FLOOD INSURANCE STUDY

FEDERAL EMERGENCY MANAGEMENT AGENCY

VOLUME 2 OF 4

MENDOCINO COUNTY, CALIFORNIA

AND INCORPORATED AREAS

COMMUNITY NAME	COMMUNITY NUMBER
FORT BRAGG, CITY OF	060184
MENDOCINO COUNTY UNINCORPORATED AREAS	060183
POINT ARENA, CITY OF	060185
UKIAH, CITY OF	060186
WILLITS, CITY OF	060187

*No Special Flood Hazard Areas

TRIBAL NATION**	TRIBAL NATION**
CAHTO TRIBE OF LAYTONVILLE RANCHERIA	PINOLEVILLE POMO NATION (060058)
COYOTE VALLEY BAND OF POMO INDIANS	POTTER VALLEY TRIBE
GUIDIVILLE RANCHERIA	REDWOOD VALLEY LITTLE RIVER BAND OF POMO INDIANS
HOPLAND BAND OF POMO INDIANS	ROUND VALLEY INDIAN TRIBES
MANCHESTER BAND OF POMO INDIANS	SHERWOOD VALLEY RANCHERIA OF POMO INDIANS

**Federally Recognized Tribal Nations

REVISED: September 19, 2025

FLOOD INSURANCE STUDY NUMBER

06045CV002D

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FEMA

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5.4 Alluvial Fan Analyses

This section is not applicable to this Flood Risk Project.

Table 17: Summary of Alluvial Fan Analyses

[Not Applicable to this Flood Risk Project]

Table 18: 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.

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 visit the NGS website at www.ngs.noaa.gov.

The datum conversion locations and values that were calculated for Mendocino County are provided in Table 19.

Table 19: Countywide Vertical Datum Conversion

[Not Applicable to this Flood Risk Project]

A countywide conversion factor could not be generated for Mendocino 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 20.

Table 20: Stream-Based Vertical Datum Conversion

Flooding Source	Average Vertical Datum Conversion Factor (feet)
Ackerman Creek	+2.88
Anderson Creek	+2.91
Baechtel Creek	+3.01
Berry Creek	+3.01
Broaddus Creek	+3.01
Davis Creek	+3.01
Doolin Creek	+2.87
East Fork Russian River	+2.86
Eel River	+2.96
Feliz Creek	+2.85
Forsythe Creek	+2.90
Gibson Creek	+2.88
Haehl Creek	+3.01
Hensley Creek	+2.88
Mill Creek (at Redwood Valley)	+2.98
Mill Creek (at Talmage)	+2.87
Mill Creek (at Willits)	+3.01
North Fork Mill Creek	+2.88
Noyo River	+2.95
Orrs Creek	+2.88
Robinson Creek	+2.91
Russian River	+2.85
Scout Lake Creek	+3.01
Sulphur Creek	+2.87
Tenmile Creek	+3.05
Town Creek	+2.99
Unnamed Tributary to Berry Creek	+3.01
Upp Creek	+3.01
York Creek	+2.88
Static Zone at Arena Cove	+2.92
Static Zone at Gualala River	+2.84

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 Flood Risk Analysis and Mapping*, www.fema.gov/flood-maps/guidance-partners/guidelines-standards.

Base map information shown on the FIRM was derived from the sources described in Table 21.

Table 21: Base Map Sources

Data Type	Provider	Data Date	Data Scale	Data Description
(NAIP) National Agriculture Imagery Program	U.S. Department of Agriculture - Farm Service Agency	2010	1:24,000	Structures from National Agriculture Imagery Program
(NAIP) National Agriculture Imagery Program	U.S. Department of Agriculture - Farm Service Agency	2005	N/A	Orthophotography used for countywide study dated 6/2/2011
(NAIP) National Agriculture Imagery Program	U.S. Department of Agriculture - Farm Service Agency	2014	1:24,000	Orthophotography used for PMR study dated 9/1/2022
Base Map Imagery	USDA-NRCS Aerial Photography	2016	1:24,000	Base Map Imagery
Corporate boundaries, Street centerlines	Mendocino County GIS	2008	1:24,000	The city limits shapefile is a polygon file representing the corporate boundaries within Mendocino County. Also included is a street centerline file for roads within Mendocino County, CA
County boundary for the County of Mendocino	National Atlas of the United States	2000	1:24,000	Mendocino County Boundary
DWR 2005 Draft Levee Database	California Department of Water Resources	1979	N/A	N/A
FIS Backup Data Mendocino County, California	Federal Emergency Management Agency	1979	1:24,000	Effective flooding and flood lines

Table 21: Base Map Sources (*continued*)

Data Type	Provider	Data Date	Data Scale	Data Description
National Hydrography Dataset	U.S. Geological Survey	2006	1:24,000	Stream centerlines, Lakes and ponds in Mendocino County, California.
OEC 1997 Levee database	Army Corps of Engineers	1997	1:24,000	OEC 1997 Levee database
Permanent Bench Mark Data Sheets	National Geodetic Survey	2002	1:24,000	Spatial and attribute information for permanent benchmarks.
Pinoleville Pomo Nation Tribal Boundary	Bureau of Indian Affairs (BIA)	2018	1:24,000	Political Boundary Indian Tribe
Political Area	California State Geoportal	2021	1:24,000	Political Boundary
Public Land Survey System	California Spatial Information Library	1997	1:24,000	To provide information about public land use for the state of California.
TIGER/Line File - Transportation Lines, Mendocino, CA 2017	U.S. Department of Commerce, U.S. Census Bureau, Geography Division	2017	1:24,000	Transportation Lines
TIGER/Line Files, 2013 Mendocino County	U.S. Department of Commerce, U.S. Census Bureau, Geography Division	2013	1:12,000	Effective Transportation Lines
TIGER/Line Files, 2006, Second Edition	U.S. Department of Commerce, U.S. Census Bureau, Geography Division	2006	1:24,000	Roads and railroads downloaded from the 2011 countywide study
Transportation Lines	U.S. Department of Commerce, U.S. Census Bureau, Geography	2018	1:24,000	Transportation lines
USDA-FSA-APFO NAIP MrSID Mosaic-Orthoimagery for Mendocino County, CA - 2014	Department of Agriculture - Farm Service Agency	2014	1:24,000	Orthoimagery was downloaded from USDA website.
USGS 7.5-minute Series Topographic Maps	U.S. Geological Survey	1989	1:24,000	Spatial and attribute information for the index of USGS 7.5-minute Series Topographic Map boundaries
Water lines and water area	U.S. Geological Survey	2018	1:24,000	Water areas and water lines

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 22. For each coastal flooding source studied as part of this FIS Report, the mapped floodplain boundaries on the FIRM have been delineated using the flood and wave elevations determined at each transect; between transects, boundaries were delineated using land use and land cover data, the topographic elevation data described in Table 22, and knowledge of coastal flood processes. In ponding areas, flood elevations were determined at each junction of the model; between junctions, boundaries were interpolated using the topographic elevation data described in Table 22.In cases where the 1-percent and 0.2-percent-annual-chance floodplain boundaries are close together, only the 1-percent-annual-chance floodplain boundary has been shown. Small areas within the floodplain boundaries may lie above the flood elevations but cannot be shown due to limitations of the map scale and/or lack of detailed topographic data.

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 23, “Floodway Data.”

Certain flooding sources may have been studied that do not have published BFEs on the FIRMs, or for which there is a need to report the 1-percent-annual-chance flood elevations at selected cross sections because a published Flood Profile does not exist in this FIS Report. These streams may have also been studied using methods to determine non-encroachment zones rather than floodways. For these flooding sources, the 1-percent-annual-chance floodplain boundaries 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 22. All topographic data used for modeling or mapping has been converted as necessary to NAVD88. The 1-percent-annual-chance elevations for selected cross sections along these flooding sources, along with their non-encroachment widths, if calculated, are shown in Table 24, “Flood Hazard and Non-Encroachment Data for Selected Streams.”

Table 22: Summary of Topographic Elevation Data used in Mapping

Community	Flooding Source	Source for Topographic Elevation Data			
		Description	Vertical Accuracy	Horizontal Accuracy	Citation
Fort Bragg, City of; Mendocino County; Point Arena, City of	All within HUC 18010108	2011 CA OPC LiDAR /2010 CA State University, Monterey Bay Seafloor Mapping Lab Bathymetry/ NGDC/NOAA Bathymetry/Topography	1.2 ft @ 95%	RMSEr= 11 ft.	LiDAR 2011
Mendocino County; Pinoleville Pomo Nation	Ackerman Creek	2018 CA FEMA R9 LiDAR Project	14 cm (bare earth) 27.1 cm (vegetation)	50.6 cm	FEMA 2018
Mendocino County; Ukiah, City of	Doolin Creek	2018 CA FEMA R9 LiDAR Project	14 cm (bare earth) 27.1 cm (vegetation)	50.6 cm	FEMA 2018
Mendocino County; Ukiah, City of	Gibson Creek	2018 CA FEMA R9 LiDAR Project	14 cm (bare earth) 27.1 cm (vegetation)	50.6 cm	FEMA 2018
Mendocino County	Hensley Creek	N/A	N/A	N/A	N/A
Mendocino County	Howard Creek	USGS	2 feet	2 feet	USGS 2018
Mendocino County	McClure Creek	USGS	2 feet	2 feet	USGS 2018
Mendocino County	Mill Creek (NEAR TALMA GE)	N/A	N/A	N/A	N/A
Mendocino County; Ukiah, City of	Orrs Creek	2018 CA FEMA R9 LiDAR Project	14 cm (bare earth) 27.1 cm (vegetation)	50.6 cm	FEMA 2018
Mendocino County	Russian River	N/A	N/A	N/A	N/A
Mendocino County	Sulphur Creek	N/A	N/A	N/A	N/A

Table 22: Summary of Topographic Elevation Data used in Mapping (*continued*)

Community	Flooding Source	Source for Topographic Elevation Data			
		Description	Vertical Accuracy	Horizontal Accuracy	Citation
Mendocino County	Unnamed Tributary to McClure Creek	USGS	2 feet	2 feet	USGS 2018
Mendocino County	Unnamed Tributary to Russian River	USGS	2 feet	2 feet	USGS 2018
Mendocino County, Willits, City of	All with analysis completed in 2017	2010 airborne-generated LiDAR	N/A	N/A	LiDAR 2010
Ukiah, City of	Russian River	N/A	N/A	N/A	N/A

BFEs shown at cross sections on the FIRM represent the 1-percent-annual-chance water surface 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.

Table 23: Floodway Data

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	1,750	75	938	5.7	616.5	616.1[2]	616.6	0.5
B	3,400	80	424	12.7	624.1	624.1	624.1	0.0
C	4,155	120	823	6.5	627.8	627.8	628.7	0.9
D	7,510	160	1,043	5.1	642.4	642.4	643.0	0.6
E	9,045	60	575	9.3	650.7	650.7	650.7	0.0
F	11,470	40	378	14.1	673.7	673.7	673.7	0.0

[1] Feet above confluence with Russian River

[2] Elevation computed without consideration of backwater effects from Russian River

TABLE 23

FEDERAL EMERGENCY MANAGEMENT AGENCY

MENDOCINO COUNTY, CALIFORNIA

AND INCORPORATED AREAS

FLOODWAY DATA

FLOODING SOURCE: ACKERMAN CREEK

Table 23: Floodway Data *(continued)*

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	0	250	1,339	6.8	290.7	290.7	291.7	1.0
B	3,280	240	843	10.8	309.2	309.2	309.2	0.0
C	6,215	420	1,025	8.9	327.5	327.5	327.5	0.0
D	8,650	115	754	8.6	347.6	347.6	347.8	0.2
E	10,475	200	1,070	5.6	362.6	362.6	363.5	0.9
F	12,330	100	537	11.1	378.7	378.7	378.7	0.0
G	14,010	75	687	8.7	399.4	399.4	399.8	0.4
H	16,500	130	623	9.6	422.5	422.5	423.1	0.6
I	19,030	40	287	14.5	456.2	456.2	456.2	0.0

[1] Feet above 180 feet upstream of the confluence with Con Creek

Table 23: Floodway Data (*continued*)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)[2]	SECTION AREA (SQ. FEET)[2]	MEAN VELOCITY (FEET/SEC)[2]	REGULATORY	WITHOUT FLOODWAY[3]	WITH FLOODWAY[2]	INCREASE
A	15,022	57	403	8.0	1,350.2	1,350.2	1,350.7	0.5
B	16,534	87	454	6.1	1,354.2	1,354.2	1,354.4	0.2
C	17,012	74	557	5.6	1,355.7	1,355.7	1,355.8	0.1
D	18,352	58	389	5.8	1,359.2	1,359.2	1,359.2	0.0
E	18,389	59	345	6.5	1,359.6	1,359.6	1,359.6	0.0
F	20,867	73	482	6.7	1,369.2	1,369.2	1,369.5	0.3
G	21,285	73	454	7.1	1,370.9	1,370.9	1,371.2	0.3
H	22,149	64	427	7.6	1,373.8	1,373.8	1,373.9	0.1
I	24,350	63	467	7.0	1,382.5	1,382.5	1,382.6	0.1

[1] Stream distance in feet above confluence with Outlet Creek

[2] Values derived from the 1D/2D unsteady state floodway model for maximum water surface profile

[3] Without Floodway' values are from the 1D/2D unsteady state base (100-Year) model for maximum water surface profile

TABLE 23

FEDERAL EMERGENCY MANAGEMENT AGENCY

MENDOCINO COUNTY, CALIFORNIA

AND INCORPORATED AREAS

FLOODWAY DATA

FLOODING SOURCE: BAECHTEL CREEK

Table 23: Floodway Data (*continued*)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE[1]	WIDTH[2] (FEET)	SECTION AREA (SQ. FEET)[2]	MEAN VELOCITY (FEET/SEC)[2]	REGULATORY	WITHOUT FLOODWAY[3]	WITH FLOODWAY[2]	INCREASE
A	2,783	64	321	5.7	1,356.9	1356.9	1357.3	0.4
B	4,674	95	500	5.3	1,362.7	1362.7	1363.1	0.4
C	5,367	111	691	3.9	1,367.2	1367.2	1367.5	0.3
D	6,308	129	776	3.4	1,371.7	1371.7	1372.0	0.3
E	7,864	68	291	9.3	1,375.6	1375.6	1375.6	0.0
F	9,107	78	462	5.8	1,381.3	1381.3	1381.3	0.0
G	9,551	55	400	6.8	1,382.4	1382.4	1382.4	0.0

[1] Stream distance in feet above confluence with Baechtel Creek

[2] Values derived from the 1D/2D unsteady state floodway model for maximum water surface profile

[3] Without Floodway' values are from the 1D/2D unsteady state base (100-Year) model for maximum water surface profile

Table 24: Floodway Data (*continued*)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE[1]	WIDTH[2] (FEET)	SECTION AREA (SQ. FEET)[2]	MEAN VELOCITY (FEET/SEC)[2]	REGULATORY	WITHOUT FLOODWAY[3]	WITH FLOODWAY[2]	INCREASE
A	18,412	150	798	4.9	1,366.2	1,366.2	1,366.2	0.0
B	20,046	84	767	5.1	1,373.8	1,373.8	1,373.8	0.0
C	21,932	148	1,026	3.8	1,381.6	1,381.6	1,381.6	0.0

[1] Stream distance in feet above confluence with Baechtel Creek

[2] Values derived from the 1D/2D unsteady state floodway model for maximum water surface profile

[3] Without Floodway' values are from the 1D/2D unsteady state base (100-Year) model for maximum water surface profile

TABLE 23

FEDERAL EMERGENCY MANAGEMENT AGENCY

MENDOCINO COUNTY, CALIFORNIA

AND INCORPORATED AREAS

FLOODWAY DATA

FLOODING SOURCE: DAVIS CREEK

Table 23: Floodway Data (*continued*)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	3,499	247	340	2.9	597.2	597.2	597.6	0.4
B	4,117	260	399	2.5	601.6	601.6	602.6	1.0
C	4,580	84	167	5.9	605.8	605.8	605.8	0.0
D	5,128	42	180	5.5	611.0	611.0	611.9	0.9
E	5,864	81	169	5.9	619.7	619.7	619.7	0.0
F	6,535	21	101	9.8	626.5	626.5	626.8	0.3
G	7,458	62	129	7.7	640.1	640.1	640.3	0.2
H	8,529	28	119	7.0	654.1	654.1	654.2	0.1
I	8,869	38	203	4.1	661.3	661.3	661.6	0.3
J	9,435	56	157	5.4	670.2	670.2	670.2	0.0
K	9,682	38	107	7.9	675.8	675.8	676.1	0.3
L	9,980	41	210	4.0	680.7	680.7	680.7	0.0

[1] Feet above confluence with Russian River

Table 23: Floodway Data (*continued*)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	10	70	1,070	6.4	932.2	932.2	933.2	1.0
B	1,750	70	967	7.0	936.0	936.0	936.6	0.6
C	3,115	115	1,587	4.3	940.5	940.5	941.1	0.6
D	4,670	70	921	7.4	943.0	943.0	944.0	1.0

[1] Feet above 0.3 miles downstream of Centerville Road

Table 23: Floodway Data (*continued*)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	0	360	8,852	9.3	1,467.30	1,467.30	1,468.30	1.0
B	1,180	290	7,262	11.4	1,468.80	1,468.80	1,469.70	0.9
C	2,310	200	6,532	12.6	1,470.20	1,470.20	1,470.90	0.7
D	3,640	200	5,711	14.4	1,471.60	1,471.60	1,472.00	0.4
E	5,190	260	7,641	10.8	1,475.90	1,475.90	1,476.90	1.0
F	6,460	260	7,153	11.5	1,477.00	1,477.00	1,477.70	0.7
G	7,790	260	5,891	14.0	1,477.00	1,477.00	1,477.70	0.7
H	9,680	200	4,692	17.6	1,481.70	1,481.70	1,481.80	0.1
I	12,660	450	9,415	8.8	1,520.90	1,520.90	1,520.90	0.0
J	15,540	410	9,171	9.0	1,521.70	1,521.70	1,522.50	0.8

[1] Feet above confluence with Hale Creek

Table 23: Floodway Data (*continued*)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	3,945	1,000	1,922	4.8	498.7	491.7[2]	492.3	0.6
B	6,580	1,100	5,799	1.6	502.8	502.8	503.7	0.9
C	9,690	1,000	6,590	1.4	514.6	514.6	515.2	0.6
D	12,175	80	852	8.3	524.8	524.8	525.1	0.3

[1] Feet above confluence with Russian River

[2] Elevation computed without consideration of backwater effects from Russian River

Table 23: Floodway Data (*continued*)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	1,470	150	1,626	7.3	686.2	686.2	686.6	0.4
B	3,610	150	2,558	4.7	697.7	697.7	698.4	0.7
C	6,420	240	1,944	6.1	704.5	704.5	705.3	0.8
D	8,350	130	1,079	11.0	711.8	711.8	711.8	0.0
E	11,290	400	2,477	3.6	720.7	720.7	721.4	0.7
F	13,920	180	936	9.6	728.5	728.5	728.5	0.0
G	16,600	180	1,172	7.2	746.5	746.5	747.4	0.9
H	19,260	150	1,163	7.3	761.4	761.4	761.4	0.0
I	21,380	110	769	11.0	772.4	772.4	773.3	0.9
J	23,530	190	1,230	6.9	786.3	786.3	786.8	0.5
K	24,220	90	806	10.5	790.6	790.6	791.3	0.7

[1] Feet above confluence with Russian River

Table 23: Floodway Data (*continued*)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/ SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	2,594	256	327	2.3	593.6	590.3[2]	590.3[2]	0.0
B	2,748	161	199	4.9	593.8	590.7[2]	590.7[2]	0.0
C	3,160	26	125	2.5	594.4	593.0[2]	593.0[2]	0.0
D	3,391	32	161	2.0	595.1	595.1	595.1	0.0
E	3,894	41	78	5.5	596.3	596.3	596.4	0.1
F	4,599	41	104	4.2	599.3	599.3	599.3	0.0
G	5,065	47	112	3.9	601.2	601.2	601.2	0.0
H	5,677	35	79	4.9	603.3	603.3	603.3	0.0
I	6,003	30	33	10.6	604.8	604.8	604.8	0.0
J	6,455	28	71	3.7	608.9	608.9	609.0	0.1
K	6,825	30	93	3.0	610.3	610.3	610.4	0.1
L	7,217	44	145	2.0	611.8	611.8	611.8	0.0
M	7,767	31	35	8.4	615.5	615.5	615.5	0.0
N	8,060	23	87	3.8	620.0	620.0	620.0	0.0
O	8,560	22	66	4.5	622.6	622.6	622.6	0.0
P	8,830	18	70	5.9	624.9	624.9	624.9	0.0
Q	9,180	32	81	6.3	627.4	627.4	627.4	0.0
R	9,743	52	92	5.5	634.0	634.0	634.0	0.0
S	10,142	27	93	6.6	637.5	637.5	637.5	0.0
T	10,438	26	131	5.5	640.7	640.7	640.7	0.0
U	10,925	24	99	8.2	645.2	645.2	645.4	0.2
V	11,269	83	181	4.5	651.8	651.8	651.8	0.0
W	11,641	29	58	14.7	656.2	656.2	656.2	0.0

[1] Stream distance in feet above confluence with Doolin Creek
[2] Elevation computed without consideration of backwater effects from Russian River

Table 23: Floodway Data (*continued*)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/ SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
X	11,914	23	100	6.7	660.3	660.3	660.4	0.1
Y	12,148	42	185	3.6	663.7	663.7	664.2	0.5
Z	12,462	37	79	8.5	665.7	665.7	665.7	0.0
AA	12,814	31	106	6.3	674.2	674.2	674.2	0.0
AB	13,080	24	106	6.3	677.0	677.0	677.3	0.3
AC	13,221	30	107	6.2	685.1	685.1	685.1	0.0
AD	13,544	27	115	5.8	686.5	686.5	686.6	0.1
AE	13,797	33	176	3.8	692.7	692.7	693.2	0.5
AF	14,067	22	65	10.2	698.5	698.5	698.5	0.0
AG	14,313	17	62	10.8	710.1	710.1	710.1	0.0
AH	14,586	22	86	7.8	714.7	714.7	715.3	0.6
AI	14,844	24	136	4.9	725.6	725.6	725.7	0.1
AJ	15,031	20	90	7.4	729.9	729.9	730.0	0.1
AK	15,481	17	62	10.8	758.3	758.3	758.3	0.0
AL	15,772	16	61	11.0	803.3	803.3	803.3	0.0

[1] Stream distance in feet above confluence with Doolin Creek

Table 23: Floodway Data (*continued*)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	1,140	30	279	7.9	620.6	616.8[2]	617.3	0.5
B	1,240	30	180	12.3	620.6	620.4[2]	620.4	0.0
C	1,990	90	471	4.7	624.6	624.6	625.0	0.4
D	2,700	80	422	5.2	626.5	626.5	627.4	0.9
E	3,085	85	260	8.5	629.7	629.7	629.7	0.0
F	5,485	50	242	9.1	642.8	642.8	642.9	0.1
G	8,220	40	205	6.0	658.1	658.1	658.7	0.6
H	10,600	80	300	4.1	675.8	675.8	676.6	0.8
I	12,640	70	156	7.9	697.8	697.8	698.0	0.2
J	14,610	45	165	7.4	716.3	716.3	716.4	0.1
K	17,270	45	149	8.2	740.7	740.7	741.4	0.7

[1] Feet above confluence with Russian River

[2] Elevation computed without consideration of backwater effects from Russian River

TABLE 23

FEDERAL EMERGENCY MANAGEMENT AGENCY

MENDOCINO COUNTY, CALIFORNIA

AND INCORPORATED AREAS

FLOODWAY DATA

FLOODING SOURCE: HENSLEY CREEK

Table 23: Floodway Data (*continued*)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	420	30	248	5.8	797.2	797.2	797.2	0.0
B	1,330	40	276	12.8	805.8	805.8	805.8	0.0
C	2,000	40	249	14.2	883.5	883.5	883.7	0.2
D	2,650	40	263	13.5	909.8	909.8	909.9	0.1
E	2,930	55	308	11.5	916.2	916.2	916.7	0.5
F	3,790	50	337	10.5	934.8	934.8	935.6	0.8
G	4,900	55	441	8.0	947.0	947.0	947.8	0.8
H	6,000	55	420	8.4	954.5	954.5	955.4	0.9
I	8,100	70	508	7.0	968.6	968.6	969.3	0.7
J	11,190	85	767	4.6	990.2	990.2	990.9	0.7
K	12,620	65	385	7.8	1,003.2	1,003.2	1,003.2	0.0
L	14,910	50	387	7.7	1,024.7	1,024.7	1,025.1	0.4

[1] Feet above confluence with Forsythe Creek

Table 23: Floodway Data (*continued*)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	1,750	650	2,125	1.8	591.3	591.3	592.1	0.8
B	2,270	390	870	4.4	594.7	594.7	595.3	0.6
C	2,370	390	1,061	3.6	595.5	595.5	596.4	0.9
D	2,670	400	1,426	1.6	599.1	599.1	599.1	0.0
E	3,830	400	552	4.1	602.7	602.7	603.6	0.9
F	4,570	500	772	3.0	610.3	610.3	611.0	0.7
G	6,370	290	596	3.8	625.8	625.8	626.5	0.7
H	7,845	310	784	2.9	644.3	644.3	644.9	0.6
I	9,430	150	707	3.2	666.6	666.6	667.5	0.9
J[2]	11,100	145	266	4.3	700.0	700.0	700.3	0.3
K	11,920	60	297	3.8	716.9	716.9	717.8	0.9

[1] Feet above confluence with Russian River

[2] Cross-section is shared with North Fork Mill Creek

Table 23: Floodway Data (*continued*)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)[2]	SECTION AREA (SQ. FEET)[2]	MEAN VELOCITY (FEET/SEC)[2]	REGULATORY	WITHOUT FLOODWAY[3]	WITH FLOODWAY[2]	INCREASE
A	14,792	99	337	3.6	1,352.0	1,352.0	1,352.6	0.6
B	15,494	61	385	3.5	1,357.3	1,357.3	1,358.2	0.9
C	16,150	47	243	7.1	1,358.9	1,358.9	1,359.5	0.6
D	16,839	67	334	7.5	1,363.3	1,363.3	1,363.5	0.2
E	18,270	35	319	9.6	1,371.7	1,371.7	1,371.7	0.0
F	19,535	80	680	4.5	1,376.7	1,376.7	1,376.7	0.0

[1] Stream distance in feet above confluence with Baechtel Creek

[2] Values derived from the 1D/2D unsteady state floodway model for maximum water surface profile

[3] Without Floodway' values are from the 1D/2D unsteady state base (100-Year) model for maximum water surface profile

TABLE 23

FEDERAL EMERGENCY MANAGEMENT AGENCY

MENDOCINO COUNTY, CALIFORNIA

AND INCORPORATED AREAS

FLOODWAY DATA

FLOODING SOURCE: MILL CREEK (AT WILLITS)

Table 23: Floodway Data (*continued*)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A[2]	1,470	80	261	5.4	699.5	699.5	699.8	0.3
B	2,550	60	277	5.1	715.6	715.6	716.4	0.8
C	3,440	60	175	8.1	737.1	737.1	737.5	0.4

[1] Feet above confluence with Mill Creek (near Talmage)
[2] Cross-section shared with Mill Creek (near Talmage)

TABLE 23

FEDERAL EMERGENCY MANAGEMENT AGENCY

MENDOCINO COUNTY, CALIFORNIA

AND INCORPORATED AREAS

FLOODWAY DATA

FLOODING SOURCE: NORTH FORK MILL CREEK

Table 23: Floodway Data (*continued*)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/ SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	1,384	53	329	5.9	602.8	597.0[2]	597.1[2]	0.1
B	2,144	60	333	5.4	602.8	600.3[2]	600.9[2]	0.6
C	2,765	44	271	7.8	603.4	602.4[2]	602.6[2]	0.2
D	3,130	49	393	4.5	606.6	606.6	607.1	0.5
E	3,471	91	606	3.4	607.9	607.9	607.9	0.0
F	3,996	46	329	8.0	609.3	609.3	609.5	0.2
G	4,524	54	390	6.8	611.1	611.1	611.2	0.1
H	5,260	42	303	8.7	616.7	616.7	617.2	0.5
I	5,587	86	1,013	2.7	619.1	619.1	619.3	0.2
J	6,084	53	326	8.1	620.3	620.3	620.4	0.1
K	6,679	66	469	5.6	626.6	626.6	626.6	0.0
L	7,093	75	466	5.3	627.4	627.4	627.4	0.0
M	7,694	70	343	6.0	628.2	628.2	628.3	0.1
N	8,199	50	357	7.4	632.5	632.5	632.5	0.0
O	8,631	53	483	5.8	634.9	634.9	635.0	0.1
P	9,314	55	495	5.9	638.5	638.5	639.0	0.5
Q	10,064	47	386	7.3	641.0	641.0	641.7	0.7
R	10,802	53	254	11.1	644.6	644.6	644.6	0.0
S	11,368	43	253	11.2	647.9	647.9	648.4	0.5
T	12,097	86	498	5.7	651.2	651.2	651.9	0.7
U	12,812	161	377	7.5	656.8	656.8	656.8	0.0
V	13,248	160	387	7.3	659.1	659.1	659.1	0.0
W	13,554	80	671	4.2	664.8	664.8	664.8	0.0
X	14,041	44	469	6.0	669.9	669.9	670.0	0.1
Y	14,641	37	199	13.0	673.4	673.4	673.4	0.0
Z	15,257	24	244	10.7	682.3	682.3	682.7	0.4

[1] Stream distance in feet above confluence with Russian River

[2] Elevation computed without consideration of backwater effects from Russian River

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	2,525	450	2,478	2.7	577.2	577.2	578.2	1.0
B	4,760	240	1,551	4.3	583.6	583.6	584.5	0.9
C	6,635	160	1,108	5.9	588.7	588.7	589.6	0.9
D	8,800	140	1,264	5.2	603.2	603.2	604.1	0.9
E	11,890	110	1,010	6.5	617.5	617.5	618.4	0.9
F	15,630	70	690	8.2	642.7	642.7	642.9	0.2
G	18,160	65	582	9.8	665.7	665.7	666.1	0.4
H	23,780	85	429	11.1	781.1	781.1	781.2	0.1
I	26,750	85	372	8.7	864.3	864.3	865.0	0.7
J	29,480	60	379	8.5	886.3	886.3	886.8	0.5

[1] Feet above confluence with Russian River

Table 23: Floodway Data (*continued*)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	0	1,000	23,315	2.4	495.6	495.6	496.4	0.8
B	2,165	2,000	35,767	1.7	496.8	496.8	497.7	0.9
C	3,820	2,700	34,964	1.7	497.5	497.5	498.4	0.9
D	6,850	3,100	32,407	1.6	498.7	498.7	499.6	0.9
E	10,390	2,800	24,445	2.2	499.4	499.4	500.4	1.0
F	11,820	2,800	29,358	1.8	500.1	500.1	501.0	0.9
G	14,635	2,900	20,969	2.5	501.0	501.0	501.9	0.9
H	16,700	2,900	21,330	2.5	502.6	502.6	503.5	0.9
I	19,810	1,850	17,274	3.1	505.6	505.6	506.5	0.9
J	22,910	770	9,369	5.7	508.0	508.0	508.6	0.6
K	25,230	480	5,599	9.5	511.2	511.2	512.1	0.9
L	28,300	880	9,124	5.8	518.2	518.2	518.7	0.5
M	30,645	560	7,835	6.8	522.7	522.7	523.5	0.8
N	33,495	400	6,709	7.2	528.0	528.0	528.9	0.9
O	35,800	450	9,233	5.3	533.3	533.3	533.6	0.3
P	37,665	1,570	18,561	2.6	535.6	535.6	535.9	0.3
Q	40,450	390	3,876	12.5	535.6	535.6	535.9	0.3
R	42,820	430	9,174	5.3	544.0	544.0	545.0	1.0
S	45,310	400	8,619	5.6	546.7	546.7	547.5	0.8
T	48,460	900	14,421	3.4	550.3	550.3	551.0	0.7
U	51,250	1,300	14,328	3.4	552.7	552.7	553.2	0.5
V	53,860	1,320	12,439	3.9	555.5	555.5	556.0	0.5
W	56,770	1,000	11,529	4.2	558.7	558.7	559.3	0.6
X	59,350	1,780	14,876	2.8	561.6	561.6	562.2	0.6
Y	62,815	2,090	19,443	2.2	564.0	564.0	564.7	0.7
Z	67,360	1,970	13,860	3.0	566.6	566.6	567.4	0.8

[1] Feet above 50 feet downstream of U.S. Highway 101

Table 23: Floodway Data (*continued*)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
AA	71,400	2,260	20,590	1.8	572.4	572.4	573.3	0.9
AB	75,150	2,980	21,124	1.8	577.1	577.1	578.0	0.9
AC	78,980	3,625	23,151	1.6	582.2	582.2	583.2	1.0
AD	81,925	2,500	27,836	1.3	584.8	584.8	585.6	0.8
AE	90,730	1,800	12,150	2.6	595.3	595.3	596.2	0.9
AF	93,020	1,600	11,635	2.7	598.5	598.5	599.1	0.6
AG	98,720	1,000	14,564	5.4	604.8	604.8	605.8	1.0
AH	102,205	400	3,837	7.7	608.9	608.9	609.8	0.9
AI	104,625	400	5,594	4.8	616.4	616.4	616.6	0.2
AJ	106,950	500	5,955	4.0	619.8	619.8	620.5	0.7
AK	108,795	700	6,694	3.3	623.3	623.3	624.0	0.7
AL	111,715	258	3,913	5.5	630.2	630.2	630.7	0.5
AM	113,500	385	4,574	4.7	634.6	634.6	635.5	0.9
AN	117,640	466	6,173	3.1	642.1	642.1	642.6	0.5
AO	119,850	350	4,681	4.1	647.4	647.4	648.1	0.7
AP	123,575	210	3,005	6.4	656.4	656.4	656.9	0.5
AQ	126,100	360	5,722	3.4	661.0	661.0	661.9	0.9
AR	127,595	200	2,406	8.0	663.7	663.7	664.6	0.9
AS	129,620	150	2,478	7.7	671.7	671.7	671.8	0.1
AT	131,615	150	2,914	6.6	678.2	678.2	678.8	0.6
AU	133,780	350	3,203	6.0	682.6	682.6	683.1	0.5
AV	135,880	420	3,637	2.3	692.2	692.2	692.6	0.4
AW	138,300	140	1,760	4.0	695.6	695.6	696.4	0.8
AX	140,955	100	1,295	5.5	708.9	708.9	709.3	0.4
AY	142,250	200	1,803	3.9	713.5	713.5	714.1	0.6

[1] Feet above 50 feet downstream of U.S. Highway 101

Table 23: Floodway Data (continued)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	7,636	78	373	4.3	725.2	725.2	726.1	0.9
B	7,756	94	335	4.8	725.8	725.8	726.4	0.6
C	8,060	50	206	7.8	729.3	729.3	730.2	0.9
D	8,168	57	239	6.7	730.3	730.3	731.3	1.0
E	8,354	59	257	6.2	734.0	734.0	734.1	0.1
F	8,447	62	179	9.0	734.5	734.5	734.8	0.3
G	8,470	60	210	7.0	735.4	735.4	735.6	0.2
H	8,963	68	175	9.1	746.9	746.9	746.9	0.0
I	9,355	53	160	10.0	753.4	753.4	753.6	0.2
J	9,634	47	197	8.1	759.2	759.2	759.7	0.5
K	9,842	46	168	9.5	761.3	761.3	761.6	0.3
L	9,858	46	154	10.4	763.9	763.9	763.9	0.0
M	9,954	59	168	9.5	768.5	768.5	768.5	0.0
N	10,029	38	249	6.4	773.8	773.8	773.8	0.0
O	10,212	51	159	10.1	775.4	775.4	775.4	0.0
P	10,307	71	179	9.0	777.7	777.7	777.7	0.0

[1] Feet above confluence with Russian River

Table 23: Floodway Data (*continued*)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	565	400	2,088	3.3	1,610.9	1,610.9	1,611.8	0.9
B	895	300	1,610	4.3	1,612.0	1,612.0	1,612.6	0.6
C	2,855	250	1,678	4.1	1,617.5	1,617.5	1,618.1	0.6
D	4,210	270	1,799	3.8	1,619.6	1,619.6	1,620.4	0.8
E	5,020	300	2,795	2.5	1,620.3	1,620.3	1,621.2	0.9

[1] Feet above 0.2 miles downstream of Branscomb Road

Table 23: Floodway Data (*continued*)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	240	200	955	2.9	1,382.3	1,382.3	1,383.0	0.7
B	1,085	200	740	3.7	1,387.8	1,387.8	1,388.5	0.7
C	2,750	55	445	6.0	1,397.1	1,397.1	1,397.4	0.8
D	4,185	145	920	3.0	1,402.1	1,402.1	1,402.7	0.6
E	5,140	100	595	4.6	1,406.9	1,406.9	1,407.5	0.6

[1] Feet above confluence with Grist Creek

TABLE 23

FEDERAL EMERGENCY MANAGEMENT AGENCY

MENDOCINO COUNTY, CALIFORNIA

AND INCORPORATED AREAS

FLOODWAY DATA

FLOODING SOURCE: TOWN CREEK

Table 23: Floodway Data (*continued*)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	620	55	474	6.9	639.2	634.9[2]	635.3	0.4
B	685	55	590	5.6	639.3	635.1[2]	636.1	1.0
C	1,655	80	673	4.9	641.5	641.5	642.5	1.0
D	3,300	120	968	3.4	645.1	645.1	646.0	0.9
E	4,700	70	513	6.4	650.7	650.7	650.9	0.2
F	7,225	90	587	5.6	664.4	664.4	664.8	0.4
G	9,925	110	665	3.6	680.2	680.2	680.9	0.7
H	12,955	90	619	3.9	698.7	698.7	699.4	0.7

[1] Feet above confluence with Russian River

[2] Elevation computed without consideration of backwater effects from Russian River

TABLE 23

FEDERAL EMERGENCY MANAGEMENT AGENCY

MENDOCINO COUNTY, CALIFORNIA

AND INCORPORATED AREAS

FLOODWAY DATA

FLOODING SOURCE: YORK CREEK

Non-encroachment areas may be delineated where it is not possible to delineate floodways because specific channel profiles with bridge and culvert geometry were not developed. Any non-encroachment determinations for this Flood Risk Project have been tabulated for selected cross sections and are shown in Table 24. The non-encroachment width indicates the measured distance left and right (looking downstream) from the mapped center of the stream to the non-encroachment boundary based on a surcharge of 1.0 foot or less.

Table 24: Flood Hazard and Non-Encroachment Data for Selected Streams

[Not Applicable to this Flood Risk Project]

6.4 Coastal Flood Hazard Mapping

Flood insurance zones and BFEs including the wave effects were identified on each transect based on the results from the onshore wave hazard analyses. Between transects, elevations were interpolated using topographic maps, land-use and land-cover data, and knowledge of coastal flood processes to determine the aerial extent of flooding. Sources for topographic data are shown in Table 22.

Zone VE is subdivided into elevation zones and BFEs are provided on the FIRM.

The limit of Zone VE shown on the FIRM is defined as the farthest inland extent of any of these criteria (determined for the 1-percent-annual-chance flood condition):

- The *primary frontal dune zone* is defined in 44 CFR Section 59.1 of the NFIP regulations. The primary frontal dune represents a continuous or nearly continuous mound or ridge of sand with relatively steep seaward and landward slopes that occur immediately landward and adjacent to the beach. The primary frontal dune zone is subject to erosion and overtopping from high tides and waves during major coastal storms. The inland limit of the primary frontal dune zone occurs at the point where there is a distinct change from a relatively steep slope to a relatively mild slope.

- The *wave runup zone* occurs where the (eroded) ground profile is 3.0 feet or more below the 2-percent wave runup elevation.

- The *wave overtopping splash zone* is the area landward of the crest of an overtopped barrier, in cases where the potential 2-percent wave runup exceeds the barrier crest elevation by 3.0 feet or more.

- The *breaking wave height zone* occurs where 3-foot or greater wave heights could occur (this is the area where the wave crest profile is 2.1 feet or more above the total stillwater elevation).

- The *high-velocity flow zone* is landward of the overtopping splash zone (or area on a sloping beach or other shore type), where the product of depth of flow times the flow velocity squared (hv^2) is greater than or equal to 200 ft^3/sec^2. This zone may only be used on the Pacific Coast.

The SFHA boundary indicates the limit of SFHAs shown on the FIRM as either “V” zones

or “A” zones.

Table 25 indicates the coastal analyses used for floodplain mapping and the criteria used to determine the inland limit of the open-coast Zone VE and the SFHA boundary at each transect.

Table 25: Summary of Coastal Transect Mapping Considerations

Coastal Transect	Primary Frontal Dune (PFD) Identified	Wave Runup Analysis	Wave Height Analysis	Zone VE Limit	SFHA Boundary
		Zone Designation and BFE (ft NAVD88)	Zone Designation and BFE (ft NAVD88)		
1		VE 44	VE 44	Runup	
2		VE 21	VE 21	Runup	
3		VE 37	VE 37	Runup	Overtopping
4		VE 36	VE 36	Runup	
5		VE 34	VE 34	Runup	Overtopping
6		VE 18	VE 18	Runup	
7		VE 32	VE 32	Runup	
8		VE 24	VE 24	Runup	Overtopping
9		VE 24	VE 24	Runup	
10		VE 36	VE 36	Runup	
11		VE 32	VE 32	Runup	
12		VE 22	VE 22	Runup	Overtopping
13		VE 33	VE 33	Runup	
14		VE 21	VE 21	Runup	
15		VE 22	VE 22	Runup	
16		VE 23	VE 23	Runup	
17		VE 23	VE 23	Runup	Overtopping
18		VE 23	VE 23	Runup	
19	✓	VE 23	VE 23	PFD	
20		VE 19	VE 19	Runup	
21		VE 21	VE 21	Runup	
22		VE 25	VE 25	Runup	
23		VE 31	VE 31	Runup	
24		VE 48	VE 48	Runup	Overtopping
25		VE 29	VE 29	Runup	
26		VE 35	VE 35	Runup	
27		VE 31	VE 31	Runup	Overtopping

Table 25: Summary of Coastal Transect Mapping Considerations (*continued*)

Coastal Transect	Primary Frontal Dune (PFD) Identified	Wave Runup Analysis	Wave Height Analysis	Zone VE Limit	SFHA Boundary
		Zone Designation and BFE (ft NAVD88)	Zone Designation and BFE (ft NAVD88)		
28		VE 35	VE 35	Runup	
29		VE 40	VE 40	Runup	
30		VE 19	VE 19	Runup	
31		VE 40	VE 40	Runup	
32		VE 36	VE 36	Runup	
33		VE 18	VE 18	Runup	Overtopping
34		VE 30	VE 30	Runup	
35		VE 50	VE 50	Runup	Overtopping
36		VE 33	VE 33	Runup	
37		VE 34	VE 34	Runup	Overtopping
38		VE 42	VE 42	Runup	
39		VE 49	VE 49	Runup	Overtopping
40		VE 52	VE 52	Runup	
41		VE 27	VE 27	Runup	
42		VE 28	VE 28	Runup	
43		VE 55	VE 55	Runup	Overtopping
44		VE 31	VE 31	Runup	
45		VE 19	VE 19	Runup	Overtopping
46		VE 27	VE 27	Runup	
47		VE 41	VE 41	Runup	
48		VE 21	VE 21	Runup	
49		VE 50	VE 50	Runup	
50		VE 24	VE 24	Runup	
51		VE 19	VE 19	Runup	Overtopping
52		VE 26	VE 26	Runup	
53		VE 41	VE 41	Runup	
54		VE 32	VE 32	Runup	Overtopping
55		VE 20	VE 20	Runup	Overtopping
56		VE 30	VE 30	Runup	
57		VE 19	VE 19	Runup	
58	✓	VE 18	VE 18	PFD	
59		VE 32	VE 32	Runup	

Table 25: Summary of Coastal Transect Mapping Considerations (*continued*)

Coastal Transect	Primary Frontal Dune (PFD) Identified	Wave Runup Analysis	Wave Height Analysis	Zone VE Limit	SFHA Boundary
		Zone Designation and BFE (ft NAVD88)	Zone Designation and BFE (ft NAVD88)		
60		VE 32	VE 32	Runup	Overtopping
61		VE 31	VE 31	Runup	
62		VE 24	VE 24	Runup	
63		VE 22	VE 22	Runup	
64		VE 23	VE 23	Runup	
65		VE 29	VE 29	Runup	
66		VE 36	VE 36	Runup	
67		VE 30	VE 30	Runup	
68		VE 33	VE 33	Runup	

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 30, “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 www.fema.gov/flood-maps/change-your-flood-zone 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 www.fema.gov/flood-maps/tutorials.

For more information about how to apply for a LOMA, call the FEMA Mapping and Insurance 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/flood-maps/change-your-flood-zone 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 Mapping and Insurance 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/flood-maps/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/flood-maps/change-your-flood-zone 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 Mapping and Insurance 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 Mendocino County FIRM are listed in Table 26. Please note that this table only includes LOMCs that have been issued on the FIRM panels updated by this map revision. For all other areas within this county, users should be aware that revisions to the FIS Report made by prior LOMRs may not be reflected herein and users will need to continue to use the previously issued LOMRs to obtain the most current data.

Table 26: Incorporated Letters of Map Change

[Not Applicable to this Flood Risk Project]

6.5.4 Physical Map Revisions

A Physical Map Revisions (PMR) is 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 Floods & Maps "Change Your Flood Zone Designation" 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 Mendocino 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 27, "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 27 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 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.
- *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 PMRs 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 Mendocino County FIRMs in countywide format was 06/02/2011.

Table 27: Community Map History

Community Name	Initial Identification Date	Initial FHBM Effective Date	FHBM Revision Date(s)	Initial FIRM Effective Date	FIRM Revision Date(s)
Fort Bragg, City of	05/10/1975	05/10/1975	10/03/1975	12/07/1982	07/18/2017 06/02/2011 06/16/1992
Mendocino County, Unincorporated Areas	01/03/1974	01/03/1974	04/25/1978	06/01/1983	09/19/2025 09/01/2022 07/18/2017 06/02/2011 06/16/1992 09/30/1988 06/03/1986
Pinoleville Pomo Nation[1]	06/02/2011	N/A	N/A	06/02/2011	09/19/2025
Point Arena, City of	10/18/1974	10/18/1974	12/26/1975	08/03/1984	07/18/2017 06/02/2011 06/03/1986
Ukiah, City of	08/09/1974	08/09/1974	06/06/1978 01/03/1978 09/17/1976	07/19/1982	09/19/2025 06/02/2011 08/05/1985
Willits, City of	02/08/1974	02/08/1974	07/30/1976	07/19/1982	09/01/2022 06/02/2011 09/30/1988

[1] This community did not have a FIRM prior to the first countywide FIRM for Mendocino County

SECTION 7.0 – CONTRACTED STUDIES AND COMMUNITY COORDINATION

7.1 Contracted Studies

Table 28 provides a summary of the contracted studies, by flooding source, that are included in this FIS Report.

Table 28: Summary of Contracted Studies Included in this FIS Report

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
Ackerman Creek (Zone AE)	06/01/1983	Anderson-Nichols & Company, Inc.	H-4821	March 1981	Mendocino County, Unincorporated Areas; Pinoleville Pomo Nation
Ackerman Creek (Zone A)	09/19/2025	STARR II	HSFE60-17-J-0008	July 2019	Mendocino County, Unincorporated Areas
Anderson Creek	06/01/1983	Anderson-Nichols & Company, Inc.	H-4821	March 1981	Mendocino County, Unincorporated Areas
Baechtel Creek	09/01/2022	STARR II	HSFE60-15-0005	January 2017	Mendocino County, Unincorporated Areas; Willits, City of
Baechtel Creek East Overflow 1	09/01/2022	STARR II	HSFE60-15-0005	May 2020	Mendocino County, Unincorporated Areas

Table 28: Summary of Contracted Studies Included in this FIS Report (*continued*)

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
Baechtel Creek East Overflow 2	09/01/2022	STARR II	HSFE60-15-0005	May 2020	Mendocino County, Unincorporated Areas
Baechtel Creek East Overflow 3	09/01/2022	STARR II	HSFE60-15-0005	May 2020	Mendocino County, Unincorporated Areas
Baechtel Creek East Overflow 4	09/01/2022	STARR II	HSFE60-15-0005	May 2020	Mendocino County, Unincorporated Areas; Willits, City of
Baechtel Creek East Overflow 5	09/01/2022	STARR II	HSFE60-15-0005	May 2020	Mendocino County, Unincorporated Areas
Baechtel Creek East Overflow 6	09/01/2022	STARR II	HSFE60-15-0005	May 2020	Mendocino County, Unincorporated Areas
Baechtel Creek East Overflow 7	09/01/2022	STARR II	HSFE60-15-0005	May 2020	Mendocino County, Unincorporated Areas; Willits, City of
Baechtel Creek East Overflow 8	09/01/2022	STARR II	HSFE60-15-0005	May 2020	Willits, City of
Baechtel Creek East Overflow 9	09/01/2022	STARR II	HSFE60-15-0005	May 2020	Willits, City of
Baechtel Creek West Overflow 1	09/01/2022	STARR II	HSFE60-15-0005	May 2020	Willits, City of

Table 28: Summary of Contracted Studies Included in this FIS Report (*continued*)

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
Baechtel Creek West Overflow 2	09/01/2022	STARR II	HSFE60-15-0005	May 2020	Mendocino County, Unincorporated Areas; Willits, City of
Baechtel Creek West Overflow 3	09/01/2022	STARR II	HSFE60-15-0005	May 2020	Mendocino County, Unincorporated Areas; Willits, City of
Baechtel Creek West Overflow 4	09/01/2022	STARR II	HSFE60-15-0005	May 2020	Mendocino County, Unincorporated Areas; Willits, City of
Baechtel Creek West Overflow 5	09/01/2022	STARR II	HSFE60-15-0005	May 2020	Willits, City of
Baechtel Creek West Overflow 6	09/01/2022	STARR II	HSFE60-15-0005	May 2020	Willits, City of
Baechtel Creek West Overflow 7	09/01/2022	STARR II	HSFE60-15-0005	May 2020	Willits, City of
Baechtel Creek West Overflow 8	09/01/2022	STARR II	HSFE60-15-0005	May 2020	Willits, City of
Berry Creek	09/01/2022	STARR II	HSFE60-15-0005	January 2017	Mendocino County, Unincorporated Areas
Big / Navarro / Garcia Rivers Watershed (Zone A)	N/A	N/A	N/A	N/A	Fort Bragg, City of; Mendocino County, Unincorporated Areas; Point Arena, City of

Table 28: Summary of Contracted Studies Included in this FIS Report (*continued*)

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
Broaddus Creek	09/01/2022	STARR II	HSFE60-15-0005	January 2017	Willits, City of
Broaddus Creek East Overflow 1	09/01/2022	STARR II	HSFE60-15-0005	May 2020	Willits, City of
Broaddus Creek East Overflow 2	09/01/2022	STARR II	HSFE60-15-0005	May 2020	Willits, City of
Davis Creek	09/01/2022	STARR II	HSFE60-15-0005	January 2017	Mendocino County, Unincorporated Areas
Doolin Creek (Zone A)	09/19/2025	STARR II	HSFE60-17-J-0008	July 2019	Mendocino County, Unincorporated Areas
Doolin Creek (Zone AE)	09/19/2025	STARR II	HSFE60-15-0005	April 2021	Mendocino County, Unincorporated Areas; Ukiah, City of
East Fork Russian River	06/01/1983	Anderson-Nichols & Company, Inc.	H-4821	March 1981	Mendocino County, Unincorporated Areas
Eel River	06/01/1983	Anderson-Nichols & Company, Inc.	H-4821	March 1981	Mendocino County, Unincorporated Areas
Feliz Creek	06/01/1983	Anderson-Nichols & Company, Inc.	H-4821	March 1981	Mendocino County, Unincorporated Areas
Forsythe Creek	06/01/1983	Anderson-Nichols & Company, Inc.	H-4821	March 1981	Mendocino County, Unincorporated Areas
Gibson Creek (Zone A)	09/19/2025	STARR II	HSFE60-17-J-0008	July 2019	Mendocino County, Unincorporated Areas; Ukiah, City of
Gibson Creek (Zone AE)	09/19/2025	STARR II	HSFE60-15-0005	February 2024	Mendocino County, Unincorporated Areas; Ukiah, City of

Table 28: Summary of Contracted Studies Included in this FIS Report (*continued*)

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
Gualala River	09/30/1988	Ott Water Engineers, Inc.	EMW-83-C-1175	August 1984	Mendocino County, Unincorporated Areas
Gualala / Salmon Rivers Watershed (Zone A)	N/A	N/A	N/A	N/A	Mendocino County, Unincorporated Areas
Haehl Creek	09/01/2022	STARR II	HSFE60-15-0005	January 2017	Mendocino County, Unincorporated Areas; Willits, City of
Hensley Creek	06/01/1983	Anderson-Nichols & Company, Inc.	H-4821	March 1981	Mendocino County, Unincorporated Areas
Howard Creek	09/19/2025	STARR II	HSFE60-17-J-0008	July 2019	Mendocino County, Unincorporated Areas
Lower Eel River Watershed (Zone A)	N/A	N/A	N/A	N/A	Mendocino County, Unincorporated Areas
Mattole River Watershed (Zone A)	N/A	N/A	N/A	N/A	Mendocino County, Unincorporated Areas
McClure Creek	09/19/2025	STARR II	HSFE60-17-J-0008	July 2019	Mendocino County, Unincorporated Areas
Middle Fork Eel River Watershed (Zone A)	N/A	N/A	N/A	N/A	Mendocino County, Unincorporated Areas
Mill Creek (at Redwood Valley	06/01/1983	Anderson-Nichols & Company, Inc.	H-4821	March 1981	Mendocino County, Unincorporated Areas
Mill Creek (at Willits)	09/01/2022	STARR II	HSFE60-15-0005	January 2017	Willits, City of
Mill Creek (At Wilts) East Overflow 1	09/01/2022	STARR II	HSFE60-15-0005	May 2020	Willits, City of
Mill Creek (At Wilts) East Overflow 2	09/01/2022	STARR II	HSFE60-15-0005	May 2020	Willits, City of

Table 28: Summary of Contracted Studies Included in this FIS Report (*continued*)

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
Mill Creek (At Wilts) East Overflow 3	09/01/2022	STARR II	HSFE60-15-0005	May 2020	Willits, City of
Mill Creek (At Wilts) East Overflow 4	09/01/2022	STARR II	HSFE60-15-0005	May 2020	Willits, City of
Mill Creek (At Wilts) East Overflow 5	09/01/2022	STARR II	HSFE60-15-0005	May 2020	Willits, City of
Mill Creek (At Wilts) East Overflow 6	09/01/2022	STARR II	HSFE60-15-0005	May 2020	Willits, City of
Mill Creek (At Wilts) East Overflow 7	09/01/2022	STARR II	HSFE60-15-0005	May 2020	Willits, City of
Mill Creek (At Wilts) East Overflow 8	09/01/2022	STARR II	HSFE60-15-0005	May 2020	Willits, City of
Mill Creek (At Wilts) West Overflow 1	09/01/2022	STARR II	HSFE60-15-0005	May 2020	Mendocino County, Unincorporated Areas; Willits, City of
Mill Creek (At Wilts) West Overflow 2	09/01/2022	STARR II	HSFE60-15-0005	May 2020	Mendocino County, Unincorporated Areas; Willits, City of
Mill Creek (At Wilts) West Overflow 3	09/01/2022	STARR II	HSFE60-15-0005	May 2020	Willits, City of
Mill Creek (At Wilts) West Overflow 4	09/01/2022	STARR II	HSFE60-15-0005	May 2020	Willits, City of

Table 28: Summary of Contracted Studies Included in this FIS Report (*continued*)

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
Mill Creek (At Wilts) West Overflow 5	09/01/2022	STARR II	HSFE60-15-0005	May 2020	Willits, City of
Mill Creek (near Talmage)	06/01/1983	Anderson-Nichols & Company, Inc.	H-4821	March 1981	Mendocino County, Unincorporated Areas
North Fork Mill Creek	06/01/1983	Anderson-Nichols & Company, Inc.	H-4821	March 1981	Mendocino County, Unincorporated Areas
Noyo River	06/16/1992	Philip Williams & Associates. Ltd.	EMW-89-C-2845	January 1991	Fort Bragg, City of; Mendocino County, Unincorporated Areas
Orrs Creek (Zone A)	09/19/2025	STARR II	HSFE60-17-J-0008	July 2019	Mendocino County, Unincorporated Areas; Ukiah, City of
Orrs Creek (Zone AE)	09/19/2025	STARR II	HSFE60-15-0005	February 2024	Mendocino County, Unincorporated Areas; Ukiah, City of
Pacific Ocean	07/18/2017	Baker AECOM	HSFEHQ-09-D-0368 / HSFE09-10-J-0002	October 2013	Fort Bragg, City of; Mendocino County, Unincorporated Areas; Point Arena, City of
Robinson Creek	06/01/1983	Anderson-Nichols & Company, Inc.	H-4821	March 1981	Mendocino County, Unincorporated Areas
Russian River	06/01/1983	Anderson-Nichols & Company, Inc.	H-4821	April 1981	Mendocino County, Unincorporated Areas; Ukiah, City of
Russian River Watershed (Zone A)	N/A	N/A	N/A	N/A	Mendocino County, Unincorporated Areas; Ukiah, City of
Scout Lake Creek	09/01/2022	STARR II	HSFE60-15-0005	January 2017	Mendocino County, Unincorporated Areas

Table 28: Summary of Contracted Studies Included in this FIS Report, continued

Flooding Source	FIS Report Dated	Contractor	Number	Work Completed Date	Affected Communities
South Fork Eel River Watershed (Zone A)	N/A	N/A	N/A	N/A	Mendocino County, Unincorporated Areas
Sulphur Creek	06/01/1983	Anderson-Nichols & Company, Inc.	H-4821	March 1981	Mendocino County, Unincorporated Areas
Tenmile Creek	06/01/1983	Anderson-Nichols & Company, Inc.	H-4821	March 1981	Mendocino County, Unincorporated Areas
Town Creek	06/01/1983	Anderson-Nichols & Company, Inc.	H-4821	March 1981	Mendocino County, Unincorporated Areas
Unnamed Tributary to Berry Creek	09/01/2022	STARR II	HSFE60-15-0005	January 2017	Mendocino County, Unincorporated Areas
Unnamed Tributary to McClure Creek	09/19/2025	STARR II	HSFE60-17-J-0008	July 2019	Mendocino County, Unincorporated Areas
Unnamed Tributary to Russian River					
Upp Creek	09/01/2022	STARR II	HSFE60-15-0005	January 2017	Mendocino County, Unincorporated Areas
Upper Eel River Watershed (Zone A)	N/A	N/A	N/A	N/A	Mendocino County, Unincorporated Areas
York Creek	06/01/1983	Anderson-Nichols & Company, Inc.	H-4821	March 1981	Mendocino County, Unincorporated Areas

7.2 Community Meetings

The dates of the community meetings held for this Flood Risk Project and 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 29: Community Meetings

Community	FIS Report Dated	Date of Meeting	Meeting Type	Attended By
Fort Bragg, City of	07/18/2017	01/21/2015	Flood Risk Review	Federal Emergency Management Agency (FEMA), the community, and the study contractor (BakerAECOM)
		09/23/2015	Final CCO	FEMA, this community, and the study contractor (BakerAECOM)
Mendocino County, Unincorporated Areas	09/19/2025	02/17/2021	Flood Risk Review	FEMA, California Department of Water Resources, the community, and the study contractor
		08/16/2022	Final CCO	FEMA, California Department of Water Resources, the community, and the study contractor
Pinoleville Pomo Nation	09/19/2025	02/17/2021	Flood Risk Review	FEMA, California Department of Water Resources, and the study contractor
		08/16/2022	Final CCO	FEMA, California Department of Water Resources, the community, and the study contractor
Point Arena, City of	07/18/2017	01/21/2015	Flood Risk Review	FEMA, the community, and the study contractor (BakerAECOM)
		09/23/2015	Final CCO	FEMA, the community, and the study contractor (BakerAECOM)
Ukiah, City of	09/19/2025	02/17/2021	Flood Risk Review	FEMA, California Department of Water Resources, the community, and the study contractor
		08/16/2022	Final CCO	FEMA, California Department of Water Resources, the community, and the study contractor
Willits, City of	09/01/2022	11/23/2015	Initial CCO	FEMA, the community, and the study contractor
		2/25/2021	Final CCO	FEMA, the community, and the study contractor

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.

The additional data that was used for this project includes the FIS Report and FIRM that were previously prepared for Mendocino County (FEMA 2017).

Table 30 is a list of the locations where FIRMs for Mendocino 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 30: Map Repositories

Community	Address	City	State	Zip Code
Fort Bragg, City of	Community Development Department 416 North Franklin Street	Fort Bragg	CA	95437
Mendocino County, Unincorporated Areas	Mendocino County Planning and Building Services Department 860 North Bush Street	Ukiah	CA	95482
Pinoleville Pomo Nation	Environmental Department 500 B Pinoleville Drive	Ukiah	CA	95482
Point Arena, City of	City Hall 451 School Street	Point Arena	CA	95468
Ukiah, City of	City Hall 300 Seminary Avenue	Ukiah	CA	95482
Willits, City of	City Planning Department 111 East Commercial Street	Willits	CA	95490

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 31.

Table 31 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 31: Additional Information

FEMA and the NFIP	
FEMA and FEMA Engineering Library website	www.fema.gov/flood-maps/products-tools/know-your-risk/engineers-surveyors-architects
NFIP website	www.fema.gov/flood-insurance
NFHL Dataset	msc.fema.gov
FEMA Region IX	1111 Broadway, Suite 1200 Oakland, CA 94607-4052 (510) 627-7029
Other Federal Agencies	
USGS website	www.usgs.gov
Hydraulic Engineering Center website	www.hec.usace.army.mil
State Agencies and Organizations	
State NFIP Coordinator	Kelly Soule, P.E., MBA California Department of Water Resources 3464 El Camino Avenue, Suite 200 Sacramento, CA 95821 (916) 574-2314 kelly.soule@water.ca.gov
State GIS Coordinator	David Harris Agency Information Officer California Resources Agency 1416 Ninth Street, Room 1311 Sacramento, CA 95814 (916) 445-5088 david.harris@resources.ca.gov

SECTION 9.0 – BIBLIOGRAPHY AND REFERENCES

Table 32 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 32: 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
BIA 2018	Bureau of Indian Affairs (BIA)	*Pinoleville Pomo Nation Tribal Boundary*	Bureau of Indian Affairs (BIA)	Washington, D.C.	January 2018	https://biamaps.doi.gov/bogs/datadownload.html
CASIL 1997	California Spatial Information Library	*Public Land Survey System*	California Spatial Information Library	Ventura, CA	October 28, 1997	http://portal.gis.ca.gov/geoportal/catalog/main/home.page
CDTFA 2021	California State Geoportal	*Political Area*	California Department of Tax and Fee Administration	Sacramento, CA	August 4, 2021	https://gis.data.ca.gov/datasets/CDTFA::boe-citycounty-20210804/explore?location=37.118341%2C-119.306399%2C6.83
CH2M Hill, Inc. 1979	CH2M Hill, Inc.	*Russian River Bridge on Vichy Springs Road Drainage Study*	CH2M Hill, Inc.	Redding, California	February 1979	—
California 1965	State of California, Department of Water Resources	*Flood! December 1964 - January 1965, Bulletin 161*	—	—	January 1965	—
Dobson 1967	Stanford University	*A Program to Construct Refraction Diagrams and Compute Wave Heights for Waves Moving into Shoaling Waters*	R. S. Dobson	Stanford, California	March 1967	—
Felton 1965	Pacific Books	*California's Many Climates*	E. L. Felton	Palo Alto, California	1965	—
FEMA 1979	Federal Emergency Management Agency	*FIS Backup Data Mendocino County, California*	Federal Emergency Management Agency	Washington, D.C.	January 1979	https://msc.fema.gov

Table 32: 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
FEMA 1982	Federal Emergency Management Agency, Federal Insurance Administration	*Flood Insurance Rate Map, City of Fort Bragg, Mendocino County, California*	—	Washington, D.C.	December 7, 1982	FEMA Flood Map Service Center https://msc.fema.gov
FEMA 1982(a)	Federal Emergency Management Agency	*Flood Boundary and Floodway Map, City of Willits, Mendocino County, California*	Federal Emergency Management Agency	Washington, D.C.	July 19, 1982	FEMA Flood Map Service Center https://msc.fema.gov
FEMA 1984	Federal Emergency Management Agency	*Flood Insurance Rate Map, City of Point Arena, Mendocino County, California*	—	Washington, D.C.	August 3, 1984	FEMA Flood Map Service Center https://msc.fema.gov
FEMA 1985	Federal Emergency Management Agency	*Flood Insurance Study, City of Ukiah, Mendocino County, California*	—	Washington, D.C.	August 5, 1985	FEMA Flood Map Service Center https://msc.fema.gov
FEMA 1985(a)	Federal Emergency Management Agency	*Flood Boundary and Floodway Map, City of Ukiah, Mendocino County, California*	Federal Emergency Management Agency	Washington, D.C.	August 5, 1985	FEMA Flood Map Service Center https://msc.fema.gov
FEMA 1986	Federal Emergency Management Agency	*Flood Insurance Study, City of Point Arena, Mendocino County, California*	—	Washington, D.C.	June 3, 1986	FEMA Flood Map Service Center https://msc.fema.gov
FEMA 1988	Federal Emergency Management Agency	*Flood Insurance Study and Flood Insurance Rate Maps of City of Willits, Mendocino County, California*	—	Washington, D.C.	September 30, 1988	FEMA Flood Map Service Center https://msc.fema.gov
FEMA 1988(a)	Federal Emergency Management Agency	*Flood Boundary and Floodway Map, Mendocino County Unincorporated Areas, California*	Federal Emergency Management Agency	Washington, D.C.	September 30, 1988	FEMA Flood Map Service Center https://msc.fema.gov

Table 32: 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
FEMA 1992(a)	Federal Emergency Management Agency	*Flood Insurance Study, City of Fort Bragg, Mendocino County, California*	—	Washington, D.C.	June 16, 1992	FEMA Flood Map Service Center https://msc.fema.gov
FEMA 1992(b)	Federal Emergency Management Agency	*Flood Insurance Study, Mendocino County, California, Unincorporated Areas*	—	Washington, D.C.	June 16, 1992	FEMA Flood Map Service Center https://msc.fema.gov
FEMA 2005	Federal Emergency Management Agency	*Flood Insurance Study, Lake County, California and Incorporated Areas*	—	Washington, D.C.	September 30, 2005	FEMA Flood Map Service Center https://msc.fema.gov
FEMA 2011	Federal Emergency Management Agency	*Flood Insurance Study and Flood Insurance Rate Maps of Mendocino County Unincorporated Areas*	Federal Emergency Management Agency	Washington, D.C.	June 2, 2011	https://msc.fema.gov/portal/home
FEMA 2012	Federal Emergency Management Agency	Letter of Map Change, Mendocino County, California (12-09-1922P)	Federal Emergency Management Agency	Washington, D.C.	December 3, 2012	https://msc.fema.gov/portal/home
FEMA 2013	Federal Emergency Management Agency	Letter of Map Change, Mendocino County, California (12-09-2827P)	Federal Emergency Management Agency	Washington, D.C.	February 28, 2013	https://msc.fema.gov/portal/home
FEMA 2014	Michael Baker Jr., Inc	Mendocino County, California Flood Data Updates - Coastal OPC PMR	Michael Baker Jr., Inc	Washington, D.C.	January 2014	—
FEMA 2015	Federal Emergency Management Agency	*Flood Insurance Study, Sonoma County, California and Incorporated Areas*	—	Washington, D.C.	October 2, 2015	FEMA Flood Map Service Center https://msc.fema.gov

Table 32: 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
FEMA 2015(a)	Federal Emergency Management Agency	Letter of Map Change, Mendocino County, California (14-09-3500P)	Federal Emergency Management Agency	Washington, D.C.	January 29, 2015	https://msc.fema.gov/portal/home
FEMA 2016	Federal Emergency Management Agency	Guidance for Flood Risk Analysis and Mapping, Automated Engineering	Federal Emergency Management Agency	Washington, D.C.	May 2016	https://www.fema.gov/media-library/assets/documents/34519
FEMA 2016(a)	Federal Emergency Management Agency	*Flood Insurance Study, Trinity County, California and Incorporated Areas*	—	Washington, D.C.	July 20, 2016	FEMA Flood Map Service Center https://msc.fema.gov
FEMA 2016(b)	Federal Emergency Management Agency	*Flood Insurance Study, Humboldt County, California and Incorporated Areas*	—	Washington, D.C.	November 4, 2016	FEMA Flood Map Service Center https://msc.fema.gov
FEMA 2017	Federal Emergency Management Agency	*Flood Insurance Study, Sonoma County, California and Incorporated Areas*	—	Washington, D.C.	March 7, 2017	FEMA Flood Map Service Center https://msc.fema.gov
FEMA 2017(a)	Federal Emergency Management Agency	Data Capture Technical Reference	Federal Emergency Management Agency	Washington, D.C.	July 13, 2017	https://www.fema.gov/media-library/assets/documents/34519
FEMA 2017(b)	Federal Emergency Management Agency	Flood Insurance Rate Map (FIRM) Database Technical Reference	Federal Emergency Management Agency	Washington, D.C.	July 13, 2017	https://www.fema.gov/media-library/assets/documents/34519

Table 32: 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
FEMA 2017(c)	Federal Emergency Management Agency	*Mendocino County, California - Flood Insurance Study*	Federal Emergency Management Agency	Washington, D.C.	March 17, 2017	https://msc.fema.gov/portal/advanceSearch#searchresultsanchor
FEMA 2017(d)	Federal Emergency Management Agency	*Mendocino County, California - Flood Insurance Study*	Federal Emergency Management Agency	Washington, D.C.	July 18, 2017	https://msc.fema.gov/portal/advanceSearch#searchresultsanchor
FEMA 2018	Federal Emergency Management Agency	*Terrain Capture for BLE Zone A/ Orrs, Gibson, and Doolin*	Federal Emergency Management Agency	Reston, VA	January 1, 2018	
FIA 1976	U.S. Department of Housing and Urban Development, Federal Insurance Administration	*Flood Hazard Boundary Map, City of Willits, Mendocino County, California*	—	—	July 30, 1976	FEMA Flood Map Service Center https://msc.fema.gov
FIA 1978	U.S. Department of Housing and Urban Development, Federal Insurance Administration	*Flood Hazard Boundary Map, Mendocino County, California, Unincorporated Areas*	—	—	April 25, 1978	FEMA Flood Map Service Center https://msc.fema.gov
Hunt 1959	American Society of Civil Engineers (ASCE)	*Design of Seawalls and Breakwaters,* Proceedings of the ASCE, Vol. 85, No. WW3	I. J. Hunt	—	1959	—
Mendocino	Mendocino County, California, Planning Department	*County Zoning Regulations, Section 20-71*	—	Ukiah, California	—	—

Table 32: 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
Mendocino County 2008	Mendocino County GIS	*Corporate Boundaries, Street Centerlines*	Mendocino County GIS	Mendocino, CA	January 2008	
Meteorology International, Inc.	Meteorology International, Inc. (for California Department of Boating and Waterways)	*Deep-Water Wave Statistics for the California Coast*	—	—	—	—
NAUS 2000	National Atlas of the United States	*County boundary for the County of Mendocino*	National Atlas of the United States	Reston, VA	January 2000	
NCDC 1944-1983	U.S. Department of Commerce, National Climatic Data Center	*Meteorological Record for San Francisco, California, Airport*	—	Asheville, North Carolina	1944-1983	National Centers for Environmental Information www.ncdc.noaa.gov/
NCDC 1955-1983	U.S. Department of Commerce, National Climatic Data Center	*Three- Hourly North American Surface Weather Maps*	—	Asheville, North Carolina	1955-1983	National Centers for Environmental Information www.ncdc.noaa.gov/
NGS 2002	National Geodetic Survey	*Permanent Bench Mark Data Sheets*	National Geodetic Survey	Washington, D.C.	January 2002	
NOAA 1945-1983	U.S. Department of Commerce, National Oceanic and Atmospheric Administration	*Tide Tables, High and Low Water Predictions, West Coast of North and South America*	—	—	1945-1983	National Oceanic and Atmospheric Administration www.noaa.gov/

Table 32: 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
NOAA 1945-1983	U.S. Department of Commerce, National Oceanic and Atmospheric Administration	*Tide Tables, High and Low Water Predictions, West Coast of North and South America*	—	—	1945-1983	National Oceanic and Atmospheric Administration www.noaa.gov/
NOAA 2017	National Oceanic and Atmospheric Administration	*U.S. Hydrometeorological Design Studies Center Precipitation Frequency Data Server (PFDS)*	National Oceanic and Atmospheric Administration	Washington, D.C.	April 21, 2017	https://hdsc.nws.noaa.gov/hdsc/pfds/pfds_map_cont.html?bkmrk=ca
Noyo 1989	Noyo Port District, Noyo Harbor District	*Request for Proposal Waterfront Restoration Plan*	—	—	May 17, 1989	—
Ott Water 1983(a)	Ott Water Engineers, Inc.	*Aerial Photography, Scale 1:4,800, Contour Interval 4 Feet*	—	—	1983	—
Ott Water 1983(b)	Ott Water Engineers, Inc.	*Aerial Photography, Point Arena Cove, Scale 1:4,800, Contour Interval 4 Feet*	—	—	1983	—
Ott Water 1984	Ott Water Engineers, Inc. (for FEMA)	*Northern California Coastal Flood Studies*	—	—	August 1984	—
Pacific Gas and Electric 1979	Pacific Gas and Electric	*Telephone Communication*	Paul Land	San Francisco, California	April 1979	—
Pagenkopf 1976	R. M. Parsons Laboratory, M.I.T. (with modification made by Ott Water Engineers, Inc.)	*A Two-Dimensional Finite Element Circulation Model, A User's Manual for CAFE-1*	James R. Pagenkopf	—	August 1976	—

Table 32: 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
Philip Williams 1990	Philip Williams and Associates. Ltd.	*Work Map, Flood Insurance Study, Noyo River, Mendocino County, California, Scale 1:2,400, Contour Interval 2 feet*	—	—	October 31, 1990	—
STARR 2019	Federal Emergency Management Agency	*Mendocino County, California 2D Model*	STARR II	Calverton, MD	—	—
STARR 2020	Federal Emergency Management Agency	*Doolin Creek Flood Hazard Study, Mendocino County, California*	STARR II	Calverton, MD	January 2020	http://axis.na.atkinsglobal.com/na/Pages/default.aspx
STARR 2020(a)	Federal Emergency Management Agency	*Mendocino County, California 1D Model*	STARR II	Calverton, MD	—	—
STARR 2021	Federal Emergency Management Agency	*Submittal Information*	STARR II	Calverton, MD	July 23, 2021	http://axis.na.atkinsglobal.com/na/Pages/default.aspx
STARR 2021(a)	Federal Emergency Management Agency	*Submittal Information*	STARR II	Calverton, MD	September 28, 2021	—
STARR II 2020	Federal Emergency Management Agency	*BLE Data Incorporation*	STARR II	Washington, D.C.	July 12, 2019	https://msc.fema.gov

Table 32: 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 II 2020(a)	Federal Emergency Management Agency	*Gibson and Orrs Creeks Hydraulic Analyses, Mendocino County, California*	STARR II	Washington, D.C.	9/30/2020	https://msc.fema.gov
STARR II 2024	Federal Emergency Management Agency	*Gibson Creek and Orrs Creeks Revised Prelim, Mendocino County, California*	STARR II	Washington, D.C.	5/1/2024	—
Towill 1979(a)	Towill Corporation	*Contour Map of the City of Ukiah, Scale 1:4,800, Contour Interval 5 Feet*	—	San Francisco, California	September 1979	—
Towill 1979(b)	Towill Corporation	*Contour Map of the City of Willits, Scale 1:4,800, Contour Interval 5 Feet*	—	San Francisco, California	September 1979	—
URS 2008	URS-Albuquerque	*Flood Insurance Study of Shasta County, CA*	URS-Albuquerque	Albuquerque, NM	11/13/2008	—
Towill 1979(a)	Towill Corporation	*Contour Map of the City of Ukiah, Scale 1:4,800, Contour Interval 5 Feet*	—	San Francisco, California	September 1979	—
Towill 1979(b)	Towill Corporation	*Contour Map of the City of Willits, Scale 1:4,800, Contour Interval 5 Feet*	—	San Francisco, California	September 1979	—
URS 2008	URS-Albuquerque	*Flood Insurance Study of Shasta County, CA*	URS-Albuquerque	Albuquerque, NM	November 13, 2008	—

Table 32: 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
URS 2008	URS-Albuquerque	Flood Insurance Study of Shasta County, CA	URS-Albuquerque	Albuquerque, NM	November 13, 2008	—
USACE (a)	U.S. Department of the Army, Corps of Engineers, San Francisco District	*Reservoir Regulation Manual - Coyote Dam*	—	San Francisco, California	—	—
USACE (b)	U.S. Department of the Army, Corps of Engineers, San Francisco District	*High-Water-Mark Data for Eel River, Flood of December 1964*	—	San Francisco, California	—	—
USACE (c)	U.S. Department of the Army, Corps of Engineers, San Francisco District	*High-Water-Mark Data for Russian River, Flood of December 1964*	—	San Francisco, California	—	—
USACE 1956	U.S. Department of the Army, Corps of Engineers, San Francisco District	*Report of Floods of December 1955 and January 1956 in Northern California Coastal Streams*	—	San Francisco, California	June 1956	—
USACE 1965(a)	U.S. Department of the Army, Corps of Engineers, San Francisco District	*Inspection of Northwestern California Disaster Area*	Special Subcommittee on Flood Disasters, Committee on Public Works, U.S. House of Representatives	San Francisco, California	January 10-12, 1965	—

Table 32: 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
USACE 1965(b)	U.S. Department of the Army, Corps of Engineers, San Francisco District	*Report on Floods of December 1964 in Northern California Coastal Streams, Volume III, Flood Plains on the Eel River, Northern California Coastal Streams, and the Russian River*	—	San Francisco, California	December 1965	—
USACE 1974	U.S. Department of the Army, Corps of Engineers, Waterway Experiment Station	*Flood Insurance Study: Tsunami Prediction for Pacific Coastal Communities, Technical Report H-74-3*	J. R Houston & A. W. Garcia	—	May 1974	—
USACE 1975(a)	U.S. Department of the Army, Corps of Engineers, Galveston District	*Guidelines for Identifying Coastal High Hazard Zones*	—	—	June 1975	—
USACE 1975(b)	U.S. Department of the Army, Office of the Chief of Engineers	*Final Environmental Statement, Maintenance Dredging, Noyo River Channel, Noyo Harbor, Mendocino County, California*	—	—	August 1975	—
USACE 1977	U.S. Department of the Army, Corps of Engineers	*Shore Protection Manual*	—	—	1977	U.S. Army Corps of Engineers www.usace.army.mil/
USACE 1978(a)	U.S. Department of the Army, Corps of Engineers	*California Coast Storm Damage, Winter 1977-1978*	G. W. Domurat	—	1978	U.S. Army Corps of Engineers www.usace.army.mil/

Table 32: 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
USACE 1978(b)	U.S. Department of the Army, Corps of Engineers, Coastal Engineering Research Center	*Revised Wave Run-up Curves for Smooth Slopes, Technical Aid No.* 78-2	P. N. Stoa	—	July 1978	—
USACE 1978(c)	U.S. Department of the Army, Corps of Engineers, Waterway Experiment Station	*Flood Insurance Study: Tsunami Prediction for the West Coast of the Continental United States, Technical Report H-78-26*	J. R Houston & A. W. Garcia	—	December 1978	—
USACE 1979(a)	U.S. Department of the Army, Corps of Engineers, Waterway Experiment Station	*Numerical Model for Tsunami Inundation,* Technical Report HL-79-2	J. R Houston & H. L. Butler	—	February 1979	—
USACE 1979(b)	U.S. Department of the Army, Corps of Engineers, Hydrologic Engineering Center	*HEC-2 Water Surface Profiles, Generalized Computer Program, User's Manual*	—	Davis, California	August 1979	U.S. Army Corps of Engineers Hydrologic Engineering Center www.hec.usace.army.mil/
USACE 1984	U.S. Department of the Army, Corps of Engineers	*Shore Protection Manual, Volumes 1–3*	U.S. Government Printing Office	Washington, D.C.	1984	U.S. Army Corps of Engineers www.usace.army.mil/
USACE 1997	U.S. Department of the Army, Corps of Engineers	*OEC 1997 Levee database*	Army Corps of Engineers	Washington, D.C.	January 1997	—

Table 32: 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
USACE 2018	U.S. Army Corps of Engineers Hydrologic Engineering Center	*HEC-RAS River Analysis System, Version 5.05*	—	Davis, California	June 2018	—
U.S. Census 2008	U.S. Department of Commerce, Bureau of the Census	*"State & County Quickfacts"*	—	Website. accessed October 2008	2008	U.S. Census Bureau www.census.gov/
USCB 2018	U.S. Department of Commerce, U.S. Census Bureau, Geography	*Transportation Lines*	U.S. Department of Commerce, U.S. Census Bureau, Geography	Washington, D.C.	January 2018	https://www.census.gov/cgi-bin/geo/shapefiles/index.php?year=2018&layergroup=Roads
USDA 2005	U.S. Department of Agriculture - Farm Service Agency	*(NAIP) National Agriculture Imagery Program*	U.S. Department of Agriculture - Farm Service Agency	Salt Lake City, UT	November 15, 2010	https://gdg.sc.egov.usda.gov\
USDA 2013	U.S. Department of Commerce, U.S. Census Bureau, Geography Division	*TIGER/Line Files, 2013 Mendocino County*	U.S. Department of Commerce, U.S. Census Bureau, Geography Division	Washington, D.C.	January 2013	—
USDA 2014	Department of Agriculture - Farm Service Agency	*USDA-FSA-APFO NAIP MrSID Mosaic - Orthoimagery for Mendocino County, CA - 2014*	Department of Agriculture - Farm Service Agency	Salt Lake City, UT	January 2014	—
USDA 2017	U.S. Department of Commerce, U.S. Census Bureau, Geography Division	*TIGER/Line File - Transportation Lines, Mendocino, CA 2017*	U.S. Department of Commerce, U.S. Census Bureau, Geography Division	Washington, D.C.	January 2017	—

Table 32: Bibliography and References *(continued)*

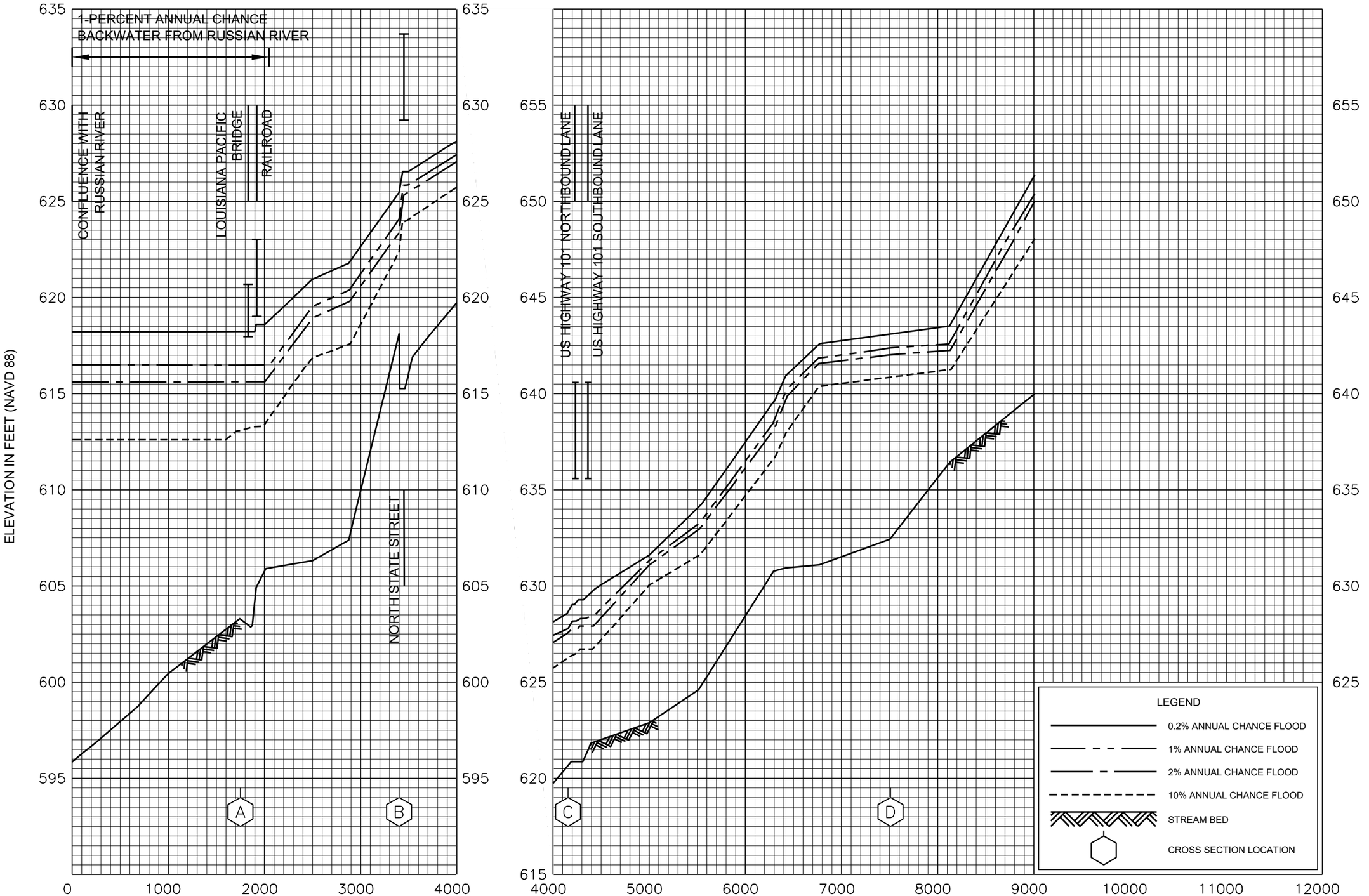
Citation in this FIS	Publisher/ Issuer	*Publication Title,* "Article," Volume, Number, etc.	Author/Editor	Place of Publication	Publication Date/ Date of Issuance	Link
USDA/NRCS 2016	USDA-NRCS Aerial Photography	Base Map Imagery	USDA-NRCS Aerial Photography	Salt Lake City, UT	9/30/2016	https://nrcs.app.box.com/v/naip
USDA/NRCS 2021	United States Department of Agriculture - Natural Resources Conservation Services	*HUC8 Subbasins*	United States Department of Agriculture - Natural Resources Conservation Services	Fort Worth, TX	September 9, 2021	https://datagateway.nrcs.usda.gov\
U.S. Department of Commerce	U.S. Department of Commerce, National Oceanic and Atmospheric Administration, Tidal Datums and Information Branch, Tides an Water Levels Division	*Summary of Extreme Water Levels for San Francisco, Point Reyes, Arena Cove, and Crescent City*	—	—	—	—
USGS 1958	U.S. Department of the Interior, Geological Survey	*15-Minute Series Topographic Maps, Scale 1:62,500, Contour Interval 80 Feet, Ukiah, CA*	—	Washington, D.C.	1958	USGS Store store.usgs.gov
USGS 1961	U.S. Department of the Interior, Geological Survey	*15-Minute Series Topographic Maps, Scale 1:62,500, Contour Interval 80 Feet, Willits, CA*	—	Washington, D.C.	1961	USGS Store store.usgs.gov/
USGS 1969	U.S. Department of the Interior, Geological Survey	*Floods of December 1964 and January 1965 Far Western States, Water-Supply Paper 1866*	—	—	1969	—

Table 32: 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
USGS 1975	U.S. Department of the Interior, Geological Survey	*Supplementary Guidelines for Flood Discharge Computation in HUD Type-15 Studies, Technical Memorandum*	—	—	May 5, 1975	—
USGS 1977(a)	U.S. Department of the Interior, Geological Survey	*Magnitude and Frequency of Floods in California, Water-Resources Investigations Report, 77-21*	A. O. Waananen & J. R. Crippen	Menlo Park, California	June 1977	USGS Publication Warehouse pubs.usgs.gov/wri/wri77-21/
USGS 1989	U.S. Geological Survey	*USGS 7.5-minute Series Topographic Maps*	U.S. Geological Survey	Washington, D.C.	January 1989	—
USGS 1977(b)	U.S. Department of the Interior, Geological Survey	*Guidelines for Determining Flood Flow Frequency, Hydrology Subcommittee, Bulletin #17A*	—	Reston, VA	June 1977	—
USGS 2006	U.S. Geological Survey	*National Hydrography Dataset*	U.S. Geological Survey	Reston, VA	January 2006	—
USGS 2009-2011	U.S. Geological Survey / National Oceanic and Atmospheric Administration	*LiDAR OPC / USGS 2009 - 2011 & BATH NOAA*	U.S. Geological Survey / National Oceanic and Atmospheric Administration	Washington, D.C.	January 2011	—
USGS 2012	U.S. Geological Survey	*The StreamStats Application for California*	U.S. Geological Survey	Reston, VA	January 2012	https://streamstats.usgs.gov/ss/

Table 32: 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
USGS 2012(a)	U.S. Geological Survey	*Water-Resources Investigations Report 2012-5113 Methods for Determining Magnitude and Frequency of Floods in California, Based on Data through Water Year 2006*	U.S. Geological Survey	Reston, VA	January 2012	https://pubs.usgs.gov/sir/2012/5113/pdf/sir2012-5113.pdf
USGS 2017	U.S. Geological Survey	*California Water Science Center*	U.S. Geological Survey	Reston, VA	December 18, 2017	https://pa.water.usgs.gov/infodata/gisdata.php
USGS 2017(a)	U.S. Geological Survey	USGS National Hydrography Dataset (NHD) Best Resolution for California State	U.S. Geological Survey	Reston, VA	September 9, 2017	https://www.sciencebase.gov/catalog/item/58c92391e4b0849ce97b41cc
USGS 2018	U.S. Geological Survey	*Water lines and water area*	U.S. Geological Survey	Reston, VA	August 21, 2018	https://www.usgs.gov/core-science-systems/ngp/national-hydrography/access-national-hydrography-products
USGS 2018(a)	U.S. Geological Survey	*National Water Information System: Web Interface*	U.S. Geological Survey	Reston, VA	January 5, 2018	https://nwis.waterdata.usgs.gov/CA/nwis/
USGS 2018(b)	U.S. Geological Survey	*United States Geological Survey National Map Viewer*	U.S. Geological Survey	Reston, VA	January 2018	https://viewer.nationalmap.gov/basic/
van der Meer 2002	Technical Advisory Committee for Water Retaining Structures (TAW)	*Wave Run-up and Wave Overtopping at Dikes, Technical Report*	J. W. van der Meer	Delft, Netherlands	May 2002	—
Winsler & Kelly 1970	Winsler and Kelly Consulting Engineers (for Humboldt County Board of Supervisors)	*Humboldt County Water Requirements and Water Resources, Phase 1*	Winsler and Kelly Consulting Engineers	Eureka, California	May 1970	—



FLOOD PROFILES

ACKERMAN CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

MENDOCINO COUNTY, CA
AND INCORPORATED AREAS

01P

ELEVATION IN FEET (NAVD 88)

685
680
675
670
665
660
655
650
645
640

9000
10000
11000
12000

E
F

ORR SPRINGS ROAD
LIMIT OF DETAILED STUDY

LEGEND
- 0.2% ANNUAL CHANCE FLOOD
- 1% ANNUAL CHANCE FLOOD
- 2% ANNUAL CHANCE FLOOD
- 10% ANNUAL CHANCE FLOOD
- STREAM BED
- CROSS SECTION LOCATION

STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH RUSSIAN RIVER

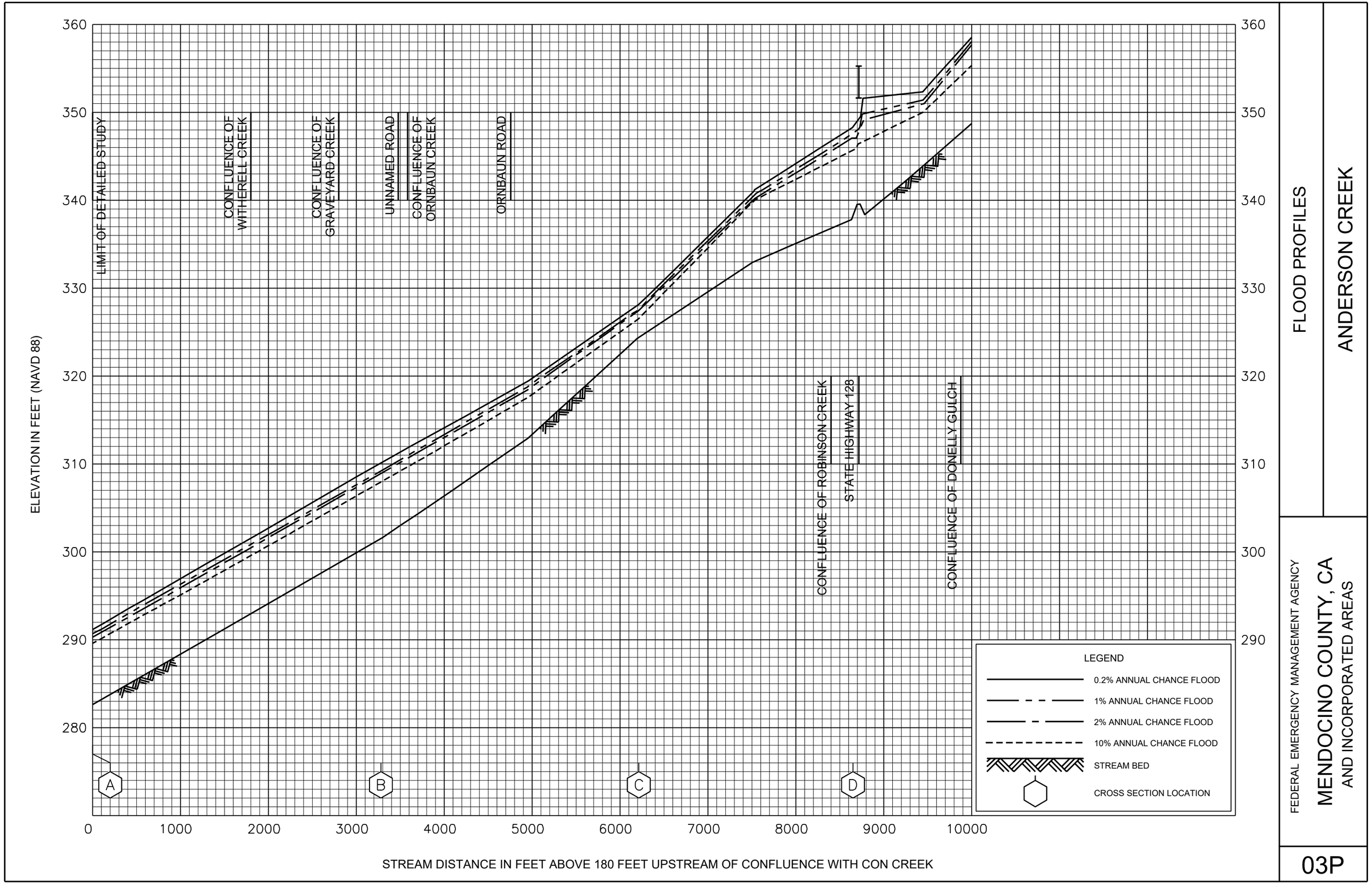
FLOOD PROFILES

ACKERMAN CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

MENDOCINO COUNTY, CA
AND INCORPORATED AREAS

02P



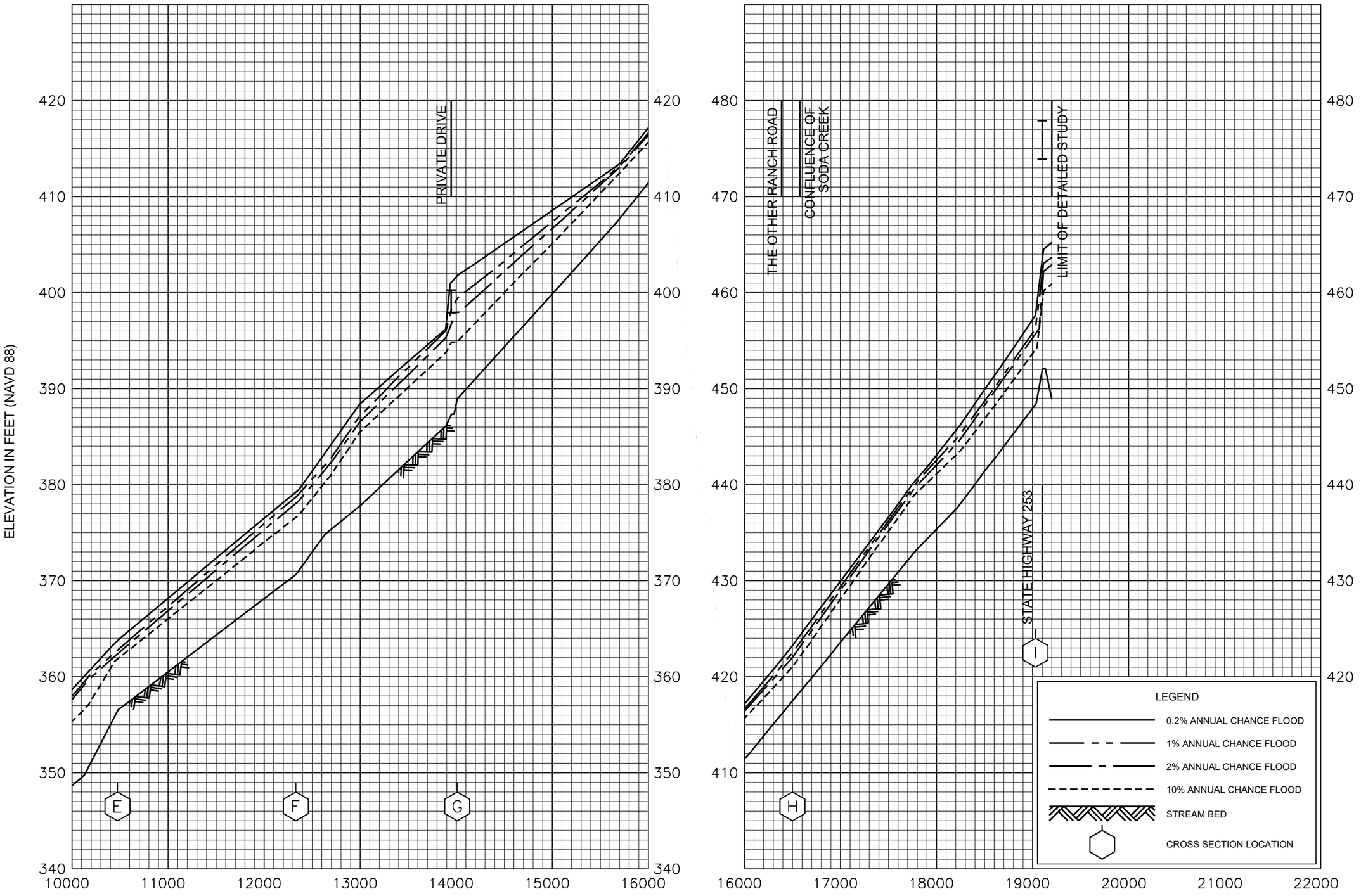
FLOOD PROFILES

ANDERSON CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

MENDOCINO COUNTY, CA
AND INCORPORATED AREAS

03P



FLOOD PROFILES

ANDERSON CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

MENDOCINO COUNTY, CA
AND INCORPORATED AREAS

04P

NOTE: THE 0.2% ANNUAL CHANCE FLOOD PROFILE IS TOO CLOSE TO THE 1% ANNUAL CHANCE FLOOD ELEVATION TO BE SHOWN SEPARATELY

LIMIT OF 1D/2D MODELING

ELEVATION IN FEET (NAVD 88)

1,360
1,355
1,350
1,345
1,340
1,335
1,330
1,325
1,320
1,315

8,600 8,800 9,000 9,200 9,400 9,600 9,800 10,000 10,200 10,400 10,600 10,800 11,000 11,200

STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH OUTLET CREEK

LEGEND
- 0.2% ANNUAL CHANCE FLOOD
- "1%+" ANNUAL CHANCE FLOOD*
- 1% ANNUAL CHANCE FLOOD
- 2% ANNUAL CHANCE FLOOD*
- 4% ANNUAL CHANCE FLOOD*
- 10% ANNUAL CHANCE FLOOD*
- STREAM BED
- A — CROSS SECTION LOCATION

* DATA NOT AVAILABLE

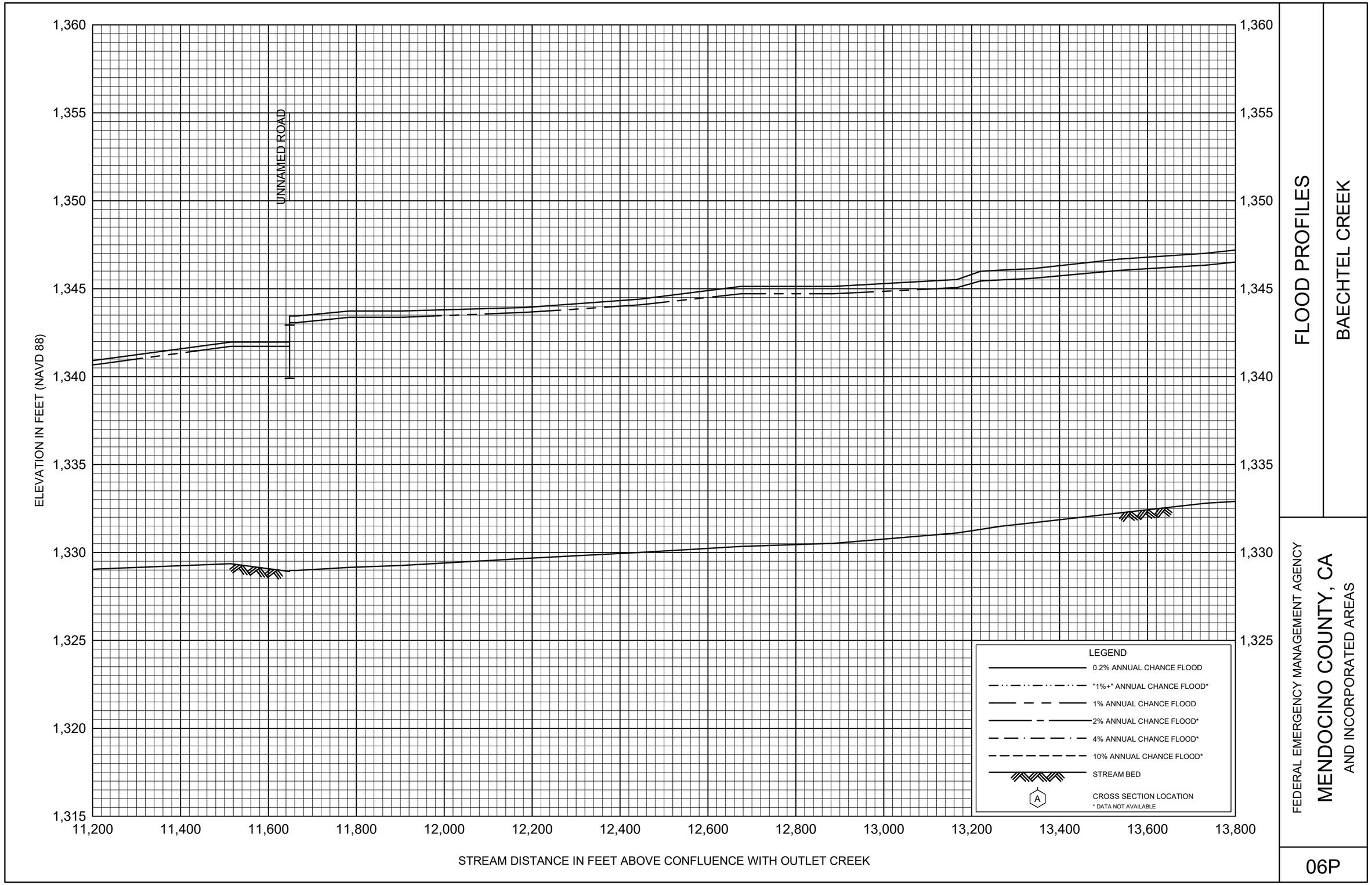
FLOOD PROFILES

BAECHTEL CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

MENDOCINO COUNTY, CA
AND INCORPORATED AREAS

05P



FLOOD PROFILES

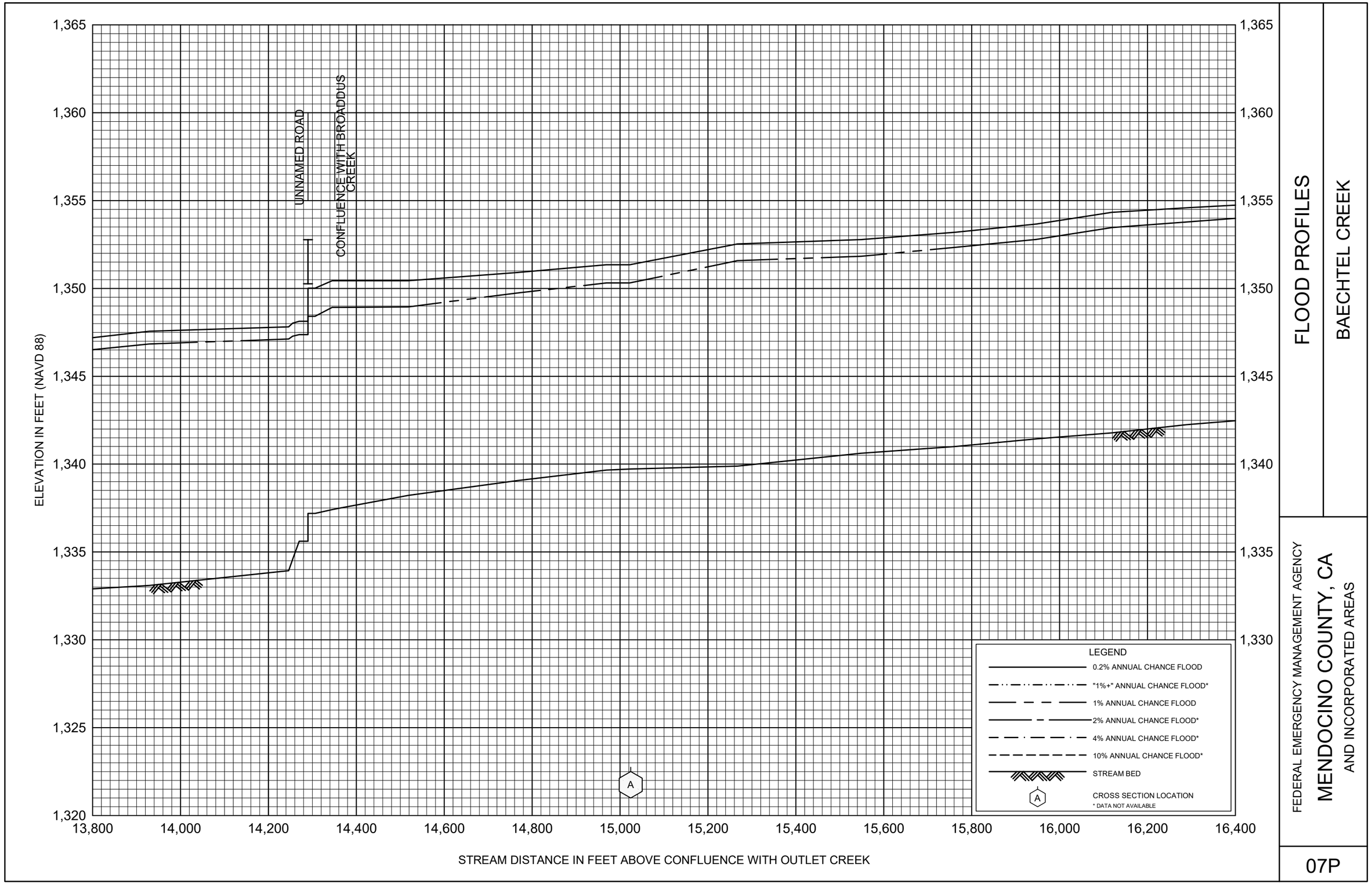
BAECHTEL CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

MENDOCINO COUNTY, CA

AND INCORPORATED AREAS

06P



FLOOD PROFILES

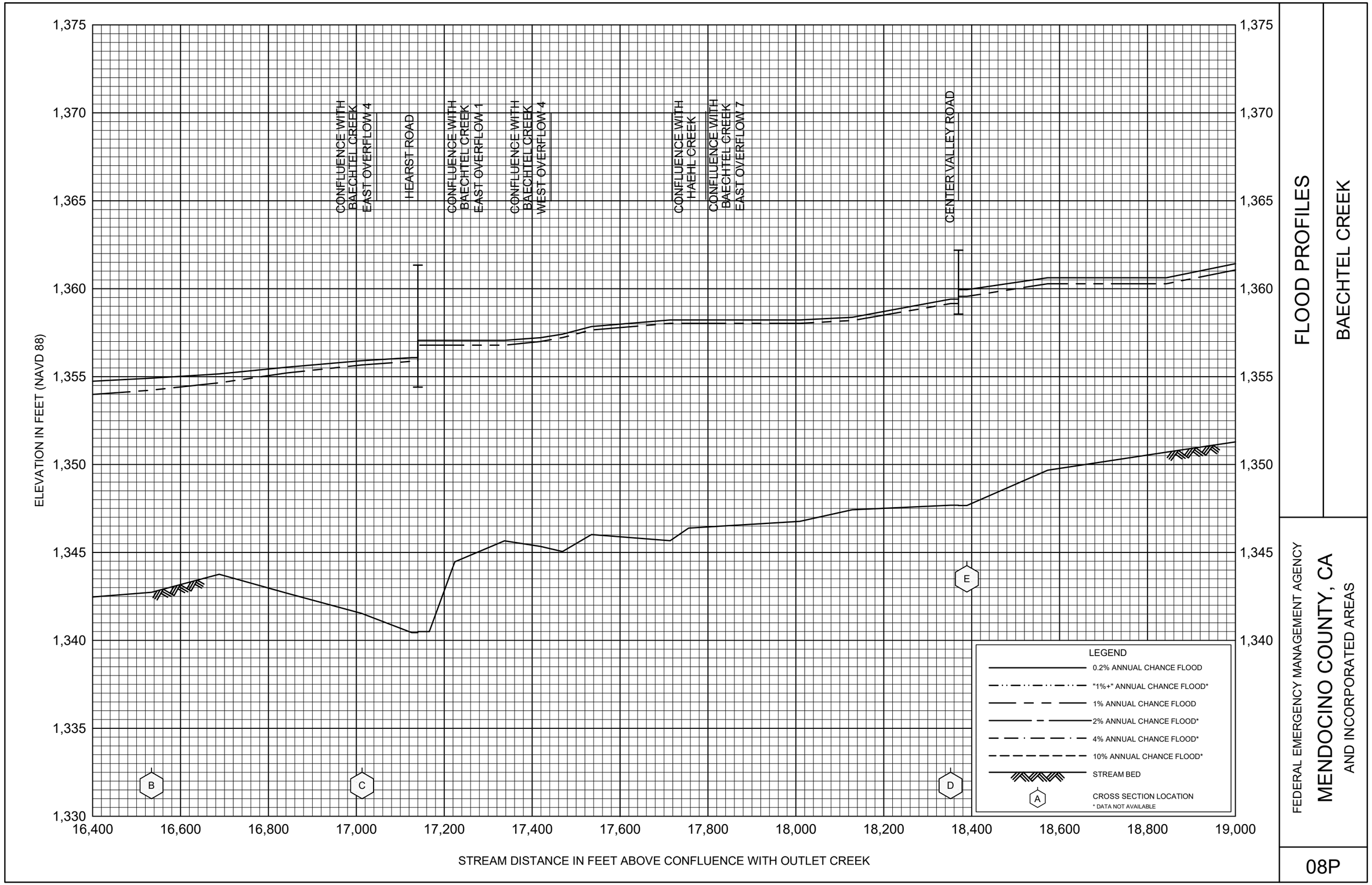
BAECHTEL CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

MENDOCINO COUNTY, CA

AND INCORPORATED AREAS

07P



FLOOD PROFILES

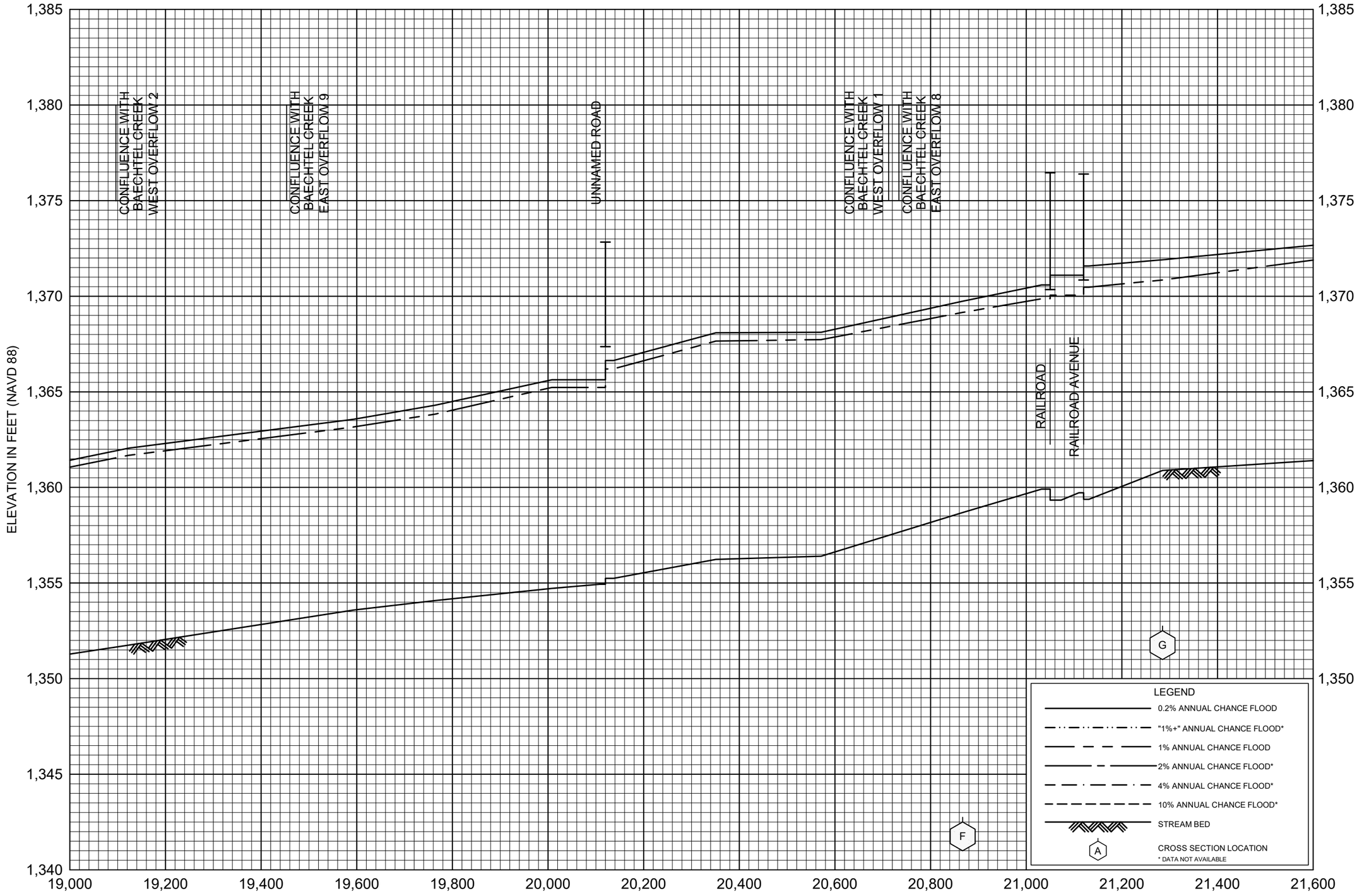
BAECHTEL CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

MENDOCINO COUNTY, CA

AND INCORPORATED AREAS

08P



FLOOD PROFILES

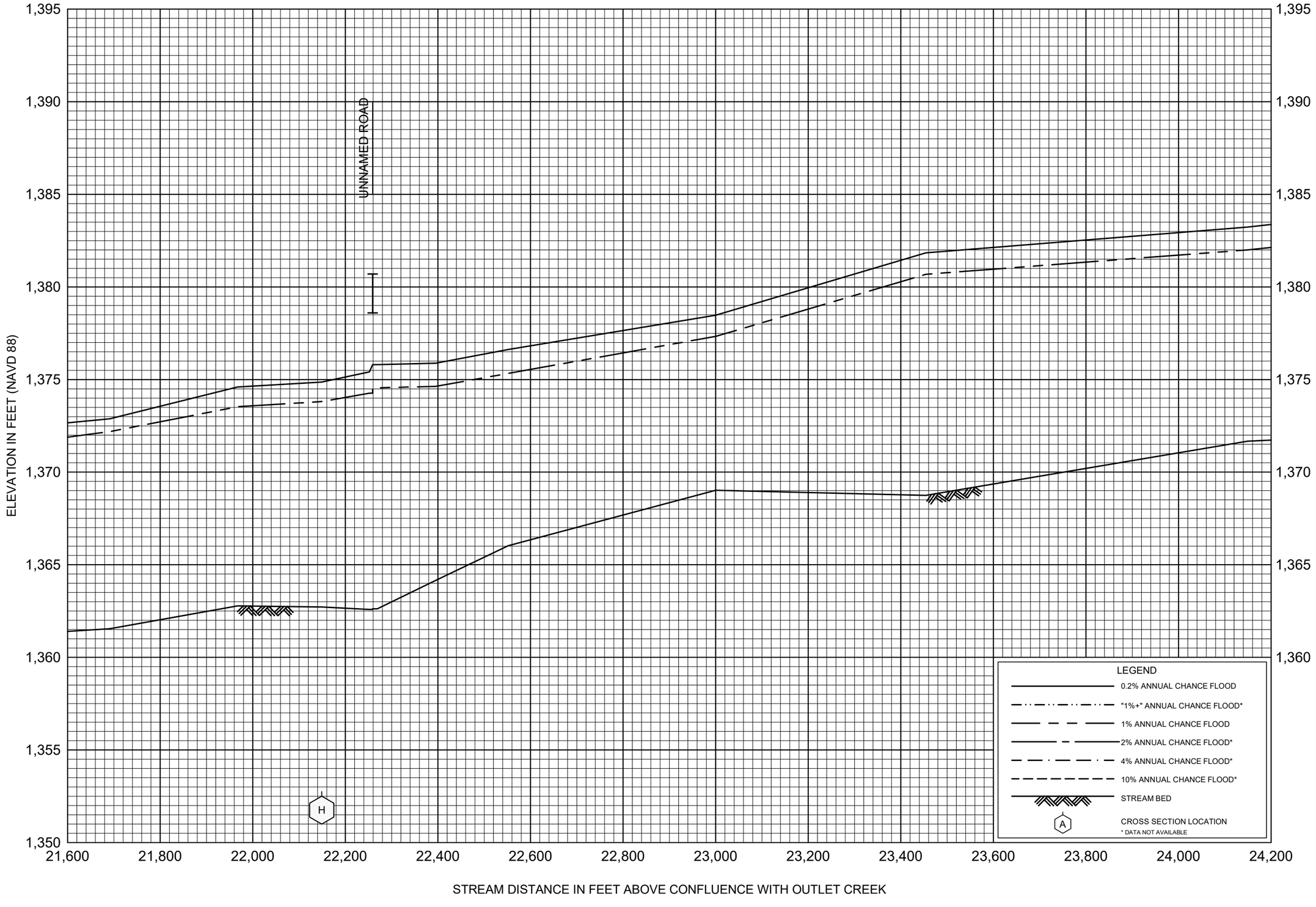
BAECHTEL CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

MENDOCINO COUNTY, CA

AND INCORPORATED AREAS

09P



FLOOD PROFILES

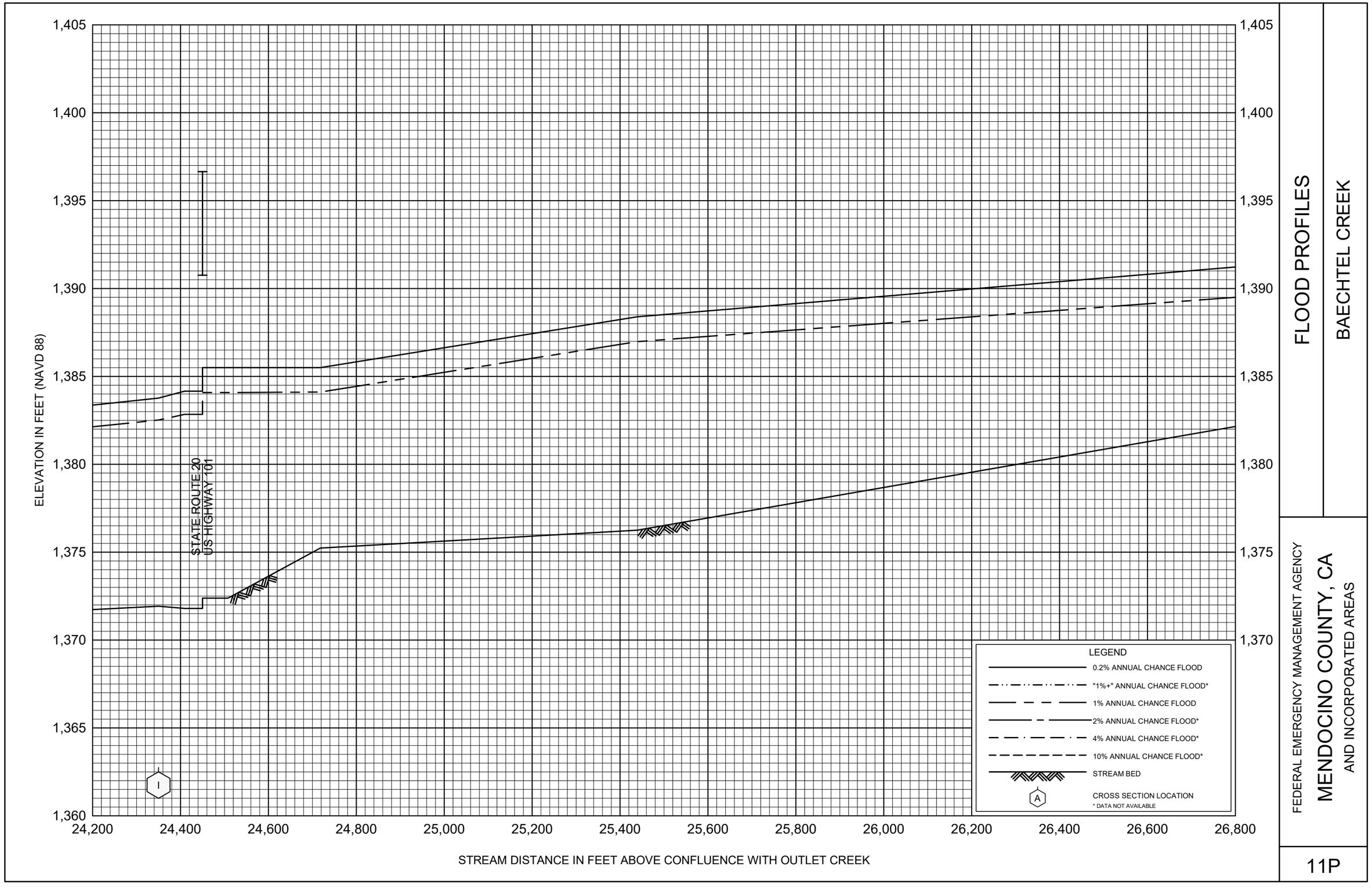
BAECHTEL CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

MENDOCINO COUNTY, CA

AND INCORPORATED AREAS

10P



FLOOD PROFILES

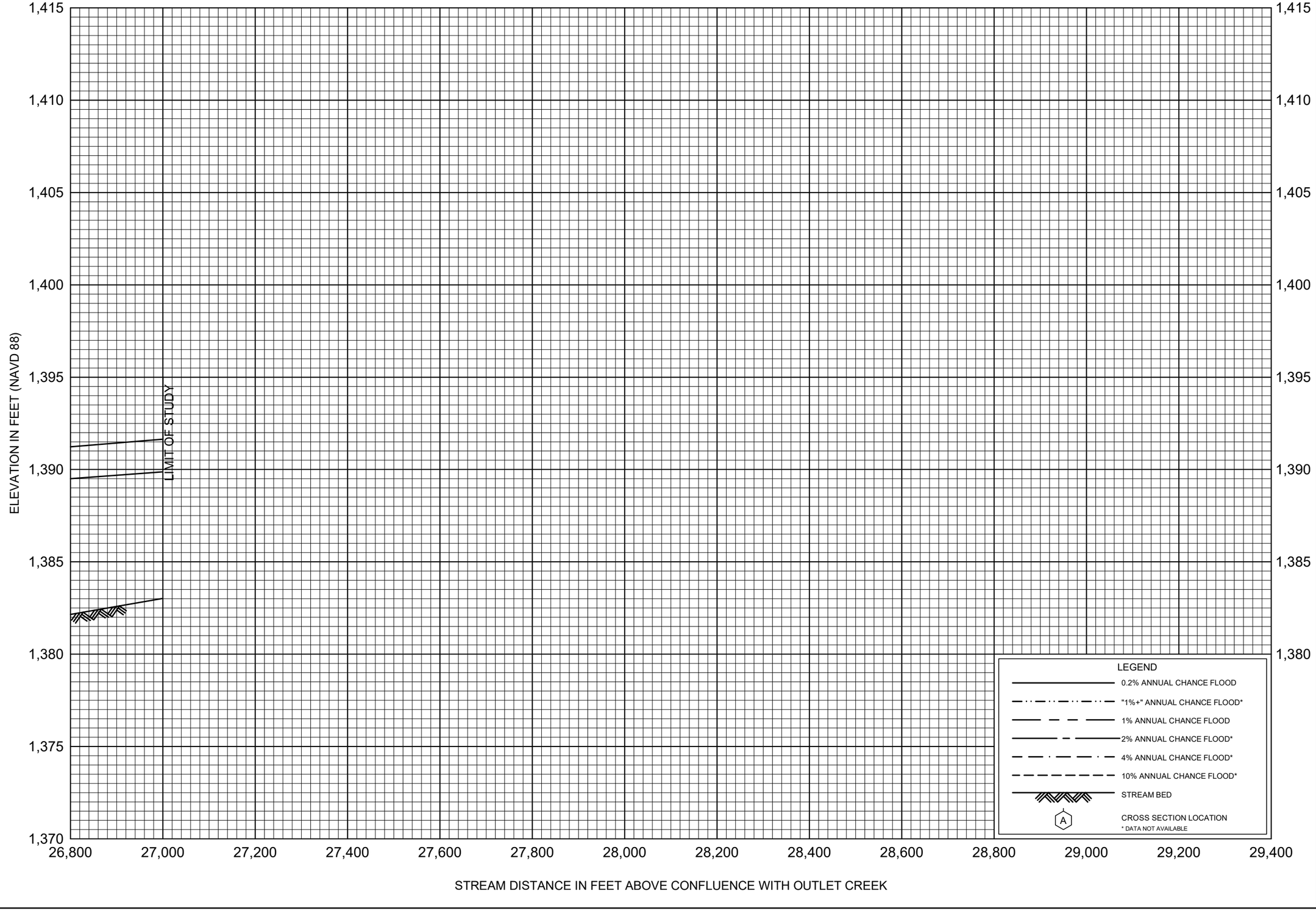
BAECHTEL CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

MENDOCINO COUNTY, CA

AND INCORPORATED AREAS

11P



FLOOD PROFILES

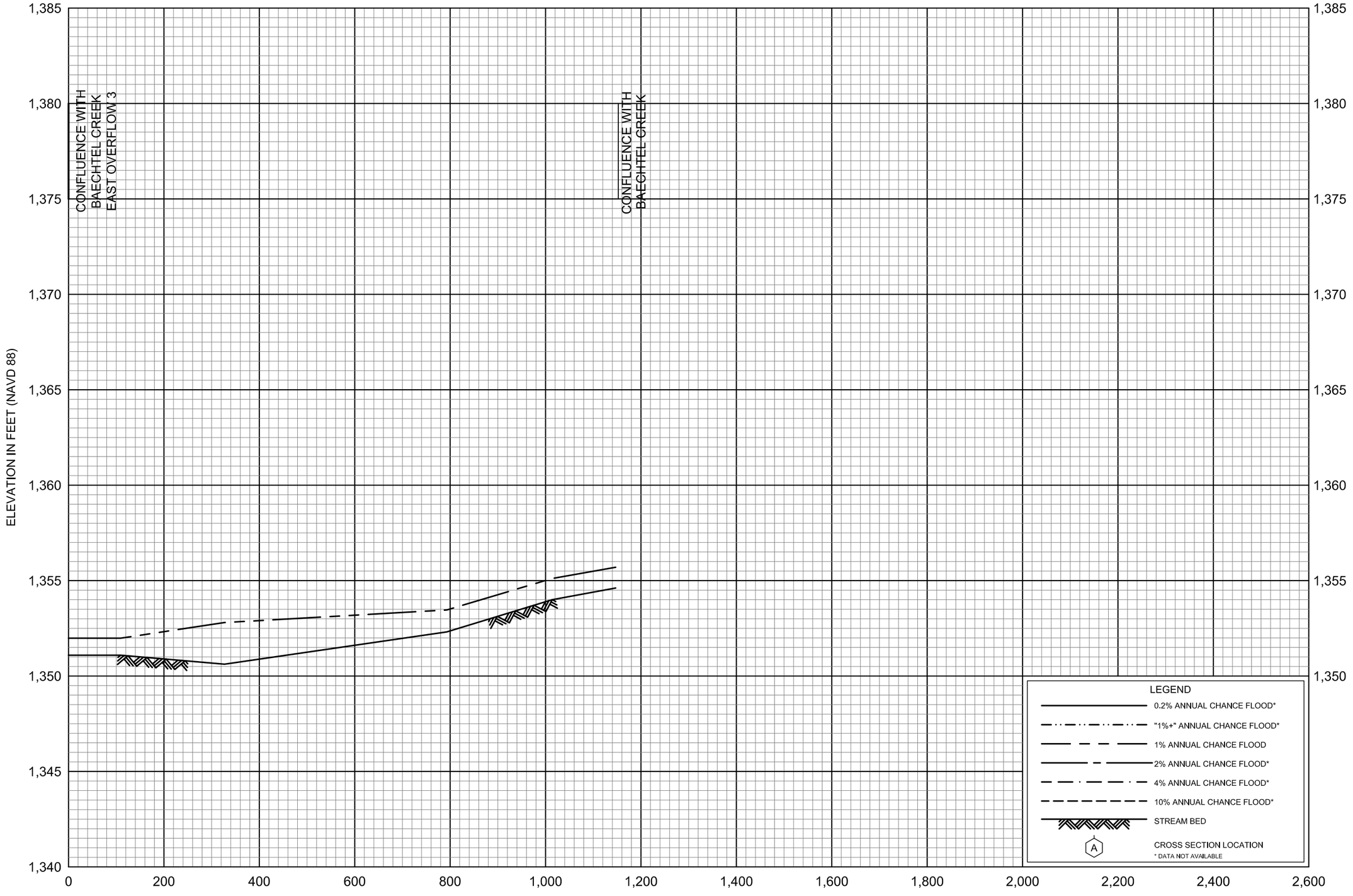
BAECHTEL CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

MENDOCINO COUNTY, CA

AND INCORPORATED AREAS

12P



FLOOD PROFILES

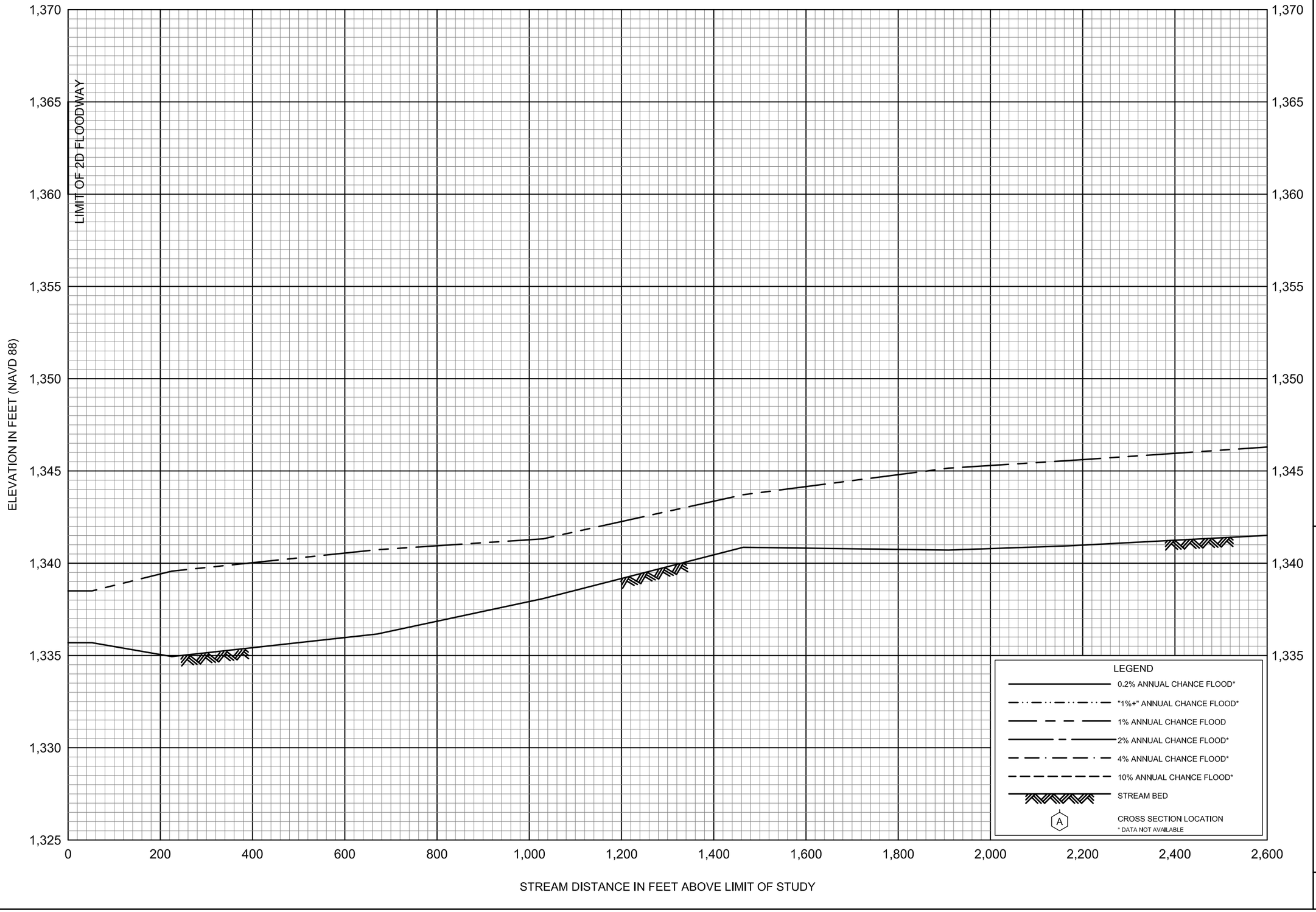
BAECHTEL CREEK EAST OVERFLOW 1

FEDERAL EMERGENCY MANAGEMENT AGENCY

MENDOCINO COUNTY, CA

AND INCORPORATED AREAS

13P



FLOOD PROFILES

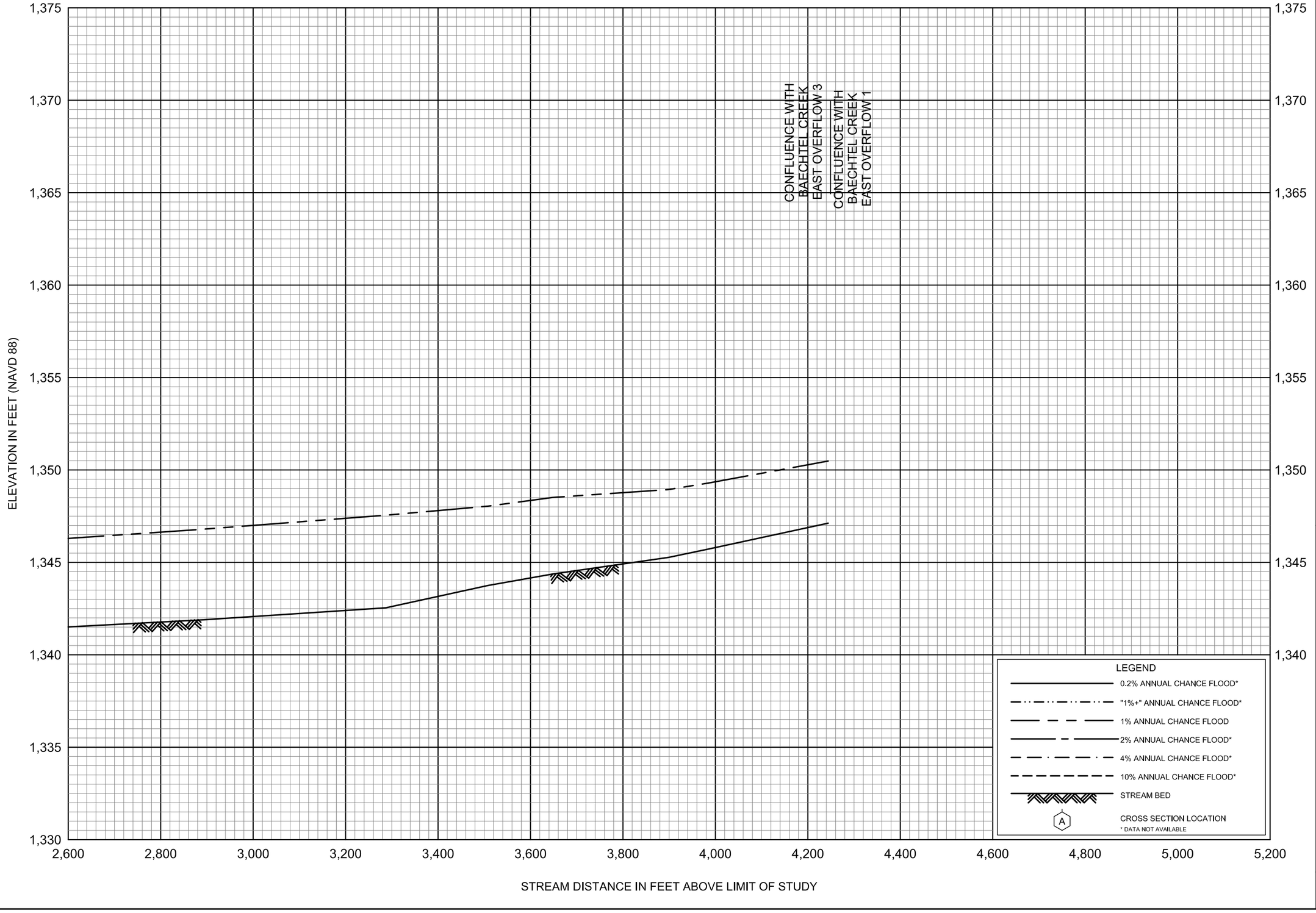
BAECHTEL CREEK EAST OVERFLOW 2

FEDERAL EMERGENCY MANAGEMENT AGENCY

MENDOCINO COUNTY, CA

AND INCORPORATED AREAS

14P



FLOOD PROFILES

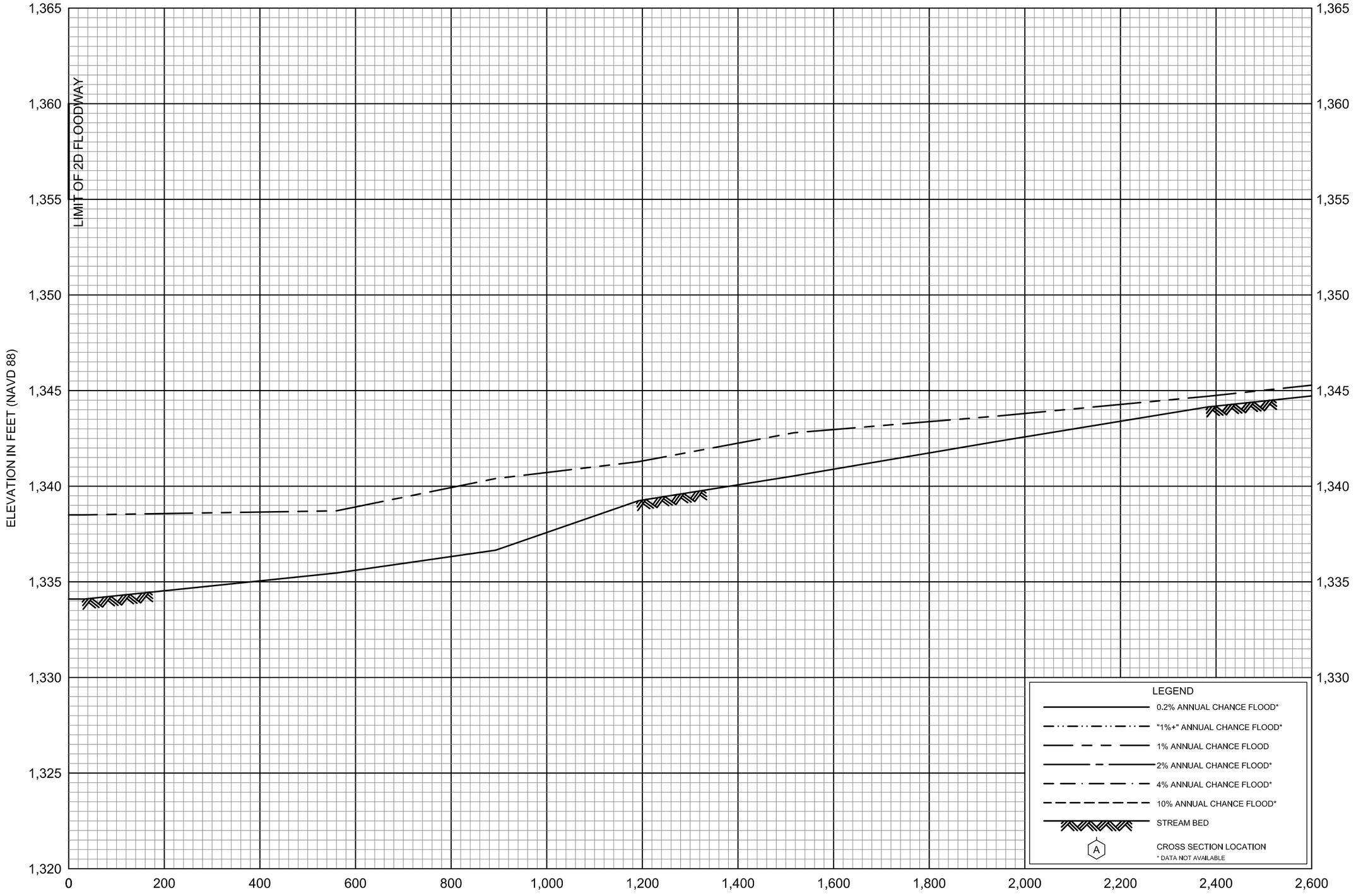
BAECHTEL CREEK EAST OVERFLOW 2

FEDERAL EMERGENCY MANAGEMENT AGENCY

MENDOCINO COUNTY, CA

AND INCORPORATED AREAS

15P



FLOOD PROFILES

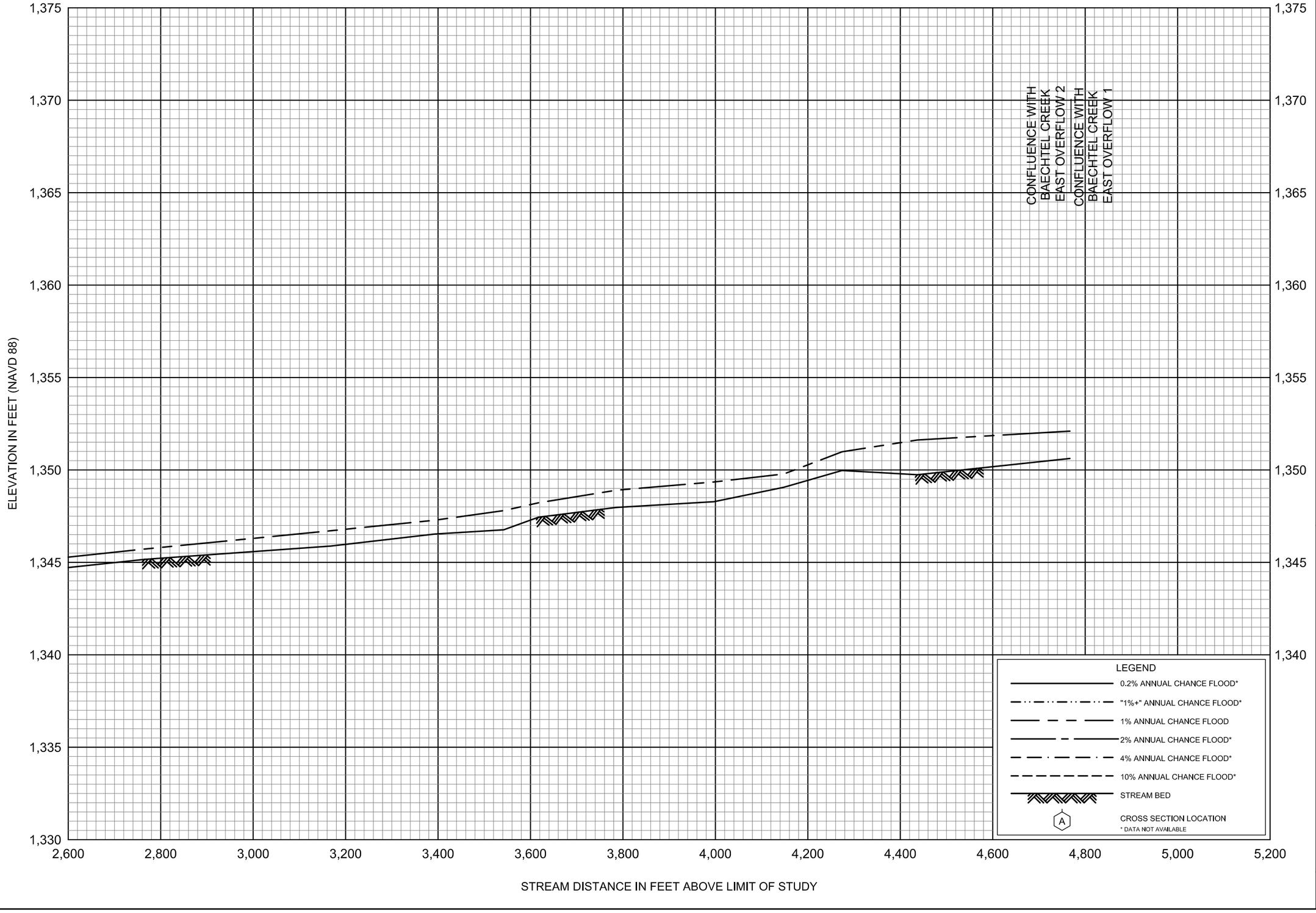
BAECHTEL CREEK EAST OVERFLOW 3

FEDERAL EMERGENCY MANAGEMENT AGENCY

MENDOCINO COUNTY, CA

AND INCORPORATED AREAS

16P



FLOOD PROFILES

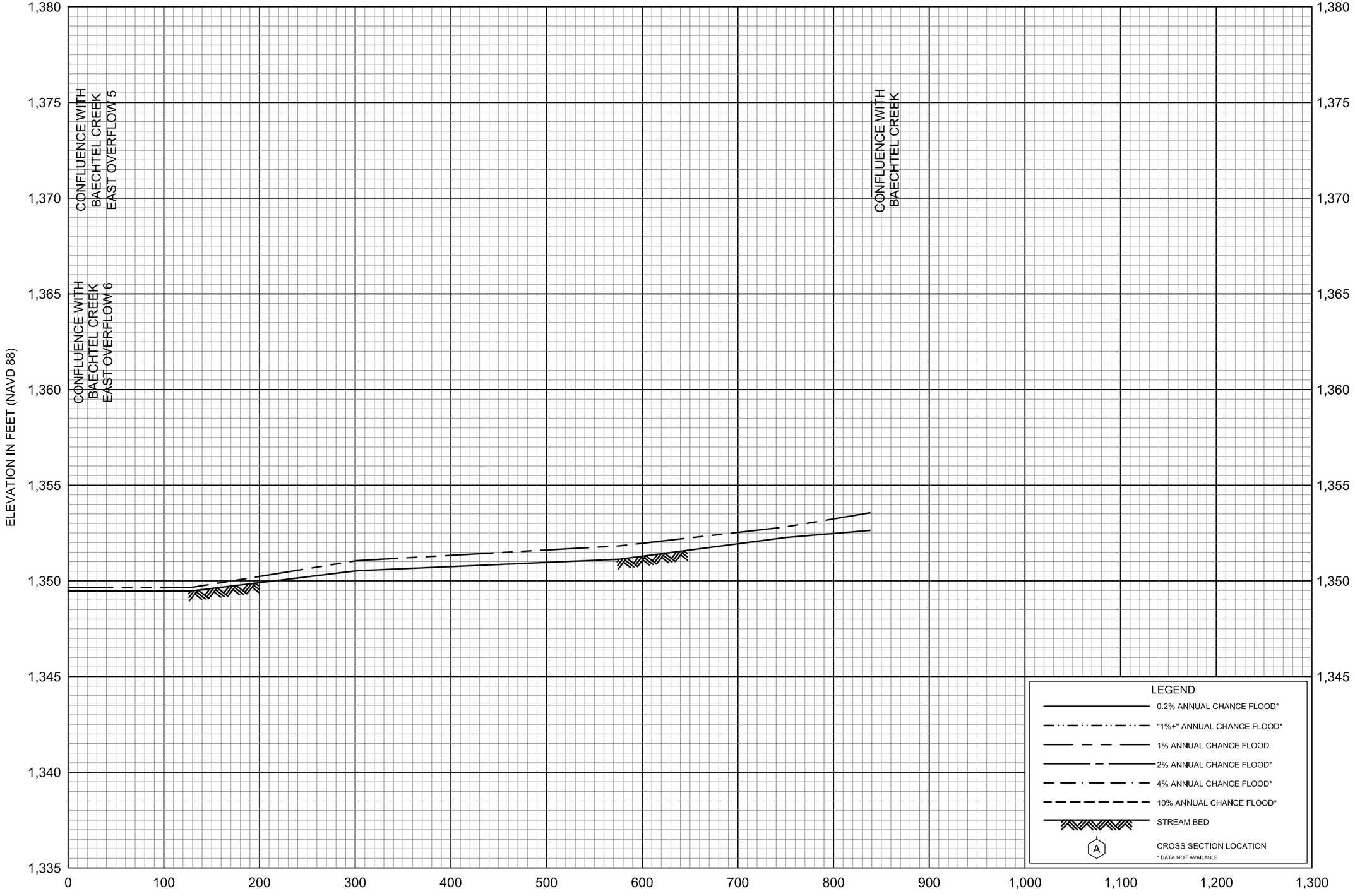
BAECHTEL CREEK EAST OVERFLOW 3

FEDERAL EMERGENCY MANAGEMENT AGENCY

MENDOCINO COUNTY, CA

AND INCORPORATED AREAS

17P



FLOOD PROFILES

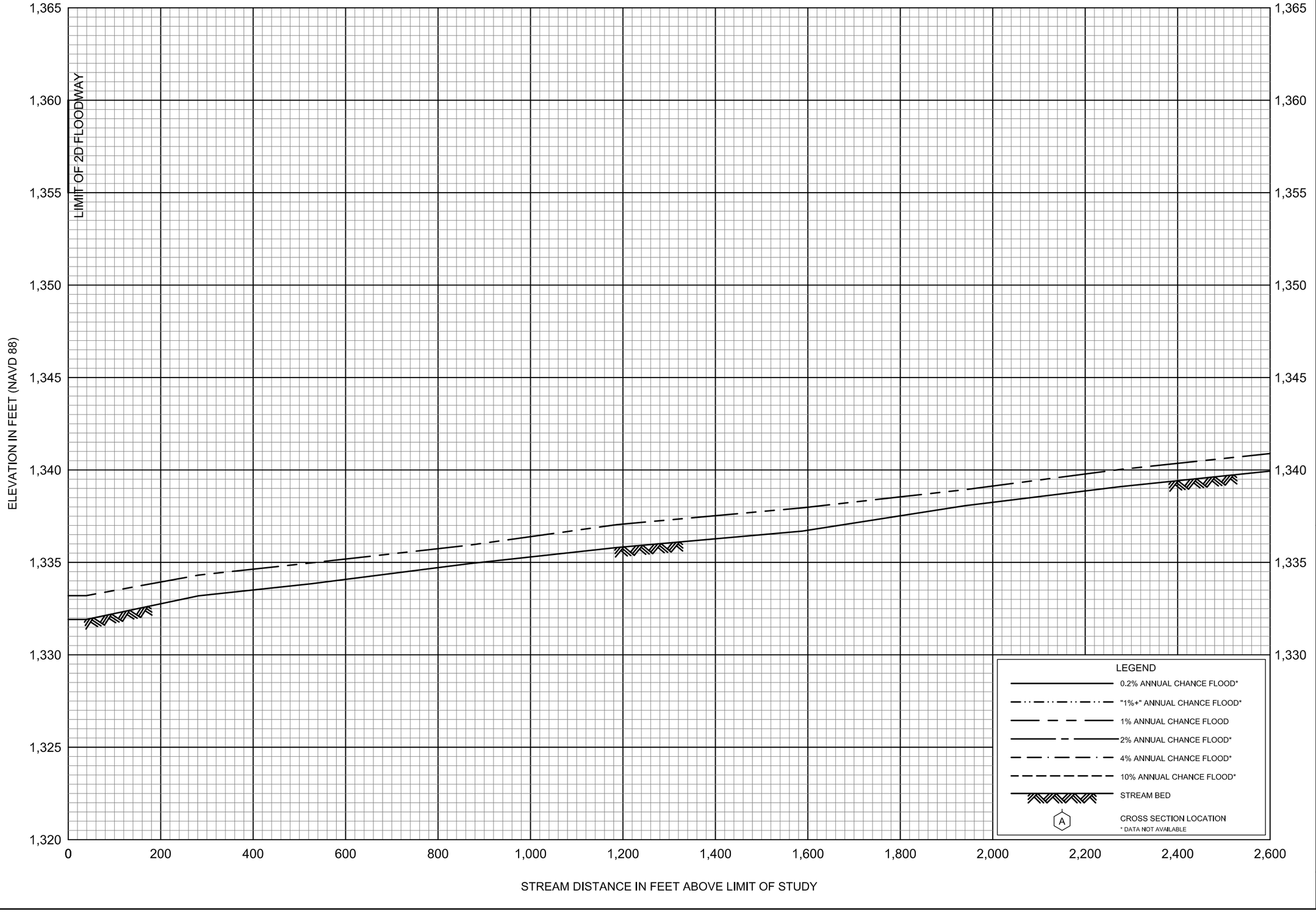
BAECHTEL CREEK EAST OVERFLOW 4

FEDERAL EMERGENCY MANAGEMENT AGENCY

MENDOCINO COUNTY, CA

AND INCORPORATED AREAS

18P



FLOOD PROFILES

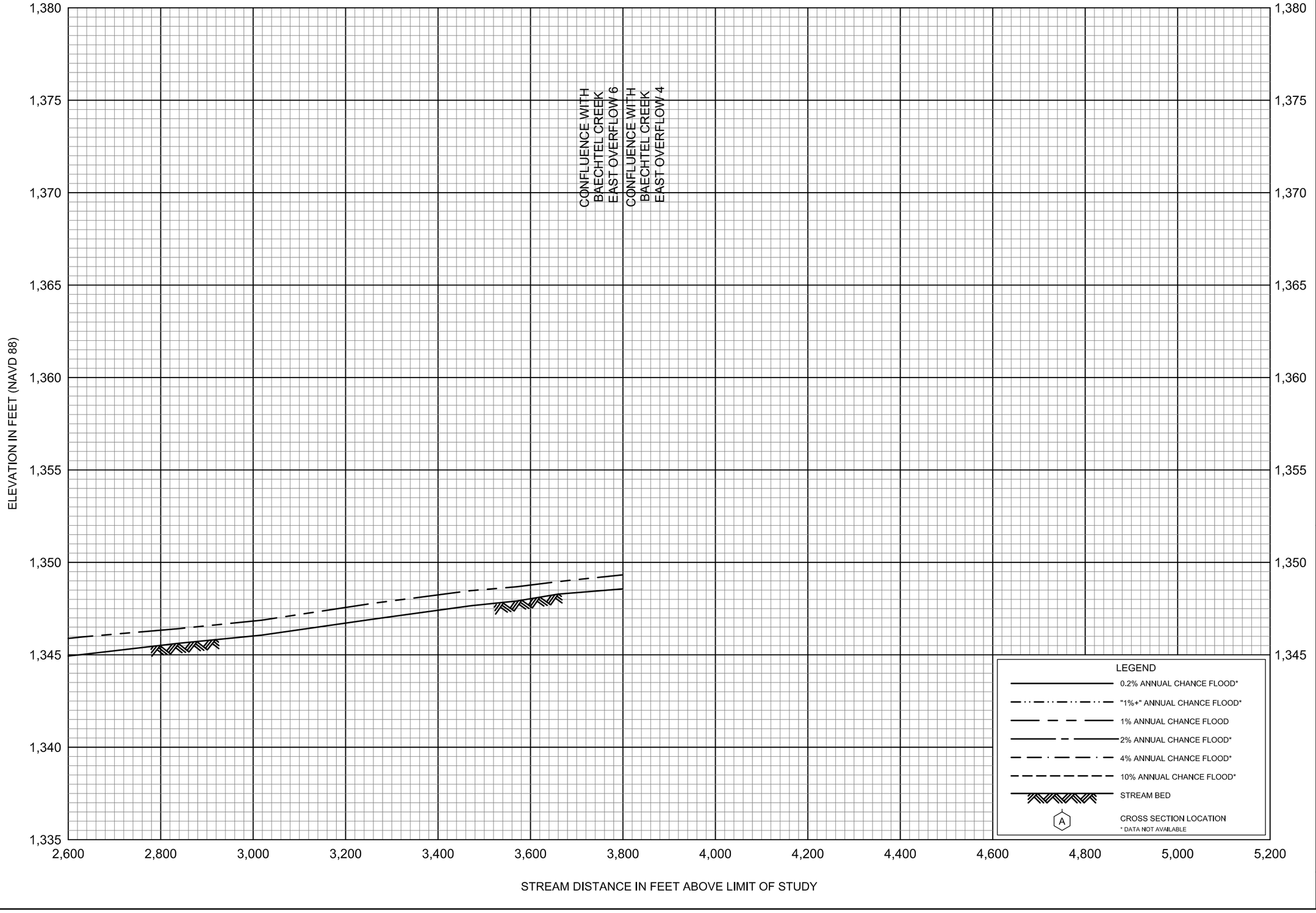
BAECHTEL CREEK EAST OVERFLOW 5

FEDERAL EMERGENCY MANAGEMENT AGENCY

MENDOCINO COUNTY, CA

AND INCORPORATED AREAS

19P



FLOOD PROFILES

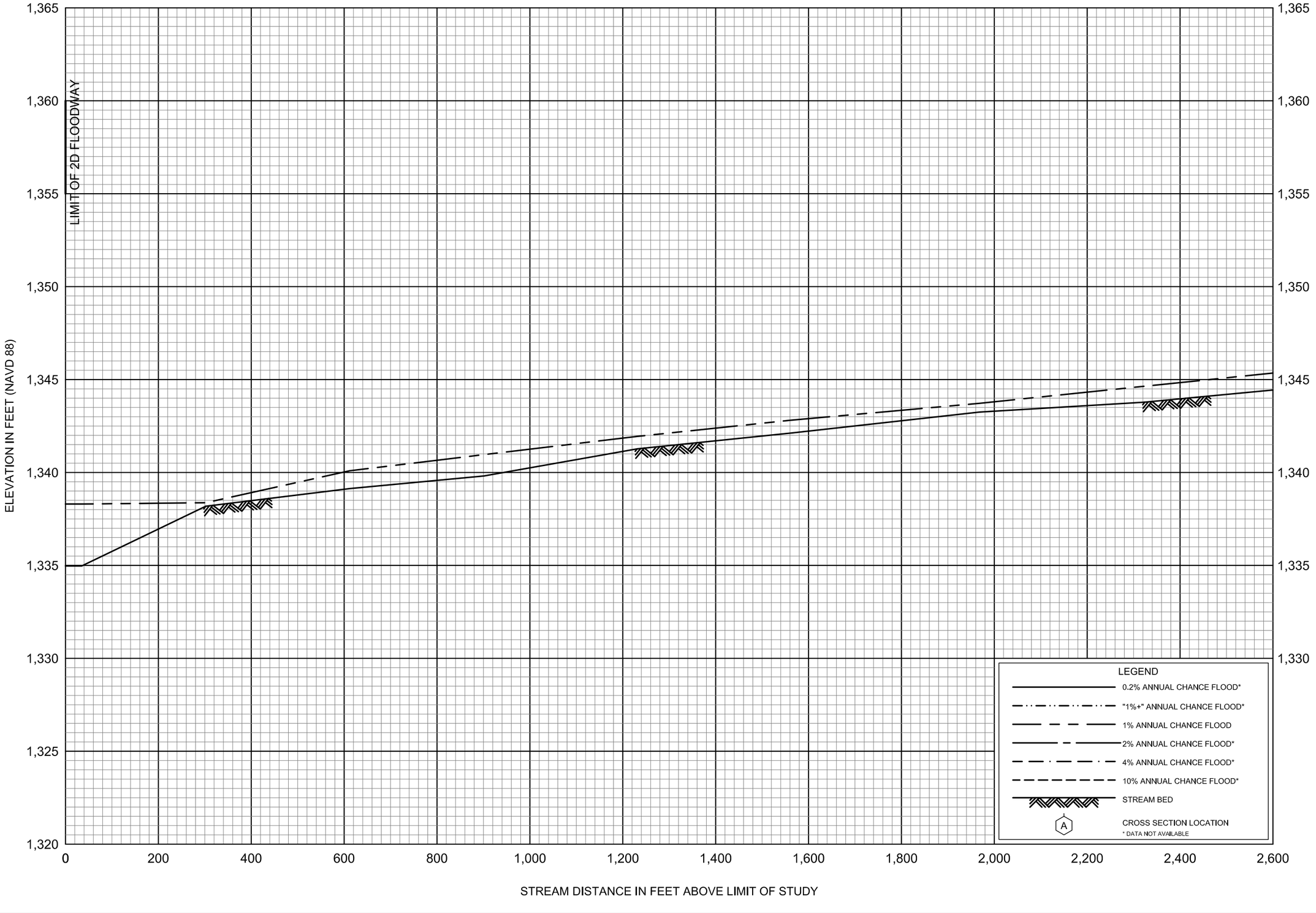
BAECHTEL CREEK EAST OVERFLOW 5

FEDERAL EMERGENCY MANAGEMENT AGENCY

MENDOCINO COUNTY, CA

AND INCORPORATED AREAS

20P



FLOOD PROFILES

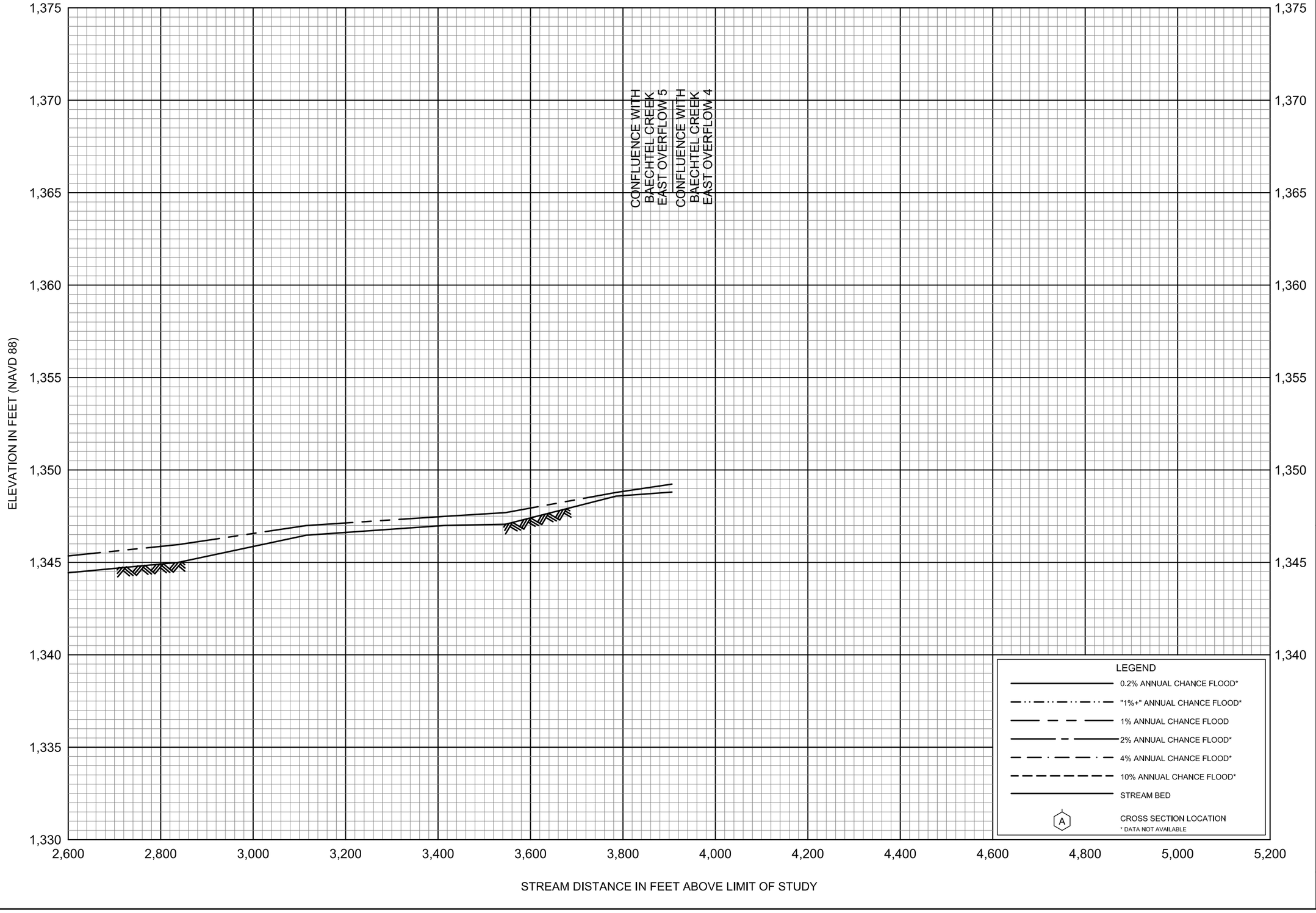
BAECHTEL CREEK EAST OVERFLOW 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

MENDOCINO COUNTY, CA

AND INCORPORATED AREAS

21P



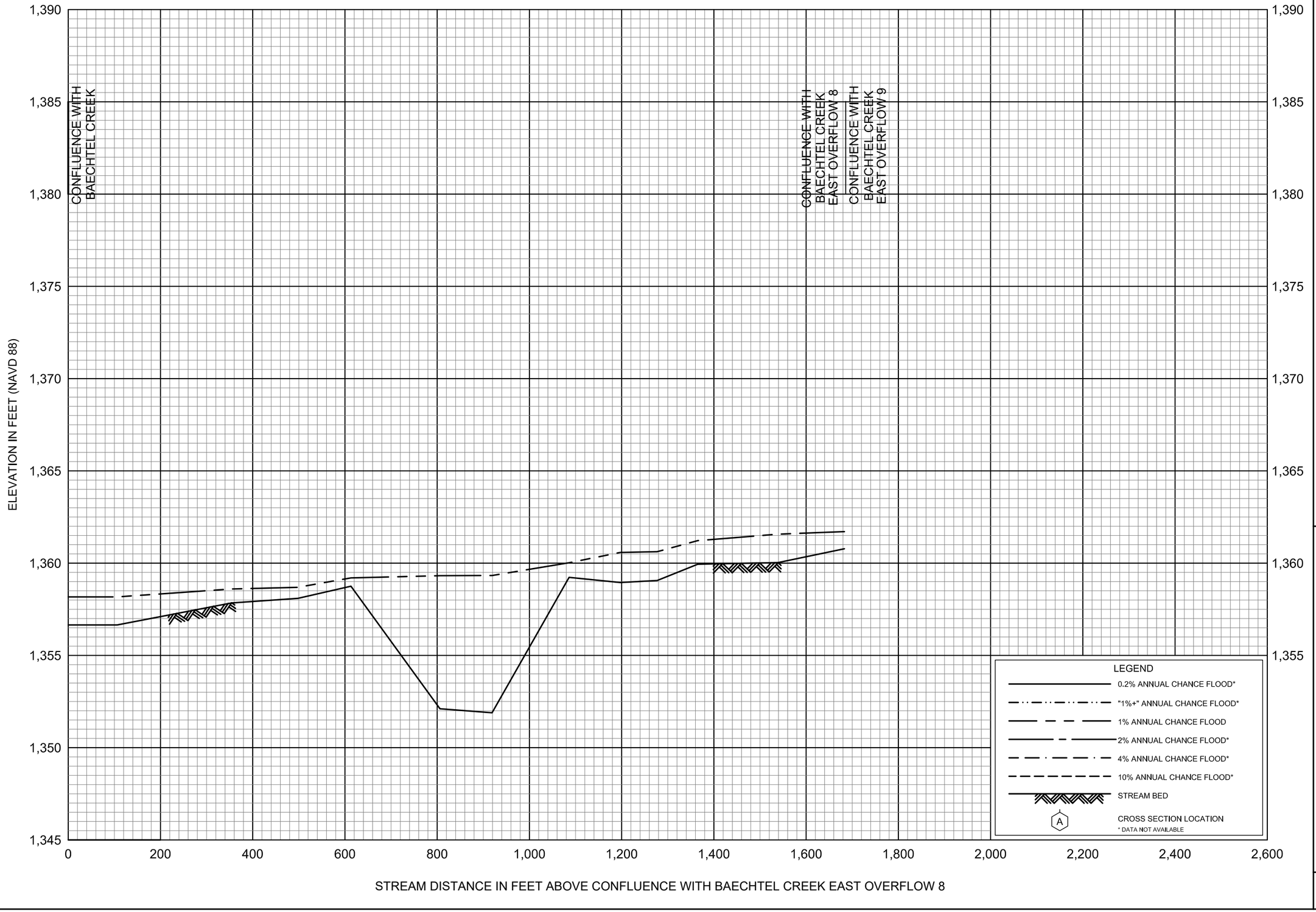
FLOOD PROFILES

BAECHTEL CREEK EAST OVERFLOW 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

MENDOCINO COUNTY, CA

AND INCORPORATED AREAS



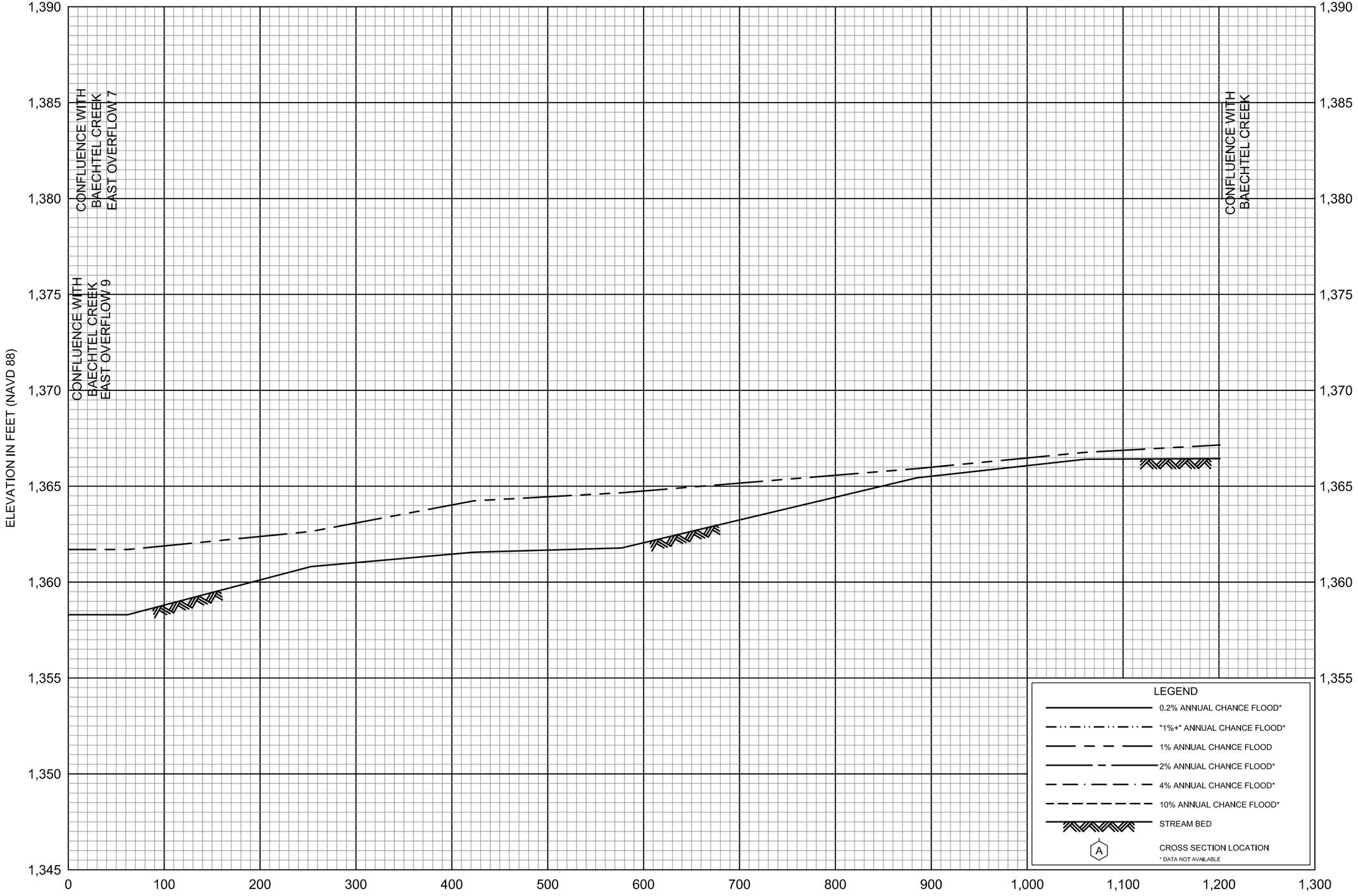
FLOOD PROFILES

BAECHTEL CREEK EAST OVERFLOW 7

FEDERAL EMERGENCY MANAGEMENT AGENCY

MENDOCINO COUNTY, CA

AND INCORPORATED AREAS



FLOOD PROFILES

BAECHTEL CREEK EAST OVERFLOW 8

FEDERAL EMERGENCY MANAGEMENT AGENCY

MENDOCINO COUNTY, CA

AND INCORPORATED AREAS

24P

FLOOD PROFILES

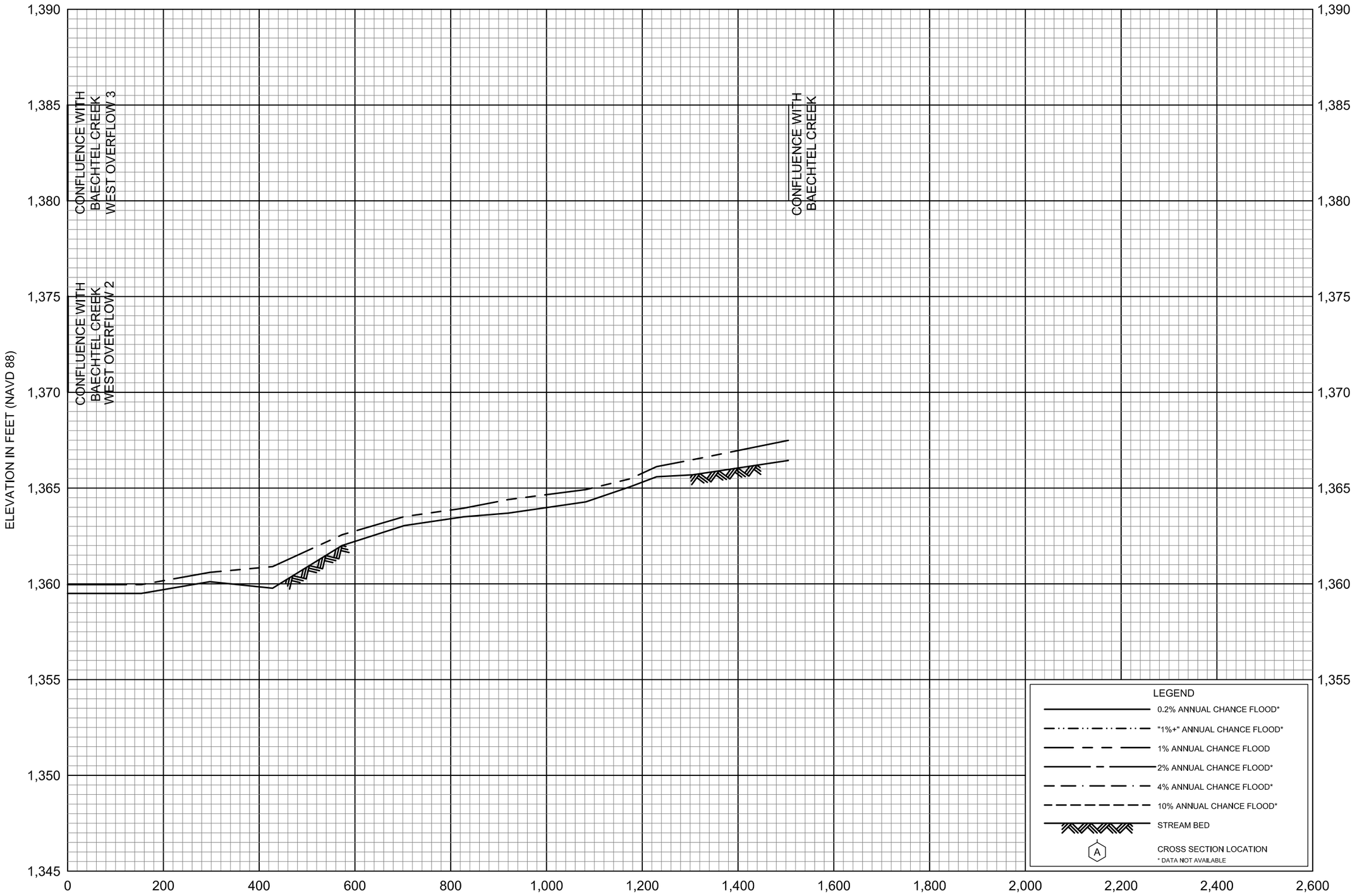
BAECHTEL CREEK EAST OVERFLOW 9

FEDERAL EMERGENCY MANAGEMENT AGENCY

MENDOCINO COUNTY, CA

AND INCORPORATED AREAS

25P



FLOOD PROFILES

BAECHTEL CREEK WEST OVERFLOW 1

FEDERAL EMERGENCY MANAGEMENT AGENCY

MENDOCINO COUNTY, CA

AND INCORPORATED AREAS

26P

ELEVATION IN FEET (NAVD 88)

1,395
1,390
1,385
1,380
1,375
1,370
1,365
1,360
1,355
1,350

CONFLUENCE WITH BAECHTEL CREEK WEST OVERFLOW 3

CONFLUENCE WITH BAECHTEL CREEK WEST OVERFLOW 1

CONFLUENCE WITH BAECHTEL CREEK

LEGEND

- 0.2% ANNUAL CHANCE FLOOD*
- "1%+" ANNUAL CHANCE FLOOD*
- 1% ANNUAL CHANCE FLOOD
- 2% ANNUAL CHANCE FLOOD*
- 4% ANNUAL CHANCE FLOOD*
- 10% ANNUAL CHANCE FLOOD*
- STREAM BED
- A — CROSS SECTION LOCATION

* DATA NOT AVAILABLE

0 50 100 150 200 250 300 350 400 450 500 550 600 650

STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH BAECHTEL CREEK WEST OVERFLOW 3

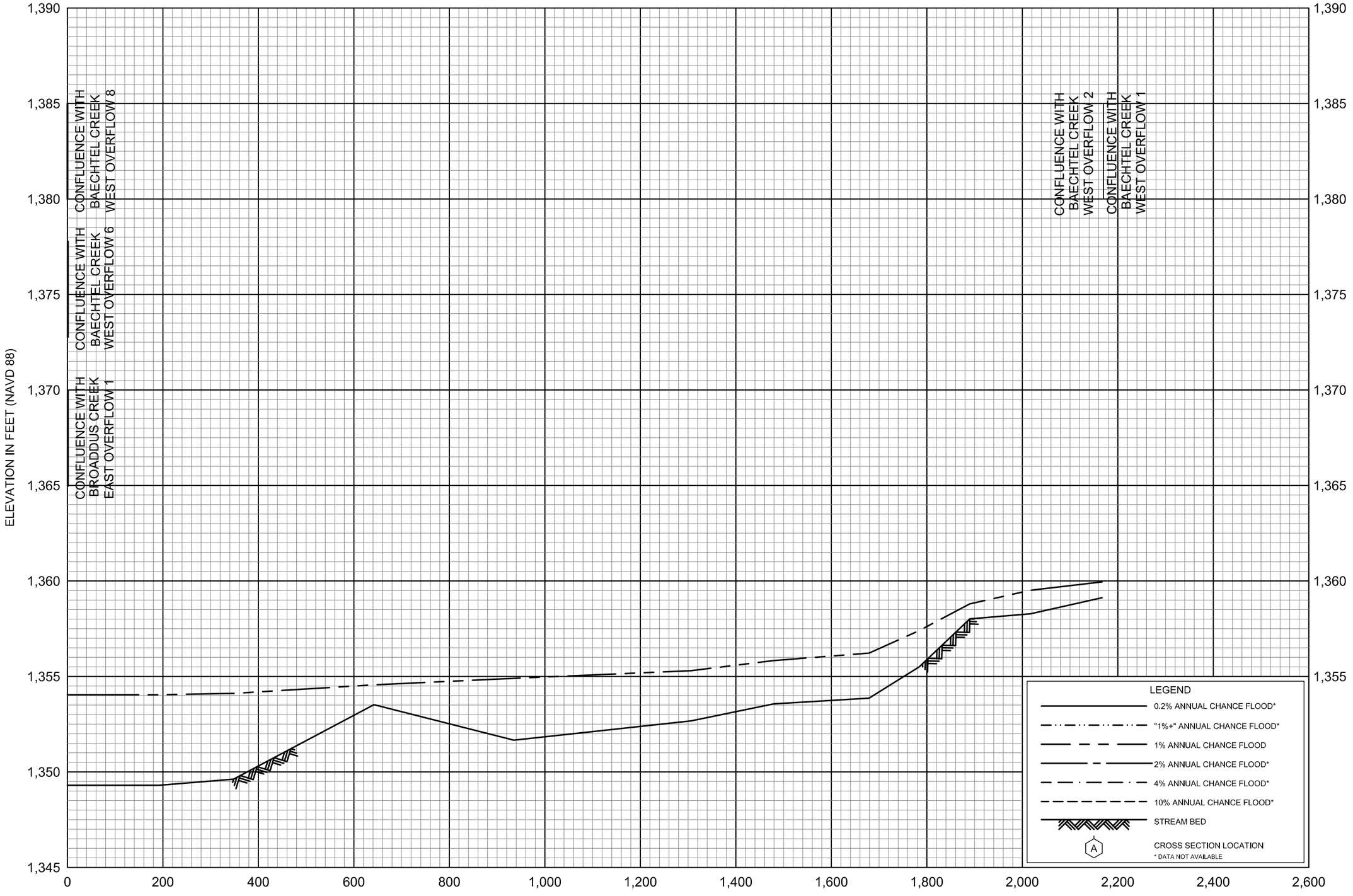
FLOOD PROFILES

BAECHTEL CREEK WEST OVERFLOW 2

FEDERAL EMERGENCY MANAGEMENT AGENCY

MENDOCINO COUNTY, CA

AND INCORPORATED AREAS



FLOOD PROFILES

BAECHTEL CREEK WEST OVERFLOW 3

FEDERAL EMERGENCY MANAGEMENT AGENCY

MENDOCINO COUNTY, CA

AND INCORPORATED AREAS

28P

ELEVATION IN FEET (NAVD 88)

1,385
1,380
1,375
1,370
1,365
1,360
1,355
1,350
1,345
1,340

CONFLUENCE WITH BAECHTEL CREEK WEST OVERFLOW 6

CONFLUENCE WITH BAECHTEL CREEK WEST OVERFLOW 7

CONFLUENCE WITH BAECHTEL CREEK

0 100 200 300 400 500 600 700 800 900 1,000 1,100 1,200 1,300

STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH BAECHTEL CREEK WEST OVERFLOW 7

LEGEND

- 0.2% ANNUAL CHANCE FLOOD*
- "1%+" ANNUAL CHANCE FLOOD*
- 1% ANNUAL CHANCE FLOOD
- 2% ANNUAL CHANCE FLOOD*
- 4% ANNUAL CHANCE FLOOD*
- 10% ANNUAL CHANCE FLOOD*
- STREAM BED
- A — CROSS SECTION LOCATION

* DATA NOT AVAILABLE

FLOOD PROFILES

BAECHTEL CREEK WEST OVERFLOW 4

FEDERAL EMERGENCY MANAGEMENT AGENCY

MENDOCINO COUNTY, CA

AND INCORPORATED AREAS