condition before he/she disturbed it.

B. Property Rights: Work or development approved by permit under these regulations shall not create a vested property right in the permitted development, other than in the physical structure, if any, so developed.

C. Permission To Enter: The person making application for a permit grants the governing body, lakeshore protection committee, planning department, their staff and/or their consultants permission to enter upon his/her land or upon the waters of the lake upon reasonable notice to evaluate the site and verify compliance with any lakeshore construction permit issued under these regulations while the permit is in an active state.

D. Easement Holder Rights: Easement holders (individuals or groups who have easement access or easement rights within the lakeshore protection zone) are not eligible to apply for or obtain a lakeshore construction permit and shall not perform work within the lakeshore protection zone. (Ord. 09-08, 7-20-2009)

13-2-5: APPLICATION REVIEW PROCEDURES:

A. Application: Depending on the jurisdiction, any person seeking a lakeshore construction permit shall submit a complete application to the administrator of the planning office of the jurisdictional governing body. The application shall be accompanied by a vicinity map with directions to the property, photographs of the shoreline (including docks and all structures in the lakeshore protection zone), a scaled site plan, detailed project drawings, and fee established by the governing body.

The applicant may be required to submit additional information where the administrator, lakeshore protection committee or governing body determines that additional information is necessary to adequately evaluate the proposal.

B. Application Procedure:

1. An applicant shall file an application with the administrator.
2. An application is deemed as accepted when a complete application, required accompaniments and fee are presented to the administrator. The application must be either signed by the property owner or a letter of authorization from the owner must be attached.
3. Upon acceptance of an application, the administrator shall schedule it for review at the next regular meeting of the Whitefish lake and lakeshore protection committee.
4. The chairman shall be responsible to see that all pending applications are brought before the committee for comment and action.
5. The committee shall have up to sixty (60) days from the date of acceptance of the completed application to review and forward comments to the governing body for final action. If no comment is received after sixty (60) days, the application will be forwarded to the administrator for final action by the governing body with no comment. If the application is incomplete, the administrator or lakeshore protection committee shall notify the applicant within forty (40) days of receipt of the application. Incomplete applications will not be processed until resolved and deemed complete. This also applies to new applications on properties with active lakeshore violations.
6. Upon review and approval of a permit application by the committee, the administrator may issue an administrative permit specifically for floating docks which do not exceed sixty feet (60') in length (including gangway), for shore stations, and for buoys, providing that such permit complies with all other regulation standards and does not require a variance.
7. The administrator may issue an administrative permit for burning in the lakeshore protection zone or for buried domestic water lines installed during low water when such activities are found by the administrator to have a minimal or insignificant impact on the lake or lakeshore and to comply with the construction standards found in chapter 3 of this title. The administrator will notify the committee when these permits are issued.

C. Review Period: Review of a permit application and its approval, conditional approval or denial by the governing body, shall be placed on the governing body's agenda and take place within ninety (90) days from the date of acceptance by the administrator unless the application is deemed incomplete by the administrator or the lakeshore protection committee, or the applicant agrees to an extension of the review period.

D. Permit Validity: A permit is valid for a period of twelve (12) months from the date of issuance unless otherwise approved by the governing body. All construction shall be completed prior to expiration of the permit. The permit may be renewed without submission of a new application or plans if the applicant requests a permit renewal in writing from the administrator before the original permit expires and the administrator grants a renewal. The administrator, at their discretion, may grant more than one renewal. (Ord. 09-08, 7-20-2009)

13-2-6: POLICY CRITERIA FOR ISSUANCE OF A PERMIT:

All lakeshore construction permits shall be evaluated against the policy criteria for issuance of a permit. A permit shall only be issued when it is found that the proposed action will not, during either its construction or its utilization:

A. Materially diminish water quality;

B. Materially diminish habitat for fish or wildlife;

C. Interfere with navigation or other lawful recreation;

D. Create a public nuisance or public safety hazard;

E. Create a visual impact discordant with natural scenic values, as determined by the governing body, where such values form the predominant landscape elements; and

F. Alter the characteristics of the shoreline. (Ord. 09-08, 7-20-2009)

13-2-7: POLICY CONSIDERATIONS:

A. A person who performs work in the lake or lakeshore protection zone after May 1, 1975, without a permit for that work shall restore the lake or lakeshore protection zone to its condition before he disturbed it.

B. Archive photos or baseline videos on file at the jurisdictional planning office may be used in enforcing regulations and prosecuting violations.

C. Areas where vegetation has been destroyed in the lakeshore protection zone shall be restored in accordance with subsection 13-3-1D of this title. (Ord. 09-08, 7-20-2009)

Chapter 4
ADMINISTRATION AND ENFORCEMENT

13-4-1: WHITEFISH CITY/COUNTY LAKE AND LAKESHORE PROTECTION COMMITTEE:
13-4-2: VARIANCES:
13-4-3: AMENDMENTS:
13-4-4: LIABILITY:
13-4-5: VIOLATIONS; PENALTY:

13-4-1: WHITEFISH CITY/COUNTY LAKE AND LAKESHORE PROTECTION COMMITTEE:

A. Creation, Composition And Compensation Of Members:

1. The Whitefish city/county lake and lakeshore protection committee is hereby created as a special planning board in compliance with section 75-7-211 Montana Code Annotated empowered to review and comment on all activities within the jurisdiction of the Whitefish lake and lakeshore protection regulations and shall be known as the lakeshore protection committee.
2. The committee shall consist of eight (8) voting members. Four (4) members shall constitute a quorum to conduct business.

a. The Whitefish city council shall appoint three (3) members. All members shall be residents of Whitefish and at least two (2) shall be lakefront property owners or residents.
b. The Flathead County board of commissioners shall appoint four (4) members. All members shall be residents of rural Flathead County and at least three (3) shall be lakefront property owners or residents. Of those three (3), at least one shall be a lakefront property owner or resident on Blanchard Lake.
c. The eighth member shall be appointed by the Whitefish city/county planning board. He/she shall serve for a two (2) year term unless he/she requests removal or is removed by a majority vote of the planning board. The eighth member may be a member of the planning board or may be a member at large, but in any event shall be a resident of Whitefish.

3. City appointees and county appointees shall each initially be appointed to a staggered term of one, two (2) and three (3) years. Thereafter, each succeeding term shall be three (3) years. Vacancies during the term shall be filled by the appropriate governing body for the duration of the unexpired term.
4. The committee members shall serve without compensation.

B. Duties: The committee shall:

1. Advise and work with potential applicants.
2. Review and give recommendations on projects requiring a lakeshore permit.
3. Review and offer amendments to the lake and lakeshore regulations, to keep them current, to improve efficiency and to address problems.
4. Report violations to the proper authorities.

C. Organization: The committee shall organize and adopt bylaws pursuant to these regulations establishing the operating policies and procedures of the committee. (Ord. 09-08, 7-20-2009)

13-4-2: VARIANCES:

A. General Criteria:

1. Minor Variances: Minor variances from the construction requirements or design standards of these regulations may be granted when the governing body determines the following conditions are met:

a. Due to unusual circumstances, a strict enforcement of such requirements and standards would result in undue hardship;
b. No reasonable alternatives exist which do meet the standards herein; and

c. Granting of the variance will not have adverse impacts on a lake or lakeshore in terms of section 13-2-6, "Policy Criteria For Issuance Of A Permit", of this title.
d. Alternatively to subsections A1a and A1b of this section, the granting of a variance would result in a general and universal public benefit.
2. Major Variances: A variance request shall be considered major when any of the following criteria are met:
a. The variance request does not meet the requirements of subsection A1 of this section;
b. The variance request deviates substantially from the construction requirements or design standards of these regulations; and
c. The variance request creates a major environmental impact.

B. Review Procedures:
1. Minor Variances:
a. The lakeshore protection committee, if it so determines, shall recommend to the governing body that a minor variance(s) from these regulations should be granted as part of an application's approval.
b. The governing body shall consider the lakeshore protection committee's recommendation and act upon the application. It may grant, modify or deny the variance request.
2. Major Variances:
a. When the lakeshore protection committee determines that a major variance is required, it shall notify the governing body and applicant of said decision.
b. The determination that a major variance is required shall cause to be prepared, by and at the expense of the applicant, an environmental impact statement. The environmental impact statement shall contain:
(1) Description of the proposed project;
(2) Description of, and the reason for, the major variance being considered;
(3) Description of existing conditions;
(4) Description of anticipated impacts as they relate to each of the policy criteria in section 13-2-6 of this title;
(5) Alternatives to the proposed project, which would not require a major variance; and
(6) Any other information that may be required.
c. Nine (9) copies of the environmental impact statement shall be submitted to the administrator.
d. The lakeshore protection committee shall review the application for major variance and make a recommendation to the planning board.
e. The planning board shall review the information and make a recommendation to the governing body.
f. The governing body, upon receipt of all materials and recommendations, shall hold a public hearing on the proposed action. Notice of the time and place of the public hearing shall be published at least once in a newspaper of general circulation not less than fifteen (15) nor more than thirty (30) days prior to the date of the hearing.
g. Following the public hearing, the governing body shall act upon the application and may grant, modify or deny the variance request. (Ord. 09-08, 7-20-2009)

13-4-3: AMENDMENTS:

These regulations may be amended. Prior to adopting any proposed amendment, the Whitefish city council shall hold a public hearing thereon. Notice of the time and place of the public hearing shall be published at least once in a newspaper of general circulation not less than fifteen (15) days nor more than thirty (30) days prior to the date of hearing. Records of amendments to these regulations shall be maintained by the governing body in a form convenient for use. (Ord. 09-08, 7-20-2009)

13-4-4: LIABILITY:

The permittee shall not hold the governing body or any of its agents liable for any damage that may occur to his/her property as a direct or indirect result of the issuance of a permit. (Ord. 09-08, 7-20-2009)

13-4-5: VIOLATIONS; PENALTY:

A. A person, partnership, association, company, corporation or contractor who violates the conditions of a permit issued under these regulations, fails to obtain a permit prior to performing work requiring a permit under these regulations, or who violates any provision(s) of these regulations, commits a misdemeanor, and on conviction may be sentenced to thirty (30) days in the city/county jail, fined five hundred dollars ($500.00), or both. A person, partnership, association, company, corporation or contractor who violates the conditions of a permit issued under these regulations, fails to obtain a permit prior to performing work requiring a permit under these regulations, or who violates any provision(s) of these regulations, commits a municipal infraction, and is subject to the civil penalties provided in section 1-4-4 of this code. Each separate violation of these regulations shall constitute a separate offense. For instance, each tree removed or violation of a different subsection requirement shall constitute a separate offense. Each day that the violation exists beyond a restoration deadline date shall constitute a separate offense. For each separate incident, the city shall elect to treat the violation as a misdemeanor or a municipal infraction, but not both. If a violation is repeated, the city may treat the initial violation as a misdemeanor and the repeat violation as a municipal infraction, or vice versa.

1. The conditions of a permit shall be considered to have been violated if work exceeds the scope and conditions of the permit in dimension, type or quality of materials, type of equipment used, or the extent of the work permitted.
2. Fines and civil penalties collected under this section shall be paid to the general fund of the governing body, for the purpose of administering these regulations. (Ord. 09-20, 10-19-2009)

B. In the event that any building, structure or improvement is erected, reconstructed, altered, converted, or maintained, or any building, structure, improvement, or land is used in violation of these regulations, the proper legal authorities of the jurisdictional governing body, in addition to other remedies, may institute any appropriate action or proceedings to prevent such unlawful erection, maintenance, or occupancy of such building, structure, improvement or land, or to prevent an illegal act, conduct, business, or use in or about such building, structure, improvement or land.

C. Any person or entity applying for a permit under these regulations, or who is otherwise required to comply with these regulations, shall be responsible for becoming familiar with these regulations and for complying fully with such regulations.

D. Any permit issued which has been based on incomplete, incorrect, or false information supplied by the applicant in their permit application shall be deemed to be invalid. (Ord. 09-08, 7-20-2009)

8-3-4: PRIVATE DISPOSAL SYSTEMS:

A. Connection To Sewer: The city council shall have power, by resolution, to order any privy, water closet or house drain in actual use on any lot or part of lot in the city, adjacent to any main trunk sewer or lateral sewer in the city, now constructed or which may hereafter be constructed, to be connected with the sewer whenever the city council deems it necessary to the health or sanitary condition of the locality.

B. Order To Connect: When the city council orders any privy, water closet or house drain to be connected with the sewer, as provided by subsection A of this section, it shall be the duty of the city clerk to deliver to the chief of police a certified copy of the resolution and one additional copy thereof for each owner and person in charge of the privy, water closet or house drain ordered by the resolution to be connected with the sewer. The chief of police shall forthwith deliver to the owner and to the person in charge of the privy, water closet or house drain a certified copy of the resolution and make a return on the original to whom and when he delivered the certified copies and file the same with the city clerk.

C. Notice To Connect: If the owner of the property on which any privy, water closet or house drain is ordered to be connected with the sewer is a nonresident of the city, or for any other reason cannot be served as provided by subsection B of this section, the city clerk shall post a copy of the resolution in three (3) of the most public places in the city for one week which shall be a legal service and notice to such owner. (Ord. 106, 2-1-1915)

D. Compliance Required: If any owner or owners of any privy, water closet or house drain fails, refuses or neglects to comply with the requirements of the resolution of the city council ordering the privy, water closet or house drain to be connected with the sewer, after a receipt of a certified copy of the resolution as provided by subsection B of this section, or after the posting of copies of the resolution, as provided by subsection C of this section, in the way and manner as is provided by this chapter for thirty (30) days, the owner or owners shall, upon conviction thereof, be deemed guilty of a misdemeanor, punishable as set forth in section 1-4-1 of this code and shall also be deemed to have committed a municipal infraction, punishable as set forth in section 1-4-4 of this code. For each separate incident, the city shall elect to treat the violation as a misdemeanor or a municipal infraction, but not both. If a violation is repeated, the city may treat the initial violation as a misdemeanor and the repeat violation as a municipal infraction, or vice versa.

E. Violation: It is unlawful for any person in charge of any privy, water closet or house drain, after receipt of a copy of a resolution ordering the privy, water closet or house drain to be connected with the sewer, to use the same for more than thirty (30) days after they have received a copy of the resolution. Any person violating the provisions of this section shall, upon conviction, be deemed guilty of a misdemeanor, punishable as set forth in section 1-4-1 of this code and shall also be deemed to have committed a municipal infraction, punishable as set forth in section 1-4-4 of this code. For each separate incident, the city shall elect to treat the violation as a misdemeanor or a municipal infraction, but not both. If a violation is repeated, the city may treat the initial violation as a misdemeanor and the repeat violation as a municipal infraction, or vice versa. (Ord. 09-20, 10-19-2009)

ADDENDUM H
W2ASACT INFORMATION

In 1982, a group of professionals from state, federal, and non-profit organizations that finance, regulate, or provide technical assistance for community water and wastewater systems, decided to start meeting in order to coordinate and enhance their efforts. This group calls itself the "Water, Wastewater and Solid Waste Action Coordinating Team" or W2ASACT for short. W2ASACT meets several times a year to find ways to improve our state's environmental infrastructure.

W2ASACT members include:

Federal Agencies and Programs:
- Bureau of Reclamation (Department of Interior)
- U.S. Department of Housing and Urban Development- HUD Montana Field Office Helena Economic Development Administration (Department of Commerce)
- Environmental Protection Agency
- Rural Development, Rural Utilities Services (Department of Agriculture)

Private Associations or Non Profit Organizations:
- Midwest Assistance Program
- Montana Association of County Water and Sewer Systems
- Montana Association of Counties
- Montana League of Cities and Towns
- Montana Rural Development Partners
- Montana Rural Water Systems, Inc.

State Agencies and Programs :
- Community Development Block Grant Program (Department of Commerce)
- Community Technical Assistance Program (Department of Commerce)
- Public Water Supply Section (Department of Environmental Quality)
- INTERCAP Program (Board of Investments)
- Local Government Center (Montana State University)
- Local Government Services Bureau (Department of Commerce)
- Governors Office of Indian Affairs
- Montana Coal Board (Montana Department of Commerce)
- Montana Water Center (Montana State University)
- Municipal Wastewater Assistance Program (Department of Environmental Quality)
- Renewable Resources Grant and Loan Program (Department of Natural Resources and Conservation)
- State Drinking Water Revolving Fund (Department of Environmental Quality and Department of Natural Resources and Conservation)
- State Wastewater Revolving Fund (Department of Environmental Quality and Department of Natural Resources and Conservation)
- Treasure State Endowment Program (Department of Commerce)
- Technical and Financial Assistance Bureau (Department of Environmental Quality)

All of the programs represented in W2ASACT have different missions and meet unique needs. However, it has been the common elements shared by the funding programs that have been the driving force of W 2 ASACT. These programs provide money (grants or loans), take applications from communities to fund their projects, and administer those monies once the project is funded. While W2ASACT cannot change all of the state or federal requirements, it can identify unnecessary duplication of requirements that make compliance difficult for communities.

ADDENDUM I
WHITEFISH PILOT COLUMNS

Whitefish Pilot
Managing Editor Matt Baldwin printed our monthly column *The Water Closet* as follows:

Column Due	Publication Date	Authors	Subject
November 9	November 14	John Muhlfeld & Patti Scruggs	What is the purpose of the WCWC
December 7	December 12	Andy Feury & Denise Hasnon	Funding options
January 4	January 9 (Ran 1/16)	Jan Metzmaker & Jim Laidlaw	Describe the planning process
February 1	February 6	Tom Cowan & Bill Kahle	Septic 101
March 1	March 6	Pam Holmquist & John Muhlfeld	Community Forum
April 5	April 10	Karen Reeves & Ryan Purdy	Community Forum survey reminder
May 3	May 8	Tom Cowan & Bill Kahle	Landscape & Water Quality
May 31	June 5		Community Forum Results
July 31	Aug 7	Andy Feury & John Muhlfeld	Program delivered to City

Whitefish Community Wastewater Management Public Comment Results **Total Respondents 12**

1. How important to you is the water quality and health of Whitefish Lake?
   12 Very important 0 Somewhat important 0 Not important

2. How important to you is the health of your drinking water?
   12 Very important 0 Somewhat important 0 Not important

3. How important to you is the cleanliness of the lake water for swimming, fishing, boating, and other recreation?
   12 Very important 0 Somewhat important 0 Not important

4. Did you know that the City of Whitefish gets its drinking water supply from Whitefish Lake at certain times of the year?
   12 Yes 0 No

5. Is your home on-
   6 Individual Septic System 0 Communal Septic System 5 City Sewer 0 Don't know

5a. If you are on an individual septic system, how often do you have your septic system inspected and pumped?
   0 Never have 4 Every 0-5 years 2 Every 5-10 years

5b. If you are on a septic system, what are your top concerns about maintaining your system.
   (please rank in order of importance, 1 being the most important and 5 being the least important)
   (#) = number of respondents # = level of importance

(1) 1, (2) 2, (1) 3, (1) 5	the cost of pumping and other maintenance
(1) 2, (2) 3, (1) 4, (1) 5	the cost of inspections
(1) 1, (4) 4	disruption to your household
(3) 1, (1) 3, (1) 4	the possible need to upgrade your system
	other: 1 response commented: like septic system, save city money, find septic systems to be a positive

6. How likely would you be to attend a free wastewater management program that included information about sewer and septic systems, a tour of the Whitefish Wastewater Treatment plant, a tour of a communal septic system, or a tour of a facility that manufactures wastewater systems?
   6 Very likely 1 Somewhat likely 5 Not likely

7. Have you previously heard about the Investigation of Septic Leachate to the Shoreline Area of Whitefish Lake, Montana study conducted by the Whitefish Lake Institute in 2011 and published in 2012?
   11 Yes 1 No

8. Do you live in Whitefish…?

_9_ Full Time _1_ Part time

9. Do you live in the Whitefish extraterritorial area…?

_5_ Full time _1_ Part time

Comments:

I was disappointed that Ed Leiser's bill to add septic inspections to sale of propertiy got tabled- wondering if we would add that to our local laws? County?

I'm looking forward to everybody learning about their septic systems and learning to take care of them.

The lake is, by far, our most important natural asset - It must be protected.

Require all owners who can connect to Hellroaring sewer line to do so within 10 years.

P.O. Box 158 • Whitefish, MT 59937 • (406) 863-2400 • Fax: (406) 863-2419

City of Whitefish

Date: July 11, 2013
To: Lori Curtis, Whitefish Lake Institute
From: John Wilson, Public Works Director
Re: Investigation of Viking Creek and City Beach Sewer Infrastructure

In mid-May 2013, the Public Works Department performed television inspections of all gravity sewer mains along the southeast shore of Whitefish Lake between Bay Point and City Beach. Field crews did not report any damage or potential for sewage to escape from the system.

Field crews also performed television inspections of the gravity sewer mains in the vicinity of Viking Creek, specifically along Wisconsin Avenue from the north end of the Lodge at Whitefish Lake condominiums to a point just north of Colorado Avenue. This covers a distance of at least 350 feet either side of Viking Creek. Again, no evidence was reported indicating potential for sewage to escape the system.

Regarding the new gravity sewer mains installed for the Viking Creek subdivision, while we did not perform a television inspection of these lines, they were certified by the project engineer to have passed inspections and leak test requirements in 2011.

Please let us know if you have any other questions.

Sincerely,

John C. Wilson
Public Works Director

MEMORANDUM
#2015-033

To: Mayor John Muhlfeld
City Councilors

From: Chuck Stearns, City Manager

Re: Staff Report – Resolution accepting and approving the Whitefish Community Wastewater Management Program as prepared by the Whitefish Community Wastewater Committee

Date: September 15, 2015

Introduction/History

The City Council created the Whitefish Community Wastewater Committee by Resolution No. 12-15 on July 16, 2012. The Committee met a number of times during 2012 and 2013 and they issued the Whitefish Community Wastewater Management Program report in July of 2013. The Committee also met with the City Council in work sessions on August 19, 2013 and November 18, 2013. During those work sessions, the City Council gave the Committee direction and indicated which implementation steps the City wanted to pursue.

Current Report

Whitefish Lake Institute staff and City staff have followed up on the implementation steps and pursued Preliminary Engineering Reports for the Lion Mountain and East Lakeshore areas. During application for funding of and pursuing Preliminary Engineering Reports, it became apparent that, although the City Council had reviewed the Whitefish Community Wastewater Management Program report and decided on implementation steps, the City Council had never formally accepted or approved the Whitefish Community Wastewater Management Program report.

Financial Requirement

The City Council has committed up to $70,000 in the FY16 budget towards partial funding of the Preliminary Engineering Reports for the Lion Mountain and East Lakeshore areas of the Whitefish Community Wastewater Management Program report.

Recommendation

Staff respectfully recommends the City Council adopt a Resolution accepting and approving the Whitefish Community Wastewater Management Program as prepared by the Whitefish Community Wastewater Committee.

received
9/8/15

Whitefish City Council
Whiteish Montana
59937

Aug. 30th 2015

To Whom It May Concern:

We were vacationing in Whitefish in the month of Aug. We have property on Blanchard Lake.

Going and coming out of the lake was a complete nightmare! (93 N. by the golf course).

Afew days before leaving, the new roadway was being slurry sealed. We noticed the seal was

Very wet and the the road crew was directing cars thru even tho the seal was clearly not dry

And even as they were putting the seal down on parts of the road!

Upon getting ready to leave Montana (on the 25th) our family checked the car and truck tires

To make sure pressure ect. Was okay and to our horror there was thick slurry seal on the bumpers

Wheel wells, and completely on the under carriage of the car and truck! Also there was slurry splashed on

On the sides of the car.

The seal was very hard to get off the bumpers and wheel wells and impossible to remove from the under

Under carriage of the car and truck! (which we spend hours trying to remove when we returned home)

Your contractor was remise in letting cars and trucks drive over this mess! Upon showing our

Cousin who lives on the lake he was horrified and said he had never seen that before because the road

Crews have never allowed cars on the wet sealing.

Enclosed are pictures of the undercarriage of the truck and car and unfortunately not of the mess we

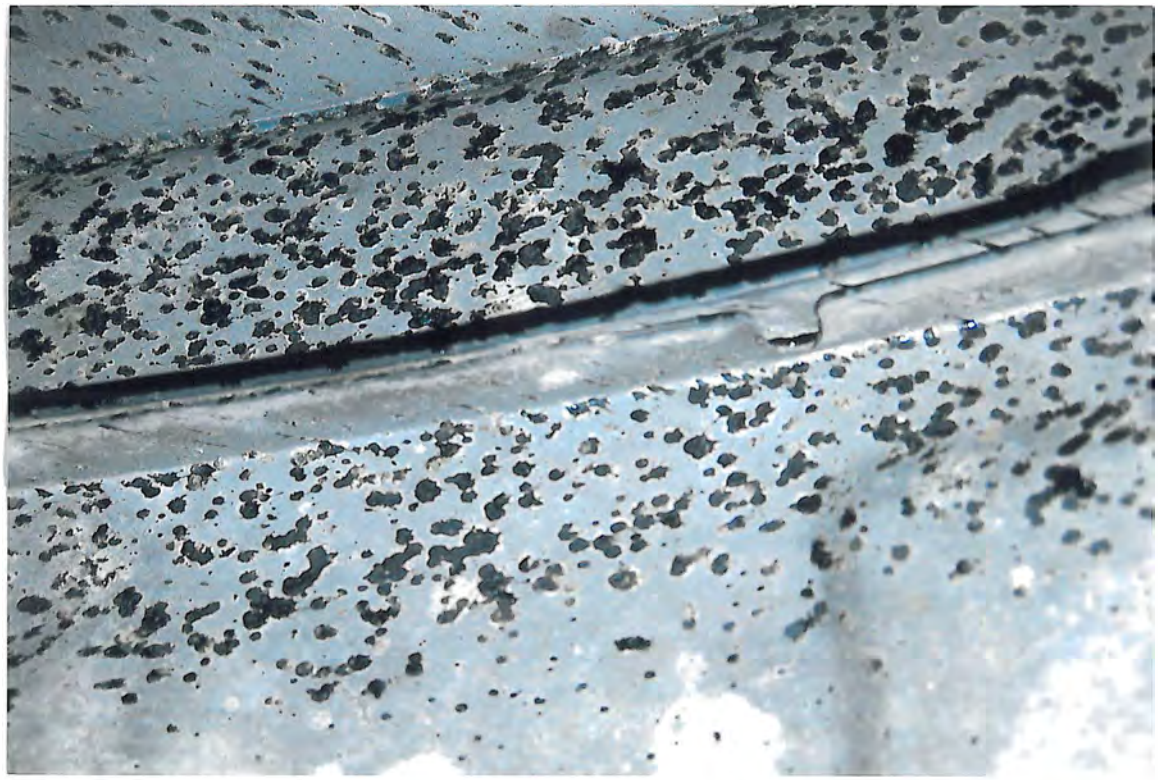
Had to clean off of the bumpers ect. The more we worked on trying to get if off the car and truck the

More upset we became and it was apparent that we needed to inform you of the situation as it was

Apparent that this mess would not come off.

Richard Young

Richard Young
4782 Mt. La Palma Dr.
San Diego Ca. 92117.



Chuck Stearns

From: Marc Blanden <marc@schellingerconst.com>
Sent: Tuesday, September 15, 2015 3:16 PM
To: 'Livingston, Jason'
Cc: 'Mark Cyr'; 'Chuck Stearns'; khilding@cityofwhitefish.org; 'Craig Workman'; courtenay@bigskypublicrelations.com; 'Vosen, Robert'; Nate Malmin; Rob Koelzer
Subject: RE: Letter from Richard Young.pdf

Mr. Young,

Schellinger Construction apologizes for the inconveniences and mess that was made on your vehicles. Please understand that it is very difficult to determine when the tack coat material will setup and not pick up on vehicles. This material is very weather dependent on how long it takes to set. It was very difficult on this project to apply the tack coat while paving and trying to maintain two way traffic through the project during the process. As you are probably aware there is a large amount of traffic that travels through this area and there are no alternative routes.
Additionally, due to City ordinances and project specifications we were unable to perform this work at night in order to avoid the times when there are high traffic volumes.

If there is damage to your vehicles or additional cleaning that is required, please contact Rob Kolelzer in our office to determine if there is a possibility of reimbursing you for your costs or submitting and insurance claim.

Again we apologize for any inconviences we may have caused to you and your family. If you have any questions or require additional information do not hesitate to give me a call.

Sincerely,

Marc Blanden
Chief Estimator
Schellinger Construction Co., Inc.
P.O. Box 39
250 Truck Route
Columbia Falls, MT 59912
406-892-2188 office
406-892-2187 fax
406-253-3730 cell
marc@schellingerconst.com

EQUAL OPPORTUNITY EMPLOYER

-----Original Message-----
From: Livingston, Jason [mailto:jalivingston@mt.gov]
Sent: Tuesday, September 15, 2015 1:43 PM
To: Marc Blanden (marc@schellingerconst.com) <marc@schellingerconst.com>

The following pages were received after packet and distributed to the Mayor and Council at the meeting.

Rec'd at Council mtg 9-21-15

Memo

To: Chuck Stearns
City Manager, City of Whitefish

From: Mike Cronquist
Owners Representative, New City Hall / Parking Structure

Date: 21 Sept 2015
Re: Status Report

Activities Completed:

- City Staff Relocated - Aug 24
- Surplus Material Sale - Sept 05
- Subcontracts awarded for:
  -Asbestos Abatement - (Abatement Contractors of Montana, $69,890)
  -Rammed Aggregate Pier Design & Installation (GeoTech $306,0000)
  -Demolition (Elder Demolition $219,650)
- Site Occupied by Martel - Sept 8
- ACM Abatement started - Sept 8
- Pre-Bid meeting for Exc & Backfill held Sept 15 - bids due Sept 29
  -Package generally includes: Site excavation and backfill, cut & cap existing utilities and some shoring
- We are still working with the Project budget of $14,952,637.00, as set by the Council on June 15th, 2015.

Activities in Progress:

- Asbestos Abatement - estimated completion - Oct 10
- Exc / Backfill Bid development by prospective contractors - bids due Sept 29
- Weekly onsite OAC (Architect, Owner, Contractor) meetings - first one held on Sept 17th.
- Project Schedule Update - by Martel. Estimated release is approximately 2 weeks.

Activities Planned (6 week look ahead):

- Start of Demolition - on or about Sept 29th - Coldwell Banker Building.
- Selection of Exc & Backfill Contractor ~ Sept 29-30 - recommendation to Council - Oct 5
- Delivery of Building Permit Application / Construction (Shell Package) Documents by Mosaic - Sept 21
  -The Shell Package generally includes, but is not limited to: Concrete and foundation work, structural framing, mechanical, electrical and plumbing work and exterior finishes.
- Shell Package bid process - Sept 21 - Oct 15

- Pre-bid Meeting - Oct 06
- Bids due - Oct 15
- Results / Recommendations to City Council, Nov 02

- Completion of Demolition - Oct 30
- Start of Site Prep - Nov 02
- Start of RAP installation - Nov 16

Future Scheduling Activities:

- Start of Concrete / Foundation work - mid-Dec.

Building Steering Committee:

- The Committee is continuing to work on resolution of exterior finish schemes and packages. Discussions and decisions are moving along quite well.
- The Committee is also developing a list of items that can be bid as alternates for budgeting purposes.

Communications to the Public:

- It has been suggested that we start issuing Project updates, on a routine basis, to the Pilot for publication - similar to what was done for the Central Avenue Work.
  - Start of major or milestone activities, e.g. start of Demolition, Project Advisories, etc.
- Begin providing routine Project Status Reports to Council - timing and format as maybe set by Council.

Areas of Concern:

- Nothing to report at this time.

Comments or Questions from Council:

Bailey Minnich

From: Lyden, Tiffany <TLyden@mt.gov>
Sent: Monday, September 21, 2015 1:35 PM
To: Bailey Minnich
Cc: Sears, Traci; 'Marijo Brady'; dtaylor@cityofwhitefish.org
Subject: City of Whitefish draft floodplain regulations
Attachments: City Floodplain Regulations_Draft_091515.pdf; Proposed Changes_Updates_9-14-15.docx

Dear Bailey,
DNRC has completed review of your draft floodplain regulations for the City of Whitefish, dated 9/15/15. DNRC has found that your draft contains all of the required state and federal provisions that are contained in the 2014 state model floodplain regulations. The format and organization of your draft is different than the model because you are staying consistent with your current format. However, our review shows that your draft floodplain regulations appear to contain all the required current state and federal minimum floodplain standards.

Thank you for all your hard work in drafting and revising the City's floodplain regulations to meet current standards.

Sincerely,

Tiffany Lyden
MT Department of Natural Resources and Conservation
Floodplain Management Program
(406) 444-0599

From: Bailey Minnich [mailto:bminnich@cityofwhitefish.org]
Sent: Monday, September 14, 2015 4:56 PM
To: Lyden, Tiffany; Sears, Traci
Subject: RE: Extra Files & Comments

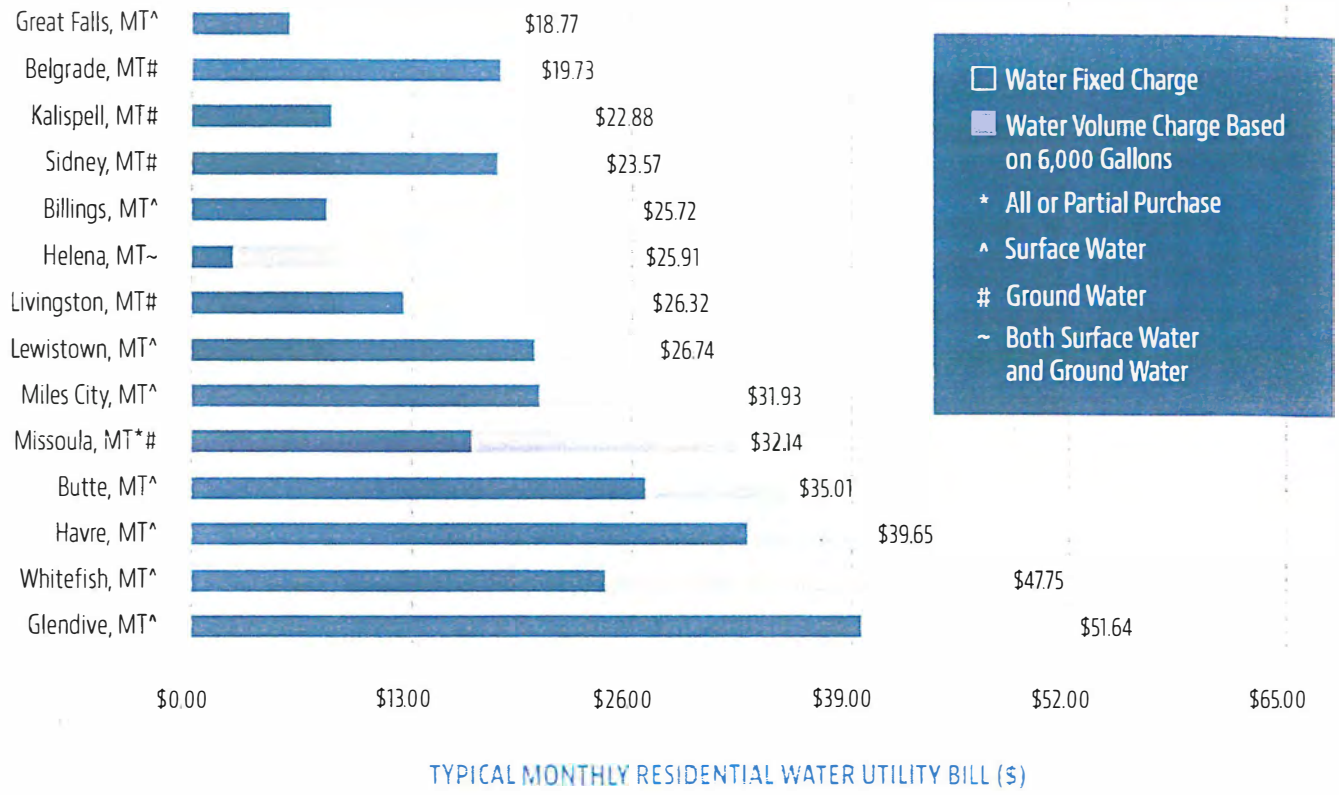
Hi Traci and Tiffany,
I've updated our draft regulations with all of the comments Tiffany provided both from the checklist and the paper regs. ☺ Attached is a pdf with the track changes on so you can see everything. I'm also attaching a list of all the changes I made individually. Let me know if you need anything else. These will be going to the Council on the 21st. I have to at least give the draft copy to the City Manager tomorrow by 4pm, however, I can bring modifications to the Council meeting if there are still things we need to address.

Bailey

Bailey Minnich, AICP, CFM
Planner II
City of Whitefish
510 Railway Street
P.O. Box 158
Whitefish, MT 59937
(406) 863-2410

Rec'd at Council Mtg 9-21-15

MONTANA

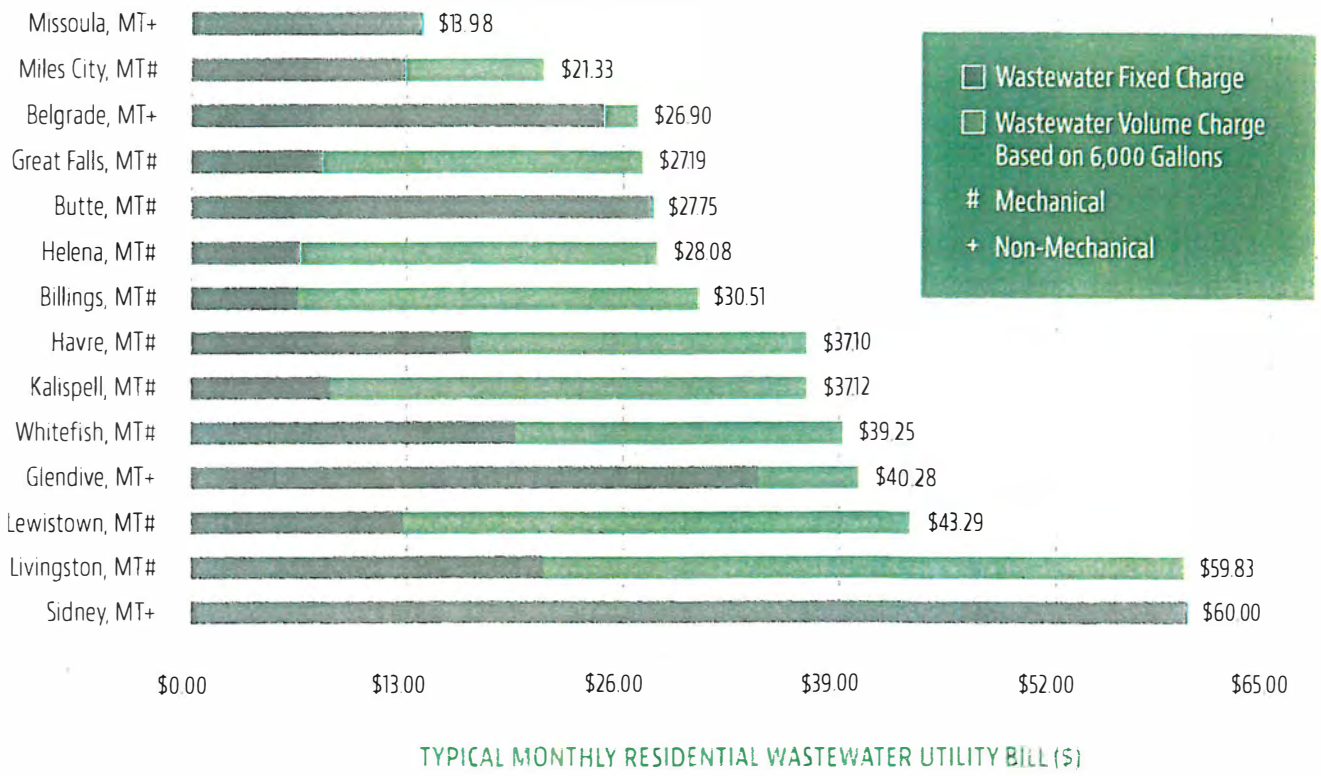


TYPICAL MONTHLY RESIDENTIAL WATER UTILITY BILL ($)

WYOMING

TYPICAL MONTHLY RESIDENTIAL WATER UTILITY BILL ($)

MONTANA



WYOMING