



Federal Emergency Management Agency

Washington, D.C. 20472

LETTER OF MAP REVISION DETERMINATION DOCUMENT

COMMUNITY AND REVISION INFORMATION		PROJECT DESCRIPTION	BASIS OF REQUEST
COMMUNITY	City of Cottonwood Yavapai County Arizona	NO PROJECT	FLOODWAY HYDRAULIC ANALYSIS HYDROLOGIC ANALYSIS UPDATED TOPOGRAPHIC DATA
	COMMUNITY NO.: 040096		
IDENTIFIER	Cottonwood Detailed Floodplain Study, Contract No. 2018-Pw-02, Atkins No. 100057791	APPROXIMATE LATITUDE & LONGITUDE: 34.740, -112.033 SOURCE: Precision Mapping Streets DATUM: NAD 83	
ANNOTATED MAPPING ENCLOSURES		ANNOTATED STUDY ENCLOSURE	
TYPE: FIRM* NO.: 04025C1756G DATE: September 3, 2010 TYPE: FIRM* NO.: 04025C1757H DATE: October 16, 2015		DATE OF EFFECTIVE FLOOD INSURANCE STUDY: February 15, 2019 PROFILE(S): 99P, 100P AND 101P FLOODWAY DATA TABLE: 24 SUMMARY OF DISCHARGES TABLE: 10	

Enclosures reflect changes to flooding sources affected by this revision.

* FIRM - Flood Insurance Rate Map

FLOODING SOURCE AND REVISED REACH

Del Monte Wash - From the confluence with Verde River to the downstream side of State Route 89A.

SUMMARY OF REVISIONS

Flooding Source	Effective Flooding	Revised Flooding	Increases	Decreases
Del Monte Wash	Zone A	Zone AE	YES	YES
	No BFEs*	BFEs	YES	NONE
	Floodway	Floodway	NONE	YES
	Zone AE	Zone AE	YES	YES

* BFEs - Base Flood Elevations

DETERMINATION

This document provides the determination from the Department of Homeland Security's Federal Emergency Management Agency (FEMA) regarding a request for a Letter of Map Revision (LOMR) for the area described above. Using the information submitted, we have determined that a revision to the flood hazards depicted in the Flood Insurance Study (FIS) report and/or National Flood Insurance Program (NFIP) map is warranted. This document revises the effective NFIP map, as indicated in the attached documentation. Please use the enclosed annotated map panels revised by this LOMR for floodplain management purposes and for all flood insurance policies and renewals in your community.

This determination is based on the flood data presently available. The enclosed documents provide additional information regarding this determination. If you have any questions about this document, please contact the FEMA Map Information eXchange toll free at 1-877-336-2627 (1-877-FEMA MAP) or by letter addressed to the LOMC Clearinghouse, 3601 Eisenhower Avenue, Suite 500, Alexandria, VA 22304-6426. Additional Information about the NFIP is available on our website at <https://www.fema.gov/national-flood-insurance-program>.

Patrick "Rick" F. Sacbibit, P.E., Branch Chief
Engineering and Services Branch
Federal Insurance and Mitigation Administration



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**LETTER OF MAP REVISION
DETERMINATION DOCUMENT (CONTINUED)**

OTHER FLOODING SOURCES AFFECTED BY THIS REVISION

FLOODING SOURCE(S) AND REVISED REACH(ES)

Del Monte Wash - From the confluence with Verde River to the downstream side of State Route 89A.

SUMMARY OF REVISIONS

Flooding Source	Effective Flooding	Revised Flooding	Increases	Decreases
Del Monte Wash	BFEs*	BFEs	YES	NONE
	Zone X (Shaded)	Zone X (Shaded)	YES	YES

* BFEs - Base Flood Elevations

This determination is based on the flood data presently available. The enclosed documents provide additional information regarding this determination. If you have any questions about this document, please contact the FEMA Map Information eXchange toll free at 1-877-336-2627 (1-877-FEMA MAP) or by letter addressed to the LOMC Clearinghouse, 3601 Eisenhower Avenue, Suite 500, Alexandria, VA 22304-6426. Additional Information about the NFIP is available on our website at <https://www.fema.gov/national-flood-insurance-program>.

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LETTER OF MAP REVISION DETERMINATION DOCUMENT (CONTINUED)

COMMUNITY INFORMATION

APPLICABLE NFIP REGULATIONS/COMMUNITY OBLIGATION

We have made this determination pursuant to Section 206 of the Flood Disaster Protection Act of 1973 (P.L. 93-234) and in accordance with the National Flood Insurance Act of 1968, as amended (Title XIII of the Housing and Urban Development Act of 1968, P.L. 90-448), 42 U.S.C. 4001-4128, and 44 CFR Part 65. Pursuant to Section 1361 of the National Flood Insurance Act of 1968, as amended, communities participating in the NFIP are required to adopt and enforce floodplain management regulations that meet or exceed NFIP criteria. These criteria, including adoption of the FIS report and FIRM, and the modifications made by this LOMR, are the minimum requirements for continued NFIP participation and do not supersede more stringent State/Commonwealth or local requirements to which the regulations apply.

We provide the floodway designation to your community as a tool to regulate floodplain development. Therefore, the floodway revision we have described in this letter, while acceptable to us, must also be acceptable to your community and adopted by appropriate community action, as specified in Paragraph 60.3(d) of the NFIP regulations.

COMMUNITY REMINDERS

We based this determination on the 1-percent-annual-chance discharges computed in the submitted hydrologic model. Future development of projects upstream could cause increased discharges, which could cause increased flood hazards. A comprehensive restudy of your community's flood hazards would consider the cumulative effects of development on discharges and could, therefore, indicate that greater flood hazards exist in this area.

Your community must regulate all proposed floodplain development and ensure that permits required by Federal and/or State/Commonwealth law have been obtained. State/Commonwealth or community officials, based on knowledge of local conditions and in the interest of safety, may set higher standards for construction or may limit development in floodplain areas. If your State/Commonwealth or community has adopted more restrictive or comprehensive floodplain management criteria, those criteria take precedence over the minimum NFIP requirements.

We will not print and distribute this LOMR to primary users, such as local insurance agents or mortgage lenders; instead, the community will serve as a repository for the new data. We encourage you to disseminate the information in this LOMR by preparing a news release for publication in your community's newspaper that describes the revision and explains how your community will provide the data and help interpret the NFIP maps. In that way, interested persons, such as property owners, insurance agents, and mortgage lenders, can benefit from the information.

This determination is based on the flood data presently available. The enclosed documents provide additional information regarding this determination. If you have any questions about this document, please contact the FEMA Map Information eXchange toll free at 1-877-336-2627 (1-877-FEMA MAP) or by letter addressed to the LOMC Clearinghouse, 3601 Eisenhower Avenue, Suite 500, Alexandria, VA 22304-6426. Additional Information about the NFIP is available on our website at <https://www.fema.gov/national-flood-insurance-program>.

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Patrick "Rick" F. Sacbbit, P.E., Branch Chief
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LETTER OF MAP REVISION DETERMINATION DOCUMENT (CONTINUED)

We have designated a Consultation Coordination Officer (CCO) to assist your community. The CCO will be the primary liaison between your community and FEMA. For information regarding your CCO, please contact:

Ms. Sally M. Ziolkowski
Director, Mitigation Division
Federal Emergency Management Agency, Region IX
1111 Broadway Street, Suite 1200
Oakland, CA 94607-4052
(510) 627-7175

STATUS OF THE COMMUNITY NFIP MAPS

We will not physically revise and republish the FIRM and FIS report for your community to reflect the modifications made by this LOMR at this time. When changes to the previously cited FIRM panel(s) and FIS report warrant physical revision and republication in the future, we will incorporate the modifications made by this LOMR at that time.

This determination is based on the flood data presently available. The enclosed documents provide additional information regarding this determination. If you have any questions about this document, please contact the FEMA Map Information eXchange toll free at 1-877-336-2627 (1-877-FEMA MAP) or by letter addressed to the LOMC Clearinghouse, 3601 Eisenhower Avenue, Suite 500, Alexandria, VA 22304-6426. Additional Information about the NFIP is available on our website at <https://www.fema.gov/national-flood-insurance-program>.

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**LETTER OF MAP REVISION
DETERMINATION DOCUMENT (CONTINUED)**

PUBLIC NOTIFICATION OF REVISION

A notice of changes will be published in the *Federal Register*. This information also will be published in your local newspaper on or about the dates listed below, and through FEMA's Flood Hazard Mapping website at https://www.floodmaps.fema.gov/fhm/bfe_status/bfe_main.asp

LOCAL NEWSPAPER

Name: *The Verde Independent*

Dates: February 20, 2019 and February 27, 2019

Within 90 days of the second publication in the local newspaper, any interested party may request that we reconsider this determination. Any request for reconsideration must be based on scientific or technical data. Therefore, this letter will be effective only after the 90-day appeal period has elapsed and we have resolved any appeals that we receive during this appeal period. Until this LOMR is effective, the revised flood hazard determination presented in this LOMR may be changed.

This determination is based on the flood data presently available. The enclosed documents provide additional information regarding this determination. If you have any questions about this document, please contact the FEMA Map Information eXchange toll free at 1-877-336-2627 (1-877-FEMA MAP) or by letter addressed to the LOMC Clearinghouse, 3601 Eisenhower Avenue, Suite 500, Alexandria, VA 22304-6426. Additional Information about the NFIP is available on our website at <https://www.fema.gov/national-flood-insurance-program>.

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Engineering and Services Branch
Federal Insurance and Mitigation Administration

Table 10: Summary of Discharges (continued)

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)				
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Clipper Wash	At confluence with Agua Fria River	8.0	1,300	*	4,200	6,400	11,000
Concho Wash	At downstream limit of detailed study	0.3	*	*	*	530	*
Copper Canyon Wash	Above confluence with Verde River	7.8	*	*	*	7,600	*
Cougar Creek	At Agua Fria River	3.9	830	*	2,830	4,430	11,000
Dead Mule Canyon Wash	At confluence with Ramsgate Wash	8.0	1,050	*	2,625	3,660	5,790
Deception Wash	At confluence with Verde River	6.2	2,513	*	3,696	4,583	12,000
Del Monte Wash	Upstream of East Main Street	5.7	3,086	*	4,537	5,627	15,000
Del Monte Wash	1,710 feet upstream of East Main Street	5.1	1,103	1,908	2,982	3,622	5,336
Dry Beaver Creek	Approximately 2,900 feet upstream of U.S. Highway 17	202	*	*	*	32,750	*
Dry Creek	Approximately 2,000 feet upstream of Sunset Hills Drive	56.2	*	*	*	29,176	*
Dry Creek	Upstream of confluence of Boynton Canyon	40.0	7,500	*	16,100	22,000	30,000
Dry Creek	Upstream of confluence of Long Canyon Creek	36.0	5,818	*	13,330	16,500	25,370

REVISIED DATA

Table 24: Floodway Data (continued)

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Del Monte Wash								
K	4,720 ²	186	989	3.6	3,411.1	3,411.1	3,412.0	0.9
L	5,120 ²	71	330	10.9	3,419.8	3,419.8	3,420.2	0.4
M	5,860 ²	52	362	10.0	3,439.7	3,439.7	3,439.8	0.1
N	6,360 ²	41	295	12.2	3,454.2	3,454.2	3,455.0	0.8
O	6,538 ²	151	1,794	3.1	3,467.1	3,467.1	3,467.1	0.0
P	6,658 ²	181	1,257	4.5	3,467.1	3,467.1	3,467.1	0.0
Q	7,275 ²	223	609	9.2	3,479.7	3,479.7	3,479.7	0.0
R	7,520 ²	270	754	7.5	3,496.1	3,496.1	3,496.1	0.0
S	8,100 ²	194	624	9.3	3,513.2	3,513.2	3,513.2	0.0
T	8,572 ²	222	606	9.3	3,526.7	3,526.7	3,527.7	1.0
U	9,170 ²	222	583	9.6	3,544.5	3,544.5	3,544.5	0.0
V	9,700 ²	143	519	10.8	3,562.7	3,562.7	3,563.5	0.8
Dry Beaver Creek								
A	12,176 ³	579	6,767	4.8	3,297.2	3,297.2	3,297.3	0.1
B	13,108 ³	544	5,358	6.1	3,299.2	3,299.2	3,299.5	0.3
C	15,014 ³	513	2,899	11.3	3,302.9	3,302.9	3,303.9	1.0
D	16,136 ³	538	4,835	6.8	3,308.1	3,308.1	3,308.6	0.5
E	17,246 ³	410	3,308	9.9	3,310.3	3,310.3	3,310.6	0.3

REVISED DATA

~~¹Previous cross sections superseded by new Zone A study~~

REVISED DATA

²Feet above confluence with Verde River

³Feet above confluence with Beaver Creek

REVISED TO

REFLECT LOMR

EFFECTIVE: June 27, 2019

TABLE 24

FEDERAL EMERGENCY MANAGEMENT AGENCY

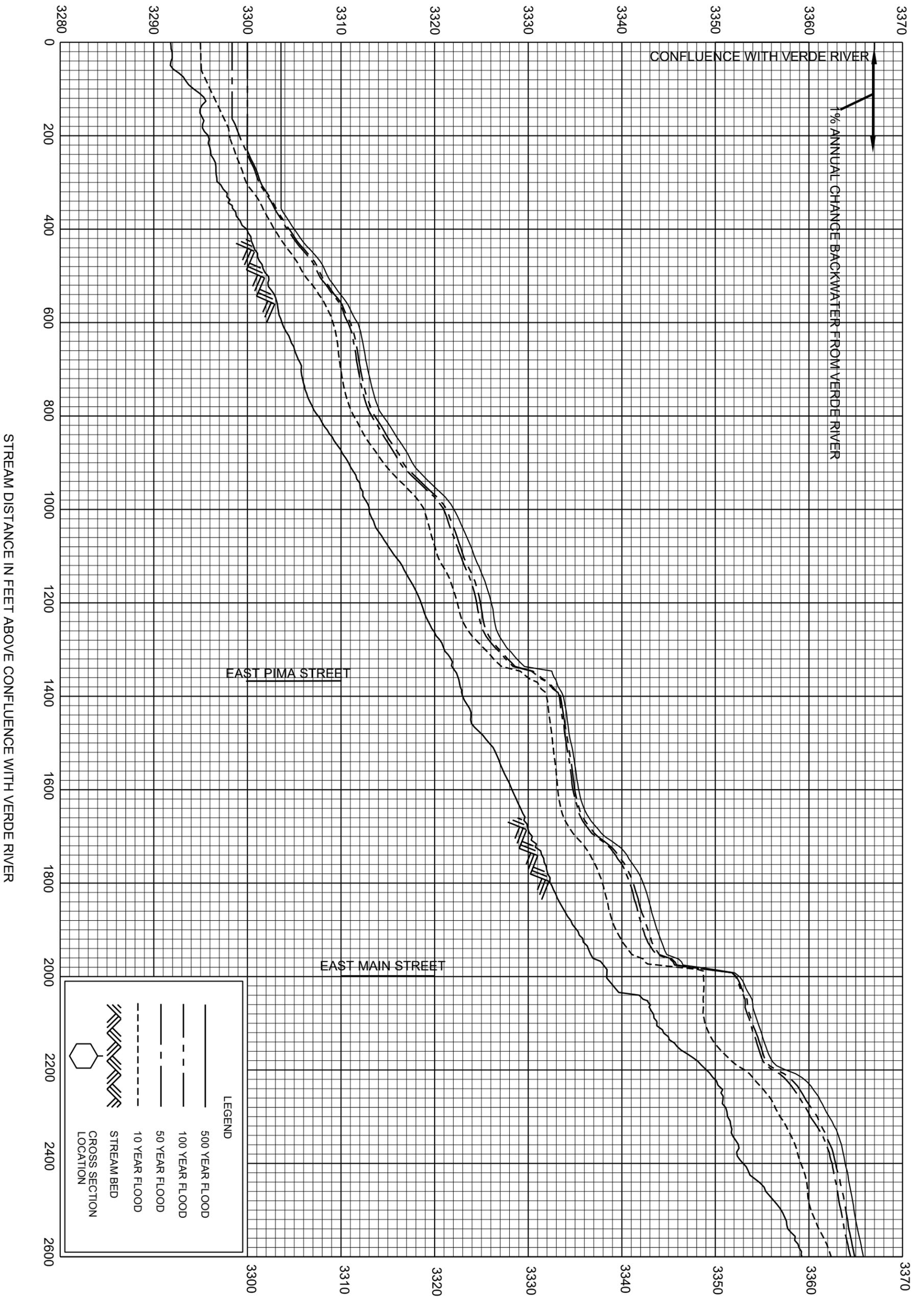
YAVAPAI COUNTY, AZ

AND INCORPORATED AREAS

FLOODWAY DATA

FLOODING SOURCE: DEL MONTE WASH – DRY BEAVER CREEK

ELEVATION IN FEET (NAVD 88)



STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH VERDE RIVER

FEDERAL EMERGENCY MANAGEMENT AGENCY
YAVAPAI COUNTY, AZ
 AND INCORPORATED AREAS

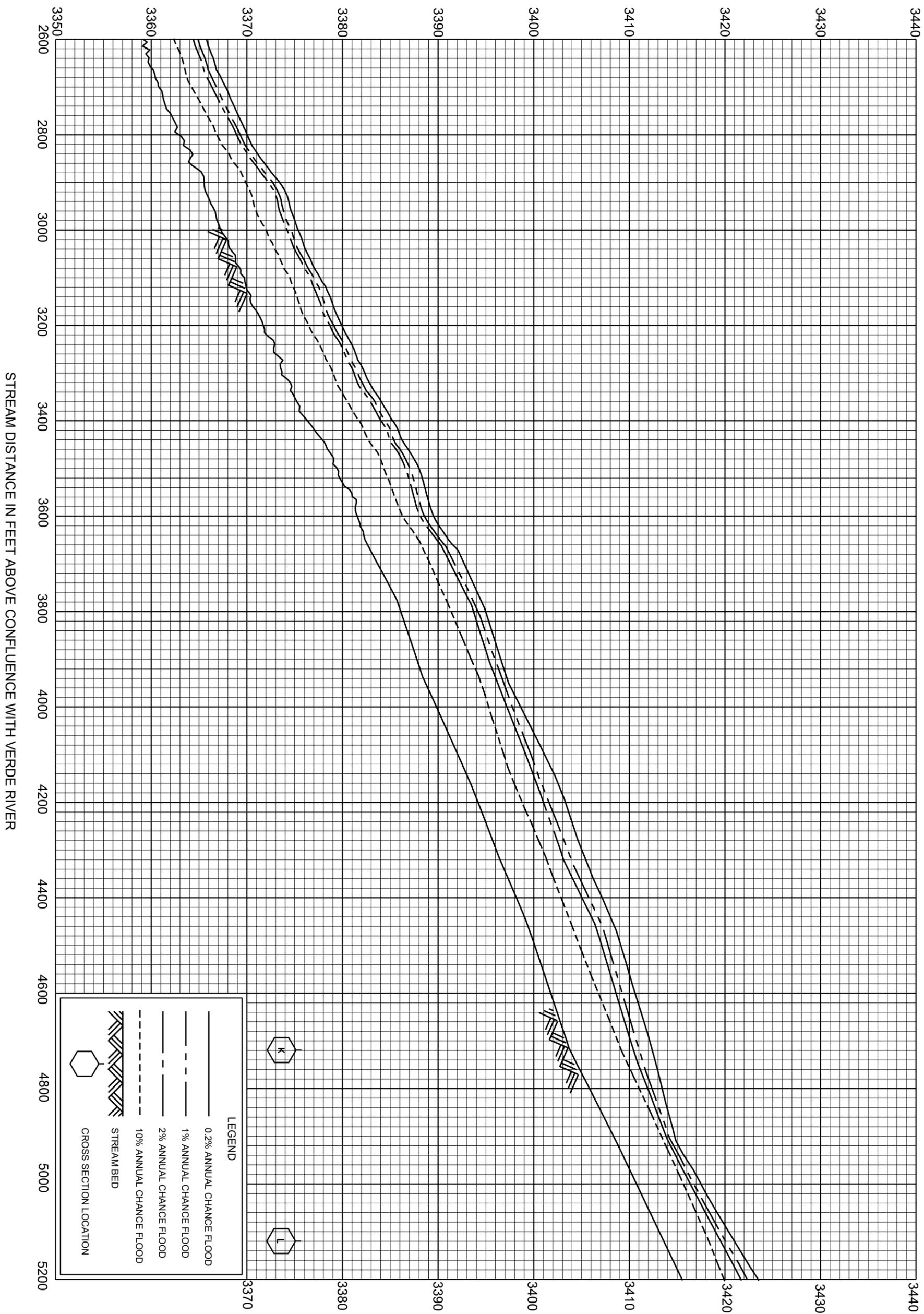
FLOOD PROFILES

REVISED TO
 REFLECT LOMR
 EFFECTIVE: June 27, 2019

DEL MONTE WASH

99P

ELEVATION IN FEET (NAVD 88)



LEGEND

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

K

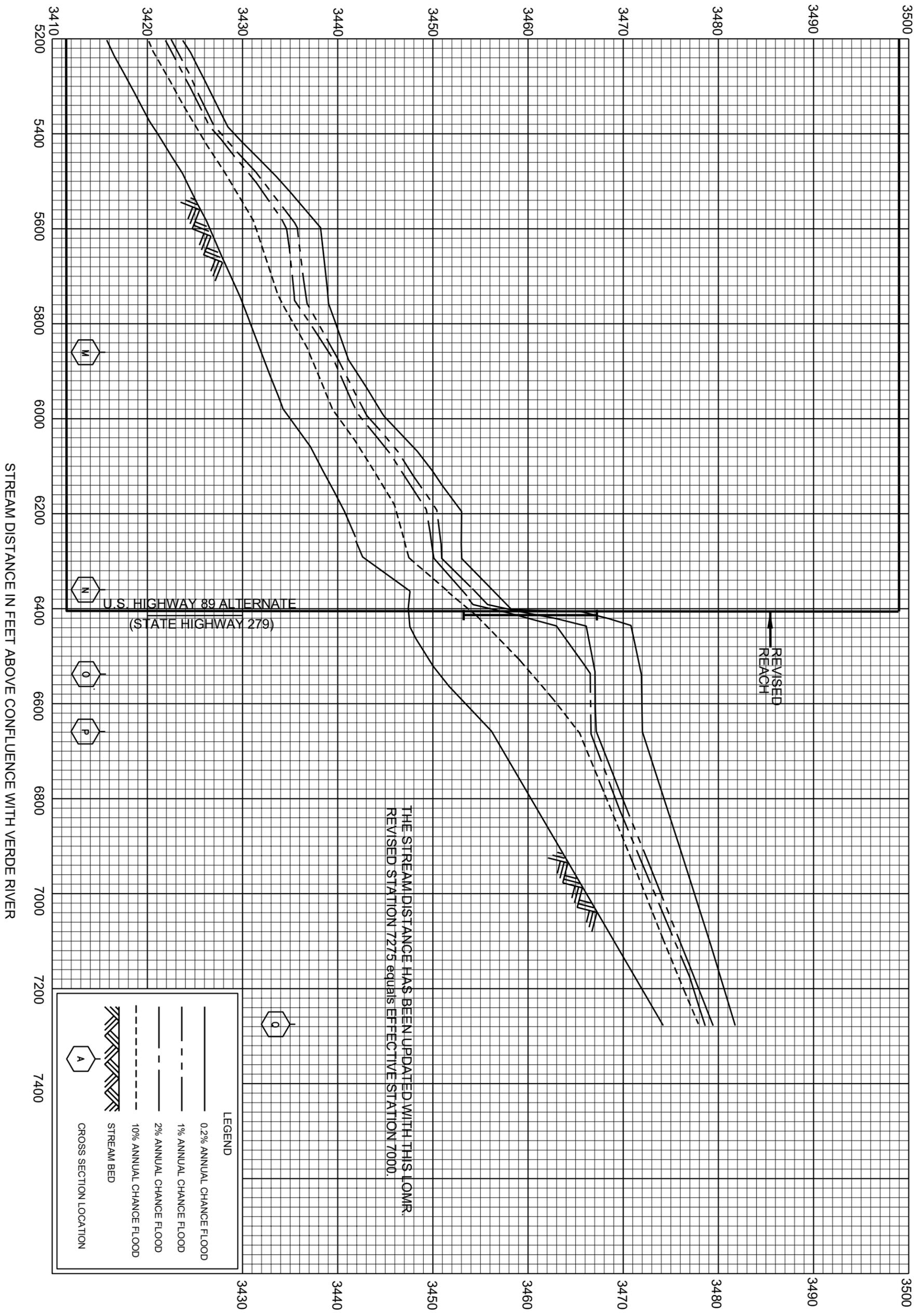
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FEDERAL EMERGENCY MANAGEMENT AGENCY
YAVAPAI COUNTY, AZ
AND INCORPORATED AREAS

FLOOD PROFILES REVISED TO REFLECT LOMR EFFECTIVE: June 27, 2019
DEL MONTE WASH

100P

ELEVATION IN FEET (NAVD 88)



REVISED TO REFLECT LOMR EFFECTIVE: June 27, 2019

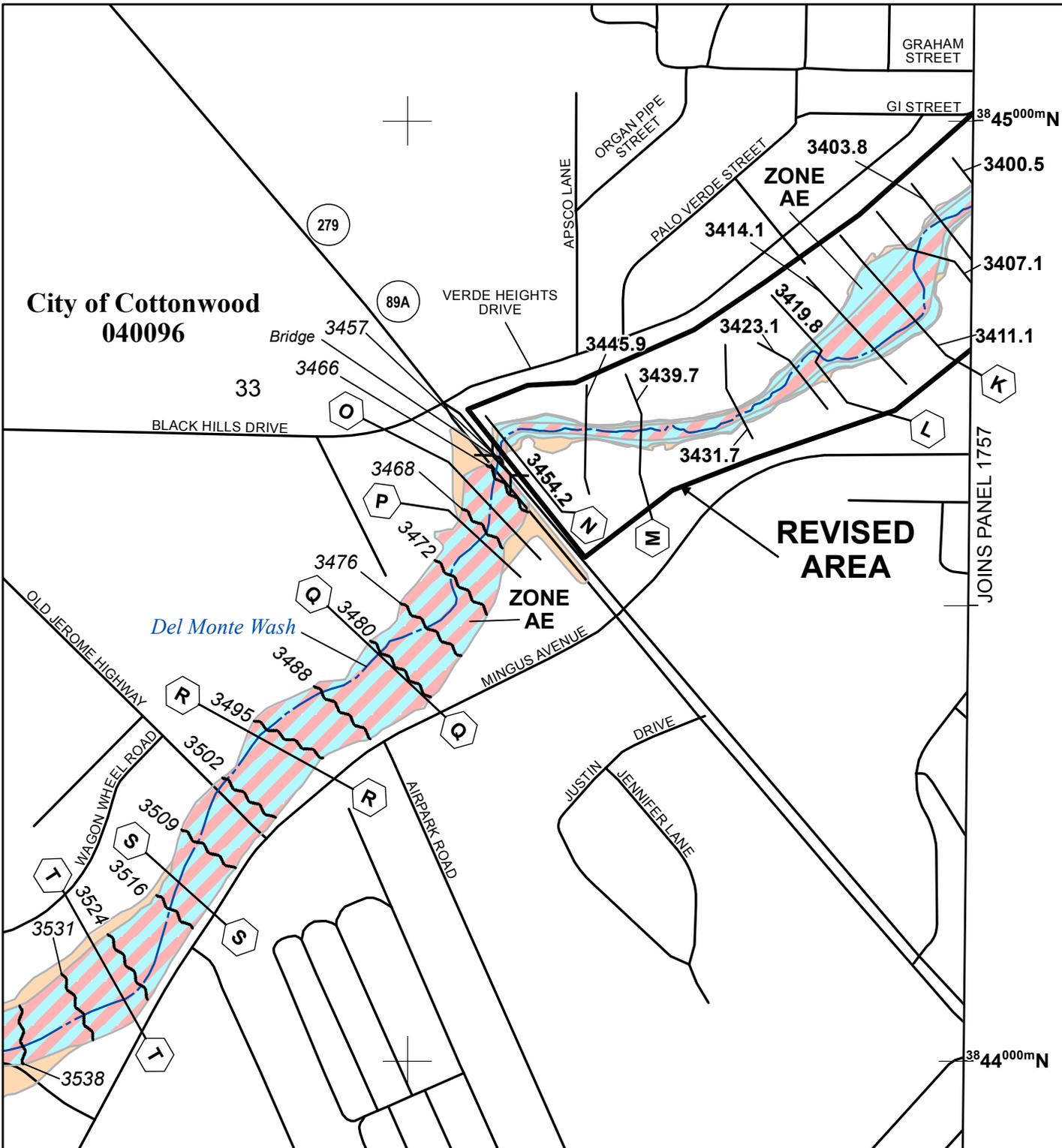
FLOOD PROFILES

DEL MONTE WASH

FEDERAL EMERGENCY MANAGEMENT AGENCY

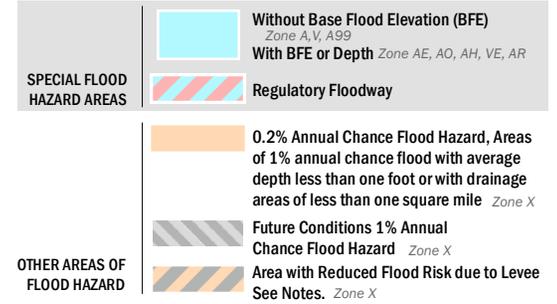
YAVAPAI COUNTY, AZ AND INCORPORATED AREAS

101P

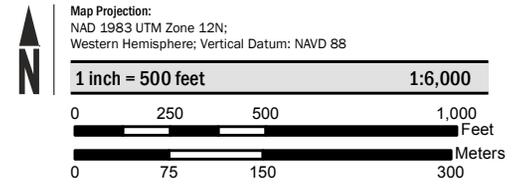


**City of Cottonwood
040096**

**REVISED
AREA**



SCALE



FEMA
National Flood Insurance Program

**NATIONAL FLOOD INSURANCE PROGRAM
FLOOD INSURANCE RATE MAP**

YAVAPAI COUNTY, ARIZONA
and Incorporated Areas
PANEL 1756 OF 3900

Panel Contains:

COMMUNITY	NUMBER	PANEL	SUFFIX
CLARKDALE, TOWN OF	040095	1756	G
COTTONWOOD, CITY OF	040096	1756	G

**REVISED TO
REFLECT LOMR
EFFECTIVE: June 27, 2019**

VERSION NUMBER
2.1.3.0

MAP NUMBER
04025C1756G

MAP REVISED
SEPTEMBER 3, 2010

