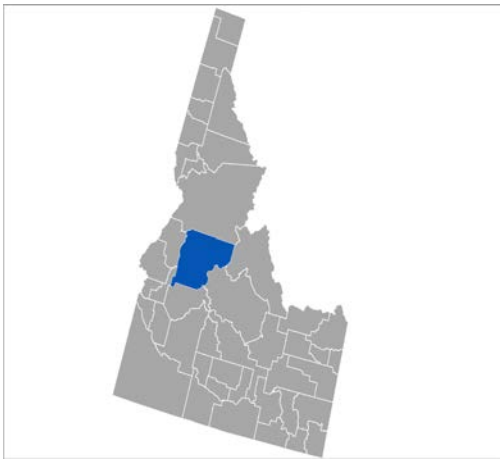
FLOOD INSURANCE STUDY

FEDERAL EMERGENCY MANAGEMENT AGENCY

VOLUME 1 OF 1



VALLEY COUNTY, IDAHO

AND INCORPORATED AREAS

COMMUNITY NAME	COMMUNITY NUMBER
CASCADE, CITY OF	160161
DONNELLY, CITY OF	160121
MCCALL, CITY OF	160175
VALLEY COUNTY, UNINCORPORATED AREAS	160220

FEMA

PRELIMINARY: AUGUST 26, 2016

FLOOD INSURANCE STUDY NUMBER
16085CV000A

Version Number 2.3.3.2

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Published Separately

FLOOD INSURANCE STUDY REPORT
VALLEY COUNTY, IDAHO

SECTION 1.0 – INTRODUCTION

1.1 The National Flood Insurance Program

The National Flood Insurance Program (NFIP) is a voluntary Federal program that enables property owners in participating communities to purchase insurance protection against losses from flooding. This insurance is designed to provide an insurance alternative to disaster assistance to meet the escalating costs of repairing damage to buildings and their contents caused by floods.

For decades, the national response to flood disasters was generally limited to constructing flood-control works such as dams, levees, sea-walls, and the like, and providing disaster relief to flood victims. This approach did not reduce losses nor did it discourage unwise development. In some instances, it may have actually encouraged additional development. To compound the problem, the public generally could not buy flood coverage from insurance companies, and building techniques to reduce flood damage were often overlooked.

In the face of mounting flood losses and escalating costs of disaster relief to the general taxpayers, the U.S. Congress created the NFIP. The intent was to reduce future flood damage through community floodplain management ordinances, and provide protection for property owners against potential losses through an insurance mechanism that requires a premium to be paid for the protection.

The U.S. Congress established the NFIP on August 1, 1968, with the passage of the National Flood Insurance Act of 1968. The NFIP was broadened and modified with the passage of the Flood Disaster Protection Act of 1973 and other legislative measures. It was further modified by the National Flood Insurance Reform Act of 1994 and the Flood Insurance Reform Act of 2004. The NFIP is administered by the Federal Emergency Management Agency (FEMA), which is a component of the Department of Homeland Security (DHS).

Participation in the NFIP is based on an agreement between local communities and the Federal Government. If a community adopts and enforces floodplain management regulations to reduce future flood risks to new construction and substantially improved structures in Special Flood Hazard Areas (SFHAs), the Federal Government will make flood insurance available within the community as a financial protection against flood losses. The community's floodplain management regulations must meet or exceed criteria established in accordance with Title 44 Code of Federal Regulations (CFR) Part 60.3, *Criteria for Land Management and Use*.

SFHAs are delineated on the community's Flood Insurance Rate Maps (FIRMs). Under the NFIP, buildings that were built before the flood hazard was identified on the community's FIRMs are generally referred to as "Pre-FIRM" buildings. When the NFIP was created, the U.S. Congress recognized that insurance for Pre-FIRM buildings would be prohibitively expensive if the premiums were not subsidized by the Federal Government. Congress also recognized that most of these floodprone buildings were built by individuals who did not have sufficient knowledge of the flood hazard to make informed decisions. The NFIP requires that full actuarial rates reflecting the complete flood risk be charged on all buildings constructed or substantially improved on or after

the effective date of the initial FIRM for the community or after December 31, 1974, whichever is later. These buildings are generally referred to as "Post-FIRM" buildings.

1.2 Purpose of this Flood Insurance Study Report

This Flood Insurance Study (FIS) report revises and updates information on the existence and severity of flood hazards for the study area. The studies described in this report developed flood hazard data that will be used to establish actuarial flood insurance rates and to assist communities in efforts to implement sound floodplain management.

In some states or communities, floodplain management criteria or regulations may exist that are more restrictive than the minimum Federal requirements. Contact your State NFIP Coordinator to ensure that any higher State standards are included in the community's regulations.

1.3 Jurisdictions Included in the Flood Insurance Study Project

This FIS Report covers the entire geographic area of Valley County, Idaho and Incorporated Areas.

The jurisdictions that are included in this project area, along with the Community Identification Number (CID) for each community and the 8-digit Hydrologic Unit Codes (HUC-8) sub-basins affecting each, are shown in Table 1. The Flood Insurance Rate Map (FIRM) panel numbers that affect each community are listed. If the flood hazard data for the community is not included in this FIS Report, the location of that data is identified.

Table 1: Listing of NFIP Jurisdictions

Community	CID	HUC-8 Sub-Basin(s)	Located on FIRM Panel(s)	If Not Included, Location of Flood Hazard Data
Cascade, City of	160161	17050123	16085C1590C, 16085C1591C, 16085C1593C, 16085C1594C, 16085C1805C, 16085C1810C	
Donnelly, City of	160121	17050123	16085C1302C	
McCall, City of	160175	17050123	16085C0667C, 16085C0669C, 16085C0675C [1] , 16085C0686C, 16085C0687C, 16085C0688C, 16085C0689C [1], 16085C0982C, 16085C1001C [1]	

Table 1: Listing of NFIP Jurisdictions *(continued)*

Community	CID	HUC-8 Sub-Basin(s)	Located on FIRM Panel(s)	If Not Included, Location of Flood Hazard Data
Valley County, Unincorporated Areas	160220	17050120, 17050121, 17050122, 17050123, 17060205, 17060206, 17060207, 17060208	16085C0025C[1], 16085C0050C[1], 16085C0075C[1], 16085C0100C[1], 16085C0125C[1], 16085C0150C[1], 16085C0175C[1], 16085C0200C[1], 16085C0225C[1], 16085C0250C[1], 16085C0275C[1], 16085C0300C[1], 16085C0325C[1], 16085C0350C[1], 16085C0375C, 16085C0400C[1], 16085C0425C[1], 16085C0450C[1], 16085C0475C[1], 16085C0500C[1], 16085C0525C[1], 16085C0550C[1], 16085C0575C[1], 16085C0600C[1], 16085C0625C[1], 16085C0650C[1], 16085C0667C, 16085C0669C, 16085C0675C[1], 16085C0686C, 16085C0687C, 16085C0688C, 16085C0689C[1], 16085C0700C, 16085C0725C[1], 16085C0750C[1], 16085C0775C[1], 16085C0800C[1], 16085C0825C[1], 16085C0850C[1], 16085C0875C[1], 16085C0900C[1], 16085C0925C[1], 16085C0950C[1], 16085C0975C[1], 16085C0982C, 16085C0984C, 16085C0985C, 16085C1000C, 16085C1001C[1], 16085C1002C, 16085C1003C, 16085C1004C, 16085C1025C, 16085C1050C[1], 16085C1075C[1], 16085C1100C[1], 16085C1125C[1], 16085C1150C[1], 16085C1175C[1], 16085C1200C[1], 16085C1225C[1], 16085C1250C[1], 16085C1275C[1], 16085C1300C, 16085C1302C, 16085C1305C, 16085C1325C, 16085C1350C[1], 16085C1375C[1], 16085C1400C[1], 16085C1425C[1], 16085C1450C[1], 16085C1475C[1], 16085C1500C[1], 16085C1525C[1], 16085C1550C[1], 16085C1575C, 16085C1590C, 16085C1591C, 16085C1592C, 16085C1593C, 16085C1594C, 16085C1600C, 16085C1615C[1], 16085C1625C[1], 16085C1650C[1], 16085C1675C[1], 16085C1700C[1], 16085C1725C[1], 16085C1750C[1] , 16085C1775C[1], 16085C1800C[1], 16085C1805C, 16085C1810C, 16085C1825C, 16085C1830C, 16085C1850C[1], 16085C1875C[1], 16085C1900C[1], 16085C1925C[1], 16085C1950C[1], 16085C1975C[1], 16085C2000C[1], 16085C2025C[1], 16085C2050C, 16085C2075C[1], 16085C2100C[1], 16085C2125C[1], 16085C2150C[1], 16085C2175C[1], 16085C2200C[1], 16085C2225C[1], 16085C2250C, 16085C2275C[1], 16085C2300C[1], 16085C2325C[1], 16085C2350C[1], 16085C2375C[1]	

[1] Panel Not Printed

1.4 Considerations for using this Flood Insurance Study Report

The NFIP encourages State and local governments to implement sound floodplain management programs. To assist in this endeavor, each FIS Report provides floodplain data, which may include a combination of the following: 10-, 4-, 2-, 1-, and 0.2-percent annual chance flood elevations (the 1% annual chance flood elevation is also referred to as the Base Flood Elevation (BFE)); delineations of the 1% annual chance and 0.2% annual chance floodplains; and 1% annual chance floodway. This information is presented on the FIRM and/or in many components of the FIS Report, including Flood Profiles, Floodway Data tables, Summary of Non-Coastal Stillwater Elevations tables, and Coastal Transect Parameters tables (not all components may be provided for a specific FIS).

This section presents important considerations for using the information contained in this FIS Report and the FIRM, including changes in format and content. Figures 1, 2, and 3 present information that applies to using the FIRM with the FIS Report.

- Part or all of this FIS Report may be revised and republished at any time. In addition, part of this FIS Report may be revised by a Letter of Map Revision (LOMR), which does not involve republication or redistribution of the FIS Report. Refer to Section 6.5 of this FIS Report for information about the process to revise the FIS Report and/or FIRM.

  It is, therefore, the responsibility of the user to consult with community officials by contacting the community repository to obtain the most current FIS Report components. Communities participating in the NFIP have established repositories of flood hazard data for floodplain management and flood insurance purposes. Community map repository addresses are provided in Table 31, "Map Repositories," within this FIS Report.

- New FIS Reports are frequently developed for multiple communities, such as entire counties. A countywide FIS Report incorporates previous FIS Reports for individual communities and the unincorporated area of the county (if not jurisdictional) into a single document and supersedes those documents for the purposes of the NFIP.

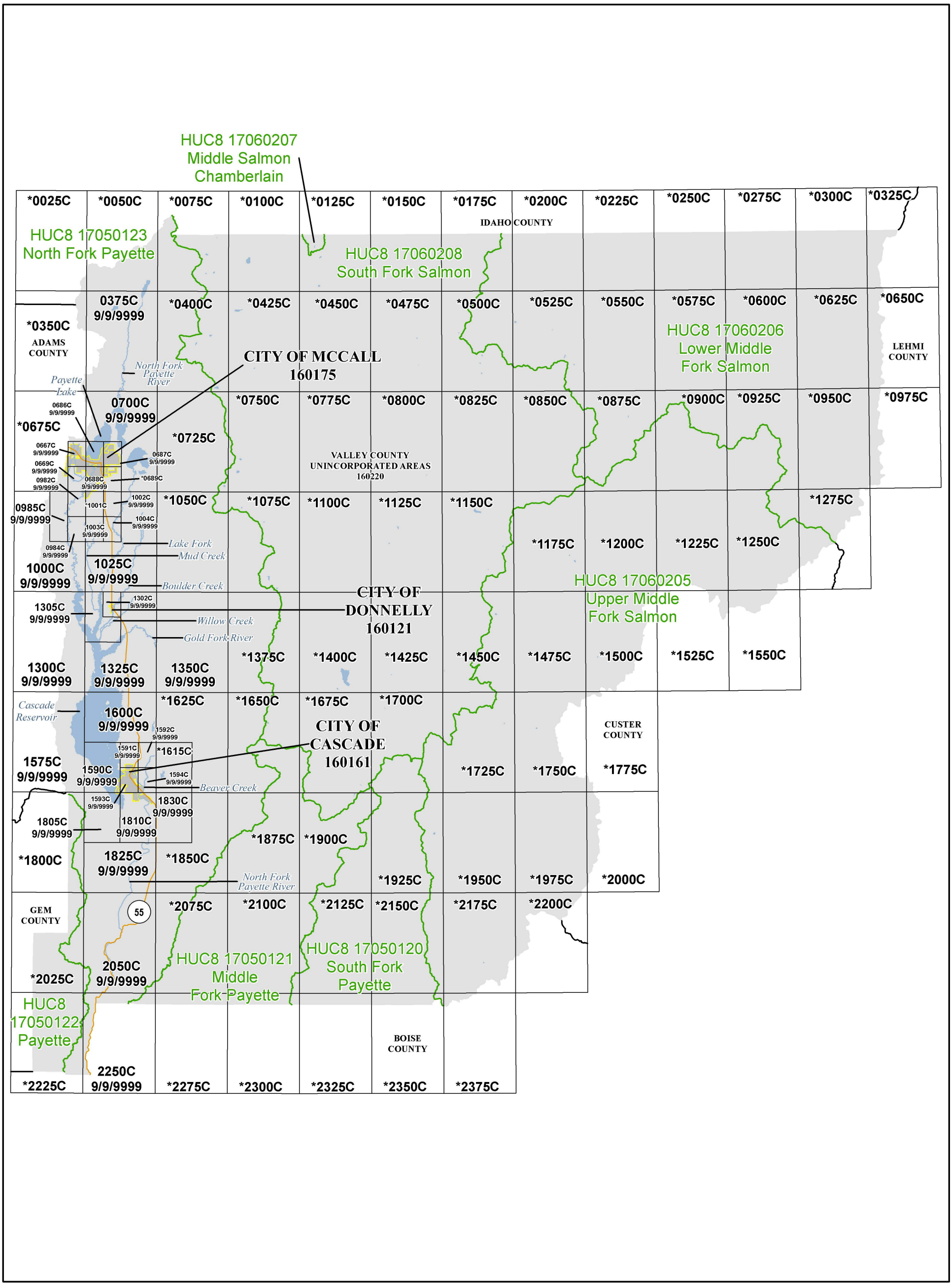
  The initial Countywide FIS Report for Valley County became effective on ___TBD___. Refer to Table 28 for information about subsequent revisions to the FIRMs.

  The Community Rating System (CRS) is a voluntary incentive program that recognizes and encourages community floodplain management activities that exceed the minimum NFIP requirements. Visit the FEMA Web site at www.fema.gov/national-flood-insurance-program-community-rating-system or contact your appropriate FEMA Regional Office for more information about this program.

- FEMA has developed a *Guide to Flood Maps* (FEMA 258) and online tutorials to assist users in accessing the information contained on the FIRM. These include how to read panels and step-by-step instructions to obtain specific information. To obtain this guide and other assistance in using the FIRM, visit the FEMA Web site at www.fema.gov/online-tutorials.

The FIRM Index in Figure 1 shows the overall FIRM panel layout within Valley County, and also displays the panel number and effective date for each FIRM panel in the county. Other information shown on the FIRM Index includes community boundaries, flooding sources, watershed boundaries, and United States Geological Survey (USGS) Hydrologic Unit Code-8 (HUC-8) codes.

Figure 1: FIRM Panel Index



1 inch = 43,000 feet 1:516,000

N

Feet
0 11,000 22,000 44,000 66,000 88,000

Map Projection:
NAD 1983 StatePlane Idaho West FIPS 1103 Feet
North American Datum 1983

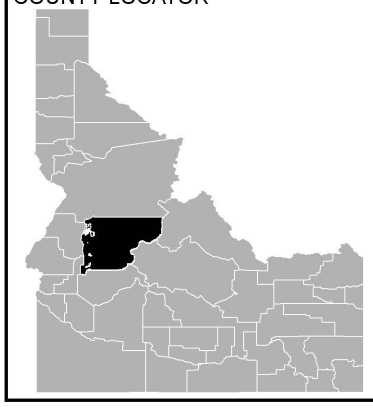
THE INFORMATION DEPICTED ON THIS MAP AND SUPPORTING DOCUMENTATION ARE ALSO AVAILABLE IN DIGITAL FORMAT AT

HTTP://MSC.FEMA.GOV

SEE FLOOD INSURANCE STUDY FOR ADDITIONAL INFORMATION

* PANEL NOT PRINTED - NO SPECIAL FLOOD HAZARD AREAS

COUNTY LOCATOR



NATIONAL FLOOD INSURANCE PROGRAM

FLOOD INSURANCE RATE MAP INDEX

VALLEY COUNTY, IDAHO and Incorporated Areas

PANELS PRINTED:
0375, 0667, 0669, 0686, 0687, 0688, 0700, 0982, 0984, 0985, 1000, 1002, 1003, 1004, 1025, 1300, 1302, 1305, 1325, 1350, 1575, 1590, 1591, 1592, 1593, 1594, 1600, 1805, 1810, 1825, 1830, 2050, 2250

FEMA

MAP NUMBER
16085CIND0A

EFFECTIVE DATE
PRELIMINARY

Each FIRM panel may contain specific notes to the user that provide additional information regarding the flood hazard data shown on that map. However, the FIRM panel does not contain enough space to show all the notes that may be relevant in helping to better understand the information on the panel. Figure 2 contains the full list of these notes.

Figure 2: FIRM Notes to Users

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 Table 28 in this FIS Report.

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.

PRELIMINARY FIS REPORT: FEMA maintains information about map features, such as street locations and names, in or near designated flood hazard areas. Requests to revise information in or near designated flood hazard areas may be provided to FEMA during the community review period, at the final Consultation Coordination Officer's meeting, or during the statutory 90-day appeal period. Approved requests for changes will be shown on the final printed FIRM.

The map is for use in administering the NFIP. It may not identify all areas subject to flooding, particularly from local drainage sources of small size. Consult the community map repository to find updated or additional flood hazard information.

BASE FLOOD ELEVATIONS: For more detailed information in areas where Base Flood Elevations (BFEs) and/or floodways have been determined, consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables within this FIS Report. Use the flood elevation data within the FIS Report in conjunction with the FIRM for construction and/or floodplain management.

FLOODWAY INFORMATION: Boundaries of the floodways were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the FIS Report for this jurisdiction.

Figure 2. FIRM Notes to Users *(continued)*

FLOOD CONTROL STRUCTURE INFORMATION: Certain areas not in Special Flood Hazard Areas may be protected by flood control structures. Refer to Section 4.3 "Non-Levee Flood Protection Measures" of this FIS Report for information on flood control structures for this jurisdiction.

PROJECTION INFORMATION: The projection used in the preparation of the map was STATE PLANE TRANSVERSE MERCATOR, IDAHO WEST ZONE. The horizontal datum was North American Datum 1983. Differences in datum, spheroid, projection or State Plane zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of the FIRM.

ELEVATION DATUM: Flood elevations on the FIRM are referenced to the North American Vertical Datum of 1988 (NAVD88). These flood elevations must be compared to structure and ground elevations referenced to the same vertical datum. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and NAVD88, visit the National Geodetic Survey website at http://www.ngs.noaa.gov/ or contact the National Geodetic Survey at the following address:

NGS Information Services
NOAA, N/NGS12
National Geodetic Survey
SSMC-3, #9202
1315 East-West Highway
Silver Spring, Maryland 20910-3282
(301) 713-3242

Local vertical monuments may have been used to create the map. To obtain current monument information, please contact the appropriate local community listed in Table 31 of this FIS Report.

BASE MAP INFORMATION: Base map information shown on the FIRM was provided by the United States Department of Agriculture (USDA) FSA Aerial Photography Field Office. This information was derived from digital orthophotography produced at a scale of 1:12,000 from photography dated 2011. For information about base maps, refer to Section 6.2 “Base Map” in this FIS Report.

Corporate limits shown on the map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after the map was published, map users should contact appropriate community officials to verify current corporate limit locations.

NOTES FOR FIRM INDEX

REVISIONS TO INDEX: As new studies are performed and FIRM panels are updated within Valley County, Idaho, corresponding revisions to the FIRM Index will be incorporated within the FIS Report to reflect the effective dates of those panels. Please refer to Table 28 of this FIS Report to determine the most recent FIRM revision date for each community. The most recent FIRM panel effective date will correspond to the most recent index date.

SPECIAL NOTES FOR SPECIFIC FIRM PANELS

This Notes to Users section was created specifically for Valley County, Idaho, effective TBD.

Figure 2. FIRM Notes to Users *(continued)*

FLOOD RISK REPORT: A Flood Risk Report (FRR) may be available for many of the flooding sources and communities referenced in this FIS Report. The FRR is provided to increase public awareness of flood risk by helping communities identify the areas within their jurisdictions that have the greatest risks. Although non-regulatory, the information provided within the FRR can assist communities in assessing and evaluating mitigation opportunities to reduce these risks. It can also be used by communities developing or updating flood risk mitigation plans. These plans allow communities to identify and evaluate opportunities to reduce potential loss of life and property. However, the FRR is not intended to be the final authoritative source of all flood risk data for a project area; rather, it should be used with other data sources to paint a comprehensive picture of flood risk.

Each FIRM panel contains an abbreviated legend for the features shown on the maps. However, the FIRM panel does not contain enough space to show the legend for all map features. Figure 3 shows the full legend of all map features. Note that not all of these features may appear on the FIRM panels in Valley County.

Figure 3: Map Legend for FIRM

SPECIAL FLOOD HAZARD AREAS: *The 1% annual chance flood, also known as the base flood or 100-year flood, has a 1% chance of happening or being exceeded each year. Special Flood Hazard Areas are subject to flooding by the 1% annual chance flood. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood. The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights. See note for specific types. If the floodway is too narrow to be shown, a note is shown.*

	Special Flood Hazard Areas subject to inundation by the 1% annual chance flood (Zones A, AE, AH, AO, AR, A99, V and VE)
Zone A	The flood insurance rate zone that corresponds to the 1% annual chance floodplains. No base (1% annual chance) flood elevations (BFEs) or depths are shown within this zone.
Zone AE	The flood insurance rate zone that corresponds to the 1% annual chance floodplains. Base flood elevations derived from the hydraulic analyses are shown within this zone, either at cross section locations or as static whole-foot elevations that apply throughout the zone.
Zone AH	The flood insurance rate zone that corresponds to the areas of 1% annual chance shallow flooding (usually areas of ponding) where average depths are between 1 and 3 feet. Whole-foot BFEs derived from the hydraulic analyses are shown at selected intervals within this zone.
Zone AO	The flood insurance rate zone that corresponds to the areas of 1% annual chance shallow flooding (usually sheet flow on sloping terrain) where average depths are between 1 and 3 feet. Average whole-foot depths derived from the hydraulic analyses are shown within this zone.
Zone AR	The flood insurance rate zone that corresponds to areas that were formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
Zone A99	The flood insurance rate zone that corresponds to areas of the 1% annual chance floodplain that will be protected by a Federal flood protection system where construction has reached specified statutory milestones. No base flood elevations or flood depths are shown within this zone.
Zone V	The flood insurance rate zone that corresponds to the 1% annual chance coastal floodplains that have additional hazards associated with storm waves. Base flood elevations are not shown within this zone.
Zone VE	Zone VE is the flood insurance rate zone that corresponds to the 1% annual chance coastal floodplains that have additional hazards associated with storm waves. Base flood elevations derived from the coastal analyses are shown within this zone as static whole-foot elevations that apply throughout the zone.

Figure 3: Map Legend for FIRM *(continued)*

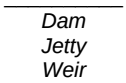
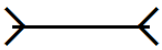
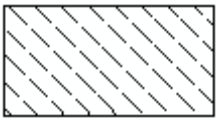
	Regulatory Floodway determined in Zone AE.
OTHER AREAS OF FLOOD HAZARD	
	Shaded Zone X: Areas of 0.2% annual chance flood hazards and areas of 1% annual chance flood hazards with average depths of less than 1 foot or with drainage areas less than 1 square mile.
	Future Conditions 1% Annual Chance Flood Hazard – Zone X: The flood insurance rate zone that corresponds to the 1% annual chance floodplains that are determined based on future-conditions hydrology. No base flood elevations or flood depths are shown within this zone.
	Zone X Protected by Accredited Levee: Areas protected by an accredited levee, dike or other flood control structures. See Notes to Users for important information.
OTHER AREAS	
	Zone D (Areas of Undetermined Flood Hazard): The flood insurance rate zone that corresponds to unstudied areas where flood hazards are undetermined, but possible
	Unshaded Zone X: Areas determined to be outside the 0.2% annual chance floodplain
FLOOD HAZARD AND OTHER BOUNDARY LINES	
	Flood Zone Boundary (white line)
	Limit of Study
	Jurisdiction Boundary
	Limit of Moderate Wave Action (LiMWA): Indicates the inland limit of the area affected by waves greater than 1.5 feet
GENERAL STRUCTURES	
	Channel, Culvert, Aqueduct, or Storm Sewer
	Dam, Jetty, Weir
	Levee, Dike or Floodwall accredited or provisionally accredited to provide protection from the 1% annual chance flood
	Levee, Dike or Floodwall not accredited to provide protection from the 1% annual chance flood.
	Bridge

Figure 3: Map Legend for FIRM *(continued)*

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AND OTHERWISE PROTECTED AREAS (OPA): *CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas. See Notes to Users for important information.*

CBRS AREA
09/30/2009

Coastal Barrier Resources System Area: Labels are shown to clarify where this area shares a boundary with an incorporated area or overlaps with the floodway.



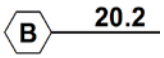
OTHERWISE PROTECTED AREA
09/30/2009

Otherwise Protected Area

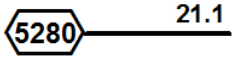
REFERENCE MARKERS

River mile Markers

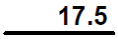
CROSS SECTION & TRANSECT INFORMATION



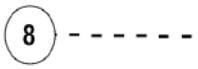
Lettered Cross Section with Regulatory Water Surface Elevation (BFE)



Numbered Cross Section with Regulatory Water Surface Elevation (BFE)



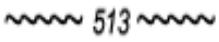
Unlettered Cross Section with Regulatory Water Surface Elevation (BFE)



Coastal Transect

Profile Baseline: Indicates the modeled flow path of a stream and is shown on FIRM panels for all valid studies with profiles or otherwise established base flood elevation.

Coastal Transect Baseline: Used in the coastal flood hazard model to represent the 0.0-foot elevation contour and the starting point for the transect and the measuring point for the coastal mapping.



Base Flood Elevation Line (shown for flooding sources for which no cross sections or profile are available)

ZONE AE
(EL 16)

Static Base Flood Elevation value (shown under zone label)

ZONE AO
(DEPTH 2)

Zone designation with Depth

ZONE AO
(DEPTH 2)
(VEL 15 FPS)

Zone designation with Depth and Velocity

Figure 3: Map Legend for FIRM *(continued)*

BASE MAP FEATURES	
Missouri Creek	River, Stream or Other Hydrographic Feature
234	Interstate Highway
234	U.S. Highway
234	State Highway
234	County Highway
MAPLE LANE	Street, Road, Avenue Name, or Private Drive if shown on Flood Profile
RAILROAD	Railroad
	Horizontal Reference Grid Line
	Horizontal Reference Grid Ticks
+	Secondary Grid Crosshairs
Land Grant	Name of Land Grant
7	Section Number
R. 43 W. T. 22 N.	Range, Township Number
$^{42}76^{000m}$**E**	Horizontal Reference Grid Coordinates (UTM)
365000 FT	Horizontal Reference Grid Coordinates (State Plane)
80° 16’ 52.5”	Corner Coordinates (Latitude, Longitude)

SECTION 2.0 – FLOODPLAIN MANAGEMENT APPLICATIONS

2.1 Floodplain Boundaries

To provide a national standard without regional discrimination, the 1% annual chance (100-year) flood has been adopted by FEMA as the base flood for floodplain management purposes. The 0.2% annual chance (500-year) flood is employed to indicate additional areas of flood hazard in the community.

Each flooding source included in the project scope has been studied and mapped using professional engineering and mapping methodologies that were agreed upon by FEMA and Valley County as appropriate to the risk level. Flood risk is evaluated based on factors such as known flood hazards and projected impact on the built environment. Engineering analyses were performed for each studied flooding source to calculate its 1% annual chance flood elevations; elevations corresponding to other floods (e.g. 10-, 4-, 2-, 0.2-percent annual chance, etc.) may have also been computed for certain flooding sources. Engineering models and methods are described in detail in Section 5.0 of this FIS Report. The modeled elevations at cross sections were used to delineate the floodplain boundaries on the FIRM; between cross sections, the boundaries were interpolated using elevation data from various sources. More information on specific mapping methods is provided in Section 6.0 of this FIS Report.

Depending on the accuracy of available topographic data (Table 23), study methodologies employed (Section 5.0), and flood risk, certain flooding sources may be mapped to show both the 1% and 0.2% annual chance floodplain boundaries, regulatory water surface elevations (BFEs), and/or a regulatory floodway. Similarly, other flooding sources may be mapped to show only the 1% annual chance floodplain boundary on the FIRM, without published water surface elevations. In cases where the 1% and 0.2% annual chance floodplain boundaries are close together, only the 1% annual chance floodplain boundary is shown on the FIRM. Figure 3, "Map Legend for FIRM", describes the flood zones that are used on the FIRMs to account for the varying levels of flood risk that exist along flooding sources within the project area. Table 2 and Table 3 indicate the flood zone designations for each flooding source and each community within Valley County, Idaho, respectively.

Table 2, "Flooding Sources Included in this FIS Report," lists each flooding source, including its study limits, affected communities, mapped zone on the FIRM, and the completion date of its engineering analysis from which the flood elevations on the FIRM and in the FIS Report were derived. Descriptions and dates for the latest hydrologic and hydraulic analyses of the flooding sources are shown in Table 13. Floodplain boundaries for these flooding sources are shown on the FIRM (published separately) using the symbology described in Figure 3. On the map, the 1% annual chance floodplain corresponds to the SFHAs. The 0.2% annual chance floodplain shows areas that, although out of the regulatory floodplain, are still subject to flood hazards.

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. The procedures to remove these areas from the SFHA are described in Section 6.5 of this FIS Report.

Table 2: Flooding Sources Included in this FIS Report

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi^2) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Beaver Creek	Valley County, Unincorporated Areas	Confluence with North Fork Payette River	Approx. 0.41 miles upstream of Colter Road.	17050123	5.5		N	A	4/12/2013
Boulder Creek	Valley County, Unincorporated Areas	Confluence with Cascade Reservoir. Cascade Reservoir is located 2.97 miles downstream of ID-55	Approx. 0.78 miles downstream of ID-55	17050123	2.2		N	A	4/12/2013
Boulder Creek	Donnelly, City Of; Valley County, Unincorporated Areas	Approx. 0.78 miles downstream of ID-55	Approx. 0.57 miles upstream of East Roseberry Road	17050123	1.8		Y	AE	7/10/2015
Boulder Creek	Valley County, Unincorporated Areas	Approx. 0.57 miles upstream of East Roseberry Road	Approx. 2.62 miles upstream of East Roseberry Road	17050123	2.1		N	A	4/12/2013
Boulder Creek	Valley County, Unincorporated Areas	Approx. 2.62 miles upstream of East Roseberry Road	Approx. 0.24 miles upstream of Potter Lane	17050123	10.0		N	A	1979
Gold Fork River	Valley County, Unincorporated Areas	Confluence with Cascade Reservoir. Cascade Reservoir is located 0.59 miles downstream of ID-55	Approx. 1.00 miles downstream of Gold Fork Road	17050123	4.5		N	A	4/12/2013

Table 2: Flooding Sources Included in this FIS Report *(continued)*

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi^2) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Gold Fork River	Valley County, Unincorporated Areas	Approx. 1.00 miles downstream of Gold Fork Road	Approx. 0.57 miles downstream of Gold Fork Road	17050123	0.4		N	AE	8/10/2010
Gold Fork River	Valley County, Unincorporated Areas	Approx. 0.57 miles downstream of Gold Fork Road	Approx. 0.75 miles upstream of Gold Fork Road	17050123	1.3		N	A	4/12/2013
Lake Fork	Valley County, Unincorporated Areas	Approx. 80 feet upstream of West Roseberry Road	Approx. 0.61 miles upstream of Elo Road	17050123	18.7		N	A	4/12/2013
Lake Fork	Valley County, Unincorporated Areas	Approx. 0.61 miles upstream of Elo Road	Confluence with Tyee Creek	17050123	5.4		N	A	1979
Mud Creek	Valley County, Unincorporated Areas	Mouth (approx. 0.5 miles downstream of South Norwood Road)	Approx. 0.35 miles upstream of West Lake Fork Road	17050123	10.7		N	A	4/12/2013
North Fork Payette River	Valley County, Unincorporated Areas	Approx. 6,700 feet upstream of Packer John State Forest. Packer John State Forest is located approx. 33,800 feet downstream of Smiths Ferry Drive	Approx. 85,900 feet upstream of Smiths Ferry Drive.	17050123	21.4		N	A	4/12/2013
North Fork Payette River	Cascade, City Of; Valley County, Unincorporated Areas	Approx. 85,900 feet upstream of Smiths Ferry Drive.	Downstream face of Cascade Dam	17050123	5.8		Y	AE	4/12/2013

Table 2: Flooding Sources Included in this FIS Report *(continued)*

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi^2) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
North Fork Payette River	Valley County, Unincorporated Areas	Confluence with Cascade Reservoir. Cascade Reservoir is approx. 25,600 feet downstream of Smylie Lane	Approx. 55,200 feet upstream of Smylie Lane	17050123	15.3		N	A	4/12/2013
North Fork Payette River	McCall, City Of; Valley County, Unincorporated Areas	Approx. 55,200 feet upstream of Smylie Lane	Downstream face of dam at Payette Lake	17050123	6.5		Y	AE	4/12/2013
North Fork Payette River	Valley County, Unincorporated Areas	Approx. 12,200 feet downstream of East Side Road	Downstream face of dam at Payette Lake Upper	17050123	11.6		N	A	4/12/2013
Tributary to Williams Creek	McCall, City Of; Valley County, Unincorporated Areas	Confluence with Williams Creek	Approx. 20 feet upstream of Old Brundage Mountain Road	17050123	5.5		N	A	4/12/2013
Unnamed Stream 1	Valley County, Unincorporated Areas	Confluence with Mud Creek	Approx. 0.36 miles upstream of West Lake Fork Road	17050123	1.8		N	A	4/12/2013
Unnamed Stream 2	Valley County, Unincorporated Areas	Confluence with Mud Creek	Approx. 1.08 miles upstream of confluence with Mud Creek	17050123	1.1		N	A	4/12/2013
Unnamed Stream 3	Valley County, Unincorporated Areas	Confluence with Boulder Creek	Approx. 170 feet downstream of Jughandle Drive	17050123	1.1		N	A	1979

Table 2: Flooding Sources Included in this FIS Report *(continued)*

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi^2) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Unnamed Stream 4	Valley County, Unincorporated Areas	Confluence with Tributary to Williams Creek	Approx. 130 feet downstream of West Mountain Road	17050123	0.2		N	A	4/12/2013
Unnamed Stream 5	McCall, City Of; Valley County, Unincorporated Areas	Approx. 400 feet upstream of confluence with Tributary to Williams Creek	Approx. 0.79 miles upstream of ID-55	17050123	1.2		N	A	4/12/2013
Williams Creek	McCall, City Of; Valley County, Unincorporated Areas	Confluence with North Fork Payette River	Approx. 550 feet upstream of Whitetail Drive	17050123	3.5		N	A	4/12/2013
Willow Creek	Valley County, Unincorporated Areas	Approx. 1.06 miles downstream of Siscra Road	Approx. 0.59 miles downstream of East Roseberry Road	17050123	3.4		N	A	4/12/2013
Willow Creek	Valley County, Unincorporated Areas	Approx. 0.59 miles downstream of East Roseberry Road	Titus Lane	17050123	2.2		N	A	1979

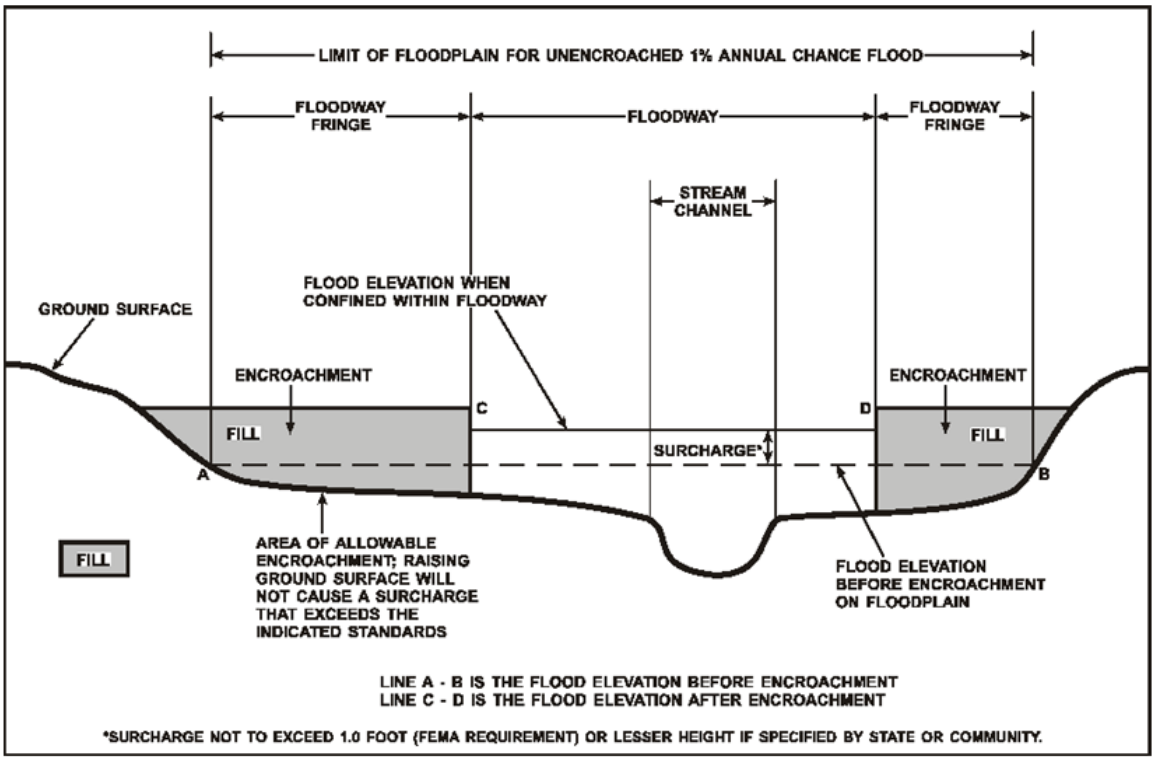
2.2 Floodways

Encroachment on floodplains, 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 balancing floodplain development against increasing flood hazard. With this approach, the area of the 1% annual chance floodplain on a river is divided into a floodway and a floodway fringe based on hydraulic modeling. The floodway is the channel of a stream, plus any adjacent floodplain areas, that must be kept free of encroachment in order to carry the 1% annual chance flood. The floodway fringe is the area between the floodway and the 1% annual chance floodplain boundaries where encroachment is permitted. The floodway must be wide enough so that the floodway fringe could be completely obstructed without increasing the water-surface elevation of the 1% annual chance flood more than 1 foot at any point. Typical relationships between the floodway and the floodway fringe and their significance to floodplain development are shown in Figure 4.

To participate in the NFIP, Federal regulations require communities to limit increases caused by encroachment to 1.0 foot, provided that hazardous velocities are not produced. Regulations for Idaho require communities in Valley County to limit increases caused by encroachment to 1.0 feet and several communities have adopted additional restrictions. The floodways in this project are presented to local agencies as minimum standards that can be adopted directly or that can be used as a basis for additional floodway projects.

Figure 4: Floodway Schematic



Floodway widths presented in this FIS Report and on the FIRM were computed at cross sections. Between cross sections, the floodway boundaries were interpolated. For certain stream segments, floodways were adjusted so that the amount of floodwaters conveyed on each side of the floodplain would be reduced equally. The results of the floodway computations have been tabulated for selected cross sections and are shown in Table 24, "Floodway Data."

All floodways that were developed for this Flood Risk Project are shown on the FIRM using the symbology described in Figure 3. In cases where the floodway and l% annual chance floodplain boundaries are either close together or collinear, only the floodway boundary has been shown on the FIRM. For information about the delineation of floodways on the FIRM, refer to Section 6.3.

2.3 Base Flood Elevations

The hydraulic characteristics of flooding sources were analyzed to provide estimates of the elevations of floods of the selected recurrence intervals. The Base Flood Elevation (BFE) is the elevation of the 1% annual chance flood. These BFEs are most commonly rounded to the whole foot, as shown on the FIRM, but in certain circumstances or locations they may be rounded to 0.1 foot. Cross section lines shown on the FIRM may also be labeled with the BFE rounded to 0.1 foot. Whole-foot BFEs derived from engineering analyses that apply to coastal areas, areas of ponding, or other static areas with little elevation change may also be shown at selected intervals on the FIRM.

Cross sections with BFEs shown on the FIRM correspond to the cross sections shown in the Floodway Data table and Flood Profiles in this FIS Report. BFEs 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.

2.4 Non-Encroachment Zones

This section is not applicable to this Flood Risk Project.

2.5 Coastal Flood Hazard Areas

This section is not applicable to this Flood Risk Project.

2.5.1 Water Elevations and the Effects of Waves

This section is not applicable to this Flood Risk Project.

Figure 5: Wave Runup Transect Schematic

[Not Applicable to this Flood Risk Project]

2.5.2 Floodplain Boundaries and BFEs for Coastal Areas

This section is not applicable to this Flood Risk Project.

2.5.3 Coastal High Hazard Areas

This section is not applicable to this Flood Risk Project.

Figure 6: Coastal Transect Schematic

[Not Applicable to this Flood Risk Project]

2.5.4 Limit of Moderate Wave Action

This section is not applicable to this Flood Risk Project.

SECTION 3.0 – INSURANCE APPLICATIONS

3.1 National Flood Insurance Program Insurance Zones

For flood insurance applications, the FIRM designates flood insurance rate zones as described in Figure 3, "Map Legend for FIRM." Flood insurance zone designations are assigned to flooding sources based on the results of the hydraulic or coastal analyses. Insurance agents use the zones shown on the FIRM and depths and base flood elevations in this FIS Report in conjunction with information on structures and their contents to assign premium rates for flood insurance policies.

The 1% annual chance floodplain boundary corresponds to the boundary of the areas of special flood hazards (e.g. Zones A, AE, V, VE, etc.), and the 0.2% annual chance floodplain boundary corresponds to the boundary of areas of additional flood hazards.

Table 3 lists the flood insurance zones in Valley County.

Table 3: Flood Zone Designations by Community

Community	Flood Zone(s)
Cascade, City of	A, AE, X
Donnelly, City of	AE, X
McCall, City of	A, AE, X
Valley County, Unincorporated Areas	A, AE, X

3.2 Coastal Barrier Resources System

This section is not applicable to this Flood Risk Project.

Table 4: Coastal Barrier Resources System Information

[Not Applicable to this Flood Risk Project]

SECTION 4.0 – AREA STUDIED

4.1 Basin Description

Table 5 contains a description of the characteristics of the HUC-8 sub-basins within which each community falls. The table includes the main flooding sources within each basin, a brief description of the basin, and its drainage area.

Table 5: Basin Characteristics

HUC-8 Sub-Basin Name	HUC-8 Sub-Basin Number	Primary Flooding Source	Description of Affected Area	Drainage Area (square miles)
Lower Middle Fork Salmon	17060206	Middle Fork Salmon River	Begins at the confluence with the Salmon River, extends southwest	1,380
Middle Fork Payette	17050121	Middle Fork Payette River	Begins at the confluence with the Payette River, extends northeast.	340
Middle Salmon-Chamberlain	17060207	Salmon River	Begins upstream of the confluence with Robbins Creek, extends east.	1,710
North Fork Payette	17050123	North Fork Payette River	Begins at the confluence with the Payette River, extends north.	930
Payette	17050122	Payette River	Begins at the confluence with the Snake River, extends east.	1,230
South Fork Payette	17050120	South Fork Payette River	Begins at the confluence with the Middle Fork Payette River, extends east.	820
South Fork Salmon	17060208	South Fork Salmon River	Begins at the confluence with the Salmon River, extends south.	1,310
Upper Middle Fork Salmon	17060205	Middle Fork Salmon River	Begins at the confluence with Loon Creek, extends southwest.	1,500

4.2 Principal Flood Problems

Table 6 contains a description of the principal flood problems that have been noted for Valley County by flooding source.

Table 6: Principal Flood Problems

[Not Applicable to this Flood Risk Project]

Table 7 contains information about historic flood elevations in the communities within Valley County.

Table 7: Historic Flooding Elevations

[Not Applicable to this Flood Risk Project]

4.3 Non-Levee Flood Protection Measures

Table 8 contains information about non-levee flood protection measures within Valley County such as dams, jetties, and or dikes. Levees are addressed in Section 4.4 of this FIS Report.

Table 8: Non-Levee Flood Protection Measures

Flooding Source	Structure Name	Type of Measure	Location	Description of Measure
North Fork Payette River	Cascade Dam	Dam	Outlet of Cascade Reservoir	Multi-purpose dam constructed by US Bureau of Reclamation in 1948.
North Fork Payette River	Lardo Dam	Dam	Outlet of Payette Lake	Lake storage provides some flood protection but primarily used for irrigation purposes.

4.4 Levees

This section is not applicable to this Flood Risk Project.

Table 9: Levees

[Not Applicable to this Flood Risk Project]

SECTION 5.0 – ENGINEERING METHODS

For the flooding sources 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 at least once on the average during any 10-, 25-, 50-, 100-, or 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-, 25-, 50-, 100-, and 500-year floods, have a 10-, 4-, 2-, 1-, and 0.2% 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 100-year flood (1-percent chance of annual exceedance) during the term of a 30-year mortgage is approximately 26 percent (about 3 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.

The engineering analyses described here incorporate the results of previously issued Letters of Map Change (LOMCs) listed in Table 27, “Incorporated Letters of Map Change”, which include Letters of Map Revision (LOMRs). For more information about LOMRs, refer to Section 6.5, “FIRM Revisions.”

5.1 Hydrologic Analyses

Hydrologic analyses were carried out to establish the peak elevation-frequency relationships for floods of the selected recurrence intervals for each flooding source studied. Hydrologic analyses are typically performed at the watershed level. Depending on factors such as watershed size and shape, land use and urbanization, and natural or man-made storage, various models or methodologies may be applied. A summary of the hydrologic methods applied to develop the discharges used in the hydraulic analyses for each stream is provided in Table 13. Greater detail (including assumptions, analysis, and results) is available in the archived project documentation.

A summary of the discharges is provided in Table 10. Frequency Discharge-Drainage Area Curves used to develop the hydrologic models may also be shown in Figure 9 for selected flooding sources. A summary of stillwater elevations developed for non-coastal flooding sources is provided in Table 11. (Coastal stillwater elevations are discussed in Section 5.3 and shown in Table 17.) Stream gage information is provided in Table 12.

Table 10: Summary of Discharges

Flooding Source	Location	Drainage Area (square miles)	Peak Discharge (cfs)				
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Beaver Creek	At confluence with North Fork Payette River	22	*	*	*	620	*
Beaver Creek	Approx. 0.45 miles upstream of confluence with North Fork Payette River	21	*	*	*	570	*
Beaver Creek	Approx. 0.77 miles upstream of Weant Lane	18	*	*	*	480	*
Beaver Creek	Approx. 0.03 miles downstream of confluence with West Fork Beaver Creek	16	*	*	*	430	*
Beaver Creek	Approx. 0.07 miles downstream of Colter Road	7.4	*	*	*	220	*
Beaver Creek	Approx. 0.14 miles upstream of Colter Road	7.4	*	*	*	210	*
Boulder Creek	At mouth	43	869	*	1,120	1,250	1,480

Table 10: Summary of Discharges *(continued)*

Flooding Source	Location	Drainage Area (square miles)	Peak Discharge (cfs)				
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Boulder Creek	Approx. 0.63 miles downstream of Nasi Lane	39	*	*	*	1,200	*
Boulder Creek	Approx. 0.25 miles downstream of Nasi Lane	33	*	*	*	970	*
Boulder Creek	Approx. 0.16 miles downstream of the confluence with Wilhelm Creek	28	*	*	*	830	*
Boulder Creek	Approx. 0.02 miles upstream of the confluence with Wilhelm Creek	26	*	*	*	790	*
Boulder Creek	Approx. 0.82 miles downstream of Finn Church Lane	24	*	*	*	710	*
Boulder Creek	Approx. 0.16 miles downstream of Finn Church Lane	22	*	*	*	690	*
Boulder Creek	Approx. 0.29 miles downstream of Potter Lane	19	*	*	*	610	*
Boulder Creek	Approx. 0.24 miles upstream of Potter Lane	18	*	*	*	560	*

Table 10: Summary of Discharges *(continued)*

Flooding Source	Location	Drainage Area (square miles)	Peak Discharge (cfs)				
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Gold Fork River	At mouth (0.60 miles downstream of ID-55)	153	*	*	*	4,500	*
Gold Fork River	Approx. 1.46 miles downstream of Davis Creek Lane	148	3,340	*	4,080	4,500	5,140
Gold Fork River	Approx. 0.77 miles upstream of Gold Fork Road	143	*	*	*	4,100	*
Lake Fork	At West Roseberry Road	80	*	*	*	2,100	*
Lake Fork	Approx. 0.09 miles downstream of Finn Road/East Lake Fork Road	68	*	*	*	1,900	*
Lake Fork	Approx. 1.04 miles upstream of Lake Irrigation District Canal	59	*	*	*	1,600	*
Lake Fork	Approx. 0.84 miles downstream of confluence with Tyee Creek	54	*	*	*	1,500	*
Lake Fork	At confluence with Tyee Creek	50	*	*	*	1,400	*

Table 10: Summary of Discharges *(continued)*

Flooding Source	Location	Drainage Area (square miles)	Peak Discharge (cfs)				
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Mud Creek	At mouth (Approx. 0.50 miles downstream of South Norwood Road)	18	*	*	*	330	*
Mud Creek	Approx. 1.04 miles upstream of Nisula Road	16	*	*	*	290	*
Mud Creek	Approx. 1.13 miles upstream of Nisula Road	14	*	*	*	270	*
Mud Creek	Approx. 0.61 miles downstream of Smylie Lane	14	*	*	*	260	*
Mud Creek	Approx. 0.46 miles upstream of Smylie Lane	12	*	*	*	240	*
Mud Creek	Approx. 0.53 miles upstream of Smylie Lane	9.5	*	*	*	180	*
Mud Creek	Approx. 0.13 miles upstream of Fairbrother Lane	7.4	*	*	*	140	*
Mud Creek	Approx. 0.40 miles downstream of Maki Road	6.5	*	*	*	130	*

Table 10: Summary of Discharges *(continued)*

Flooding Source	Location	Drainage Area (square miles)	Peak Discharge (cfs)				
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Mud Creek	Approx. 0.14 miles downstream of Norwood Road	4.6	*	*	*	100	*
Mud Creek	Approx. 0.02 miles upstream of Norwood Road	4.2	*	*	*	90	*
Mud Creek	Approx. 0.56 miles downstream of West Lake Fork Road	3.8	*	*	*	80	*
Mud Creek	Approx. 0.16 miles downstream of West Lake Fork Road	2.9	*	*	*	60	*
Mud Creek	Directly upstream of West Lake Fork Road	1.2	*	*	*	30	*
Mud Creek	Approx. 0.35 miles upstream of West Lake Fork Road	1.2	*	*	*	30	*
North Fork Payette River	Approx. 0.56 miles downstream of confluence with Rat Creek	886	8,200	10,000	11,000	12,000	15,000
North Fork Payette River	At Cabarton Road	803	7,500	9,100	10,100	11,200	13,800

Table 10: Summary of Discharges *(continued)*

Flooding Source	Location	Drainage Area (square miles)	Peak Discharge (cfs)				
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
North Fork Payette River	Approx. 3.20 miles downstream of Main Street	655	6,200	7,500	8,300	9,200	11,400
North Fork Payette River	Approx. 0.01 miles upstream of confluence with Beaver Creek	621	5,900	7,100	7,900	8,800	10,800
North Fork Payette River	At USGS gage 13245000	615	5,800	7,100	7,900	8,700	10,700
North Fork Payette River	Approx. 3.26 miles downstream of Smylie Lane	186	5,200	5,800	6,100	6,500	7,200
North Fork Payette River	Approx. 0.64 miles downstream of Smylie Lane	175	4,900	5,500	5,800	6,100	6,800
North Fork Payette River	Approx. 3.02 miles downstream of confluence with Williams Creek	157	4,400	4,900	5,200	5,500	6,100
North Fork Payette River	Approx. 0.05 miles upstream of confluence with Williams Creek	149	4,200	4,700	5,000	5,200	5,800
North Fork Payette River	At USGS gage 13239000	145	4,100	4,600	4,800	5,100	5,700

Table 10: Summary of Discharges *(continued)*

Flooding Source	Location	Drainage Area (square miles)	Peak Discharge (cfs)				
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
North Fork Payette River	Approx. 0.17 miles downstream of West Lake Street	145	*	*	*	5,100	*
North Fork Payette River	Approx. 2.35 miles downstream of East Side Road	104	*	*	*	4,600	*
North Fork Payette River	Approx. 0.24 miles downstream of East Side Road	99	*	*	*	4,500	*
North Fork Payette River	Approx. 0.02 miles downstream of confluence with Fisher Creek	85	*	*	*	4,100	*
North Fork Payette River	Approx. 0.02 miles upstream of confluence with Fisher Creek	67	*	*	*	2,800	*
North Fork Payette River	Approx. 0.36 miles downstream of Pearl Creek Road	54	*	*	*	2,500	*
North Fork Payette River	Approx. 0.55 miles upstream of Pearl Creek Road	49	*	*	*	2,200	*
North Fork Payette River	Approx. 0.13 miles downstream of Warren Wagon Road	42	*	*	*	1,900	*

Table 10: Summary of Discharges *(continued)*

Flooding Source	Location	Drainage Area (square miles)	Peak Discharge (cfs)				
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Tributary to Williams Creek	At confluence with Williams Creek	3.5	*	*	*	250	*
Tributary to Williams Creek	Approx. 0.20 miles downstream of West Mountain Road	2.9	*	*	*	210	*
Tributary to Williams Creek	Approx. 1.61 miles downstream of Osprey View Dr	2.6	*	*	*	180	*
Tributary to Williams Creek	Approx. 0.06 miles downstream of Osprey View Dr	2.0	*	*	*	130	*
Tributary to Williams Creek	Approx. 0.31 miles downstream of Old Meadow Road	0.5	*	*	*	30	*
Tributary to Williams Creek	Approx. 0.22 miles upstream of Old Meadow Road	0.4	*	*	*	30	*
Tributary to Williams Creek	Approx. 0.39 miles downstream of Old Brundage Mountain Road	0.3	*	*	*	20	*
Tributary to Williams Creek	Approx. 0.24 miles downstream of Old Brundage Mountain Road	0.3	*	*	*	20	*

Table 10: Summary of Discharges *(continued)*

Flooding Source	Location	Drainage Area (square miles)	Peak Discharge (cfs)				
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Tributary to Williams Creek	Approx. 0.08 miles downstream of Old Brundage Mountain Road	0.2	*	*	*	10	*
Tributary to Williams Creek	Approx. 0.03 miles upstream of Old Brundage Mountain Road	0.2	*	*	*	10	*
Unnamed Stream 1	At mouth	1.8	*	*	*	40	*
Unnamed Stream 1	Approx. 0.62 miles downstream of West Lake Fork Road	1.3	*	*	*	40	*
Unnamed Stream 1	Approx. 0.56 miles downstream of West Lake Fork Road	0.8	*	*	*	20	*
Unnamed Stream 1	Approx. 0.13 miles upstream of West Lake Fork Road	0.6	*	*	*	20	*
Unnamed Stream 1	Approx. 0.36 miles upstream of West Lake Fork Road	0.4	*	*	*	20	*
Unnamed Stream 2	At mouth	1.9	*	*	*	50	*

Table 10: Summary of Discharges *(continued)*

Flooding Source	Location	Drainage Area (square miles)	Peak Discharge (cfs)				
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Unnamed Stream 2	Approx. 1.10 miles upstream of confluence with Mud Creek	1.5	*	*	*	50	*
Unnamed Stream 3	At mouth	1.9	*	*	*	50	*
Unnamed Stream 3	Directly upstream of Finn Church Lane	0.3	*	*	*	30	*
Unnamed Stream 3	Approx. 0.32 miles upstream of Finn Church Lane	0.2	*	*	*	20	*
Unnamed Stream 3	Approx. 0.31 miles downstream of Jughandle Drive	0.1	*	*	*	20	*
Unnamed Stream 3	Approx. 0.13 miles downstream of Jughandle Drive	0.1	*	*	*	10	*
Unnamed Stream 3	Approx. 0.01 miles downstream of Jughandle Drive	0.1	*	*	*	10	*
Unnamed Stream 4	At confluence with Tributary to Williams Creek	1.5	*	*	*	112	*
Unnamed Stream 4	Directly downstream of West Mountain Road	1.5	*	*	*	110	*

Table 10: Summary of Discharges *(continued)*

Flooding Source	Location	Drainage Area (square miles)	Peak Discharge (cfs)				
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Unnamed Stream 5	At confluence with Tributary to Williams Creek	0.8	*	*	*	80	*
Unnamed Stream 5	Approx. 0.03 miles upstream of ID-55	0.5	*	*	*	60	*
Unnamed Stream 5	Approx. 0.82 miles upstream of ID-55	0.2	*	*	*	30	*
Williams Creek	At mouth	6.8	*	*	*	480	*
Williams Creek	Approx. 0.16 miles upstream of Coy Road	1.3	*	*	*	100	*
Williams Creek	Approx. 0.49 miles upstream of Coy Road	1.1	*	*	*	90	*
Williams Creek	Approx. 0.12 miles upstream of W Mountain Road	0.7	*	*	*	50	*
Williams Creek	Approx. 0.13 miles downstream of Whitetail Drive	0.1	*	*	*	10	*
Willow Creek	At mouth	10	*	*	*	400	*
Willow Creek	Approx. 0.02 miles downstream of Siscra Road	9.1	*	*	*	370	*

Table 10: Summary of Discharges *(continued)*

Flooding Source	Location	Drainage Area (square miles)	Peak Discharge (cfs)				
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Willow Creek	Approx. 0.54 miles upstream of ID-55 South	8.0	*	*	*	340	*
Willow Creek	Approx. 0.73 miles upstream of ID-55 South	7.6	*	*	*	290	*
Willow Creek	Approx. 0.19 miles downstream of East Roseberry Road/Roseberry Road	5.4	*	*	*	220	*
Willow Creek	Approx. 0.07 miles upstream of East Roseberry Road/Roseberry Road	3.9	*	*	*	160	*
Willow Creek	Approx. 0.07 miles downstream of Titus Lane	3.5	*	*	*	130	*
Willow Creek	At Titus Lane	3.0	*	*	*	120	*

*Not calculated for this Flood Risk Project

Figure 7: Frequency Discharge-Drainage Area Curves

[Not Applicable to this Flood Risk Project]

Table 11: Summary of Non-Coastal Stillwater Elevations

Flooding Source	Location	Elevations (feet NAVD88)				
		10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Payette Lake	McCall, City of; Valley County, Unincorporated Areas	*	*	*	4993.84	*
Cascade Reservoir	Cascade, City of; Valley County, Unincorporated Areas	*	*	*	4831.70	*

*Not calculated for this Flood Risk Project

Table 12: Stream Gage Information used to Determine Discharges

Flooding Source	Gage Identifier	Agency that Maintains Gage	Site Name	Drainage Area (square miles)	Period of Record	
					From	To
North Fork Payette River	13245000	USGS	NF Payette River At Cascade ID	616	6/11/1923	4/12/2013
North Fork Payette River	13239000	USGS	NF Payette River At McCall ID	144	5/16/1941	4/12/2013

5.2 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. Base flood elevations on the FIRM represent the elevations shown on the Flood Profiles and in the Floodway Data tables in the FIS Report. Rounded whole-foot elevations may be shown on the FIRM in coastal areas, areas of ponding, and other areas with static base flood elevations. These whole-foot elevations may not exactly reflect the elevations derived from the hydraulic analyses. 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. The hydraulic analyses for this FIS were based on unobstructed flow. The flood elevations shown on the profiles are thus considered valid only if hydraulic structures remain unobstructed, operate properly, and do not fail.

For streams for which hydraulic analyses were based on cross sections, locations of selected cross sections are shown on the Flood Profiles (Exhibit 1). For stream segments for which a floodway was computed (Section 6.3), selected cross sections are also listed on Table 24, “Floodway Data.”

A summary of the methods used in hydraulic analyses performed for this project is provided in Table 13. Roughness coefficients are provided in Table 14. Roughness coefficients are values representing the frictional resistance water experiences when passing overland or through a channel. They are used in the calculations to determine water surface elevations. Greater detail (including assumptions, analysis, and results) is available in the archived project documentation.

Table 13: Summary of Hydrologic and Hydraulic Analyses

Flooding Source	Study Limits		Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
	Downstream Limit	Upstream Limit					
Beaver Creek	Confluence with North Fork Payette River	Approx. 0.41 miles upstream of Colter Road.	Regression Equations	HEC-RAS 3.1.1 and up	4/17/2013	A	
Boulder Creek	Confluence with Cascade Reservoir. Cascade Reservoir is located 2.97 miles downstream of ID-55	Approx. 0.78 miles downstream of ID-55	Regression Equations	HEC-RAS 3.1.1 and up	4/17/2013	A	
Boulder Creek	Approx. 0.78 miles downstream of ID-55	Approx. 0.57 miles upstream of East Roseberry Road	Regression Equations	HEC-RAS 3.1.1 and up	7/10/2015	AE w/ Floodway	
Boulder Creek	Approx. 0.57 miles upstream of East Roseberry Road	Approx. 2.62 miles upstream of East Roseberry Road	Regression Equations	HEC-RAS 3.1.1 and up	4/17/2013	A	
Boulder Creek	Approx. 2.62 miles upstream of East Roseberry Road	Approx. 0.24 miles upstream of Potter Lane	N/A	N/A	1979	A	Approximate flooding was taken directly from the USGS Topographic Floodprone Quadrangles
Gold Fork River	Confluence with Cascade Reservoir. Cascade Reservoir is located 0.59 miles downstream of ID-55	Approx. 1.00 miles downstream of Gold Fork Road	Regression Equations	HEC-RAS 3.1.1 and up	4/17/2013	A	
Gold Fork River	Approx. 1.00 miles downstream of Gold Fork Road	Approx. 0.57 miles downstream of Gold Fork Road	Regression Equations	HEC-RAS 3.1.1 and up	8/21/2010	AE	

Table 13: Summary of Hydrologic and Hydraulic Analyses *(continued)*

Flooding Source	Study Limits		Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
	Downstream Limit	Upstream Limit					
Gold Fork River	Approx. 0.57 miles downstream of Gold Fork Road	Approx. 0.75 miles upstream of Gold Fork Road	Regression Equations	HEC-RAS 3.1.1 and up	4/17/2013	A	
Lake Fork	Approx. 80 feet upstream of West Roseberry Road	Approx. 0.61 miles upstream of Elo Road	Regression Equations	HEC-RAS 3.1.1 and up	4/17/2013	A	
Lake Fork	Approx. 0.61 miles upstream of Elo Road	Confluence with Tyee Creek	N/A	N/A	1979	A	Approximate flooding was taken directly from the USGS Topographic Floodprone Quadrangles
Mud Creek	Mouth (approx. 0.5 miles downstream of South Norwood Road)	Approx. 0.35 miles upstream of West Lake Fork Road	Regression Equations	HEC-RAS 3.1.1 and up	4/17/2013	A	
North Fork Payette River	Approx. 6,700 ft upstream of Packer John State Forest. Packer John State Forest is located approx. 33,800 feet downstream of Smiths Ferry Drive	Approx. 85,900 feet upstream of Smiths Ferry Drive.	Regression Equations	HEC-RAS 3.1.1 and up	4/17/2013	A	Regression results were Gage Weighted
North Fork Payette River	Approx. 85,900 feet upstream of Smiths Ferry Drive.	Downstream face of Cascade Dam	HEC-SSP 1.1 (April 2009) and up	HEC-RAS 3.1.1 and up	4/17/2013	AE w/ Floodway	

Table 13: Summary of Hydrologic and Hydraulic Analyses *(continued)*

Flooding Source	Study Limits		Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
	Downstream Limit	Upstream Limit					
North Fork Payette River	Confluence with Cascade Reservoir. Cascade Reservoir is approx. 25,600 feet downstream of Smylie Lane	Approx. 55,200 feet upstream of Smylie Lane	Regression Equations	HEC-RAS 3.1.1 and up	4/17/2013	A	Regression results were Gage Weighted
North Fork Payette River	Approx. 55,200 feet upstream of Smylie Lane	Downstream face of dam at Payette Lake	HEC-SSP 1.1 (April 2009) and up	HEC-RAS 3.1.1 and up	4/17/2013	AE w/ Floodway	
North Fork Payette River	Approx. 12,200 feet downstream of East Side Road	Downstream face of dam at Payette Lake Upper	Regression Equations	HEC-RAS 3.1.1 and up	4/17/2013	A	
Tributary to Williams Creek	Confluence with Williams Creek	Approx. 20 feet upstream of Old Brundage Mountain Road	Regression Equations	HEC-RAS 3.1.1 and up	4/17/2013	A	
Unnamed Stream 1	Confluence with Mud Creek	Approx. 0.36 miles upstream of West Lake Fork Road	Regression Equations	HEC-RAS 3.1.1 and up	4/17/2013	A	
Unnamed Stream 2	Confluence with Mud Creek	Approx. 1.08 miles upstream of confluence with Mud Creek	Regression Equations	HEC-RAS 3.1.1 and up	4/17/2013	A	
Unnamed Stream 3	Confluence with Boulder Creek	Approx. 170 feet downstream of Jughandle Drive	N/A	N/A	1979	A	Approximate flooding was taken directly from the USGS Topographic Floodprone Quadrangles

Table 13: Summary of Hydrologic and Hydraulic Analyses *(continued)*

Flooding Source	Study Limits		Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
	Downstream Limit	Upstream Limit					
Unnamed Stream 4	Confluence with Tributary to Williams Creek	Approx. 130 feet downstream of West Mountain Road	Regression Equations	HEC-RAS 3.1.1 and up	4/17/2013	A	
Unnamed Stream 5	Approx. 400 feet upstream of confluence with Tributary to Williams Creek	Approx. 0.79 miles upstream of ID-55	Regression Equations	HEC-RAS 3.1.1 and up	4/17/2013	A	
Williams Creek	Confluence with North Fork Payette River	Approx. 550 feet upstream of Whitetail Drive	Regression Equations	HEC-RAS 3.1.1 and up	4/17/2013	A	
Willow Creek	Approx. 1.06 miles downstream of Siscra Road	Approx. 0.59 miles downstream of East Roseberry Road	Regression Equations	HEC-RAS 3.1.1 and up	4/17/2013	A	
Willow Creek	Approx. 0.59 miles downstream of East Roseberry Road	Titus Lane	N/A	N/A	1979	A	Approximate flooding was taken directly from the USGS Topographic Floodprone Quadrangles

Table 14: Roughness Coefficients

Flooding Source	Channel “n”	Overbank “n”
Beaver Creek	0.035-0.040	0.050
Boulder Creek	0.038-0.045	0.045-0.100
Gold Fork River	0.034-0.055	0.035-0.100
Lake Fork	0.025-0.045	0.055-0.100
Mud Creek	0.035-0.046	0.080
North Fork Payette River	0.025-0.050	0.035-0.120
Tributary to Williams Creek	0.035-0.040	0.045-0.100
Unnamed Stream 1	0.034-0.035	0.060
Unnamed Stream 2	0.035	0.060
Unnamed Stream 3	0.035	0.045-0.100
Unnamed Stream 4	0.035	0.045
Unnamed Stream 5	0.035	0.065-0.100
Williams Creek	0.040	0.045-0.100
Willow Creek	0.040	0.050-0.100

5.3 Coastal Analyses

This section is not applicable to this Flood Risk Project.

Table 15: Summary of Coastal Analyses
[Not Applicable to this Flood Risk Project]

5.3.1 Total Stillwater Elevations

This section is not applicable to this Flood Risk Project.

Figure 8: 1% Annual Chance Total Stillwater Elevations for Coastal Areas
[Not Applicable to this Flood Risk Project]

Table 16: Tide Gage Analysis Specifics
[Not Applicable to this Flood Risk Project]

5.3.2 Waves

This section is not applicable to this Flood Risk Project.

5.3.3 Coastal Erosion

This section is not applicable to this Flood Risk Project.

5.3.4 Wave Hazard Analyses

This section is not applicable to this Flood Risk Project.

Table 17: Coastal Transect Parameters
[Not Applicable to this Flood Risk Project]

Figure 9: Transect Location Map

[Not Applicable to this Flood Risk Project]

5.4 Alluvial Fan Analyses

This section is not applicable to this Flood Risk Project.

Table 18: Summary of Alluvial Fan Analyses

[Not Applicable to this Flood Risk Project]

Table 19: Results of Alluvial Fan Analyses

[Not Applicable to this Flood Risk Project]

SECTION 6.0 – MAPPING METHODS

6.1 Vertical and Horizontal Control

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 used for newly created or revised FIS Reports and FIRMs was the National Geodetic Vertical Datum of 1929 (NGVD29). With the completion of the North American Vertical Datum of 1988 (NAVD88), many FIS Reports and FIRMs are now prepared using NAVD88 as the referenced vertical datum.

Flood elevations shown in this FIS Report and on the FIRMs are referenced to NAVD88. These flood elevations must be compared to structure and ground elevations referenced to the same vertical datum. For information regarding conversion between NGVD29 and NAVD88 or other datum conversion, visit the National Geodetic Survey website at www.ngs.noaa.gov, or contact the National Geodetic Survey (NGS) at the following address:

NGS Information Services
NOAA, N/NGS12
National Geodetic Survey
SSMC-3, #9202
1315 East-West Highway
Silver Spring, Maryland 20910-3282
(301) 713-3242

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 archived project documentation associated with the FIS Report and the FIRMs for this community. Interested individuals may contact FEMA to access these data.

To obtain current elevation, description, and/or location information for benchmarks in the area, please contact information services Branch of the NGS at (301) 713-3242, or visit their website at www.ngs.noaa.gov.

The datum conversion locations and values that were calculated for Valley County may be provided in Table 20.

Table 20: Countywide Vertical Datum Conversion

[Not Applicable to this Flood Risk Project]

A countywide conversion factor could not be generated for Valley County because the maximum variance from average exceeds 0.25 feet. Calculations for the vertical offsets on a stream by stream basis are depicted in Table 21.

Table 21: Stream-by-Stream Vertical Datum Conversion

Flooding Source	Average Vertical Datum Conversion Factor (feet)
Boulder Creek	3.70
Cascade Reservoir	3.70
Payette Lake	3.84

6.2 Base Map

The FIRMs and FIS Report for this project have been produced in a digital format. The flood hazard information was converted to a Geographic Information System (GIS) format that meets FEMA's FIRM database specifications and geographic information standards. This information is provided in a digital format so that it can be incorporated into a local GIS and be accessed more easily by the community. The FIRM Database includes most of the tabular information contained in the FIS Report in such a way that the data can be associated with pertinent spatial features. For example, the information contained in the Floodway Data table and Flood Profiles can be linked to the cross sections that are shown on the FIRMs. Additional information about the FIRM Database and its contents can be found in FEMA's *Guidelines and Standards for Mapping Partners*, Appendix L.

Base map information shown on the FIRM was derived from the sources described in Table 22.

Table 22: Base Map Sources

Data Type	Data Provider	Data Date	Data Scale	Data Description
County Boundaries for the State of Idaho Redistricting 2001 Process	Idaho Legislative Services Office	2001	1:24000	County Boundary
FIRM Panel Layout	STARR	2014	1:24000	FIRM Panel Layout
Hydrology, Valley County, ID	STARR	2013	1:24000	Subbasins, Gages, Nodes
National Hydrography Dataset (NHD)	USGS	2010	1:24000	Water Areas
Public Land Survey System	BLM Cadastral Survey	2011	1:24000	Public Land Survey System
Surface Management Agency (Land Status) for Idaho (Fedreal, State, and Private)	U.S. Bureau of Land Management, Idaho State Office, Engineering and Geographic Science	2001	1:24000	Forest Boundary

Table 22: Base Map Sources *(continued)*

Data Type	Data Provider	Data Date	Data Scale	Data Description
TIGER/Line Shapefile, 2012, county, Valley County, ID All Roads County-based	U.S. Department of Commerce, U.S. Census Bureau	2012	1:24000	Transportation Features
U.S. Populated Place Areas	Tele Atlas North AMerica, Inc./ESRI	2001	1:24000	City Boundary
USDA-FSA-APFO Digital Ortho Mosaic	USDA-FSA-APFO	2011	1:12000	Digital Orthophotography for Valley County, Idaho

6.3 Floodplain and Floodway Delineation

The FIRM shows tints, screens, and symbols to indicate floodplains and floodways as well as the locations of selected cross sections used in the hydraulic analyses and floodway computations.

For riverine flooding sources, the mapped floodplain boundaries shown on the FIRM have been delineated using the flood elevations determined at each cross section; between cross sections, the boundaries were interpolated using the topographic elevation data described in Table 23.

In cases where the 1% and 0.2% annual chance floodplain boundaries are close together, only the 1% 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.

The floodway widths presented in this FIS Report and on the FIRM 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. Table 2 indicates the flooding sources for which floodways have been determined. The results of the floodway computations for those flooding sources have been tabulated for selected cross sections and are shown in Table 24, "Floodway Data."

Table 23: Summary of Topographic Elevation Data used in Mapping

Community	Flooding Source	Source for Topographic Elevation Data					
		Description	Scale	Contour Interval	$RMSE_z$	$Accuracy_z$	Citation
Cascade, City of; Donnelly, City of; McCall, City Of; Valley County, Unincorporated Areas	All STARR updated AE studies	Light Detection and Ranging data (LiDAR)	N/A	2 ft	18.5 cm	24.5 cm	STARR 2012
Cascade, City of; Donnelly, City of; McCall, City Of; Valley County, Unincorporated Areas	All STARR updated A studies not individually listed in this table	Light Detection and Ranging data (LiDAR)	N/A	2 ft	18.5 cm	24.5 cm	STARR 2012
Valley County, Unincorporated Areas	Beaver Creek (Upstream of Warm Lake Road)	National Elevation Dataset (NED)	N/A	10 ft	N/A	N/A	USGS 2013

Table 23: Summary of Topographic Elevation Data used in Mapping *(continued)*

Community	Flooding Source	Source for Topographic Elevation Data					
		Description	Scale	Contour Interval	$RMSE_z$	$Accuracy_z$	Citation
Valley County, Unincorporated Areas	Gold Fork River (Upstream of State Highway 55)	National Elevation Dataset (NED)	N/A	10 ft	N/A	N/A	USGS 2013
Valley County, Unincorporated Areas	Portions of North Fork Payette River (upstream of Payette Lake and in the vicinity of Cabarton Road)	National Elevation Dataset (NED)	N/A	10 ft	N/A	N/A	USGS 2013
McCall, City Of; Valley County, Unincorporated Areas	Tributary to Williams Creek (in the vicinity of Old Meadow Road)	National Elevation Dataset (NED)	N/A	10 ft	N/A	N/A	USGS 2013
McCall, City Of; Valley County, Unincorporated Areas	Unknown Stream 5	National Elevation Dataset (NED)	N/A	10 ft	N/A	N/A	USGS 2013

BFEs shown at cross sections on the FIRM represent the 1% annual chance water surface elevations shown on the Flood Profiles and in the Floodway Data tables in the FIS Report.

Table 24: Floodway Data

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	11,599	76	428	2.9	4840.8	4840.8	4841.7	0.9
B	12,673	151	552	2.3	4841.7	4841.7	4842.7	1.0
C	13,759	150	581	2.2	4842.3	4842.3	4843.3	1.0
D	14,498	112	419	3.0	4843.0	4843.0	4843.9	0.9
E	15,139	116	454	2.8	4843.7	4843.7	4844.7	1.0
F	15,540	83	384	3.3	4844.2	4844.2	4845.1	0.9
G	15,768	61	293	4.3	4845.4	4845.4	4845.7	0.3
H	16,383	90	412	3.0	4846.0	4846.0	4846.6	0.6
I	17,102	94	379	3.3	4846.4	4846.4	4847.3	0.9
J	17,445	90	388	3.2	4846.9	4846.9	4847.7	0.8
K	18,018	95	403	3.1	4847.2	4847.2	4848.2	1.0
L	18,247	77	478	2.6	4848.5	4848.5	4849.2	0.7
M	18,736	140	535	2.3	4848.8	4848.8	4849.5	0.8
N	19,682	216	659	1.9	4849.2	4849.2	4850.1	0.9
O	20,352	236	675	1.9	4849.7	4849.7	4850.6	0.9
P	21,135	193	568	2.2	4850.3	4850.3	4851.2	0.9

[1]FEET UPSTREAM OF CONFLUENCE WITH CASCADE RESERVOIR. CASCADE RESERVOIR IS LOCATED 2.97 MILES DOWNSTREAM OF ID-55

Table 24: Floodway Data *(continued)*

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	113,048	756	4,069	2.3	4727.9	4727.9	4727.9	0.0
B	114,563	227	1,883	4.9	4728.2	4728.2	4728.2	0.0
C	115,168	283	2,361	3.9	4728.6	4728.6	4728.6	0.0
D	117,452	287	2,450	3.8	4729.2	4729.2	4729.5	0.3
E	118,455	338	2,762	3.3	4729.5	4729.5	4729.8	0.3
F	119,373	202	1,925	4.8	4729.7	4729.7	4730.0	0.3
G	120,763	781	3,877	2.4	4730.3	4730.3	4730.8	0.5
H	122,357	299	2,545	3.6	4730.7	4730.7	4731.1	0.4
I	124,176	220	2,156	4.3	4731.2	4731.2	4731.6	0.4
J	125,930	402	3,204	2.9	4731.8	4731.8	4732.3	0.5
K	126,497	262	2,435	3.8	4731.9	4731.9	4732.4	0.5
L	128,307	292	2,680	3.4	4732.5	4732.5	4733.0	0.5
M	129,450	403	3,343	2.8	4732.9	4732.9	4733.3	0.4
N	130,535	256	2,571	3.6	4733.2	4733.2	4733.6	0.4
O	132,023	218	1,900	4.8	4733.6	4733.6	4733.9	0.3
P	132,504	235	2,460	3.7	4733.8	4733.8	4734.3	0.5
Q	134,738	242	2,336	3.8	4734.3	4734.3	4734.8	0.5
R	135,344	338	3,214	2.7	4734.5	4734.5	4735.0	0.5
S	135,459	294	1,682	5.2	4734.5	4734.5	4735.0	0.5
T	135,494	316	1,818	4.8	4734.8	4734.8	4735.2	0.4
U	135,588	315	1,688	5.2	4734.9	4734.9	4735.3	0.4

[1]FEET UPSTREAM OF APPROXIMATELY 6,700 FEET UPSTREAM OF PACKER JOHN STATE FOREST. PACKER JOHN STATE FOREST IS LOCATED APPROXIMATELY 33,800 FEET DOWNSTREAM OF SMITHS FERRY DRIVE

Table 24: Floodway Data *(continued)*

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
V	135,613	317	1,853	4.8	4735.1	4735.1	4735.4	0.3
W	135,658	296	1,933	4.6	4735.2	4735.2	4735.5	0.3
X	135,734	331	2,016	4.4	4735.3	4735.3	4735.7	0.4
Y	135,901	249	2,185	4.0	4735.5	4735.5	4735.8	0.3
Z	136,083	187	1,545	5.7	4735.5	4735.5	4735.8	0.3
AA	136,190	145	1,438	6.1	4739.5	4739.5	4739.5	0.0
AB	136,398	109	1,131	7.8	4739.6	4739.6	4739.6	0.0
AC	136,913	395	3,439	2.8	4740.6	4740.6	4740.6	0.0
AD	139,734	990	6,564	1.3	4740.9	4740.9	4741.0	0.1
AE	142,045	369	6,130	1.4	4741.1	4741.1	4741.3	0.2
AF	142,527	433	6,966	1.9	4741.1	4741.1	4741.3	0.2
AG	142,877	64	695	12.7	4741.2	4741.2	4741.5	0.3
AH	143,077	67	828	10.6	4743.2	4743.2	4743.2	0.0
AI	143,231	62	730	11.9	4743.4	4743.4	4743.5	0.1

[1]FEET UPSTREAM OF APPROXIMATELY 6,700 FEET UPSTREAM OF PACKER JOHN STATE FOREST. PACKER JOHN STATE FOREST IS LOCATED APPROXIMATELY 33,800 FEET DOWNSTREAM OF SMITHS FERRY DRIVE

Table 24: Floodway Data *(continued)*

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
AJ	80,808	156	950	5.8	4897.2	4897.2	4897.2	0.0
AK	81,694	282	1,390	4.0	4898.4	4898.4	4898.4	0.0
AL	83,076	781	2,593	2.1	4899.8	4899.8	4899.9	0.1
AM	84,204	1,022	2,578	2.1	4901.0	4901.0	4901.0	0.0
AN	84,717	876	2,031	2.7	4901.6	4901.6	4901.7	0.1
AO	85,743	1,264	3,664	1.5	4902.8	4902.8	4902.9	0.1
AP	86,315	795	2,212	2.5	4903.4	4903.4	4903.5	0.1
AQ	87,178	123	672	8.2	4904.3	4904.3	4905.0	0.7
AR	87,966	365	1,501	3.7	4907.5	4907.5	4907.7	0.2
AS	88,581	277	1,155	4.8	4908.5	4908.5	4908.6	0.1
AT	88,906	210	980	5.6	4909.1	4909.1	4909.2	0.1
AU	89,334	466	1,502	3.7	4910.1	4910.1	4910.2	0.1
AV	89,895	566	1,624	4.1	4910.6	4910.6	4911.2	0.6
AW	90,607	420	1,418	3.9	4912.5	4912.5	4912.6	0.1
AX	91,159	795	1,922	2.9	4913.3	4913.3	4913.5	0.2
AY	91,700	437	1,587	3.5	4914.0	4914.0	4914.1	0.1
AZ	93,144	300	1,317	4.2	4915.1	4915.1	4915.3	0.2
BA	93,545	152	1,221	4.5	4915.3	4915.3	4915.6	0.3
BB	94,316	136	891	6.2	4916.0	4916.0	4916.2	0.2
BC	94,783	132	782	7.0	4917.0	4917.0	4917.1	0.1
BD	95,343	207	801	6.9	4918.6	4918.6	4918.7	0.1

[1]FEET UPSTREAM OF CONFLUENCE WITH CASCADE RESERVOIR. CASCADE RESERVOIR IS LOCATED APPROXIMATELY 25,600 FEET DOWNSTREAM OF SMYLIE LANE

Table 24: Floodway Data *(continued)*

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
BE	95,613	244	1,080	5.1	4919.8	4919.8	4919.8	0.0
BF	96,332	290	1,261	4.4	4921.0	4921.0	4921.1	0.1
BG	96,622	146	807	6.8	4921.3	4921.3	4921.4	0.1
BH	97,366	142	862	6.0	4923.2	4923.2	4923.3	0.1
BI	98,035	164	866	6.0	4924.0	4924.0	4924.5	0.5
BJ	98,454	156	1,101	4.7	4924.6	4924.6	4925.3	0.7
BK	98,806	207	1,414	3.7	4925.2	4925.2	4925.8	0.6
BL	99,106	173	852	6.1	4925.5	4925.5	4926.0	0.5
BM	100,184	123	654	7.9	4928.2	4928.2	4928.3	0.1
BN	100,560	272	939	5.5	4929.7	4929.7	4929.7	0.0
BO	100,870	222	902	5.8	4930.4	4930.4	4930.5	0.1
BP	101,345	472	1,569	3.3	4931.5	4931.5	4931.8	0.3
BQ	101,650	363	1,276	4.1	4932.1	4932.1	4932.2	0.1
BR	102,081	324	1,172	4.4	4932.9	4932.9	4933.0	0.1
BS	102,765	548	1,472	3.5	4934.4	4934.4	4934.4	0.0
BT	103,372	390	1,179	4.4	4935.7	4935.7	4935.7	0.0
BU	104,050	183	831	6.3	4937.2	4937.2	4937.3	0.1
BV	104,619	106	627	8.3	4938.8	4938.8	4938.8	0.0
BW	104,843	128	766	6.8	4940.1	4940.1	4940.1	0.0
BX	105,111	123	697	7.5	4940.9	4940.9	4941.0	0.1
BY	105,364	104	605	8.6	4941.9	4941.9	4942.0	0.1

[1]FEET UPSTREAM OF CONFLUENCE WITH CASCADE RESERVOIR. CASCADE RESERVOIR IS LOCATED APPROXIMATELY 25,600 FEET DOWNSTREAM OF SMYLIE LANE

TABLE 24

FEDERAL EMERGENCY MANAGEMENT AGENCY

VALLEY COUNTY, IDAHO

AND INCORPORATED AREAS

FLOODWAY DATA

NORTH FORK PAYETTE RIVER

Table 24: Floodway Data *(continued)*

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
BZ	105,870	94	601	8.7	4944.5	4944.5	4944.6	0.1
CA	106,224	101	689	7.5	4946.3	4946.3	4946.4	0.1
CB	106,703	114	626	8.3	4948.0	4948.0	4948.0	0.0
CC	107,487	109	638	8.1	4951.1	4951.1	4951.2	0.1
CD	107,988	98	585	8.9	4953.0	4953.0	4953.1	0.1
CE	108,517	96	511	10.2	4955.9	4955.9	4956.0	0.1
CF	108,958	97	519	10.0	4959.2	4959.2	4959.2	0.0
CG	109,611	107	558	9.3	4963.8	4963.8	4963.9	0.1
CH	110,007	145	722	7.2	4966.4	4966.4	4966.4	0.0
CI	110,400	145	761	6.8	4967.8	4967.8	4967.8	0.0
CJ	111,060	163	746	7.0	4969.9	4969.9	4969.9	0.0
CK	111,437	139	730	7.1	4971.2	4971.2	4971.2	0.0
CL	111,967	109	513	10.1	4973.1	4973.1	4973.1	0.0
CM	112,338	106	532	9.8	4975.8	4975.8	4975.9	0.1
CN	112,680	88	449	11.6	4978.0	4978.0	4978.1	0.1
CO	113,291	86	521	9.8	4982.8	4982.8	4982.9	0.1
CP	113,703	82	481	10.6	4984.9	4984.9	4985.0	0.1
CQ	114,123	127	686	7.4	4987.9	4987.9	4987.9	0.0
CR	114,327	138	842	6.1	4989.1	4989.1	4989.1	0.0
CS	114,586	144	1,034	4.9	4989.6	4989.6	4989.7	0.1
CT	114,831	113	772	6.6	4989.8	4989.8	4989.8	0.0

[1]FEET UPSTREAM OF CONFLUENCE WITH CASCADE RESERVOIR. CASCADE RESERVOIR IS LOCATED APPROXIMATELY 25,600 FEET DOWNSTREAM OF SMYLIE LANE

TABLE 24

FEDERAL EMERGENCY MANAGEMENT AGENCY

VALLEY COUNTY, IDAHO

AND INCORPORATED AREAS

FLOODWAY DATA

NORTH FORK PAYETTE RIVER

Table 25: Flood Hazard and Non-Encroachment Data for Selected Streams
[Not Applicable to this Flood Risk Project]

6.4 Coastal Flood Hazard Mapping

This section is not applicable to this Flood Risk Project.

Table 26: Summary of Coastal Transect Mapping Considerations
[Not Applicable to this Flood Risk Project]

6.5 FIRM Revisions

This FIS Report and the FIRM are based on the most up-to-date information available to FEMA at the time of its publication; however, flood hazard conditions change over time. Communities or private parties may request flood map revisions at any time. Certain types of requests require submission of supporting data. FEMA may also initiate a revision. Revisions may take several forms, including Letters of Map Amendment (LOMAs), Letters of Map Revision Based on Fill (LOMR-Fs), Letters of Map Revision (LOMRs) (referred to collectively as Letters of Map Change (LOMCs)), Physical Map Revisions (PMRs), and FEMA-contracted restudies. These types of revisions are further described below. Some of these types of revisions do not result in the republishing of the FIS Report. To assure that any user is aware of all revisions, it is advisable to contact the community repository of flood-hazard data (shown in Table 31, "Map Repositories").

6.5.1 Letters of Map Amendment

A LOMA is an official revision by letter to an effective NFIP map. A LOMA results from an administrative process that involves the review of scientific or technical data submitted by the owner or lessee of property who believes the property has incorrectly been included in a designated SFHA. A LOMA amends the currently effective FEMA map and establishes that a specific property is not located in a SFHA. A LOMA cannot be issued for properties located on the PFD (primary frontal dune).

To obtain an application for a LOMA, visit http://www.fema.gov/floodplain-management/letter-map-amendment-loma and download the form "MT-1 Application Forms and Instructions for Conditional and Final Letters of Map Amendment and Letters of Map Revision Based on Fill". Visit the "Flood Map-Related Fees" section to determine the cost, if any, of applying for a LOMA.

FEMA offers a tutorial on how to apply for a LOMA. The LOMA Tutorial Series can be accessed at http://www.fema.gov/online-tutorials.

For more information about how to apply for a LOMA, call the FEMA Map Information eXchange; toll free, at 1-877-FEMA MAP (1-877-336-2627).

6.5.2 Letters of Map Revision Based on Fill

A LOMR-F is an official revision by letter to an effective NFIP map. A LOMR-F states FEMA's determination concerning whether a structure or parcel has been elevated on fill above the base flood elevation and is, therefore, excluded from the SFHA.

Information about obtaining an application for a LOMR-F can be obtained in the same manner as that for a LOMA, by visiting www.fema.gov/floodplain-management/letter-map-amendment-loma for the "MT-1 Application Forms and Instructions for Conditional and Final Letters of Map Amendment and Letters of Map Revision Based on Fill" or by calling the FEMA Map Information eXchange, toll free, at 1-877-FEMA MAP (1-877-336-2627). Fees for applying for a LOMR-F, if any, are listed in the "Flood Map-Related Fees" section.

A tutorial for LOMR-F is available at www.fema.gov/online-tutorials.

6.5.3 Letters of Map Revision

A LOMR is an official revision to the currently effective FEMA map. It is used to change flood zones, floodplain and floodway delineations, flood elevations and planimetric features. All requests for LOMRs should be made to FEMA through the chief executive officer of the community, since it is the community that must adopt any changes and revisions to the map. If the request for a LOMR is not submitted through the chief executive officer of the community, evidence must be submitted that the community has been notified of the request.

To obtain an application for a LOMR, visit www.fema.gov/national-flood-insurance-program-flood-hazard-mapping/mt-2-application-forms-and-instructions and download the form "MT-2 Application Forms and Instructions for Conditional Letters of Map Revision and Letters of Map Revision". Visit the "Flood Map-Related Fees" section to determine the cost of applying for a LOMR. For more information about how to apply for a LOMR, call the FEMA Map Information eXchange; toll free, at 1-877-FEMA MAP (1-877-336-2627) to speak to a Map Specialist.

Previously issued mappable LOMCs (including LOMRs) that have been incorporated into the Valley County FIRM are listed in Table 27.

Table 27: Incorporated Letters of Map Change

Case Number	Effective Date	Flooding Source	FIRM Panel(s)
10-10-0010P	08-21-2010	Gold Fork River	16085C1325B
16-10-0166P	04-22-2016	Boulder Creek	16085C1302B

6.5.4 Physical Map Revisions

Physical Map Revisions (PMRs) are an official republication of a community's NFIP map to effect changes to base flood elevations, floodplain boundary delineations, regulatory floodways and planimetric features. These changes typically occur as a result of structural works or improvements, annexations resulting in additional flood hazard areas or correction to base flood elevations or SFHAs.

The community's chief executive officer must submit scientific and technical data to FEMA to support the request for a PMR. The data will be analyzed and the map will be revised if warranted. The community is provided with copies of the revised information and is afforded a review period. When the base flood elevations are changed, a 90-day appeal period is provided. A 6-month adoption period for formal approval of the revised map(s) is also provided.

For more information about the PMR process, please visit www.fema.gov and visit the "Flood Map Revision Processes" section.

6.5.5 Contracted Restudies

The NFIP provides for a periodic review and restudy of flood hazards within a given community. FEMA accomplishes this through a national watershed-based mapping needs assessment strategy, known as the Coordinated Needs Management Strategy (CNMS). The CNMS is used by FEMA to assign priorities and allocate funding for new flood hazard analyses used to update the FIS Report and FIRM. The goal of CNMS is to define the validity of the engineering study data within a mapped inventory. The CNMS is used to track the assessment process, document engineering gaps and their resolution, and aid in prioritization for using flood risk as a key factor for areas identified for flood map updates. Visit www.fema.gov to learn more about the CNMS or contact the FEMA Regional Office listed in Section 8 of this FIS Report.

6.5.6 Community Map History

The current FIRM presents flooding information for the entire geographic area of Valley County. Previously, separate FIRMs, Flood Hazard Boundary Maps (FHBMs) and/or Flood Boundary and Floodway Maps (FBFMs) may have been prepared for the incorporated communities and the unincorporated areas in the county that had identified SFHAs. Current and historical data relating to the maps prepared for the project area are presented in Table 28, "Community Map History." A description of each of the column headings and the source of the date is also listed below.

- *Community Name* includes communities falling within the geographic area shown on the FIRM, including those that fall on the boundary line, nonparticipating communities, and communities with maps that have been rescinded. Communities with No Special Flood Hazards are indicated by a footnote. If all maps (FHBM, FBFM, and FIRM) were rescinded for a community, it is not listed in this table unless SFHAs have been identified in this community.

- *Initial Identification Date (First NFIP Map Published)* is the date of the first NFIP map that identified flood hazards in the community. If the FHBM has been converted to a FIRM, the initial FHBM date is shown. If the community has never been mapped, the upcoming effective date or "pending" (for Preliminary FIS Reports) is shown. If the community is listed in Table 28 but not identified on the map, the community is treated as if it were unmapped.

- *Initial FHBM Effective Date* is the effective date of the first Flood Hazard Boundary Map (FHBM). This date may be the same date as the Initial NFIP Map Date.

- *FHBM Revision Date(s)* is the date(s) that the FHBM was revised, if applicable.

- *Initial FIRM Effective Date* is the date of the first effective FIRM for the community. This is the first effective date that is shown on the FIRM panel.

- *FIRM Revision Date(s)* is the date(s) the FIRM was revised, if applicable. This is the revised date that is shown on the FIRM panel, if applicable. As countywide studies are completed or revised, each community listed should have its FIRM dates updated accordingly to reflect the date of the countywide study. Once the FIRMs exist in countywide format, as Physical Map Revisions (PMR) of FIRM panels within the county are completed, the FIRM Revision Dates in the table for each community affected by the PMR are updated with the date of the PMR, even if the PMR did not revise all the panels within that community.

The initial effective date for the Valley County FIRMs in countywide format was TBD.

Table 28: Community Map History

Community Name	Initial Identification Date (First NFIP Map Published)	Initial FHBM Effective Date	FHBM Revision Date(s)	Initial FIRM Effective Date	FIRM Revision Date(s)
Cascade, City of	09/19/1975	09/19/1975	N/A	09/15/1989	TBD
Donnelly, City of	09/06/1974	09/06/1974	N/A	04/15/1977	TBD
McCall, City of	09/5/1975	09/05/1975	N/A	04/17/1989	TBD
Valley County, Unincorporated Areas	09/05/1990	N/A	N/A	09/05/1990	TBD

SECTION 7.0 – CONTRACTED STUDIES AND COMMUNITY COORDINATION

7.1 Contracted Studies

Table 29 provides a summary of the contracted studies, by flooding source, that are included in this FIS Report.

Table 29: Summary of Contracted Studies Included in this FIS Report

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
Beaver Creek	TBD	STARR	HSFEHQ-09-D-0370	4/17/2013	Valley County, Unincorporated Areas
Boulder Creek	TBD	STARR	HSFEHQ-09-D-0370	4/17/2013	Valley County, Unincorporated Areas
Gold Fork River	TBD	STARR	HSFEHQ-09-D-0370	4/17/2013	Valley County, Unincorporated Areas
Lake Fork	TBD	STARR	HSFEHQ-09-D-0370	4/17/2013	Valley County, Unincorporated Areas
Mud Creek	TBD	STARR	HSFEHQ-09-D-0370	4/17/2013	Valley County, Unincorporated Areas
North Fork Payette River	TBD	STARR	HSFEHQ-09-D-0370	4/17/2013	Cascade, City of; McCall, City of; Valley County, Unincorporated Areas

Table 29: Summary of Contracted Studies Included in this FIS Report *(continued)*

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
Tributary to Williams Creek	TBD	STARR	HSFEHQ-09-D-0370	4/17/2013	McCall, City of; Valley County, Unincorporated Areas
Unnamed Stream 1	TBD	STARR	HSFEHQ-09-D-0370	4/17/2013	Valley County, Unincorporated Areas
Unnamed Stream 2	TBD	STARR	HSFEHQ-09-D-0370	4/17/2013	Valley County, Unincorporated Areas
Unnamed Stream 3	TBD	STARR	HSFEHQ-09-D-0370	4/17/2013	Valley County, Unincorporated Areas
Unnamed Stream 4	TBD	STARR	HSFEHQ-09-D-0370	4/17/2013	Valley County, Unincorporated Areas
Unnamed Stream 5	TBD	STARR	HSFEHQ-09-D-0370	4/17/2013	McCall, City of; Valley County, Unincorporated Areas
Williams Creek	TBD	STARR	HSFEHQ-09-D-0370	4/17/2013	McCall, City of; Valley County, Unincorporated Areas
Willow Creek	TBD	STARR	HSFEHQ-09-D-0370	4/17/2013	Valley County, Unincorporated Areas

7.2 Community Meetings

The dates of the community meetings held for this Flood Risk Project and any previous Flood Risk Projects are shown in Table 30. These meetings may have previously been referred to by a variety of names (Community Coordination Officer (CCO), Scoping, Discovery, etc.), but all meetings represent opportunities for FEMA, community officials, study contractors, and other invited guests to discuss the planning for and results of the project.

Table 30: Community Meetings

Community	FIS Report Dated	Date of Meeting	Meeting Type	Attended By
Cascade, City of	08/08/88	09/15/09	Scoping	FEMA, City of Cascade, City of Donnelly, City of McCall, Idaho Department of Water Resources (IDWR), Strategic Alliance for Risk Reduction (STARR), and Valley County, Unincorporated Areas
		07/16/14	Flood Study Review (FSR)	FEMA, City of Cascade, City of McCall, Idaho Bureau of Homeland Security (IBHS), IDWR, STARR, and Valley County, Unincorporated Areas
		TBD	Resilience	TBD
		TBD	CCO Meeting	TBD
Donnelly, City of	08/08/88	09/15/09	Scoping	FEMA, City of Cascade, City of Donnelly, City of McCall, IDWR, STARR, and Valley County, Unincorporated Areas
		07/16/14	FSR	FEMA, City of Cascade, City of McCall, IBHS, IDWR, STARR, and Valley County, Unincorporated Areas
		TBD	Resilience	TBD
		TBD	CCO Meeting	TBD
McCall, City of	08/08/88	09/15/09	Scoping	FEMA, City of Cascade, City of Donnelly, City of McCall, IDWR, STARR, and Valley County, Unincorporated Areas
		07/16/14	FSR	FEMA, City of Cascade, City of McCall, IBHS, IDWR, STARR, and Valley County, Unincorporated Areas
		TBD	Resilience	TBD

Table 30: Community Meetings *(continued)*

Community	FIS Report Dated	Date of Meeting	Meeting Type	Attended By
		TBD	CCO Meeting	TBD
Valley County, Unincorporated Areas	08/08/88	09/15/09	Scoping	FEMA, City of Cascade, City of Donnelly, City of McCall, IDWR, STARR, and Valley County, Unincorporated Areas
		07/16/14	FSR	FEMA, City of Cascade, City of McCall, IBHS, IDWR, STARR, and Valley County, Unincorporated Areas
		TBD	Resilience	TBD
		TBD	CCO Meeting	TBD

SECTION 8.0 – ADDITIONAL INFORMATION

Information concerning the pertinent data used in the preparation of this FIS Report can be obtained by submitting an order with any required payment to the FEMA Engineering Library. For more information on this process, see www.fema.gov.

Table 31 is a list of the locations where FIRMs for Valley County can be viewed. Please note that the maps at these locations are for reference only and are not for distribution. Also, please note that only the maps for the community listed in the table are available at that particular repository. A user may need to visit another repository to view maps from an adjacent community.

Table 31: Map Repositories

Community	Address	City	State	Zip Code
Cascade, City of	City Hall 105 South Main Street	Cascade	ID	83611
Donnelly, City of	City Hall 169 Halferty Street	Donnelly	ID	83615
McCall, City of	Public Works Building 815 North Sampson Trail	McCall	ID	83638
Valley County, Unincorporated Areas	Valley County Courthouse 219 North Main Street	Cascade	ID	83611

The National Flood Hazard Layer (NFHL) dataset is a compilation of effective FIRM databases and LOMCs. Together they create a GIS data layer for a State or Territory. The NFHL is updated as studies become effective and extracts are made available to the public monthly. NFHL data can be viewed or ordered from the website shown in Table 32.

Table 32 contains useful contact information regarding the FIS Report, the FIRM, and other relevant flood hazard and GIS data. In addition, information about the State NFIP Coordinator and GIS Coordinator is shown in this table. At the request of FEMA, each Governor has designated an agency of State or territorial government to coordinate that State's or territory's NFIP activities. These agencies often assist communities in developing and adopting necessary floodplain management measures. State GIS Coordinators are knowledgeable about the availability and location of State and local GIS data in their state.

Table 32: Additional Information

FEMA and the NFIP	
FEMA and FEMA Engineering Library website	www.fema.gov/national-flood-insurance-program-flood-hazard-mapping/engineering-library
NFIP website	www.fema.gov/national-flood-insurance-program
NFHL Dataset	msc.fema.gov

Table 32: Additional Information *(continued)*

FEMA Region X	Federal Regional Center, 130 228th Street SW. Bothell, WA 98021-9796 (425) 487-4657
Other Federal Agencies	
USGS website	www.usgs.gov
Hydraulic Engineering Center website	www.hec.usace.army.mil
State Agencies and Organizations	
State NFIP Coordinator	State National Floodplain Insurance Program (NFIP) Coordinator Maureen O'Shea, AICP, CFM Idaho Dept. of Water Resources 322 E. Front Street P.O. Box 83720 Boise, ID 83720-0098 Phone: 208-287-4928 FAX 208-287-6700 maureen.oshea@idwr.idaho.gov
State Risk MAP Coordinator	State Risk Mapping, Assessment and Planning (MAP) Coordinator Ryan McDaniel CFM, PMP Idaho Bureau of Homeland Security 4040 W. Guard Street Boise, ID 83705 Phone: 208-258-6593 rmcdaniel@bhs.idaho.gov
State GIS Coordinator	State GIS Coordinator Becky Rose GIS Section Chief Idaho Bureau of Homeland Security 4040 W. Guard Street Boise, ID 83705 Phone: 208-422-5747 brose@bhs.idaho.gov

SECTION 9.0 – BIBLIOGRAPHY AND REFERENCES

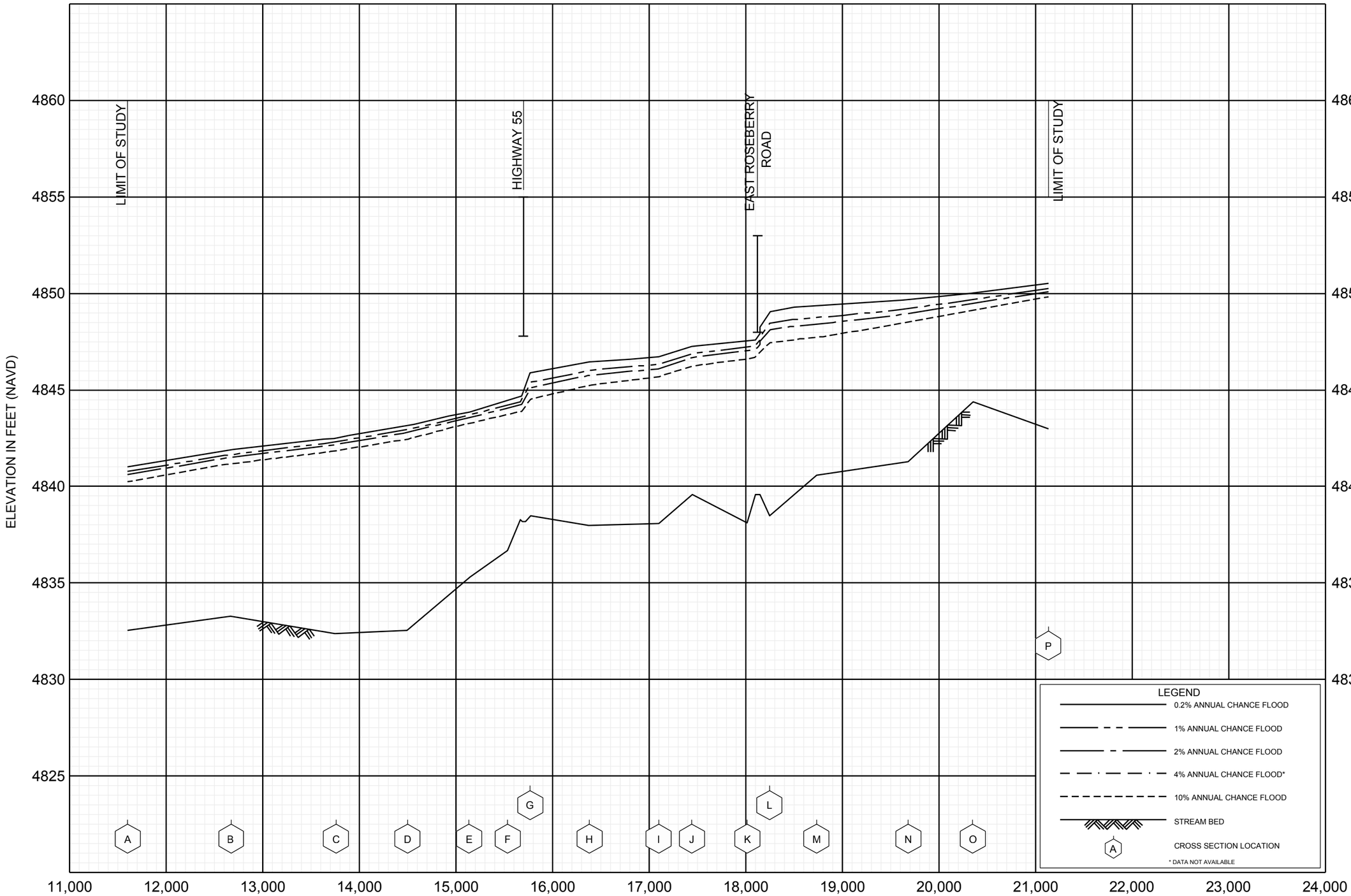
Table 33 includes sources used in the preparation of and cited in this FIS Report as well as additional studies that have been conducted in the study area.

Table 33: Bibliography and References

Citation in this FIS	Publisher/ Issuer	*Publication Title,* "Article," Volume, Number, etc.	Author/Editor	Place of Publication	Publication Date/ Date of Issuance	Link
STARR 2012	STARR	*LiDAR Data, Contour Interval 2 Feet*		Raleigh, NC	November 2012	FEMA Mapping Information Platform https://hazards.fema.gov/femaportal/wps/portal
USGS 2013	USGS	*National Elevation Dataset (NED)*	USGS	Sioux Falls, SD	November 2013	http://nationalmap.gov/viewer.html
	FEMA	*Flood Insurance Rate Map, Valley County, Idaho, Unincorporated Areas, Community-Panel Numbers: 1602200025A, 1602200325A, and 1602200475A*		Washington, D.C.	September 1990	FEMA Flood Map Service Center msc.fema.gov
	FEMA	*Flood Insurance Study, City of Cascade, Valley County, Idaho*		Washington, D.C.	September 1989	FEMA Flood Map Service Center msc.fema.gov
	FEMA	*Flood Insurance Study, City of McCall, Valley County, Idaho*		Washington, D.C.	April 1989	FEMA Flood Map Service Center msc.fema.gov
	FEMA	*Flood Insurance Study, Valley County, Idaho Unincorporated Areas*		Washington, D.C.	September 1990	FEMA Flood Map Service Center msc.fema.gov
	STARR	*Hydraulic Analysis Report, Valley County, ID – Countywide FIRM Study*		Lexington, KY	November 2015	FEMA Mapping Information Platform https://hazards.fema.gov/femaportal/wps/portal

Table 33: Bibliography and References *(continued)*

Citation in this FIS	Publisher/ Issuer	*Publication Title,* "Article," Volume, Number, etc.	Author/Editor	Place of Publication	Publication Date/ Date of Issuance	Link
	STARR	*Hydrologic Analysis Report, Valley County, ID – Countywide FIRM Study*		Lexington, KY	April 2013	FEMA Mapping Information Platform https://hazards.fema.gov/femaportal/wps/portal



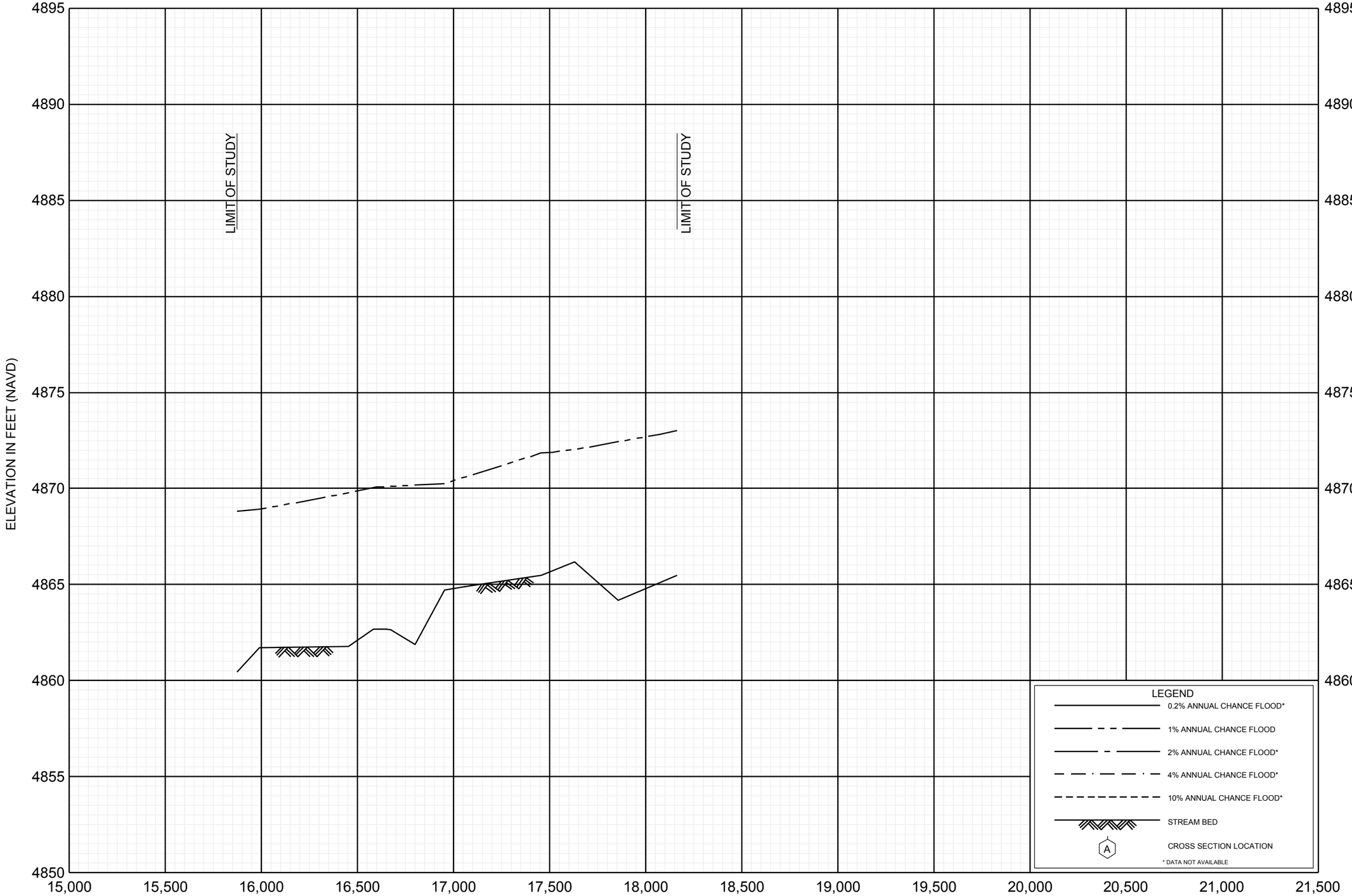
FLOOD PROFILES

BOULDER CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

VALLEY COUNTY, IDAHO
AND INCORPORATED AREAS

01P



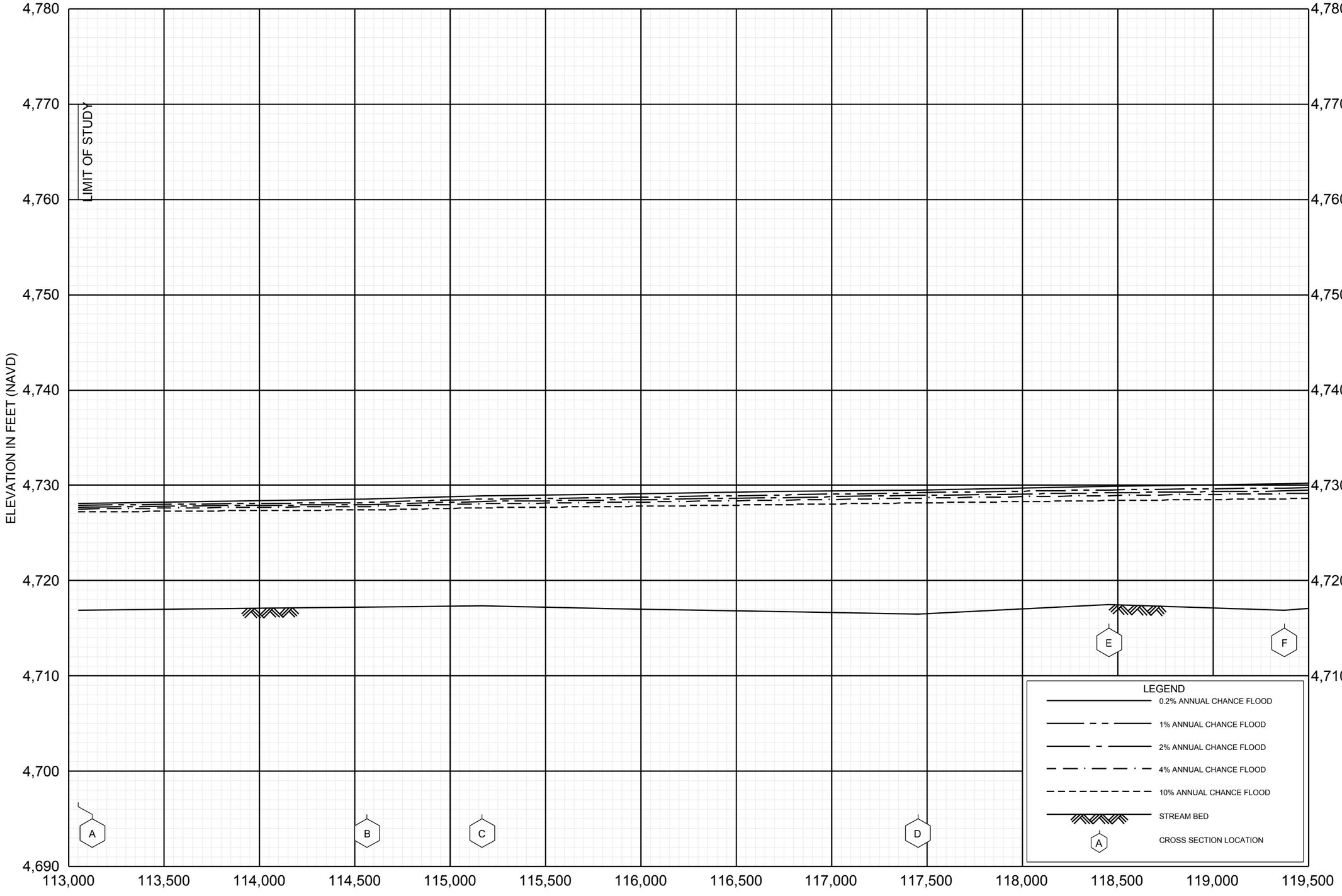
FLOOD PROFILES

GOLD FORK RIVER

FEDERAL EMERGENCY MANAGEMENT AGENCY

VALLEY COUNTY, IDAHO
AND INCORPORATED AREAS

02P



STREAM DISTANCE IN FEET UPSTREAM OF APPROXIMATELY 6,700 FEET UPSTREAM OF PACKER JOHN STATE FOREST
PACKER JOHN STATE FOREST IS LOCATED APPROXIMATELY 33,800 FEET DOWNSTREAM OF SMITHS FERRY DRIVE

FLOOD PROFILES

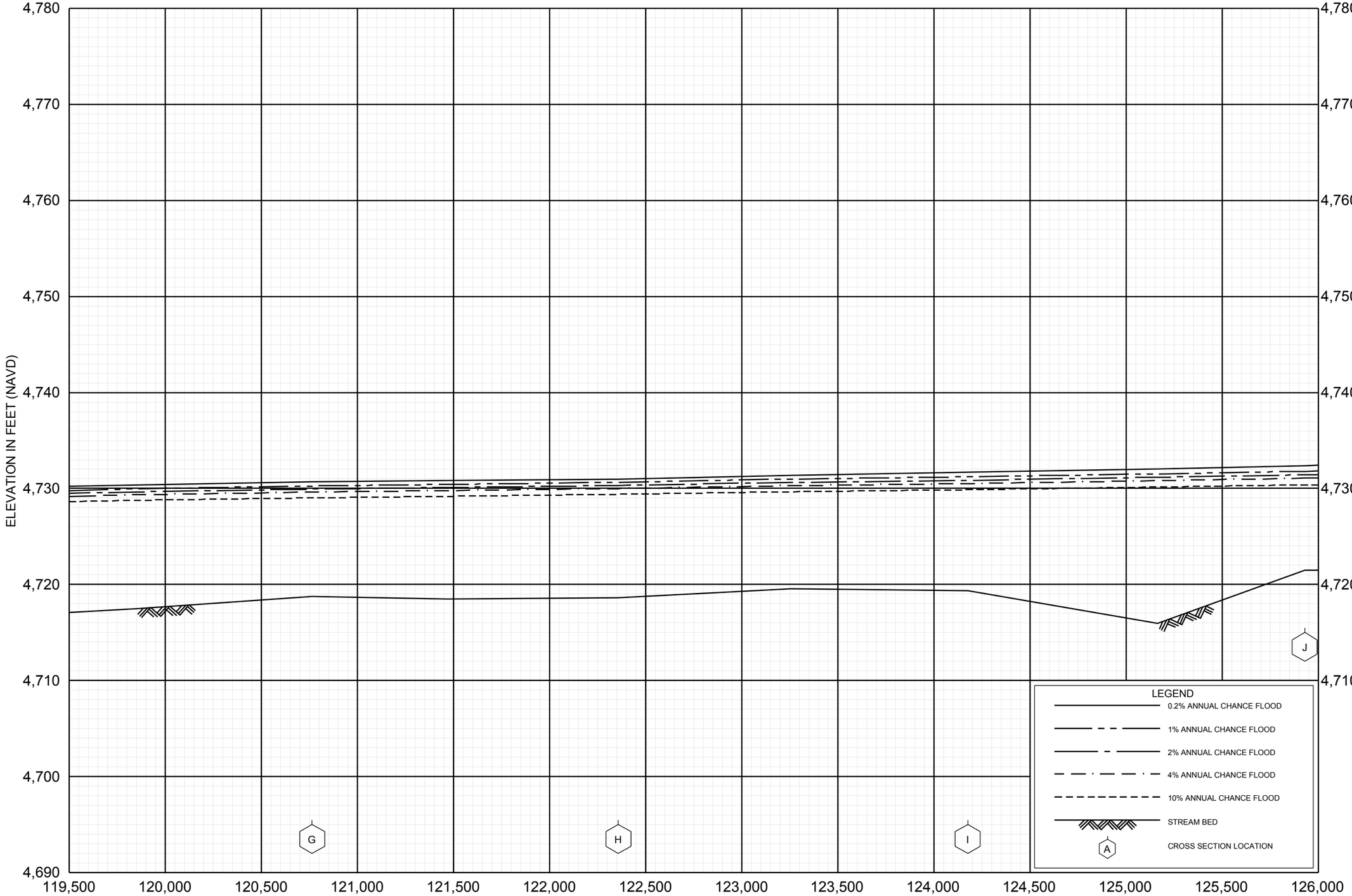
NORTH FORK PAYETTE RIVER

FEDERAL EMERGENCY MANAGEMENT AGENCY

VALLEY COUNTY, IDAHO

AND INCORPORATED AREAS

03P



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FLOOD PROFILES

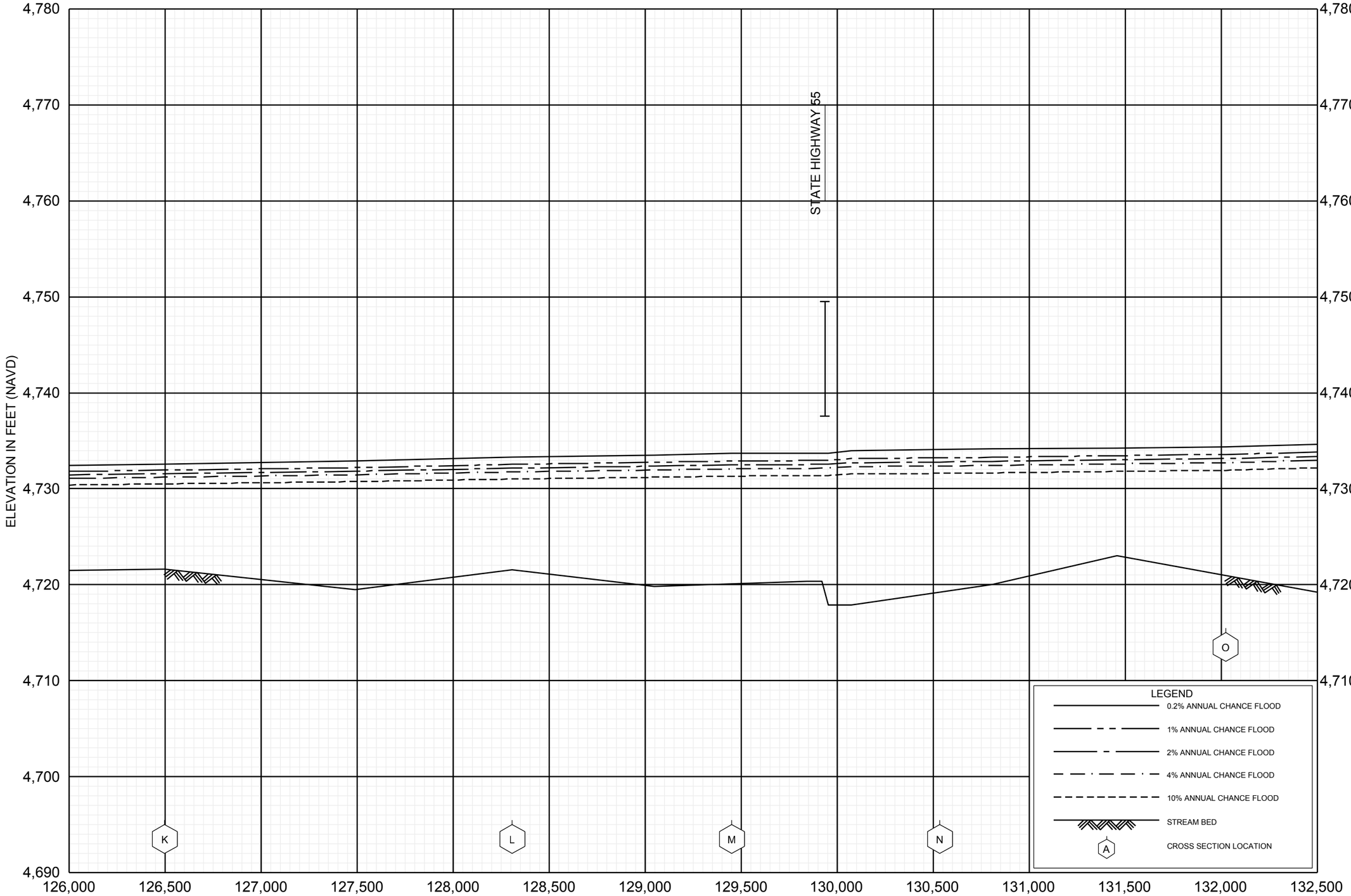
NORTH FORK PAYETTE RIVER

FEDERAL EMERGENCY MANAGEMENT AGENCY

VALLEY COUNTY, IDAHO

AND INCORPORATED AREAS

04P



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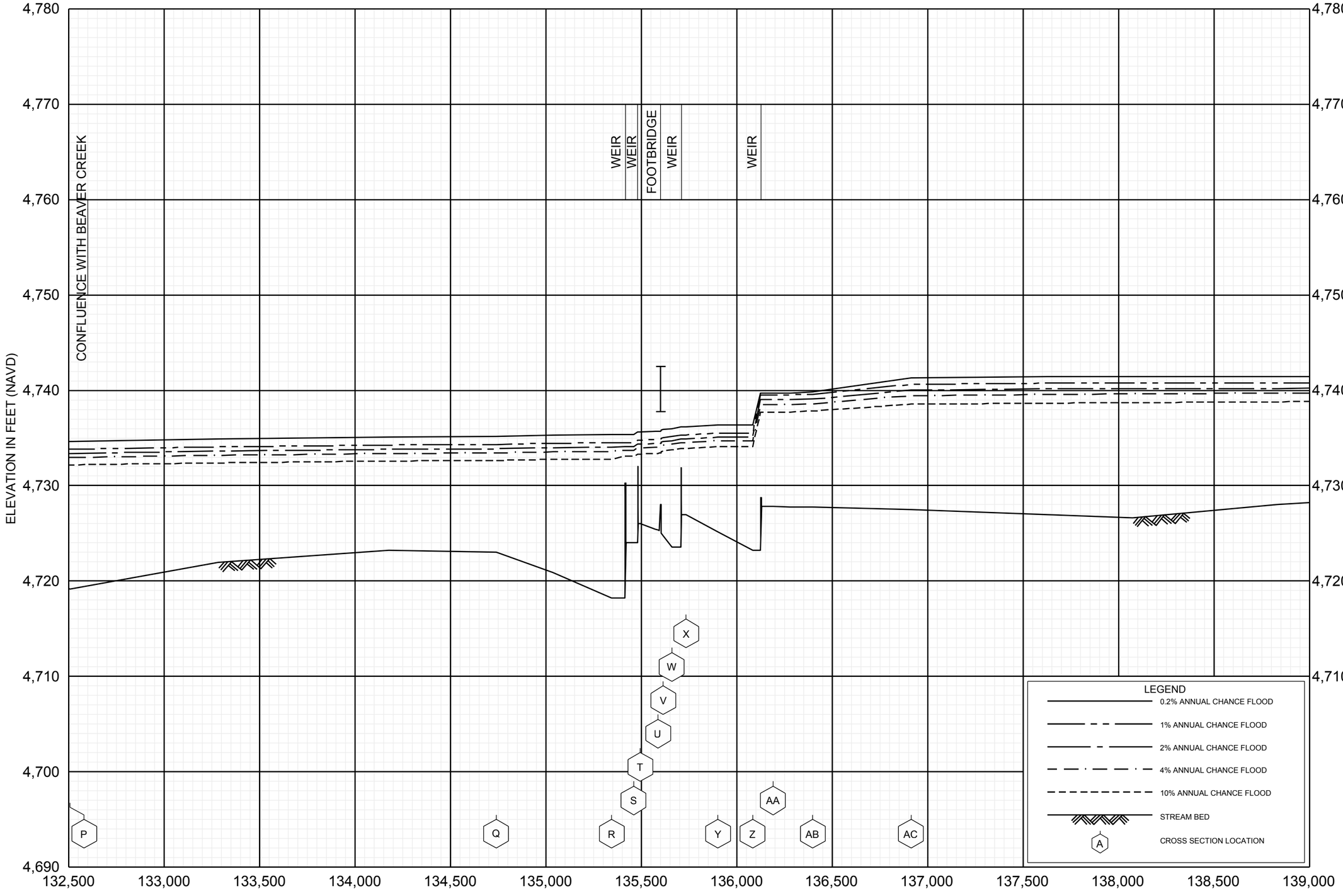
FLOOD PROFILES

NORTH FORK PAYETTE RIVER

FEDERAL EMERGENCY MANAGEMENT AGENCY

VALLEY COUNTY, IDAHO
AND INCORPORATED AREAS

05P



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FLOOD PROFILES

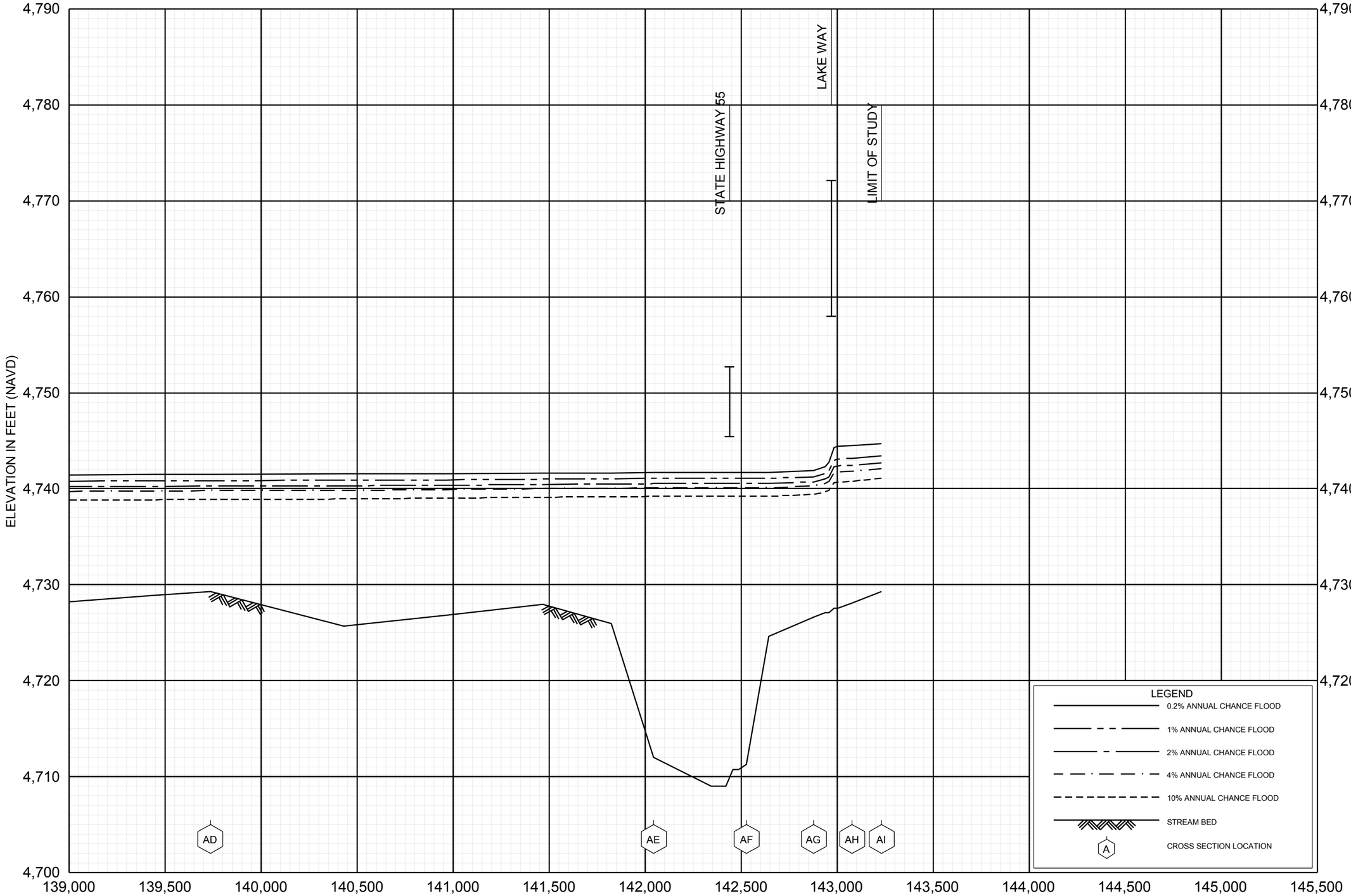
NORTH FORK PAYETTE RIVER

FEDERAL EMERGENCY MANAGEMENT AGENCY

VALLEY COUNTY, IDAHO

AND INCORPORATED AREAS

06P



FLOOD PROFILES

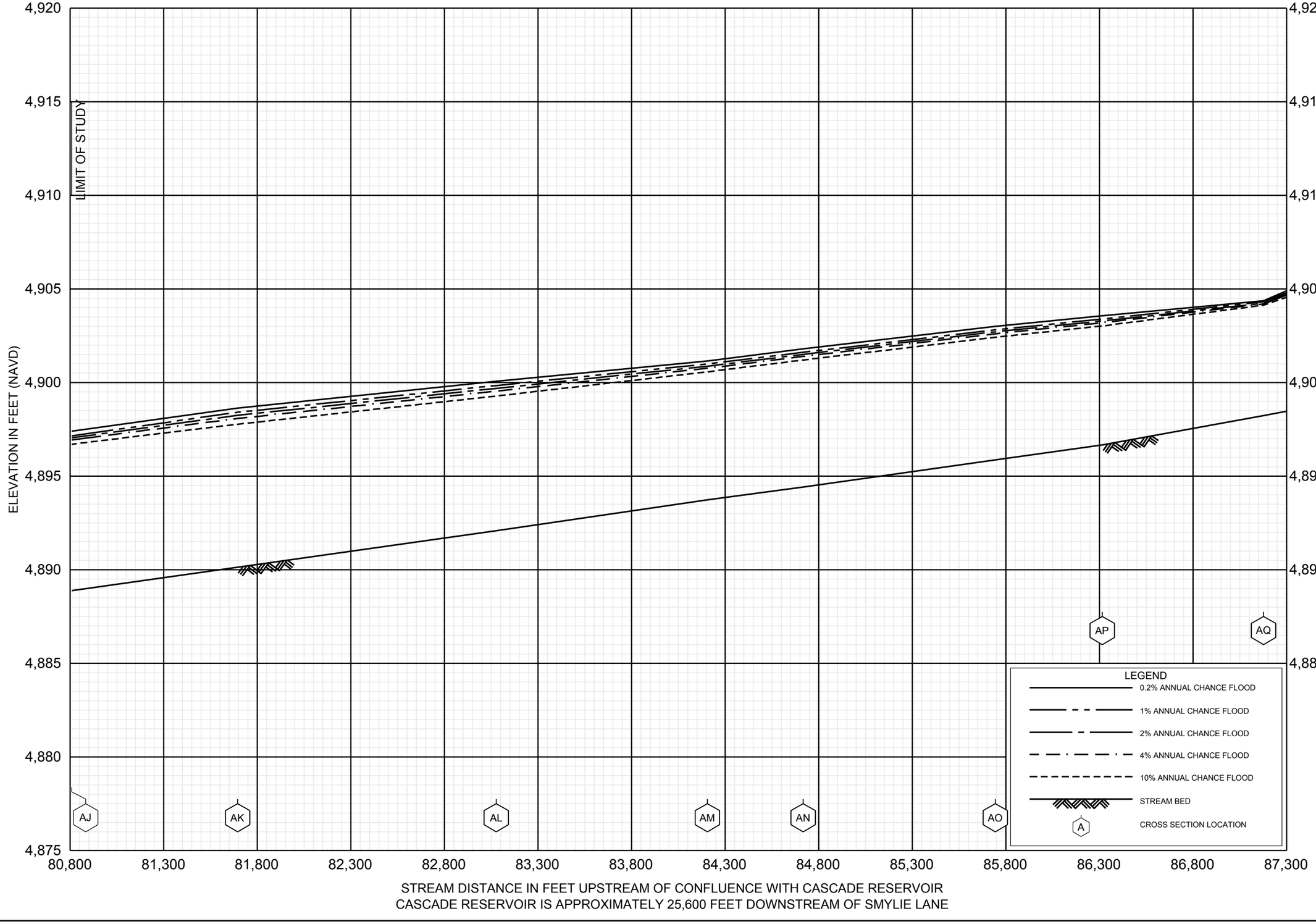
NORTH FORK PAYETTE RIVER

FEDERAL EMERGENCY MANAGEMENT AGENCY

VALLEY COUNTY, IDAHO

AND INCORPORATED AREAS

07P



FLOOD PROFILES

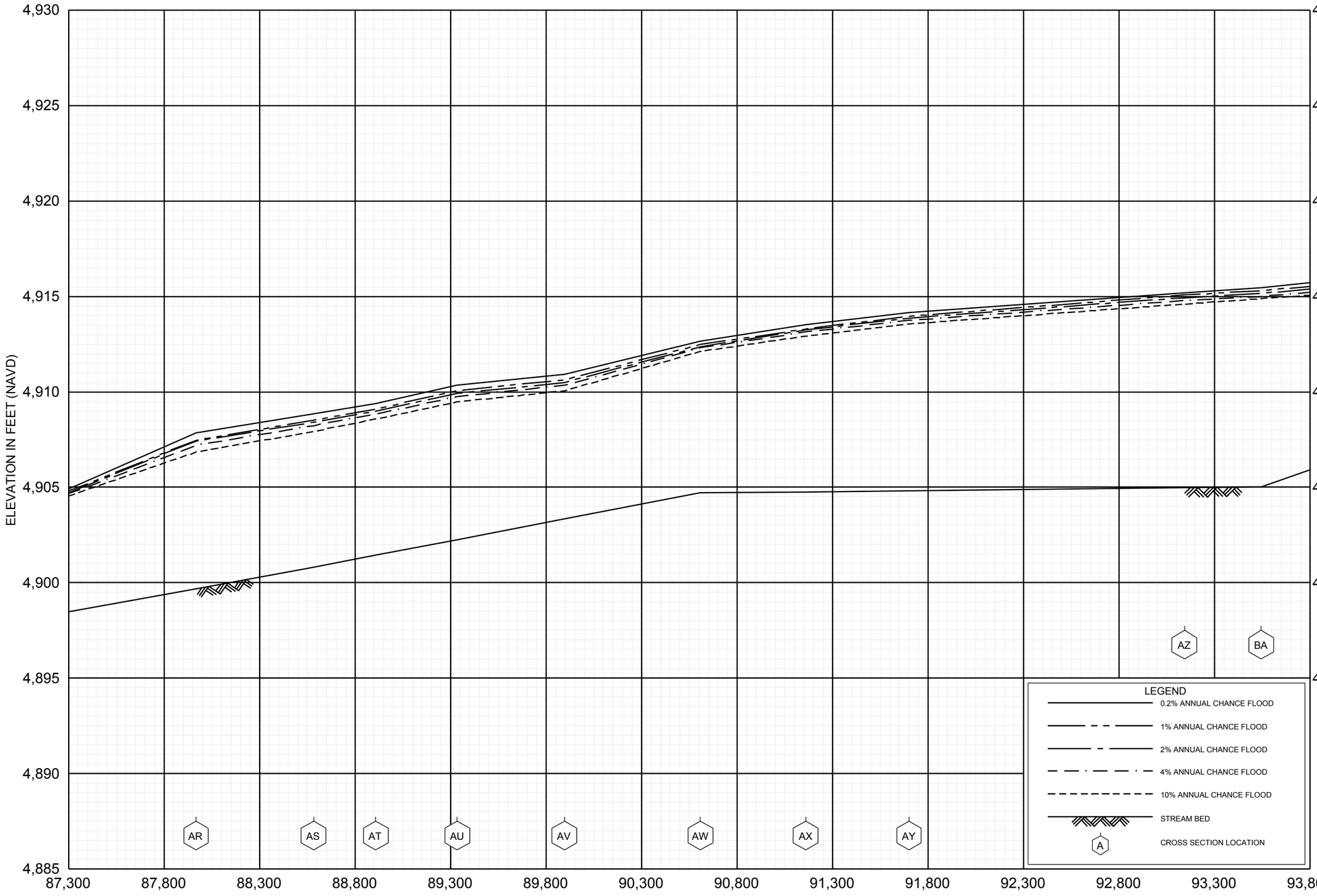
NORTH FORK PAYETTE RIVER

FEDERAL EMERGENCY MANAGEMENT AGENCY

VALLEY COUNTY, IDAHO

AND INCORPORATED AREAS

08P



FLOOD PROFILES

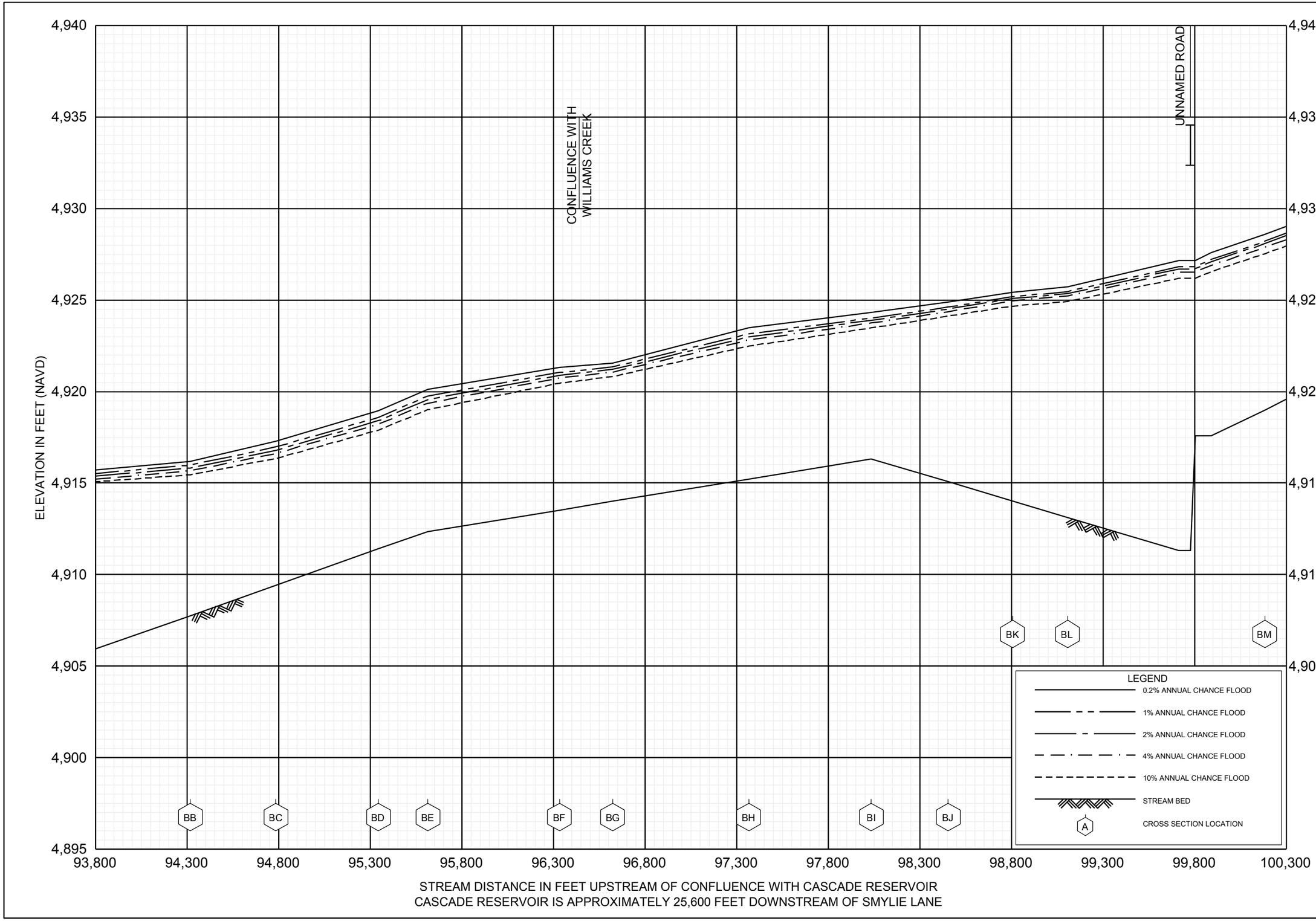
NORTH FORK PAYETTE RIVER

FEDERAL EMERGENCY MANAGEMENT AGENCY

VALLEY COUNTY, IDAHO

AND INCORPORATED AREAS

09P



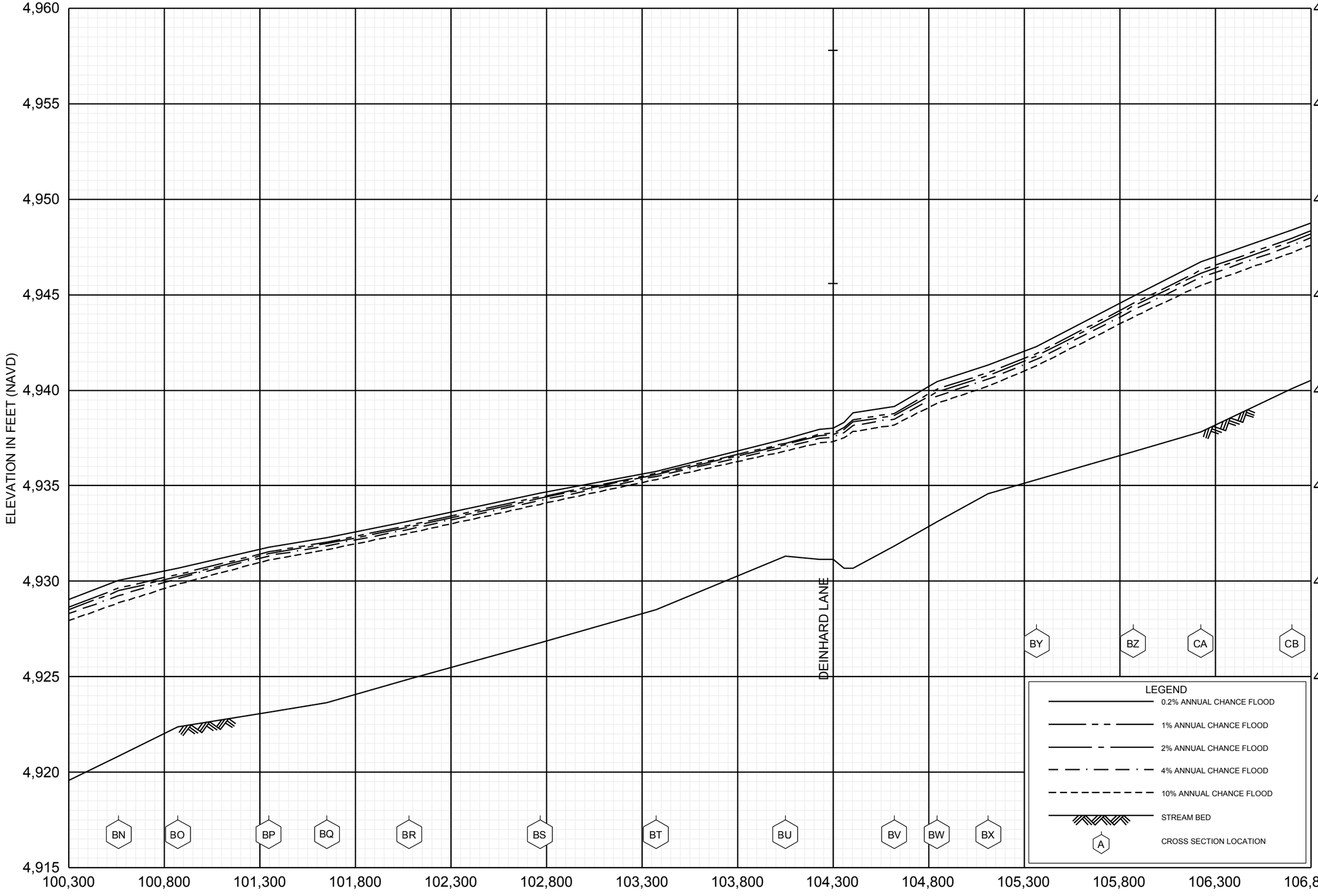
FLOOD PROFILES

NORTH FORK PAYETTE RIVER

FEDERAL EMERGENCY MANAGEMENT AGENCY

VALLEY COUNTY, IDAHO

AND INCORPORATED AREAS



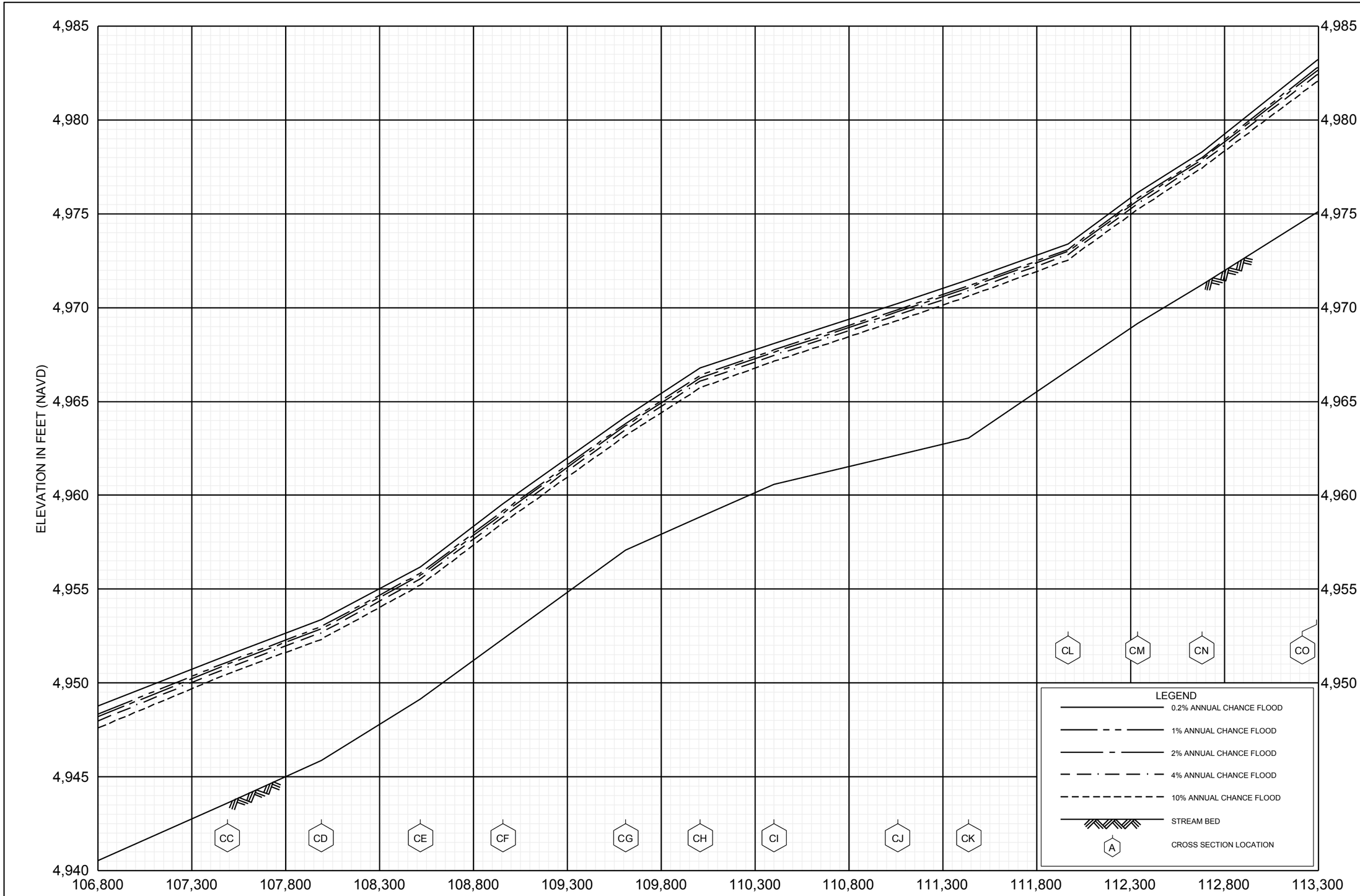
FLOOD PROFILES

NORTH FORK PAYETTE RIVER

FEDERAL EMERGENCY MANAGEMENT AGENCY

VALLEY COUNTY, IDAHO

AND INCORPORATED AREAS



STREAM DISTANCE IN FEET UPSTREAM OF CONFLUENCE WITH CASCADE RESERVOIR
CASCADE RESERVOIR IS APPROXIMATELY 25,600 FEET DOWNSTREAM OF SMYLIE LANE

FLOOD PROFILES

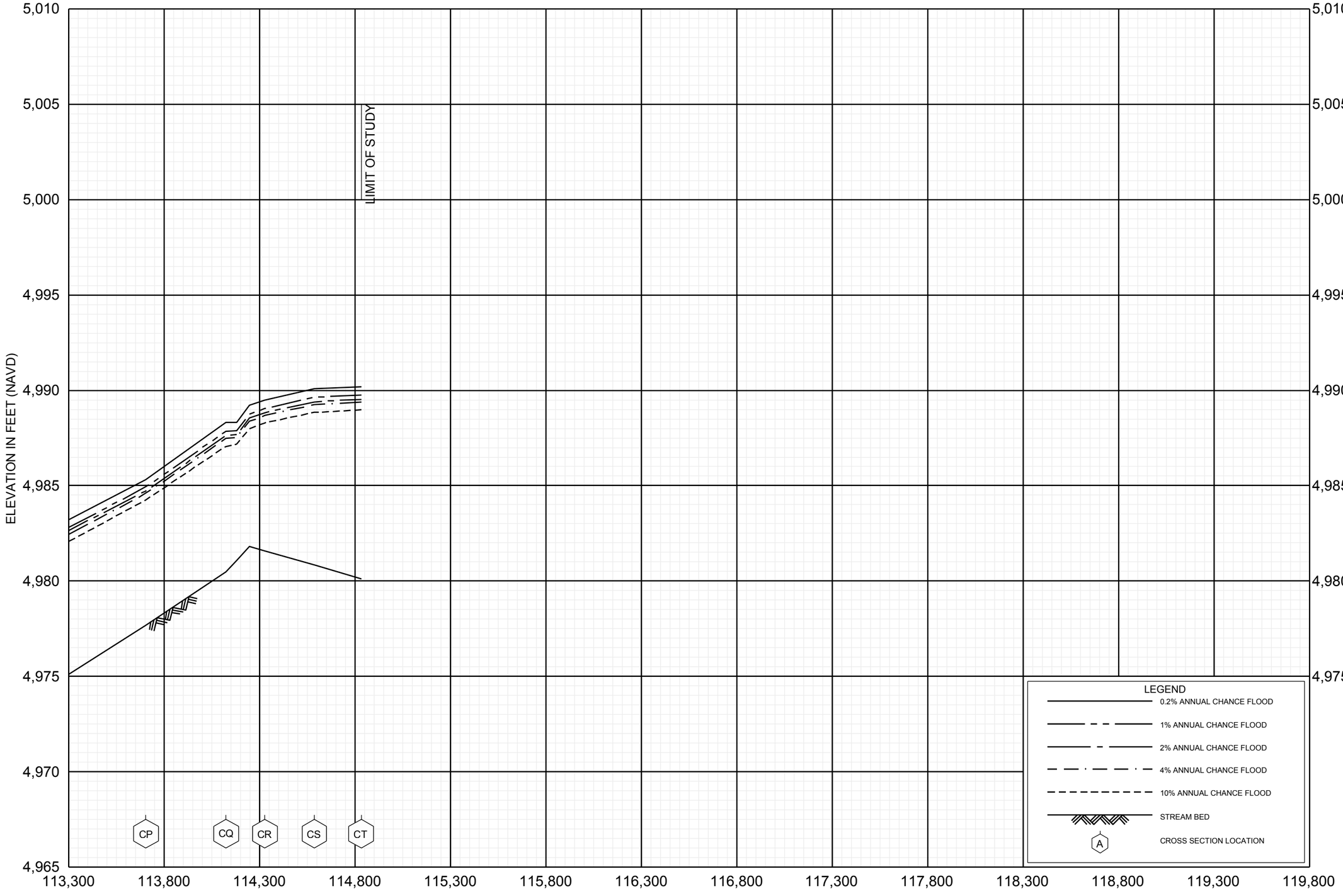
NORTH FORK PAYETTE RIVER

FEDERAL EMERGENCY MANAGEMENT AGENCY

VALLEY COUNTY, IDAHO

AND INCORPORATED AREAS

12P



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