

FLOOD INSURANCE STUDY

FEDERAL EMERGENCY MANAGEMENT AGENCY

VOLUME 1 OF 7



YAVAPAI COUNTY, ARIZONA AND INCORPORATED AREAS

COMMUNITY NAME	COMMUNITY NUMBER
CAMP VERDE, TOWN OF	040131
CHINO VALLEY, TOWN OF	040094
CLARKDALE, TOWN OF	040095
COTTONWOOD, CITY OF	040096
DEWEY- HUMBOLDT, TOWN OF	040061
JEROME, TOWN OF*	040138
PRESCOTT, CITY OF	040098
PRESCOTT VALLEY, TOWN OF	040121
SEDONA, CITY OF	040130
WICKENBURG, TOWN OF	040056
YAVAPAI COUNTY, UNINCORPORATED AREAS	040093

*No Special Flood Hazard Areas Identified



FEMA

PRELIMINARY
01/29/2016

REVISED:
MONTH DAY, YEAR

FLOOD INSURANCE STUDY NUMBER
04025CV001F Version Number 2.3.3.2

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Published Separately

Flood Insurance Rate Map (FIRM)

FLOOD INSURANCE STUDY REPORT YAVAPAI COUNTY, ARIZONA

SECTION 1.0 – INTRODUCTION

1.1 The National Flood Insurance Program

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

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

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

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

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

SFHAs are delineated on the community's Flood Insurance Rate Maps (FIRMs). Under the NFIP, buildings that were built before the flood hazard was identified on the community's FIRMs are generally referred to as "Pre-FIRM" buildings. When the NFIP was created, the U.S. Congress recognized that insurance for Pre-FIRM buildings would be prohibitively expensive if the premiums were not subsidized by the Federal Government. Congress also recognized that most of these floodprone buildings were built by individuals who did not have sufficient knowledge of the flood hazard to make informed decisions. The NFIP requires that full actuarial rates reflecting the complete flood risk be charged on all buildings constructed or substantially improved on or after the effective date of the initial FIRM for the community or after December 31, 1974, whichever is

later. These buildings are generally referred to as “Post-FIRM” buildings.

1.2 Purpose of this Flood Insurance Study Report

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

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

1.3 Jurisdictions Included in the Flood Insurance Study Project

This FIS Report covers the geographic area of Yavapai County, Arizona. Please note that the City of Peoria is geographically located in Yavapai County and Maricopa County, but will not be included in this FIS report.

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

The location of flood hazard data for participating communities in multiple jurisdictions is also indicated in the table.

Jurisdictions that have no identified SFHAs as of the effective date of this study are indicated in the table. Changed conditions in these communities (such as urbanization or annexation) or the availability of new scientific or technical data about flood hazards could make it necessary to determine SFHAs in these jurisdictions in the future.

Table 1: Listing of NFIP Jurisdictions

Community	CID	HUC-8 Sub-Basin(s)	Located on FIRM Panel(s)	If Not Included, Location of Flood Hazard Data
Camp Verde, Town of	040131	15060202 15060203	04025C1790H 04025C1793H 04025C1794H 04025C1815G 04025C2157H 04025C2159H 04025C2160H 04025C2167H 04025C2175G 04025C2176H 04025C2178H 04025C2180H 04025C2186H 04025C2187H 04025C2188H 04025C2189H 04025C2195G 04025C2575H	
Chino Valley, Town of	040094	15060202	04025C1300H 04025C1305G 04025C1315G 04025C1320G 04025C1350G 04025C1680G 04025C1685G 04025C1725G	
Clarkdale, Town of	040095	15060202	04025C1389G 04025C1390H 04025C1391H 04025C1392G 04025C1393H 04025C1394H 04025C1756G 04025C1775G	

Table 1: Listing of NFIP Jurisdictions (continued)

Community	CID	HUC-8 Sub-Basin(s)	Located on FIRM Panel(s)	If Not Included, Location of Flood Hazard Data
Cottonwood, City of	040096	15060202	04025C1393H 04025C1394H 04025C1413H 04025C1756G 04025C1757H 04025C1759G 04025C1775G 04025C1776H 04025C1777H ² 04025C1778H 04025C1779H 04025C1790H	
Dewey-Humboldt, Town of	040061	15070102	04025C2095G 04025C2115G 04025C2475H 04025C2500G	
Jerome, Town of ¹	040138	15060202	04025C1390H 04025C1775G	
Peoria, City of	040050	15070102	N/A	Maricopa County FIS Report, 2015
Prescott, City of	040098	15060202 15070102	04025C1690G 04025C1693H 04025C1695G 04025C2034H 04025C2042H 04025C2044H 04025C2051H 04025C2052H 04025C2053H 04025C2054H 04025C2056H 04025C2058H 04025C2060H 04025C2061H 04025C2062H 04025C2063H 04025C2064H 04025C2070G	

Table 1: Listing of NFIP Jurisdictions (continued)

Community	CID	HUC-8 Sub-Basin(s)	Located on FIRM Panel(s)	If Not Included, Location of Flood Hazard Data
Prescott Valley, Town of	040121	15070102	04025C1695H 04025C1713G 04025C1714G 04025C1718G 04025C1725G 04025C1750G 04025C2060H 04025C2076G 04025C2077G 04025C2078G 04025C2079G 04025C2081G 04025C2085G 04025C2090G 04025C2095G 04025C2115G 04025C2125G	
Sedona, City of	040130	15060202	04025C1115G 04025C1120G 04025C1430G 04025C1435G	
Wickenburg, Town of	040056	15070103	04025C3490G 04025C3495G 04025C3780G	
Yavapai County, Unincorporated Areas	040093	15010007 15030201 15030202 15030203 15030204 15060201 15060202 15060203 15070102 15070103 15070104	04025C0025G ² 04025C0050G ² 04025C0075G ² 04025C0100G ² 04025C0125G ² 04025C0150G ² 04025C0175G ² 04025C0200G ² 04025C0225G ² 04025C0250G ² 04025C0275G ² 04025C0300G 04025C0325G 04025C0350G ² 04025C0375G ² 04025C0400G ² 04025C0425G ² 04025C0450H 04025C0475H 04025C0500H	

Table 1: Listing of NFIP Jurisdictions (continued)

Community	CID	HUC-8 Sub-Basin(s)	Located on FIRM Panel(s)	If Not Included, Location of Flood Hazard Data
Yavapai County, Unincorporated Areas (continued)	040093	15010007 15030201 15030202 15030203 15030204 15060201 15060202 15060203 15070102 15070103 15070104	04025C0510G 04025C0525G 04025C0530G 04025C0550G 04025C0575G 04025C0600G ² 04025C0625G ² 04025C0650G ² 04025C0675G 04025C0700G 04025C0725H 04025C0750H 04025C0775G 04025C0800G ² 04025C0825G ² 04025C0850G ² 04025C0875G ² 04025C0900G 04025C0925G 04025C0950H 04025C0955H 04025C0960G ² 04025C0965H 04025C0970H 04025C0980G 04025C0990G 04025C1000G 04025C1025G 04025C1050G ² 04025C1075G ² 04025C1100G 04025C1115G 04025C1120G 04025C1125G 04025C1150G ² 04025C1175G ² 04025C1200G ² 04025C1225G ² 04025C1250G 04025C1275H 04025C1290H 04025C1295G 04025C1300H 04025C1305G 04025C1310G 04025C1315G 04025C1320G 04025C1350G	

Table 1: Listing of NFIP Jurisdictions (continued)

Community	CID	HUC-8 Sub-Basin(s)	Located on FIRM Panel(s)	If Not Included, Location of Flood Hazard Data
Yavapai County, Unincorporated Areas (continued)	040093	15010007 15030201 15030202 15030203 15030204 15060201 15060202 15060203 15070102 15070103 15070104	04025C1375G ² 04025C1380G ² 04025C1385G ² 04025C1389G 04025C1390H 04025C1391H 04025C1392G 04025C1393H 04025C1394H 04025C1413H 04025C1420G 04025C1425G 04025C1430G 04025C1435G 04025C1440G 04025C1445G 04025C1465G 04025C1470G ² 04025C1500G ² 04025C1525G ² 04025C1550G ² 04025C1575G ² 04025C1600G ² 04025C1625G ² 04025C1650H 04025C1660H 04025C1666H 04025C1670H 04025C1675H 04025C1680G 04025C1685G 04025C1690G 04025C1693H 04025C1695H 04025C1713G 04025C1714G 04025C1718G 04025C1725G 04025C1750G 04025C1757H 04025C1759G 04025C1775G 04025C1776H 04025C1777H ² 04025C1778H 04025C1779H 04025C1785G 04025C1790H	

Table 1: Listing of NFIP Jurisdictions (continued)

Community	CID	HUC-8 Sub-Basin(s)	Located on FIRM Panel(s)	If Not Included, Location of Flood Hazard Data
Yavapai County, Unincorporated Areas (continued)	040093	15010007 15030201 15030202 15030203 15030204 15060201 15060202 15060203 15070102 15070103 15070104	04025C1793H 04025C1794H 04025C1795H 04025C1815G 04025C1820G 04025C1825G 04025C1850G 04025C1875G ² 04025C1900G ² 04025C1925G ² 04025C1950G 04025C1975H 04025C2000G ² 04025C2015G 04025C2020G 04025C2025G 04025C2030G ² 04025C2034H 04025C2035H 04025C2040G ² 04025C2042H 04025C2044H 04025C2045H ² 04025C2051H 04025C2052H 04025C2053H 04025C2054H 04025C2056H 04025C2058H 04025C2060H 04025C2061H 04025C2062H 04025C2063H 04025C2064H 04025C2070G 04025C2076G 04025C2077G 04025C2078G 04025C2079G 04025C2081G 04025C2085G 04025C2090G 04025C2095G 04025C2115G 04025C2125G 04025C2150G 04025C2157H 04025C2159H	

Table 1: Listing of NFIP Jurisdictions (continued)

Community	CID	HUC-8 Sub-Basin(s)	Located on FIRM Panel(s)	If Not Included, Location of Flood Hazard Data
Yavapai County, Unincorporated Areas (continued)	040093	15010007 15030201 15030202 15030203 15030204 15060201 15060202 15060203 15070102 15070103 15070104	04025C2160H 04025C2167H 04025C2170H ² 04025C2175G 04025C2176H 04025C2178H 04025C2180H 04025C2185G 04025C2186H 04025C2187H 04025C2188H 04025C2189H 04025C2195G 04025C2225G 04025C2250G ² 04025C2275G ² 04025C2300G 04025C2325G 04025C2350H 04025C2375H 04025C2390G 04025C2400G 04025C2425G 04025C2450G ² 04025C2470H 04025C2475H 04025C2488H 04025C2490H 04025C2500G 04025C2525G 04025C2550G 04025C2575H 04025C2600G 04025C2625G 04025C2650G 04025C2675G 04025C2700G 04025C2725H 04025C2745H 04025C2750H 04025C2765H 04025C2775G 04025C2780G 04025C2785G 04025C2790G 04025C2795G 04025C2825G 04025C2850G	

Table 1: Listing of NFIP Jurisdictions (continued)

Community	CID	HUC-8 Sub-Basin(s)	Located on FIRM Panel(s)	If Not Included, Location of Flood Hazard Data
Yavapai County, Unincorporated Areas (continued)	040093	1501007 15030201 15030202 15030203 15030204 15060201 15060202 15060203 15070102 15070103 15070104	04025C2860H	
			04025C2875H	
			04025C2878H	
			04025C2880H	
			04025C2886H	
			04025C2890H	
			04025C2900G	
			04025C2925G ²	
			04025C2950G ²	
			04025C2975G	
			04025C3000G	
			04025C3025G	
			04025C3050G	
			04025C3075G	
			04025C3085H	
			04025C3100G	
			04025C3105H	
			04025C3125G	
			04025C3150G	
			04025C3175G	
			04025C3200G ²	
			04025C3225G	
			04025C3250G	
			04025C3275G ²	
			04025C3300G	
			04025C3325G	
			04025C3350G ²	
			04025C3375G ²	
			04025C3400G	
			04025C3425G	
			04025C3450G	
			04025C3475G	
04025C3480G				
04025C3485G				
04025C3490G				
04025C3495G				
04025C3515G				
04025C3525G				
04025C3550G ²				
04025C3575G ²				
04025C3600G ²				
04025C3608H				
04025C3609H				
04025C3610H				
04025C3616H				
04025C3620H				

Table 1: Listing of NFIP Jurisdictions (continued)

Community	CID	HUC-8 Sub-Basin(s)	Located on FIRM Panel(s)	If Not Included, Location of Flood Hazard Data
Yavapai County, Unincorporated Areas (continued)	040093	15010007	04025C3625H	
		15030201	04025C3628H	
		15030202	04025C3630H	
		15030203	04025C3650H ²	
		15030204	04025C3675G ²	
		15060201	04025C3700G	
		15060202	04025C3725G	
		15060203	04025C3750G	
		15070102	04025C3775G ²	
		15070103	04025C3780G	
		15070104	04025C3785G ²	
			04025C3825G ²	
			04025C3850G	
	04025C3875G			
	04025C3900G			

¹ No Special Flood Hazard Areas Identified

² Panel Not Printed

1.4 Considerations for using this Flood Insurance Study Report

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

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

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

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

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

The initial Countywide FIS Report for Yavapai County became effective on June 6, 2001. Refer to Table 28 for information about subsequent revisions to the FIRMs.

- Selected FIRM panels for the community may contain information (such as floodways and cross sections) that was previously shown separately on the corresponding Flood Boundary and Floodway Map panels. In addition, former flood hazard zone designations have been changed as follows:

<u>Old Zone</u>	<u>New Zone</u>
A1 through A30	AE
V1 through V30	VE
B	X (shaded)
C	X (unshaded)

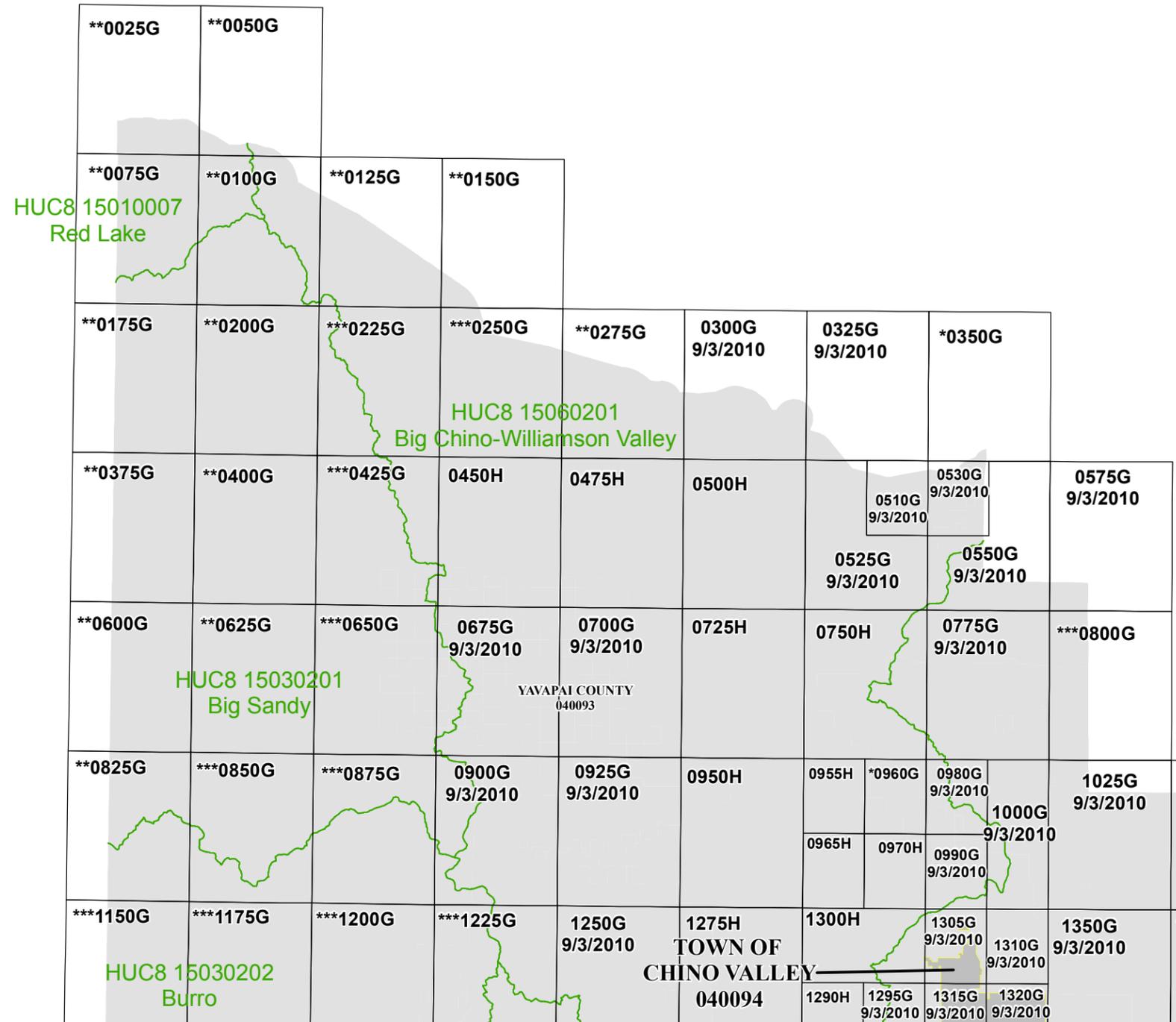
- Previous FIS Reports and FIRMs may have included levees that were accredited as reducing the risk associated with the 1% annual chance flood based on the information available and the mapping standards of the NFIP at that time. For FEMA to continue to

accredit the identified levees, the levees must meet the criteria of the Code of Federal Regulations, Title 44, Section 65.10 (44 CFR 65.10), titled “Mapping of Areas Protected by Levee Systems.”

Since the status of levees is subject to change at any time, the user should contact the appropriate agency for the latest information regarding levees presented in Table 9 of this FIS Report. For levees owned or operated by the U.S. Army Corps of Engineers (USACE), information may be obtained from the USACE national levee database (nld.usace.army.mil). For all other levees, the user is encouraged to contact the appropriate local community.

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

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

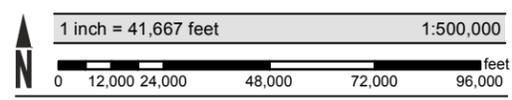


NOTES TO USER
 Preliminary panels 1693H, 1695H, 2034H, 2035H, 2042H, 2044H, 2045H (PNP), 2051H, 2052H, 2053H, 2054H, 2056H, 2058H, 2060H, 2061H, 2062H, 2063H, and 2064H were released on April 24, 2015 as part of FEMA Case No.13-09-0279S.

ATTENTION: The corporate limits shown on this FIRM Index are based on the best information available at the time of publication. As such, they may be more current than those shown on FIRM panels issued before October 16, 2015.

CITY OF SEDONA
 040130

TOWN OF CHINO VALLEY
 040094

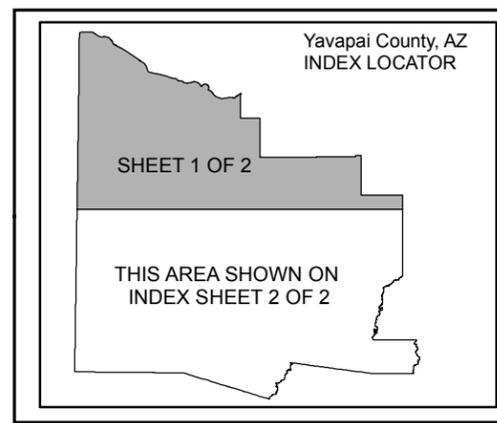
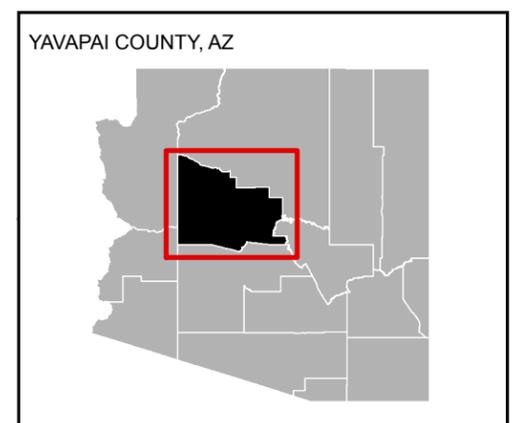


Map Projection:
 State Plane Arizona Central FIPS 0202 Feet Intl;
 North American Datum 1983

THE INFORMATION DEPICTED ON THIS MAP AND SUPPORTING DOCUMENTATION ARE ALSO AVAILABLE IN DIGITAL FORMAT AT [HTTP://MSC.FEMA.GOV](http://MSC.FEMA.GOV)

SEE FLOOD INSURANCE STUDY FOR ADDITIONAL INFORMATION

* PANEL NOT PRINTED - NO SPECIAL FLOOD HAZARD AREAS
 ** PANEL NOT PRINTED - AREA IN ZONE D
 *** PANEL NOT PRINTED - AREA IN ZONE X AND ZONE D

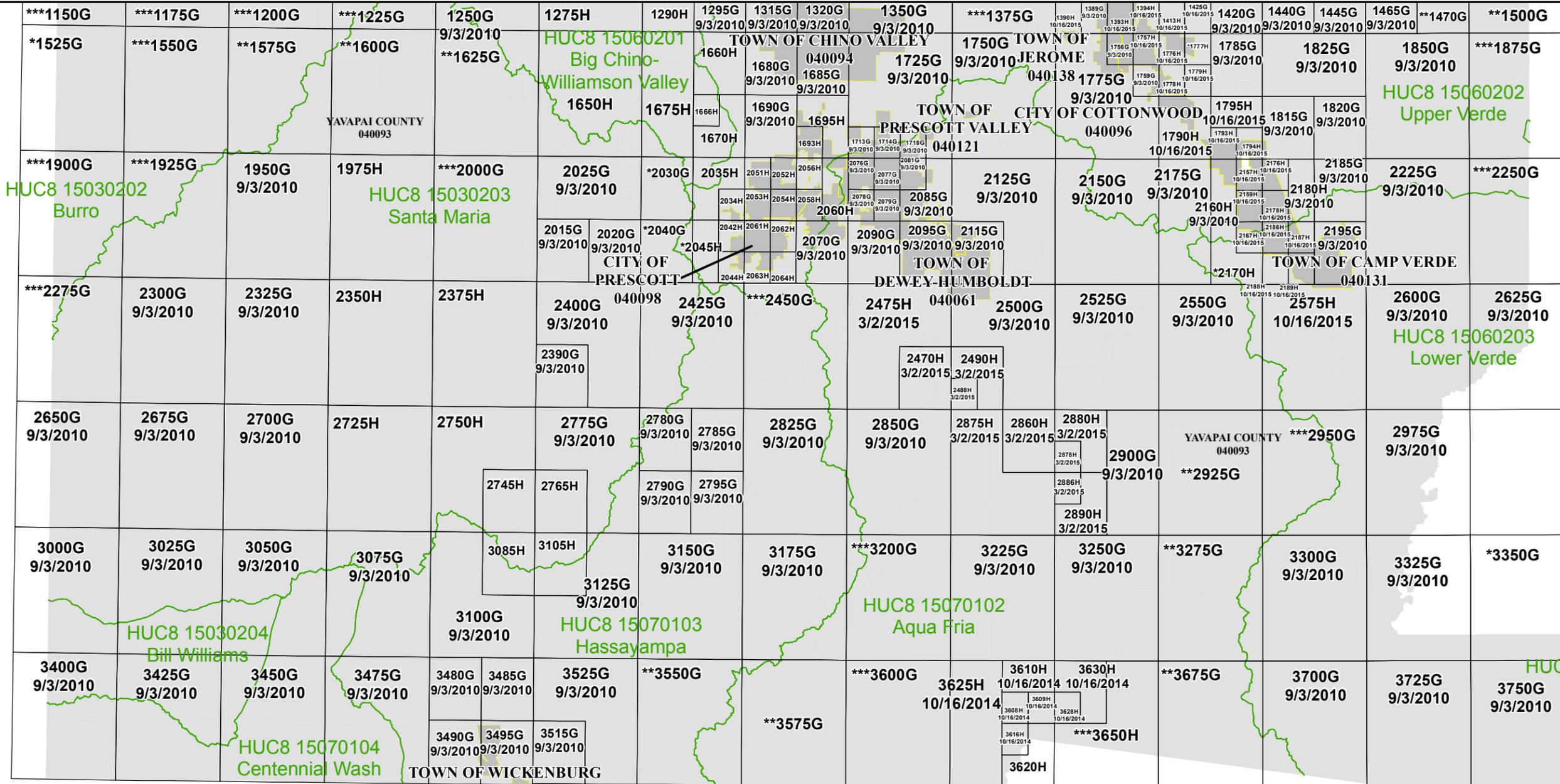


NATIONAL FLOOD INSURANCE PROGRAM
 FLOOD INSURANCE RATE MAP INDEX

YAVAPAI COUNTY, ARIZONA and Incorporated Areas
 SHEET 1 OF 2

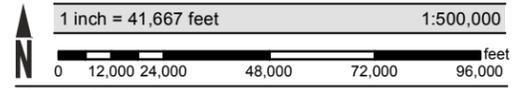
PANELS PRINTED:
 0300, 0325, 0450, 0475, 0500, 0510, 0525, 0530, 0550, 0575, 0675, 0700, 0725, 0775, 0900, 0925, 0950, 0955, 0965, 0970, 0980, 0990, 1000, 1025, 1100, 1115, 1120, 1125, 1250, 1275, 1290, 1295, 1300, 1305, 1310, 1315, 1320, 1350, 1390, 1391, 1392, 1420, 1425, 1430, 1435, 1440, 1445, 1465

FEMA
 PRELIMINARY
 MAP NUMBER 04025CIND1E
 MAP REVISED



NOTES TO USER
 Preliminary panels 1693H, 1695H, 2034H, 2035H, 2042H, 2044H, 2045H (PNP), 2051H, 2052H, 2053H, 2054H, 2056H, 2058H, 2060H, 2061H, 2062H, 2063H, and 2064H were released on April 24, 2015 as part of FEMA Case No.13-09-0279S.

ATTENTION: The corporate limits shown on this FIRM Index are based on the best information available at the time of publication. As such, they may be more current than those shown on FIRM panels issued before October 16, 2015.

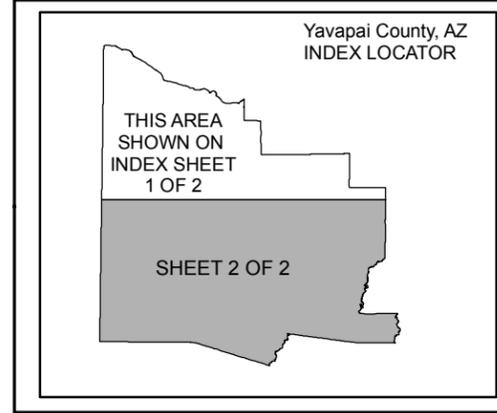
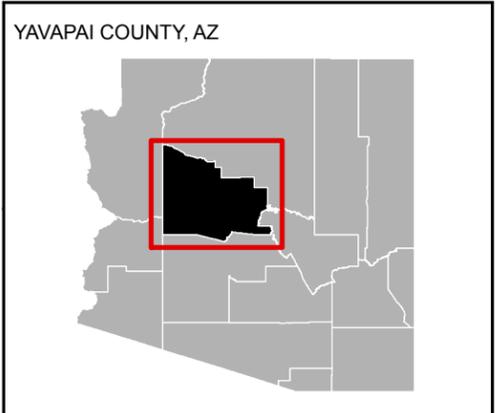


Map Projection:
 State Plane Arizona Central FIPS 0202 Feet Intl;
 North American Datum 1983

THE INFORMATION DEPICTED ON THIS MAP AND SUPPORTING DOCUMENTATION ARE ALSO AVAILABLE IN DIGITAL FORMAT AT
[HTTP://MSC.FEMA.GOV](http://MSC.FEMA.GOV)

SEE FLOOD INSURANCE STUDY FOR ADDITIONAL INFORMATION

* PANEL NOT PRINTED - NO SPECIAL FLOOD HAZARD AREAS
 ** PANEL NOT PRINTED - AREA IN ZONE D
 *** PANEL NOT PRINTED - AREA IN ZONE X AND ZONE D



NATIONAL FLOOD INSURANCE PROGRAM
FLOOD INSURANCE RATE MAP INDEX
YAVAPAI COUNTY, ARIZONA and Incorporated Areas
 SHEET 2 OF 2

PANELS PRINTED: 1250, 1295, 1315, 1320, 1350, 1389, 1390, 1393, 1394, 1413, 1420, 1425, 1440, 1445, 1465, 1680, 1685, 1690, 1965, 1713, 1714, 1718, 1725, 1750, 1756, 1757, 1759, 1775, 1776, 1778, 1779, 1785, 1790, 1793, 1794, 1795, 1815, 1820, 1825, 1850, 1950, 2015, 2020, 2025, 2070, 2076, 2077, 2078, 2079, 2081, 2085, 2090, 2095, 2115, 2125, 2150, 2157, 2159, 2160, 2167, 2175, 2176, 2178, 2180, 2185, 2186, 2187, 2188, 2189, 2195, 2196, 2187, 2188, 2189, 2195, 2225, 2300, 2325, 2390, 2400, 2425, 2470, 2475, 2488, 2490, 2500, 2525, 2575, 2600, 2625, 2650, 2675, 2700, 2775, 2780, 2785, 2790, 2795, 2825, 2850, 2860, 2875, 2878, 2880, 2886, 2890, 2900, 2975, 3000, 3025, 3050, 3075, 3100, 3125, 3150, 3175, 3225, 3250, 3300, 3325, 3400, 3425, 3450, 3475, 3480, 3485, 3490, 3495, 3515, 3525, 3608, 3609, 3610, 3616, 3620, 3625, 3628, 3630, 3700, 3725, 3750, 3780, 3850, 3875, 3900

FEMA PRELIMINARY
 MAP NUMBER 04025CIND2E
 MAP REVISED

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

Figure 2: FIRM Notes to Users

NOTES TO USERS

For information and questions about this map, available products associated with this FIRM including historic versions of this FIRM, how to order products, or the National Flood Insurance Program in general, please call the FEMA Map Information eXchange at 1-877-FEMA-MAP (1-877-336-2627) or visit the FEMA Flood Map Service Center website at msc.fema.gov. Available products may include previously issued Letters of Map Change, a Flood Insurance Study Report, and/or digital versions of this map. Many of these products can be ordered or obtained directly from the website. Users may determine the current map date for each FIRM panel by visiting the FEMA Flood Map Service Center website or by calling the FEMA Map Information eXchange.

Communities annexing land on adjacent FIRM panels must obtain a current copy of the adjacent panel as well as the current FIRM Index. These may be ordered directly from the Flood Map Service Center at the number listed above.

For community and countywide map dates, refer to Table 28 in this FIS Report.

To determine if flood insurance is available in the community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

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

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

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

Coastal Base Flood Elevations shown on the map apply only landward of 0.0' North American Vertical Datum of 1988 (NAVD88). Coastal flood elevations are also provided in the Coastal Transect Parameters table in the FIS Report for this jurisdiction. Elevations shown in the Coastal Transect Parameters table should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on the FIRM.

Figure 2. FIRM Notes to Users (continued)

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

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

PROJECTION INFORMATION: The projection used in the preparation of the map was NAD 1983 State Plane Arizona Central Zone. The horizontal datum was NAD83, GRS1980 spheroid. Differences in datum, spheroid, projection or State Plane zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of the FIRM.

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

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

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

BASE MAP INFORMATION: Base map information shown on the FIRM was derived from digital data provided by Yavapai County. Digital orthophotography collected by U.S. Department of Agriculture Farm Service Agency. This imagery was flown in 2015 and was produced with a 1-meter ground sample distance. For information about base maps, refer to Section 6.2 "Base Map" in this FIS Report.

The map reflects more detailed and up-to-date stream channel configurations than those shown on the previous FIRM for this jurisdiction. The floodplains and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations. As a result, the Flood Profiles and Floodway Data tables may reflect stream channel distances that differ from what is shown on the map.

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

Figure 2. FIRM Notes to Users (continued)

<p>NOTES FOR FIRM INDEX</p> <p><u>REVISIONS TO INDEX</u>: As new studies are performed and FIRM panels are updated within Yavapai County, Arizona, corresponding revisions to the FIRM Index will be incorporated within the FIS Report to reflect the effective dates of those panels. Please refer to Table 28 of this FIS Report to determine the most recent FIRM revision date for each community. The most recent FIRM panel effective date will correspond to the most recent index date.</p>
<p>SPECIAL NOTES FOR SPECIFIC FIRM PANELS</p> <p>This Notes to Users section was created specifically for Yavapai County, Arizona effective <date>.</p> <p><u>ACCREDITED LEVEE</u>: Check with your local community to obtain more information, such as the estimated level of protection provided (which may exceed the 1-percent-annual-chance level) and Emergency Action Plan, on the levee system(s) shown as providing protection for areas on this panel. To mitigate flood risk in residual risk areas, property owners and residents are encouraged to consider flood insurance and floodproofing or other protective measures. For more information on flood insurance, interested parties should visit the FEMA Website at www.fema.gov/national-flood-insurance-program.</p> <p><u>PROVISIONALLY ACCREDITED LEVEE</u>: Check with your local community to obtain more information, such as the estimated level of protection provided (which may exceed the 1-percent-annual-chance level) and Emergency Action Plan, on the levee system(s) shown as providing protection for areas on this panel. To maintain accreditation, the levee owner or community is required to submit the data and documentation necessary to comply with Section 65.10 of the NFIP regulations by December 31, 2011. If the community or owner does not provide the necessary data and documentation or if the data and documentation provided indicate the levee system does not comply with Section 65.10 requirements, FEMA will revise the flood hazard and risk information for this area to reflect de-accreditation of the levee system. To mitigate flood risk in residual risk areas, property owners and residents are encouraged to consider flood insurance and floodproofing or other protective measures. For more information on flood insurance, interested parties should visit the FEMA Website at www.fema.gov/national-flood-insurance-program.</p>
<p><u>FLOOD RISK REPORT</u>: A Flood Risk Report (FRR) may be available for many of the flooding sources and communities referenced in this FIS Report. The FRR is provided to increase public awareness of flood risk by helping communities identify the areas within their jurisdictions that have the greatest risks. Although non-regulatory, the information provided within the FRR can assist communities in assessing and evaluating mitigation opportunities to reduce these risks. It can also be used by communities developing or updating flood risk mitigation plans. These plans allow communities to identify and evaluate opportunities to reduce potential loss of life and property. However, the FRR is not intended to be the final authoritative source of all flood risk data for a project area; rather, it should be used with other data sources to paint a comprehensive picture of flood risk.</p>

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

Figure 3: Map Legend for FIRM

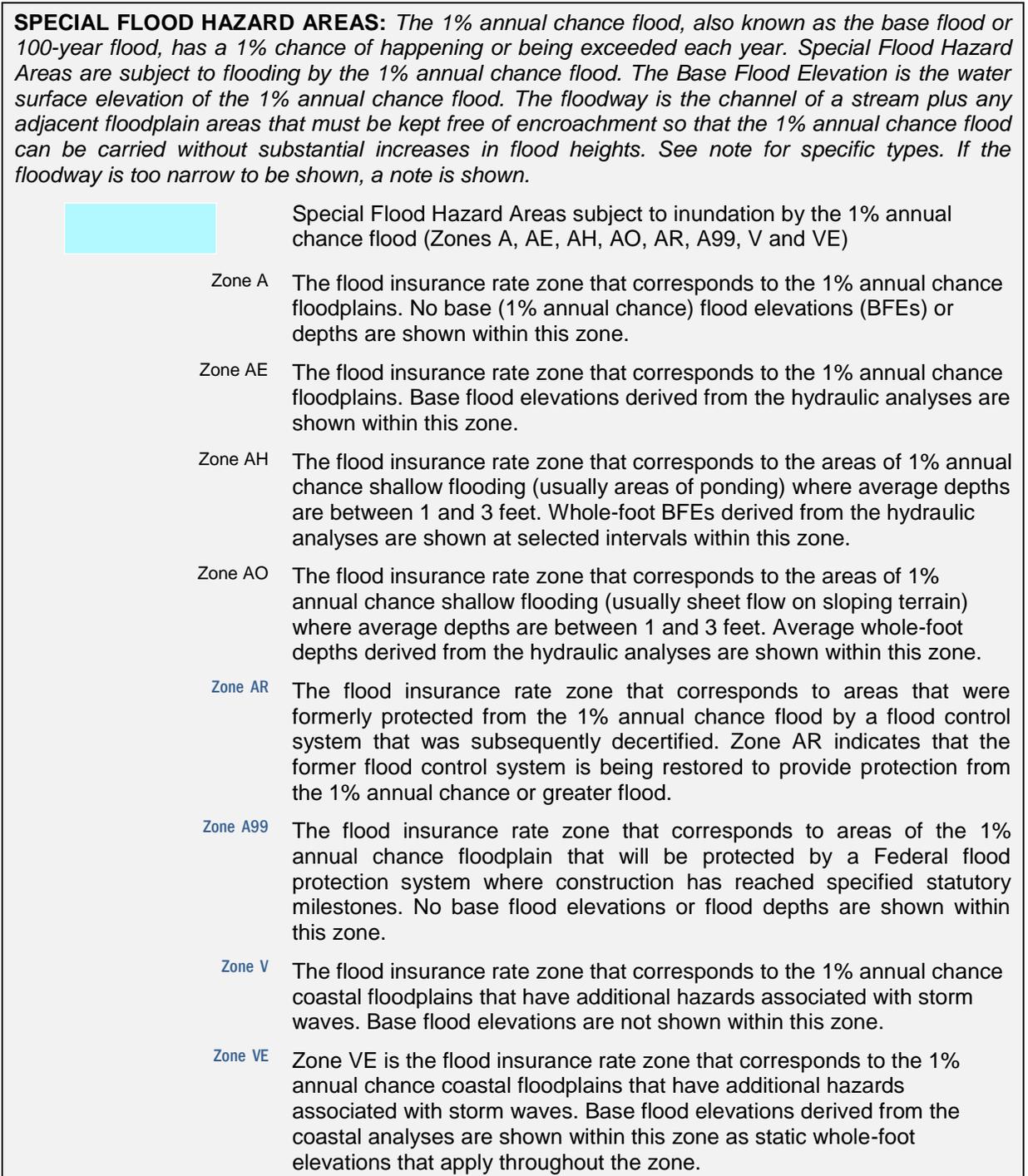


Figure 3: Map Legend for FIRM (continued)

	Regulatory Floodway determined in Zone AE.
	Non-encroachment zone (see Section 2.4 of this FIS Report for more information)
	The Colorado River Floodway was established by Congress in the Colorado River Floodway Protection Act of 1986, Public Law 99-450 (100 Statute 1129). The Act imposes certain restrictions within the Floodway.
FLOOD INSURANCE IS NOT AVAILABLE FOR STRUCTURES NEWLY BUILT OR SUBSTANTIALLY IMPROVED ON OR AFTER APRIL 8, 1987, IN THE DESIGNATED COLORADO RIVER FLOODWAY	
OTHER AREAS OF FLOOD HAZARD	
	Shaded Zone X: Areas of 0.2% annual chance flood hazards and areas of 1% annual chance flood hazards with average depths of less than 1 foot or with drainage areas less than 1 square mile.
	Future Conditions 1% Annual Chance Flood Hazard – Zone X: The flood insurance rate zone that corresponds to the 1% annual chance floodplains that are determined based on future-conditions hydrology. No base flood elevations or flood depths are shown within this zone.
	Area with Reduced Flood Risk due to Levee: Areas where an accredited levee, dike, or other flood control structure has reduced the flood risk from the 1% annual chance flood. See Notes to Users for important information.
OTHER AREAS	
	Zone D (Areas of Undetermined Flood Hazard): The flood insurance rate zone that corresponds to unstudied areas where flood hazards are undetermined, but possible.
	Unshaded Zone X: Areas of minimal flood hazard.
FLOOD HAZARD AND OTHER BOUNDARY LINES	
	Flood Zone Boundary (white line on ortho-photography-based mapping; gray line on vector-based mapping)
	Limit of Study
	Jurisdiction Boundary
	Limit of Moderate Wave Action (LimWA): Indicates the inland limit of the area affected by waves greater than 1.5 feet

Figure 3: Map Legend for FIRM (continued)

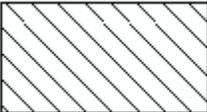
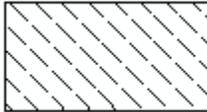
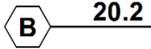
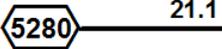
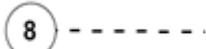
GENERAL STRUCTURES	
 <p>Aqueduct Channel Culvert Storm Sewer</p>	Channel, Culvert, or Storm Sewer
	Levee, Dike, or Floodwall
COASTAL BARRIER RESOURCES SYSTEM (CBRS) AND OTHERWISE PROTECTED AREAS (OPA): <i>CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.</i>	
 <p>CBRS AREA 09/30/2009</p>	Coastal Barrier Resources System Area: Labels are shown to clarify where this area shares a boundary with an incorporated area or overlaps with the floodway.
 <p>OTHERWISE PROTECTED AREA 09/30/2009</p>	Otherwise Protected Area
REFERENCE MARKERS	
 <p>22.0</p>	River mile Markers
CROSS SECTION & TRANSECT INFORMATION	
	Lettered Cross Section with Regulatory Water Surface Elevation (BFE)
	Numbered Cross Section with Regulatory Water Surface Elevation (BFE)
	Unlettered Cross Section with Regulatory Water Surface Elevation (BFE)
	Coastal Transect
	Profile Baseline: Indicates the modeled flow path of a stream and is shown on FIRM panels for all valid studies with profiles or otherwise established base flood elevation.
	Coastal Transect Baseline: Used in the coastal flood hazard model to represent the 0.0-foot elevation contour and the starting point for the transect and the measuring point for the coastal mapping.

Figure 3: Map Legend for FIRM (continued)

	Base Flood Elevation Line
ZONE AE (EL 16)	Static Base Flood Elevation value (shown under zone label)
ZONE AO (DEPTH 2)	Zone designation with Depth
ZONE AO (DEPTH 2) (VEL 15 FPS)	Zone designation with Depth and Velocity
BASE MAP FEATURES	
	River, Stream or Other Hydrographic Feature
	Interstate Highway
	U.S. Highway
	State Highway
	County Highway
MAPLE LANE 	Street, Road, Avenue Name, or Private Drive if shown on Flood Profile
 RAILROAD	Railroad
	Horizontal Reference Grid Line
	Horizontal Reference Grid Ticks
	Secondary Grid Crosshairs
Land Grant	Name of Land Grant
7	Section Number
R. 43 W. T. 22 N.	Range, Township Number
4276^{000m}E	Horizontal Reference Grid Coordinates (UTM)
365000 FT	Horizontal Reference Grid Coordinates (State Plane)
80° 16' 52.5"	Corner Coordinates (Latitude, Longitude)

SECTION 2.0 – FLOODPLAIN MANAGEMENT APPLICATIONS

2.1 Floodplain Boundaries

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

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

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

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

Small areas within the floodplain boundaries may lie above the flood elevations but cannot be shown due to limitations of the map scale and/or lack of detailed topographic data. The procedures to remove these areas from the SFHA are described in Section 6.5 of this FIS Report.

Table 2: Flooding Sources Included in this FIS Report

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi ²) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Agua Fria River (At Black Canyon City)	Yavapai County, Unincorporated Areas	Approximately 54 miles above confluence with Gila River	4.09 miles above Interstate Highway 17	15070102	7.1	*	Y	AE	*
Agua Fria River (At Dewey-Humboldt)	Prescott Valley, Town of and Dewey-Humboldt, Town of	Approximately 98 miles above confluence with Gila River	0.46 miles above Bradshaw Mountain Road	15070102	4.3	*	Y	AE	*
Agua Fria River (At Prescott Valley)	Yavapai County, Unincorporated Areas	Approximately 106 miles above confluence with Gila River	0.96 miles above Glassford Hill Rd	15070102	6.6	*	Y	AE	*
American Wash	Yavapai County, Unincorporated Areas	Confluence with Mint Wash	Approximately 3.9 miles above the confluence with Mint Wash	15060201	3.9	*	Y	AE	2014
Antelope Peak Wash	Yavapai County, Unincorporated Areas	Confluence with Miller Creek at Yarnell	Approximately 600 feet above confluence with Miller Creek	15030203	0.1	*	N	A	2014
Ash Fork Draw Wash	Yavapai County, Unincorporated Areas	Confluence with Partridge Creek	20 feet above Atchison, Topeka, and Santa Fe Railroad	15060201	5.8	*	Y	AE	*
Aspen Creek	Yavapai County, Unincorporated Areas	Confluence with Granite Creek	0.11 miles above High Valley Ranch Road	15060202	3.6	*	Y	AE	*

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

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi ²) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Backwoods Creek	Yavapai County, Unincorporated Areas	Confluence with Model Creek	Approximately 350 feet above confluence with Model Creek	15030203	0.1	*	N	A	2014
Bannon Creek	Prescott, City of	Confluence with Granite Creek	Approximately 40 feet West of Valley Ranch Circle	15060202	0.3	*	N	AE	*
Beaver Creek	Camp Verde, Town of and Yavapai County, Unincorporated Areas	Confluence with Verde River	Wet Beaver Creek	15060202	7.4	*	Y	A, AE	*
Big Bug Creek	Yavapai County, Unincorporated Areas	Confluence with Agua Fria River	6 miles above Central Avenue	15070102	23.9	*	Y	AE	2011
Big Chino Wash	Yavapai County, Unincorporated Areas	Detailed study limits, approximately 8,000 feet downstream of Walnut Creek	Approximately 4,000 feet downstream of the Yavapai County boundary	15060201	40.9	*	Y	A	2014
Big Chino Wash	Chino Valley, Town of and Yavapai County, Unincorporated Areas	Confluence with Sullivan Lake Spillway	Detailed study limits, approximately 8,000 feet downstream of Walnut Creek	15060201 15060202	12.8	*	Y	AE	*
Big Chino Wash Irrigation Split	Yavapai County, Unincorporated Areas	Convergence with Big Chino Wash along Profile Baseline	*	15060201	1.0	*	Y	AE	*

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

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi ²) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Big Chino Wash Overflow	Yavapai County, Unincorporated Areas	Confluence with Big Chino Wash	Approximately 400 feet upstream of Unnamed Road	15060201	0.8	*	Y	AE	*
Big Chino Wash Spill #1	Yavapai County, Unincorporated Areas	Convergence with Big Chino Wash along Profile Baseline	*	15060201	0.9	*	Y	AE	*
Big Chino Wash U.S. Route 89 Overflow	Yavapai County, Unincorporated Areas	Confluence with Big Chino Wash	Approximately 0.26 miles upstream of Big Chino Wash	15060202	0.3	*	Y	AE	*
Bitter Creek	Clarkdale, Town of	Confluence with Verde River	Approximately 1.5 miles upstream of Verde River	15060202	1.5	*	N	AE	*
Bitter Creek South Fork	Clarkdale, Town of and Yavapai County, Unincorporated Areas	Confluence with Bitter Creek	0.30 miles above Cement Plant Road	15060202	1.3	*	N	A, AE	*
Black Canyon Creek	Yavapai County, Unincorporated Areas	Confluence with Agua Fria River	Confluence with Turkey Creek and Poland Creek	15070102	20.1	*	Y	A,AE	*
Blue Tank Wash	Wickenburg, Town of and Yavapai County, Unincorporated Areas	Jack Burden Road	County Boundary	15070103	1.9	*	N	A, AE	*
Bottleneck Wash	Yavapai County, Unincorporated Areas	Confluence with Granite Creek	Approximately 3.3 miles above Highway 89	15060202	7.6	*	N	A, AE	*

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

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi ²) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Boynton Canyon	Yavapai County, Unincorporated Areas	Confluence with Dry Creek	Approximately 3.2 miles above Dry Creek	15060202	3.2	*	Y	A, AE	*
Buckhorn Creek	Yavapai County, Unincorporated Areas	Confluence with Model Creek	Approximately 800 feet above confluence with Model Creek	15030203	0.2	*	N	AE	2014
Butte Creek	Prescott, City of	Confluence with Miller Creek at Prescott	0.56 miles above Hassayampa Village Lane	15060202	2.4	*	Y	A, AE	*
Cherry Creek	Camp Verde, Town of	Confluence with Verde River	1.05 miles above Cherry Creek Road	15060202	7.1	*	Y	A, AE	*
Cherry Hill Wash	Cottonwood, City of	283 feet below of East Rodeo Drive	0.40 miles above Rainbow Drive	15060202	1.8	*	Y	AE	*
Cherry Creek Overflow	Camp Verde, Town of	Confluence with Verde River	Confluence with Cherry Creek	15070103	0.5	*	N	A	*
Chino Valley Stream	Chino Valley, Town of and Yavapai County, Unincorporated Areas	Confluence with Santa Cruz Wash	0.8 miles above Center Street	15060202	8.9	*	Y	AE	*
Chino Valley Stream (Tributary)	Yavapai County, Unincorporated Areas	Confluence with Chino Valley Stream	0.19 miles above Bandit Ridge Road	15060202	4.4	*	Y	AE	*
Chino Valley Stream (with levee)	Chino Valley, Town of and Yavapai County, Unincorporated Areas	Confluence with Santa Cruz Wash	50 feet below U.S. Route 89	15060202	1.6	*	Y	AE	*
Chino Valley Stream East	Yavapai County, Unincorporated Areas	Confluence with Chino Valley Stream	3.7 miles above Chino Valley Stream	15060202	3.7	*	Y	AE	*

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

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi ²) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Clayton Canyon Wash	Yavapai County, Unincorporated Areas	Confluence with Big Chino Wash	330 feet above Barbara Road	15060201	2.4	*	Y	AE	*
Clipper Wash	Prescott, Town of and Yavapai County, Unincorporated Areas	Confluence with Agua Fria River	2.2 miles above Agua Fria River	15070102	2.2	*	Y	A, AE	*
Concho Wash	Yavapai County, Unincorporated Areas	Confluence with Red Rock Wash	219 feet above S Chestnut Ln	15070102	0.9	*	Y	A, AE	*
Cooper Wash	Yavapai County, Unincorporated Areas	Confluence with Mint Wash	Approximately 0.4 miles above confluence with Mint Wash	15060201	0.4	*	N	A	2014
Copper Canyon Wash	Camp Verde, Town of	Confluence with Verde River	1,423 feet above W Salt Mine Road	15060203	1.2	*	Y	AE	*
Cottonwood Creek	Yavapai County, Unincorporated Areas	Confluence with Date Creek	Approximately 3 miles upstream of Date Creek Road	15030203	6.5	*	N	A	2014
Cougar Creek	Yavapai County, Unincorporated Areas	Confluence with Agua Fria River	324 feet above Black Canyon City Landfill	15070102	0.8	*	N	AE	*
Dead Mule Canyon Wash	Yavapai County, Unincorporated Areas	Confluence with Ramsgate Wash	1.19 miles above confluence with Ramsgate Wash	15030203	1.2	*	Y	AE	*
Deception Wash	Clarkdale, Town of and Yavapai County, Unincorporated Areas	Confluence with Verde River	1.3 miles above Desert Sky Drive	15060202	3.7	*	Y	AE	*

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

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi ²) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Del Monte Wash	Cottonwood, City of	Confluence with Verde River	0.7 miles above U.S. Highway 89 Alternate	15060202	1.9	*	Y	AE	*
Dillon Wash	Yavapai County, Unincorporated Areas	Confluence with Mint Wash	Approximately 0.6 miles above confluence with Mint Wash	15060201	0.6	*	N	A	2014
Dry Beaver Creek	Yavapai County, Unincorporated Areas	Confluence with Beaver Creek	3.3 miles above confluence with Beaver Creek	15060202	3.3	*	N	AE	*
Dry Creek	Yavapai County, Unincorporated Areas	Confluence with Oak Creek	18 miles above Oak Creek	15060202	18.0	*	Y	A, AE	*
Dry Well Wash	Yavapai County, Unincorporated Areas	Confluence with Clayton Canyon Wash	758 feet above Barbara Road	15060201	2.3	*	Y	AE	*
Dunlap Creek	Yavapai County, Unincorporated Areas	Confluence with Model Creek	Approximately 0.9 miles above confluence with Model Creek	15030203	0.9	*	N	A	2014
Eastwood Creek	Yavapai County, Unincorporated Areas	Confluence with Kirkland Creek (North)	Approximately 2 miles upstream of Mule Show Ranch Road	15030203	3.5	*	N	A	2014
Grampa Wash	Camp Verde, Town of	Confluence with Verde River	Approximately 0.25 miles above Middle Verde Road	15060202	0.6	*	N	A	*
Granite Creek	Prescott, City of	Confluence with Verde River	City of Prescott limits	15060202	5.1	*	Y	A, AE	*

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

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi ²) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Green Wash	Yavapai County, Unincorporated Areas	Confluence with Big Chino Wash	0.41 miles above Enid Drive	15060201	3.0	*	Y	AE	*
Hackberry Creek	Yavapai County, Unincorporated Areas	Big Bug Creek	Approximately 0.32 miles above Big Bug Creek	15070102	0.3	*	Y	AE	2011
Harper Canyon Wash	Yavapai County, Unincorporated Areas	Confluence with Miller Creek	Approximately 1,300 feet above the confluence with Miller Creek	15030203	0.3	*	N	A	2014
Hassayampa River	Yavapai County, Unincorporated Areas	County Boundary	40 miles above County Boundary	15070103	40.0	*	Y	A, AE	*
Hitt Wash	Yavapai County, Unincorporated Areas	Confluence with Williamson Valley Wash	Approximately 4,000 feet upstream of Las Vegas Road	15060201	6.2	*	N	A	2014
Indian Springs Wash	Yavapai County, Unincorporated Areas	Confluence with Mud Tank Wash	Approximately 2 miles upstream of Williamson Valley Road	15060201	2.5	*	N	A	2014
J.W. Draw	Yavapai County, Unincorporated Areas	Confluence with Green Wash	400 feet above Ahonen Road	15060201	2.2	*	Y	AE	*
Jacks Canyon	Yavapai County, Unincorporated Areas	Confluence with Dry Beaver Creek	355 feet above Jacks Canyon Road	15060202	5.9	*	Y	A, AE	*
Jerome Canyon Wash	Yavapai County, Unincorporated Areas	Confluence with Mint Wash	Approximately 0.3 miles above confluence with Mint Wash	15060201	0.3	*	N	A	2014

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

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi ²) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Juniper Spring Wash	Yavapai County, Unincorporated Areas	Confluence with Miller Creek at Yarnell	Approximately 0.3 miles above confluence with Miller Creek	15030203	0.2	*	N	A	2014
Kirkland Creek (South)	Yavapai County, Unincorporated Areas	Confluence with Poplar Wash	Approximately 1 mile upstream of confluence with Poplar Wash	15030203	1.0	*	N	A	2014
Kirkland Creek (North)	Yavapai County, Unincorporated Areas	Approximately 3.5 miles north of Kirkland Hillside/SR 96 Road	Approximately 1 mile downstream of Single Six Road	15030203	15.4	*	N	A	2014
Little Harper Canyon	Yavapai County, Unincorporated Areas	Confluence with Miller Creek at Yarnell	Approximately 1,950 feet above confluence with Miller Creek	15030203	0.4	*	N	A	2014
Little Sickles Wash	Yavapai County, Unincorporated Areas	Confluence with Sickles Wash	Approximately 0.3 miles above confluence with Sickles Wash	15030203	0.3	*	N	A	2014
Lonesome Valley Wash	Prescott Valley, Town of and Yavapai County, Unincorporated Areas	Approximately 1,300 feet downstream of Unnamed Road	1,800 feet upstream of the confluence of Lonesome Valley Wash Tributary Reach 405	15060202	3.5	*	N	AE	*
Lonesome Valley Wash Tributary Reach 100	Yavapai County, Unincorporated Areas	Confluence with Lonesome Valley Wash	1.91 upstream of Unnamed Road	15060202	5.7	*	Y	A, AE	*

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

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi ²) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Lonesome Valley Wash Tributary Reach 200	Yavapai County, Unincorporated Areas	Confluence with Lonesome Valley Wash	1.82 miles above Unnamed Road	15060202	4.7	*	Y	A, AE	*
Lonesome Valley Wash Tributary Reach 330	Yavapai County, Unincorporated Areas	Confluence with Lonesome Valley Wash Tributary Reach 350	0.27 miles above Lonesome Valley Wash Tributary 350	15060202	0.3	*	N	AE	*
Lonesome Valley Wash Tributary Reach 350	Yavapai County, Unincorporated Areas	Confluence with Lonesome Valley Wash Tributary Reach 360	715 feet above Unnamed Road	15060202	1.0	*	N	AE	*
Lonesome Valley Wash Tributary Reach 360	Yavapai County, Unincorporated Areas	Confluence with Lonesome Valley Wash	818 feet above Unnamed Road	15060202	1.6	*	N	AE	*
Lonesome Valley Wash Tributary Reach 405	Yavapai County, Unincorporated Areas	Confluence with Lonesome Valley Wash	1,086 feet above Slash Arrow Drive	15060202	0.5	*	N	AE	*
Lonesome Valley Wash Tributary Reach 500	Prescott Valley, Town of and Yavapai County, Unincorporated Areas	Confluence with Lonesome Valley Wash	Confluence with Unnamed Stream	15060202	1.0	*	N	AE	*
Long Canyon Creek	Yavapai County, Unincorporated Areas	Confluence with Strickland Wash (North)	Approximately 900 feet upstream of Wildhorse Run Road	15060201	4.5	*	N	A	2014

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

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi ²) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Lower Kelly Wash	Wickenburg, Town of and Yavapai County, Unincorporated Areas	Confluence with Martinez Wash	350 feet above Atchison Topeka and Santa Fe Railroad	15070103	4.5	*	Y	A, AE	*
Lucky Canyon Wash	Camp Verde, Town of and Yavapai County, Unincorporated Areas	Confluence with Verde River	840 feet above Salt Mine Road	15060203	0.5	*	Y	AE	*
Lynx Creek	Prescott Valley, Town of and Yavapai County, Unincorporated Areas	Confluence with Agua Fria River	10.8 miles above Agua Fria River	15070102	10.8	*	Y	A, AE	*
Manzanita Creek	Prescott, City of and Yavapai County, Unincorporated Areas	Confluence with Granite Creek	0.3 miles above Clubhouse Drive	15060202	1.1	*	Y	AE	*
Martinez Wash	Wickenburg, Town of and Yavapai County, Unincorporated Areas	Confluence with Hassayampa River	1.1 miles above Atchison Topeka and Santa Fe Railroad	15070103	16.3	*	Y	A, AE	*
Maughan Creek	Yavapai County, Unincorporated Areas	Confluence with Miller Creek at Yarnell	Approximately 0.6 miles above confluence with Miller Creek	15030203	0.5	*	N	A	2014
Meadowlark Wash	Yavapai County, Unincorporated Areas	Confluence with Mint Wash	Approximately 0.3 miles above confluence with Mint Wash	15060201	0.3	*	N	A	2014

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

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi ²) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Mescal Wash	Clarkdale, Town of and Yavapai County, Unincorporated Areas	Confluence with Verde River	Approximately 0.3 miles above Town of Clarkdale Limits	15060202	2.5	*	N	A	*
Miller Creek (At Prescott)	Prescott, City of and Yavapai County, Unincorporated Areas	Confluence with Granite Creek	0.5 miles above Pine Drive	15060202	3.6	*	Y	AE	*
Miller Creek (At Yarnell)	Yavapai County, Unincorporated Areas	Confluence with Model Creek	New Zone A limits, approximately 5.5 miles upstream of confluence with Model Creek	15030203	5.5	*	Y	AE	2014
Miller Creek (Upper)	Yavapai County, Unincorporated Areas	New Zone AE limits, approximately 5.5 miles upstream of confluence with Model Creek	Approximately 1.3 miles upstream of new Zone AE limits, approximately 6.8 miles upstream of confluence with Model Creek	15030203	1.2	*	N	A	2014
Mint Wash	Yavapai County, Unincorporated Areas	Approximately 0.62 miles below Phantom Hill Road	Approximately 0.56 miles above Phantom Hill Road	15060201	1.2	*	Y	AE	2014
Mint Wash	Yavapai County, Unincorporated Areas	Confluence with Williamson Valley Wash	Approximately 2 miles below North Jerome Canyon Drive	15060201	4.5	*	N	A	2014
Mint Wash	Yavapai County, Unincorporated Areas	Approximately 2 miles below North Jerome Canyon Drive	Approximately 0.62 miles below Phantom Hill Road	15060201	5.9	*	N	A	2014

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

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi ²) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Mint Wash	Yavapai County, Unincorporated Areas	Approximately 0.56 miles above Phantom Hill Road	Approximately 1.95 miles above Phantom Hill Road	15060201	1.4	*	N	A	2014
Model Creek	Yavapai County, Unincorporated Areas	Approximately 1.6 miles below West Hays Ranch Road	Approximately 750 feet above Model Creek Road	15030203	2.8	*	Y	AE	2014
Mud Springs Wash	Yavapai County, Unincorporated Areas	Confluence with Agua Fria River	0.66 miles above Mud Springs Road	15070102	1.1	*	Y	AE	*
Mud Tank Wash	Yavapai County, Unincorporated Areas	Confluence with Williamson Valley Wash	Approximately 2 miles upstream of confluence with Indian Spring Creek	15060201	8.9	*	N	A	2014
Navajo Drive Wash	Prescott Valley, Town of and Yavapai County, Unincorporated Areas	Confluence with Agua Fria River	At Robert Road	15070102	2.5	*	Y	A, AE	*
North Fork Date Creek	Yavapai County, Unincorporated Areas	Approximately 800 feet upstream of confluence with Date Creek	Approximately 2 miles upstream of railroad tracks and Date Creek Road	15030203	3.2	*	N	A	2014
North Fork Granite Creek	Prescott, City of	Confluence with Granite Creek	800 feet above Jovian Drive	15060202	1.0	*	Y	A, AE	*
North Fork Mescal Gulch	Yavapai County, Unincorporated Areas	Confluence with Mescale Wash	0.65 miles above Old Jerome Highway	15060203	1.2	*	N	A	*
North Fork Miller Creek	Prescott, City of	Confluence with Miller Creek at Prescott	0.2 miles above Gail Gardener Way	15060202	0.9	*	Y	AE	*

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

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi ²) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
North Navajo Drive Wash	Prescott Valley, Town of	Confluence with Agua Fria River	Long Look Drive	15070102	2.6	*	N	AE	*
North Tributary to South Branch Agua Fria River	Prescott Valley, Town of	Confluence with South Branch Agua Fria River	800 feet above Glassford Hill Road	15070102	1.3	*	N	AE	*
Oak Creek	Sedona, City of and Yavapai County, Unincorporated Areas	Confluence with Verde River	County Boundary	15060202	33.4	*	Y	AE	*
Oak Creek Tributary 1	Yavapai County, Unincorporated Areas	Confluence with Oak Creek	0.15 miles above Unnamed Road	15060202	0.4	*	N	A, AE	*
Oak Creek Tributary 2	Yavapai County, Unincorporated Areas	Confluence with Oak Creek	Approximately 0.2 miles above confluence with Oak Creek	15060202	0.2	*	N	A, AE	*
Oak Creek Tributary 3	Yavapai County, Unincorporated Areas	Confluence with Oak Creek	0.2 miles above Sexton Ranch Road	15060202	0.2	*	N	A, AE	*
Oak Creek Tributary 4	Yavapai County, Unincorporated Areas	Confluence with Oak Creek	Approximately 0.3 miles above confluence with Oak Creek	15060202	0.3	*	N	A	*
Oak Wash	Cottonwood, City of and Yavapai County, Unincorporated Areas	Confluence with Verde River	120 feet above Unnamed Road	15060202	3.0	*	Y	A, AE	*
Outcrop Creek	Yavapai County, Unincorporated Areas	Confluence with Mint Wash	Approximately 0.2 miles above the confluence with Mint Wash	15060201	0.2	*	N	A	2014

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

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi ²) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Pecks Lake	Clarkdale, Town of	*	*	15060202	*	0.022	N	A	*
Pecks Lake Tributary	Clarkdale, Town of	Confluence with Verde River	Confluence with Pecks Lake	15060202	1.9	*	N	A	*
Pipe Creek	Yavapai County, Unincorporated Areas	Confluence with Verde River	Western Drive	15060202	1.5	*	N	A	*
Poplar Wash	Yavapai County, Unincorporated Areas	Approximately 2 miles east of intersection of Sorrell Ranch Road & State Route 89	Approximately 3 miles northwest of intersection of Sorrell Ranch Road & State Route 89	15070103	7.6	*	N	A	2014
Powder House Wash Tributary 1	Yavapai County, Unincorporated Areas	County Boundary	800 feet above County Boundary	15070103	0.5	*	N	AE	*
Powder house Wash Tributary 2	Yavapai County, Unincorporated Areas	County Boundary	210 feet above County Boundary	15070103	0.3	*	N	AE	*
Prickly Pear Wash	Yavapai County, Unincorporated Areas	Confluence with Red Rock Wash	0.46 miles above Oasis Road	15070102	1.1	*	Y	AE	*
Railroad Wash	Cottonwood, City of	Confluence with Cottonwood Ditch	US Highway 89A	15060202	1.8	*	Y	A, AE	*
Ramsgate Wash	Yavapai County, Unincorporated Areas	Confluence with Skull Valley Wash	0.58 miles above Atchison, Topeka and Santa Fe Railroad	15030203	1.9	*	Y	A, AE, AO	*
Red Rock Wash	Yavapai County, Unincorporated Areas	Confluence with Agua Fria River	133 feet above Cactus Wren Drive	15070102	2.3	*	Y	A, AE	*
Rio Mesa Wash	Cottonwood, City of	0.23 miles below East Rodeo Drive	420 feet above Deserama Circle	15060202	1.4	*	Y	AE	*

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

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi ²) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Ritter Creek	Yavapai County, Unincorporated Areas	Approximately 700 ft east of intersection of Oklahoma Star & S. Date Creek Rd	Approximately 1 mile east of Oklahoma Star Rd & S. Date Creek Rd	15030203	0.9	*	N	A	2014
Robert Wash	Yavapai County, Unincorporated Areas	Confluence with Green Wash	1,230 feet above confluence with Telephone Tank Wash Breakout	15060201	0.5	*	Y	AE	*
Russell Wash	Yavapai County, Unincorporated Areas	Confluence with Wet Beaver Creek	1.11 miles above Montezuma Avenue	15060202	2.0	*	Y	AE, A	*
Russell Wash Left Split	Yavapai County, Unincorporated Areas	Confluence with Russell Wash	Divergence from Russell Wash	15060202	0.6	*	Y	AE	*
Santa Cruz Wash	Chino Valley, Town of and Yavapai County, Unincorporated Areas	Confluence with Big Chino Wash	1 mile above Road 2 South	15060202	6.5	*	Y	AE	*
Sickles Wash	Yavapai County, Unincorporated Areas	Confluence with Miller Creek at Yarnell	Approximately 0.6 miles above confluence with Miller Creek at Yarnell	15030203	0.6	*	N	A	2014
Silver Springs Gulch	Cottonwood, City of	Confluence with Verde River	2.08 miles above South Sixth Street	15060202	3.3	*	Y	A, AE	*
Skull Valley Wash	Yavapai County, Unincorporated Areas	Confluence with Kirkland Creek	Iron Springs Road	15030203	2.3	*	Y	A, AE	*
Sols Wash	Yavapai County, Unincorporated Areas	County Boundary	0.3 miles above Atchison, Topeka and Santa Fe Railroad Bridge	15070103	9.2	*	Y	A, AE	*

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

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi ²) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
South Branch Agua Fria River	Prescott Valley, Town of	Confluence with Agua Fria River	0.22 miles above Glassford Hill Road	15070102	1.2	*	N	A, AE	*
South Branch Oak Wash	Yavapai County, Unincorporated Areas	Confluence with Oak Wash	130 feet above Glenbar Drive	15060202	0.9	*	Y	AE	*
South Rocky Boy Wash	Yavapai County, Unincorporated Areas	Confluence with Model Creek	0.94 miles above Aggie Hodge Road	15030203	1.4	*	Y	A, AE	*
Spring Creek	Yavapai County, Unincorporated Areas	Confluence with Oak Creek	0.24 miles above US Route 89A	15060202	4.2	*	Y	A, AE	*
Squaw Creek	Yavapai County, Unincorporated Areas	Confluence with Agua Fria River	1.2 miles above confluence with Agua Fria River	15070102	1.1	*	Y	A, AE	*
Stone Way Wash	Yavapai County, Unincorporated Areas	Confluence with Miller Creek at Yarnell	Approximately 1,300 feet above the confluence with Miller Creek	15030203	0.3	*	Y	AE	2014
Strickland Wash (North)	Yavapai County, Unincorporated Areas	Approximately 2 miles northwest of intersection of Middle Place Rd and N. Williams Valley Rd.	Approximately 0.5 miles west of intersection of W. Fair Oaks Rd. and D Lazy S Farm Rd.	15030203	5.8	*	N	A	2014
Strickland Wash (South)	Yavapai County, Unincorporated Areas	Approximately 1 mile northwest of intersection of N. Balancing Rock Trl and N. Boulder Pass	Approximately 0.5 miles west of intersection of N. Boulder/Calle Diamante and Forest Service Road 9400H	15060201	3.9	*	N	A	2014

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

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi ²) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Telephone Tank Wash	Yavapai County, Unincorporated Areas	Confluence with Green Wash	770 feet above St. Louis Street	15060201	0.9	*	Y	AE	*
Telephone Tank Wash Breakout	Yavapai County, Unincorporated Areas	Confluence with Green Wash	Divergence from Telephone Tank Wash	15060201	1.1	*	Y	AE	*
Texas Gulch Main Stream	Dewey-Humboldt, Town of	Confluence with Agua Fria River	0.19 miles above Wind River Drive	15070102	2.9	*	Y	AE, AO	*
Texas Gulch West Branch	Dewey-Humboldt, Town of and Yavapai County, Unincorporated Areas	Confluence with Texas Gulf Main Stream	0.33 miles above Grant Drive	15070102	1.6	*	Y	AE, AO	*
Timon Wash	Yavapai County, Unincorporated Areas	Confluence with Big Chino Wash	0.63 miles above Unnamed Road	15060201	2.3	*	Y	A, AE	*
Unnamed Creek A	Cottonwood, City of and Yavapai County, Unincorporated Areas	Confluence with Verde River	0.6 miles above Dead Horse Ranch Road	15060202	0.9	*	N	A	*
Unnamed Creek B	Cottonwood, City of and Yavapai County, Unincorporated Areas	Confluence with Verde River	0.51 miles above Dead Horse Ranch Road	15060202	0.7	*	N	A	*
Unnamed Creek C	Camp Verde, Town of	Confluence with Verde River	0.21 miles above Hayfield Draw Drive	15060202	0.5	*	N	A, AE	*
Unnamed Creek D	Camp Verde, Town of	Confluence with Verde River	Old State Route 260 Road	15060202	0.6	*	N	A, AE	*
Unnamed Creek F	Camp Verde, Town of and Yavapai County, Unincorporated Areas	Confluence with Verde River	Approximately 180 feet above Salt Mine Road	15060202	0.3	*	N	A, AE	*

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

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi ²) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Unnamed Tributary to Date Creek	Yavapai County, Unincorporated Areas	Confluence with Date Creek	1 mile north of intersection of Stetson Ranch Rd & O X Ranch Rd	15030203	3.9	*	N	A	2014
Unnamed Tributary to Long Canyon Creek	Yavapai County, Unincorporated Areas	Confluence with Long Canyon Creek	Approximately 1 mile east of intersection of W. Wildhorse Run and N. Tonto Rd.	15030203	1.1	*	N	A	2014
Unnamed Tributary to Kirkland Creek	Yavapai County, Unincorporated Areas	Confluence with Kirkland Creek (North)	Approximately 0.5 miles west of intersection of Founders Trail & S. Fipsila Circle	15030203	2.7	*	N	A	2014
Unnamed Tributary to Mud Tank Wash	Yavapai County, Unincorporated Areas	Confluence with Mud Tank Wash	2 miles southwest of intersection of Forest Service Road 664 & N. Williamson Valley Rd.	15060201	3.2	*	N	A	2014
Unnamed Tributary to Strickland Wash	Yavapai County, Unincorporated Areas	Confluence with Strickland Wash (South)	Approximately 1.5 miles west of intersection of Balancing Rock Trl and N. Boulder Pass	15060201	1.2	*	N	A	2014

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

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi ²) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Verde River	Camp Verde, Town of; Clarkdale, Town of; Cottonwood, City of; and Yavapai County, Unincorporated Areas	Confluence with Salt River	Approximately 4.4 miles above Bitter Creek	15060202, 15060203	95.3	*	Y	A, AE	*
Virginia Street Wash	Prescott, City of	Confluence with Granite Creek	0.36 miles above S Virginia Street	15060202	1.5	*	Y	AE	*
Wash P	Wickenburg, Town of and Yavapai County, Unincorporated Areas	County Boundary	0.11 miles above County Boundary	15070103	0.5	*	N	AE	*
Waterman Creek	Yavapai County, Unincorporated Areas	Confluence with South Fork Santa Maria River	0.13 miles above Date Creek Road	15030203	4.4	*	N	A	*
West Clear Creek	Camp Verde, Town of	Confluence with Verde River	400 feet above State Highway 260	15060203	4.1	*	Y	A, AE	*
West Fork Miller Creek	Yavapai County, Unincorporated Areas	Confluence with Model Creek	0.52 miles above Hays Ranch Road	15030203	1.1	*	Y	AE	*
Wet Beaver Creek	Yavapai County, Unincorporated Areas	Confluence with Beaver Creek	1.25 miles above Montezuma Lake Avenue	15060202	15.4	*	Y	A, AE	*
Wet Beaver Creek Left Split	Yavapai County, Unincorporated Areas	Confluence with Wet Beaver Creek	Divergence from Wet Beaver Creek	15060202	0.6	*	Y	AE	*
Whisper Creek	Yavapai County, Unincorporated Areas	Confluence with Mint Wash	Approximately 0.3 miles above confluence with Mint Wash	15060201	0.3	*	N	A	2014

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

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi ²) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Williamson Valley Wash	Yavapai County, Unincorporated Areas	Approximately 2 miles west of Santa Fe & Big Spring Ranch	Approximately 3 miles west of W. 7 V Ranch Rd. and N. Fair Oaks Rd.	15060201	18.0	*	Y	A	2014
Williamson Valley Wash North Split	Yavapai County, Unincorporated Areas	Burlington Northern Santa Fe Railway	Williamson Valley Wash	15060201	3.5	*	Y	AE	*
Willow Creek	Prescott, City of and Yavapai County, Unincorporated Areas	Confluence with Willow Creek Reservoir	0.6 miles above Pine Lakes Drive	15060202	6.9	*	Y	AE	*
Willow Creek Reservoir Tributary	Prescott, City of	Willow Lake Road	0.34 miles above Bloomingdale Drive	15060202	2.9	*	Y	AE	*
Willow Creek Tributary	Prescott, City of	Confluence with Willow Creek	950 feet above Country Park Drive	15060202	1.7	*	Y	A, AE	*
Wilber Canyon Creek	Cottonwood, City of	Confluence with Verde River	State Highway 260	15060202	1.4	*	N	A	*
Wikiup Creek	Camp Verde, Town of	Confluence with West Clear Creek	1.08 miles above State Highway 260	15060203	0.2	*	N	A	*
Zalesky Wash Main Stem	Yavapai County, Unincorporated Areas	Confluence with Verde Wash	0.44 miles above Zalesky Road	15060202	0.9	*	Y	AE	*

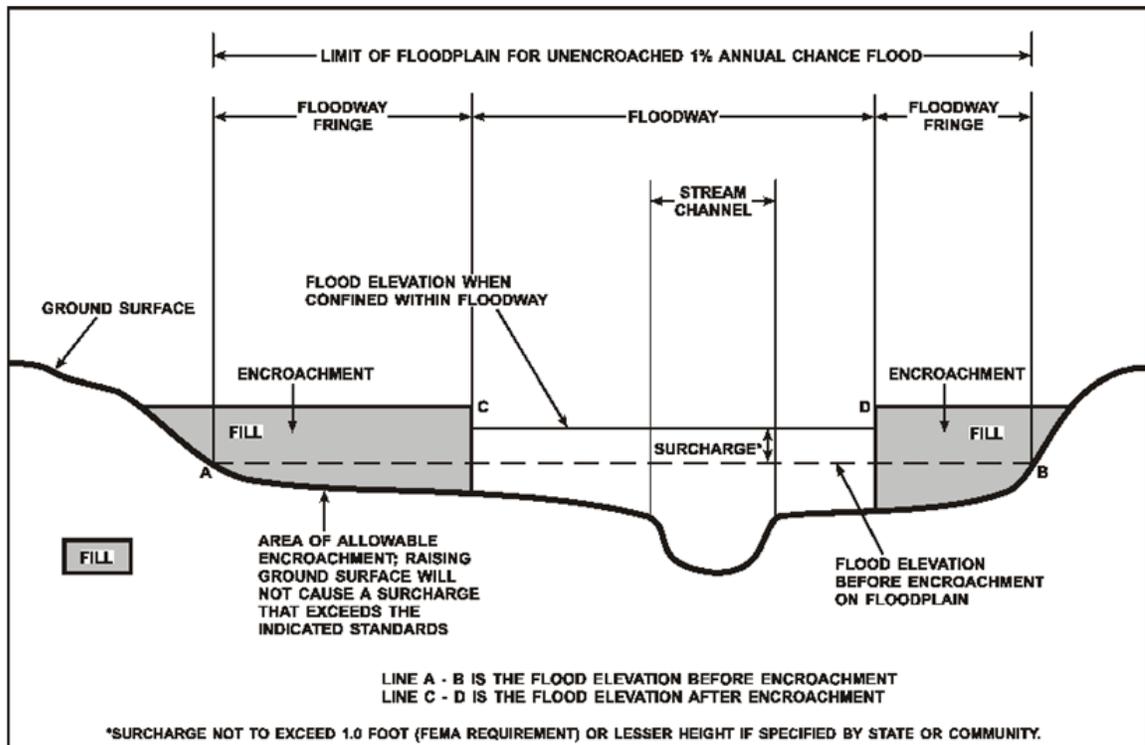
2.2 Floodways

Encroachment on floodplains, such as structures and fill, reduces flood-carrying capacity, increases flood heights and velocities, and increases flood hazards in areas beyond the encroachment itself. One aspect of floodplain management involves balancing the economic gain from floodplain development against the resulting increase in flood hazard.

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

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

Figure 4: Floodway Schematic



Floodway widths presented in this FIS Report and on the FIRM were computed at cross sections.

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

All floodways that were developed for this Flood Risk Project are shown on the FIRM using the symbology described in Figure 3. In cases where the floodway and 1% annual chance floodplain boundaries are either close together or collinear, only the floodway boundary has been shown on the FIRM. For information about the delineation of floodways on the FIRM, refer to Section 6.3.

2.3 Base Flood Elevations

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

Cross sections with BFEs shown on the FIRM correspond to the cross sections shown in the Floodway Data table and Flood Profiles in this FIS Report. BFEs are primarily intended for flood insurance rating purposes. For construction and/or floodplain management purposes, users are cautioned to use the flood elevation data presented in this FIS Report in conjunction with the data shown on the FIRM.

2.4 Non-Encroachment Zones

Some States and communities use non-encroachment zones to manage floodplain development. For flooding sources with medium flood risk, field surveys are often not collected and surveyed bridge and culvert geometry is not developed. Standard hydrologic and hydraulic analyses are still performed to determine BFEs in these areas. However, floodways are not typically determined, since specific channel profiles are not developed. To assist communities with managing floodplain development in these areas, a “non-encroachment zone” may be provided. While not a FEMA designated floodway, the non-encroachment zone represents that area around the stream that should be reserved to convey the 1% annual chance flood event. As with a floodway, all surcharges must fall within the acceptable range in the non-encroachment zone.

Non-encroachment determinations 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 25, “Flood Hazard and Non-Encroachment Data for Selected Streams.” Areas for which non-encroachment zones are provided show BFEs and the 1% annual chance floodplain boundaries mapped as zone AE on the FIRM but no floodways.

2.5 Coastal Flood Hazard Areas

This section is not applicable to this Flood Risk Project.

2.5.1 Water Elevations and the Effects of Waves

This section is not applicable to this Flood Risk Project.

Figure 5: Wave Runup Transect Schematic

[Not applicable to this Flood Risk Project]

2.5.2 Floodplain Boundaries and BFEs for Coastal Areas

This section is not applicable to this Flood Risk Project.

2.5.3 Coastal High Hazard Areas

This section is not applicable to this Flood Risk Project.

Figure 6: Coastal Transect Schematic

[Not applicable to this Flood Risk Project]

2.5.4 Limit of Moderate Wave Action

This section is not applicable to this Flood Risk Project

SECTION 3.0 – INSURANCE APPLICATIONS

3.1 National Flood Insurance Program Insurance Zones

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

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

Table 3 lists the flood insurance zones in Yavapai County.

Table 3: Flood Zone Designations by Community

Community	Flood Zone(s)
Camp Verde, Town of	A, AE, X
Chino Valley, Town of	A, AE, AO, X
Clarkdale, Town of	A, AE, X
Cottonwood, City of	A, AE, AO, X
Dewey-Humboldt, Town of	A, AE, AO, D, X
Jerome, Town of	X
Prescott, City of	A, AE, X
Prescott Valley, Town of	A, AE, X
Sedona, City of	A, AE, X
Wickenburg, Town of	A, AE, X
Yavapai County, Unincorporated Areas	A, AE, AH, AO, D, X

3.2 Coastal Barrier Resources System

This section is not applicable to this Flood Risk Project.

Table 4: Coastal Barrier Resources System Information

[Not applicable to this Flood Risk Project]

SECTION 4.0 – AREA STUDIED

4.1 Basin Description

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

Table 5: Basin Characteristics

HUC-8 Sub-Basin Name	HUC-8 Sub-Basin Number	Primary Flooding Source	Description of Affected Area	Drainage Area (square miles)
Red Lake	15010007	Truxton Wash	Includes the far Northwest portion of Yavapai County	934
Big Sandy	15030201	Big Sandy River	Along the northwestern boundary of Yavapai County	2,153

Table 5: Basin Characteristics (continued)

HUC-8 Sub-Basin Name	HUC-8 Sub-Basin Number	Primary Flooding Source	Description of Affected Area	Drainage Area (square miles)
Burro	15030202	Burro Creek	Along the western boundary of Yavapai County	713
Santa Maria	15030203	Santa Maria River	Southwest to Central part of Yavapai County	1,433
Bill Williams	15030204	Bill Williams River	Clips the Southwestern portion of Yavapai County	1,075
Tonto	15060105	Tonto Creek	East of Yavapai County	1,049
Big Chino – Williamson Valley	15060201	Big Chino Wash	North Central of Yavapai County	2,154
Upper Verde	15060202	Verde River	Northeast of Yavapai County and includes	2,508
Lower Verde	15060203	Verde River	Southeast of Yavapai County and most Southern part of the Town of Camp Verde	1,967
Agua Fria	15070102	Agua Fria River	Southeast and South Central Yavapai County including City of Peoria	2,767
Hassayampa	15070103	Hassayampa River	Includes South Central portion of Yavapai County	1,457
Centennial Wash	15070104	Centennial Wash	Southwest of Yavapai County	1,931

4.2 Principal Flood Problems

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

Table 6: Principal Flood Problems

Flooding Source	Description of Flood Problems
Agua Fria River and Tributaries	As the Town of Prescott Valley lies in the extreme upper end of the Agua Fria River watershed, flooding problems are minimal. There have been no significant losses recorded, either in lives or property, due to flooding since the Town of Prescott Valley was founded. Both thunderstorms and rapid snowmelt conditions may cause potential flood problems in extreme situations (Sellers and Hill, 1973)
Del Monte Wash	Significant flooding problems have occurred as a result of high magnitude flood flows on Del Monte Wash. This problem has occurred as a result of floodwaters breakout of the channel at the East Main Street crossing and flowing downstream on the adjacent overbanks through the most highly developed portion of the City of Cottonwood. This breakout resulted from insufficient culvert capacity beneath the East Main Street crossing and from debris blocking of the culverts. On August 26, 1964, a high intensity rainfall event occurred over the Del Monte Wash drainage basin and resulted in a relatively large magnitude flood event.
Granite and Miller Creeks	The worst flood in Prescott occurred in August 1963. Ten inches of rain was recorded and damage was estimated at \$400,000.
Oak Creek	Significant flooding of Oak Creek occurred in the following years as recorded at the USGS gaging station at Cornville: 1885, 1938, 1952, 1956, 1964, 1967, 1969, 1970, 1976, 1978, 1980, 1993, 1995, and 2004. The 1980 floods were estimated to have had approximately a 2-percent annual chance recurrence interval in the vicinity of the City of Sedona. Damage due to flooding has been mostly in the form of erosion and the resulting loss of land (FEMA, 1995)
Verde River	Historical floodflow events recorded on the Verde River have return periods of between 10- and 2-percent annual chance events. The maximum flood of record has an estimated recurrence interval of a 2-percent annual chance flood event.
West Clear Creek	The Verde Lakes Estates in the Town of Camp Verde experienced severe flooding from West Clear Creek in September 1970, December 1971, October 1972, February 1976, and February 1980. The 1980 flood was so severe that channel alignment and grade were significantly altered.
Willow Creek	In September 1983, flooding of Willow Creek in the City of Prescott caused significant bank erosion, although minimal property damage was sustained. According to the City of Prescott Department of Public Works (Robert Hardy, 1984), between 4.5 and 7.5 inches of rain fell in six hours, along with 10 inches of hail. The record gives an estimated storm frequency of between 150 and 300 years for what was assumed to be a 6-hour duration.

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

Table 7: Historic Flooding Elevations

[Not applicable to this Flood Risk Project]

4.3 Non-Levee Flood Protection Measures

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

Table 8: Non-Levee Flood Protection Measures

Flooding Source	Structure Name	Type of Measure	Location	Description of Measure
Oak Creek	N/A	Dike / Embankment	N/A	Several small dikes and riprapped embankments have been constructed by private landowners along Oak Creek to protect their property from inundation and erosion during floods

4.4 Levees

For purposes of the NFIP, FEMA only recognizes levee systems that meet, and continue to meet, minimum design, operation, and maintenance standards that are consistent with comprehensive floodplain management criteria. The Code of Federal Regulations, Title 44, Section 65.10 (44 CFR 65.10) describes the information needed for FEMA to determine if a levee system reduces the risk from the 1% annual chance flood. This information must be supplied to FEMA by the community or other party when a flood risk study or restudy is conducted, when FIRMs are revised, or upon FEMA request. FEMA reviews the information for the purpose of establishing the appropriate FIRM flood zone.

Levee systems that are determined to reduce the risk from the 1% annual chance flood are accredited by FEMA. FEMA can also grant provisional accreditation to a levee system that was previously accredited on an effective FIRM and for which FEMA is awaiting data and/or documentation to demonstrate compliance with Section 65.10. These levee systems are referred to as Provisionally Accredited Levees, or PALs. Provisional accreditation provides communities and levee owners with a specified timeframe to obtain the necessary data to confirm the levee's certification status. Accredited levee systems and PALs are shown on the FIRM using the symbology shown in Figure 3 and in Table 9. If the required information for a PAL is not submitted within the required timeframe, or if information indicates that a levee system no longer meets Section 65.10, FEMA will de-accredit the levee system and issue an effective FIRM showing the levee-impacted area as a SFHA.

FEMA coordinates its programs with USACE, who may inspect, maintain, and repair levee systems. The USACE has authority under Public Law 84-99 to supplement local efforts to repair flood control projects that are damaged by floods. Like FEMA, the USACE provides a program to allow public sponsors or operators to address levee system maintenance deficiencies. Failure to do so within the required timeframe results in the levee system being placed in an inactive status in the USACE Rehabilitation and Inspection Program. Levee systems in an inactive status are ineligible for rehabilitation assistance under Public Law 84-99.

FEMA coordinated with the USACE, the local communities, and other organizations to compile a list of levees that exist within Yavapai County . Table 9, “Levees,” lists all accredited levees, PALs, and de-accredited levees shown on the FIRM for this FIS Report. Other categories of levees may also be included in the table. The Levee ID shown in this table may not match numbers based on other identification systems that were listed in previous FIS Reports. Levees identified as PALs in the table are labeled on the FIRM to indicate their provisional status.

Please note that the information presented in Table 9 is subject to change at any time. For that reason, the latest information regarding any USACE structure presented in the table should be obtained by contacting USACE and accessing the USACE national levee database. For levees owned and/or operated by someone other than the USACE, contact the local community shown in Table 31.

Table 9: Levees

Community	Flooding Source	Levee Location	Levee Owner	USACE Levee	Levee ID	Covered Under PL84-99 Program?	FIRM Panel(s)
Prescott, City of	Willow Creek	Left Bank	City of Prescott Engineering Department	No	*	*	04025C2055G
Yavapai County, Unincorporated Areas	Dead Mule Canyon Wash	Right Bank	Yavapai County Flood Control District	No	*	*	04025C2020G
Yavapai County, Unincorporated Areas	Dry Creek	Left Bank	Yavapai County Flood Control District	Yes	3804020021	*	04025C1430G
Yavapai County, Unincorporated Areas	Lynx Creek	Left Bank	Yavapai County Flood Control District	Yes	3804020023	*	04025C2085G

SECTION 5.0 – ENGINEERING METHODS

For the flooding sources in the community, standard hydrologic and hydraulic study methods were used to determine the flood hazard data required for this study. Flood events of a magnitude that are expected to be equaled or exceeded at least once on the average during any 10-, 25-, 50-, 100-, or 500-year period (recurrence interval) have been selected as having special significance for floodplain management and for flood insurance rates. These events, commonly termed the 10-, 25-, 50-, 100-, and 500-year floods, have a 10-, 4-, 2-, 1-, and 0.2% annual chance, respectively, of being equaled or exceeded during any year.

Although the recurrence interval represents the long-term, average period between floods of a specific magnitude, rare floods could occur at short intervals or even within the same year. The risk of experiencing a rare flood increases when periods greater than 1 year are considered. For example, the risk of having a flood that equals or exceeds the 100-year flood (1-percent chance of annual exceedance) during the term of a 30-year mortgage is approximately 26 percent (about 3 in 10); for any 90-year period, the risk increases to approximately 60 percent (6 in 10). The analyses reported herein reflect flooding potentials based on conditions existing in the community at the time of completion of this study. Maps and flood elevations will be amended periodically to reflect future changes.

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

5.1 Hydrologic Analyses

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

A summary of the discharges is provided in Table 10. Frequency Discharge-Drainage Area Curves used to develop the hydrologic models may also be shown in Figure 7 for selected flooding sources. A summary of Stillwater elevations developed for non-coastal flooding sources is provided in Table 11. (Coastal Stillwater elevations are discussed in Section 5.3 and shown in Table 17.) Stream gage information is provided in Table 12.

Table 10: Summary of Discharges

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)				
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Agua Fria River	At Black Canyon Creek	1,065	41,010	*	68,080	80,480	99,360
Agua Fria River	At Mud Springs Wash	943	26,730	*	45,870	54,980	73,540
Agua Fria River	At Squaw Creek	821	26,370	*	45,300	54,320	72,840
Agua Fria River	Above Squaw Creek	754	23,240	*	40,310	48,540	66,650
Agua Fria River (At Black Canyon City)	At the downstream limit of detailed study	1,055	28,500	*	56,700	70,200	124,800
Agua Fria River (At Black Canyon City)	Upstream of confluence with Black Canyon Creek	808	19,300	*	38,900	48,600	86,400
Agua Fria River (At the Town of Dewey-Humboldt)	At downstream limit of detailed study	164	19,300	*	38,900	48,600	86,400
Agua Fria River (At the Town of Dewey-Humboldt)	Upstream of confluence with Clipper Wash	81.0	6,800	*	17,250	23,200	50,200
Agua Fria River (At Town of Prescott Valley)	At downstream limit of detailed study	19.0	2,440	*	6,490	8,250	14,200
American Wash	At North Scarlett Drive	0.7	964	1,422	1,800	2,212	3,326
American Wash	At West Love Lane and 600 feet west of North Quail View Lane	0.7	113	189	255	329	534

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
American Wash	At 800 feet southwest of Intersection of North Williamson Valley Road and West Granite Oaks Drive	0.6	435	642	815	1,007	1,523
American Wash	At 0.5 miles west of intersection of North Williamson Valley Road and West Bard Ranch Road	0.5	675	986	1,243	1,524	2,283
American Wash	At North American Ranch Road	0.4	1,122	1,660	2,101	2,589	3,920
American Wash	At North Buchanan Drive and North Table Top Lane	0.1	723	1,057	1,335	1,641	2,460
American Wash	At West Granite Vista and 500 feet west of North Williamson Valley Road	0.1	125	209	279	359	583
American Wash	At West Granite Park Drive and 1,400 feet West of North Williamson Valley Road	0.024	115	193	258	334	541
American Wash	At West Noble Vista Drive and North Williamson Valley Road	0.022	128	213	284	366	593
Ash Fork Draw Wash	At Atchison, Topeka and Santa Fe Railway	113	4,160	*	9,490	12,800	22,800

Table 10: Summary of Discharges (continued)

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)				
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Ash Fork Draw Wash	Upstream of confluence with Johnson Creek	61.0	3,000	*	6,450	8,750	14,100
Aspen Creek	At City of Prescott	5.1	1,180	*	2,070	2,500	4,250
Bannon Creek	At confluence with Granite Creek	4.8	3,850	*	*	5,420	*
Beaver Creek (At Town of Camp Verde)	At confluence with Verde River	423	27,600	*	59,200	74,000	129,200
Beaver Creek (At Lake Montezuma)	At Montezuma Castle National Monument	415	27,500	*	59,600	74,600	131,300
Big Bug Creek	At Agua Fria River	60.5	3,820	6,780	11,300	16,500	31,400
Big Bug Creek	At approximately 2,100 feet downstream of Brahma Drive	58.4	3,720	6,600	11,000	16,100	30,900
Big Bug Creek	At Interstate Highway 17	54.9	3,550	6,320	10,600	15,500	30,100
Big Bug Creek	At Hackberry Creek	39.3	2,810	5,050	8,620	12,800	26,100
Big Bug Creek	At Mayer	34.4	2,550	4,600	7,890	11,800	24,500
Big Bug Creek	At Central Avenue	24.5	1,990	3,640	6,320	9,520	20,700
Big Bug Creek	At approximately 500 feet downstream of F.S. 87 Road	19.7	1,700	3,130	5,460	8,280	18,500
Big Bug Creek	At approximately 3,650 feet upstream of Ricks Pit Road	10.3	1,080	2,040	3,560	5,480	13,000

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
Big Bug Creek (At Interstate Highway 17)	At Cordes Junction	51.0	3,800	*	11,700	13,000	17,350
Big Bug Creek (At Interstate Highway 17)	At downstream limit of detailed study (At Mayer), approximately 0.80 mile downstream of Rolling Ridge Drive	30.0	2,560	*	8,290	9,180	12,000
Big Chino Valley, East	Green Wash, At confluence with Big Chino Wash	14.4	*	*	*	4,831	*
Big Chino Valley, East	Upstream of Atchison, Topeka & Santa Fe Railway	14.1	*	*	*	9,631	*
Big Chino Valley, East	Upstream of J. W. Draw confluence	4.5	*	*	*	3,908	*
Big Chino Valley, West	Clayton Canyon Wash, At confluence with Big Chino Wash	4.1	*	*	*	44,045	*
Big Chino Valley, West	Upstream of confluence with Dry Well Wash	1.8	*	*	*	2,028	*
Big Chino Valley, West	At upstream limit of detailed study	1.1	*	*	*	1,430	*
Big Chino Wash	At U.S. Route 89	695	15,080	*	31,000	43,180	92,770
Big Chino Wash	Upstream of confluence of Williamson Valley Wash	349	8,660	*	17,875	24,915	48,630

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
Big Chino Wash, Irrigation Split	At convergence with Big Chino Wash	1	2	*	2	11,278	1
Big Chino Wash, Irrigation Split	At divergence from Big Chino Wash	1	2	*	2	6,415	1
Big Chino Wash – Overflow Area	At confluence with Big Chino Wash	1	2	*	2	20,615	1
Big Chino Wash – Spill #1	At convergence with Big Chino Wash	1	2	*	2	12,618	1
Big Chino Wash – U.S. Route 89 Overflow	At confluence with Big Chino Wash	1	2	*	2	25,178	1
Bitter Creek	At confluence of Bitter Creek-South Fork	17.0	6,793	*	8,688	11,600	31,000
Bitter Creek	At confluence with Verde River	14.9	6,793	*	8,688	11,600	31,000
Bitter Creek – South Fork	At confluence with Bitter Creek	1.1	1,156	*	1,733	2,167	5,800
Black Canyon Creek	At confluence with Agua Fria River	242	14,200	*	30,100	38,000	56,600
Blue Tank Wash	At Hassayampa River	10.8	*	*	*	4,071	*
Bottleneck Wash	Upstream of confluence with Granite Creek	12.5	2,580	3,980	5,200	6,540	10,140
Bottleneck Wash	Approximately 1,000 feet downstream of Highway 89	10.0	2,420	3,760	4,905	6,140	9,550

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
Boynton Canyon	At confluence with Dry Creek	6.0	2,350	*	4,115	4,875	6,860
Butte Creek	At confluence with Miller Creek at Prescott	3.9	1,070	*	1,430	1,840	3,370
Butte Creek	At upstream limit of study	2.5	720	*	1,100	1,560	3,150
Cherry Creek	Above confluence with Verde River	25.0	*	*	*	14,497	*
Cherry Hills Wash	At State Route 260	1.3	342	*	541	669	1,037
Chino Valley Stream	Approximately 8,000 feet upstream of U.S. Route 89	31.5	1,950	*	5,355	13,761	22,500
Chino Valley Stream	Above confluence with Chino Valley Stream (Tributary)	18.0	1,440	*	3,985	8,102	14,389
Chino Valley Stream East	*	11.4	*	*	*	5,248	*
Chino Valley Stream (Tributary)	At confluence with Chino Valley Stream	10.0	2,975	*	5,599	6,850	10,715
Chino Valley Stream (Tributary)	At upstream limit of detailed study	4.0	1,050	*	2,320	3,273	5,850
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	*

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
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
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
Dry Well Wash	Upstream of confluence with Clayton Canyon Wash	2.0	*	*	*	*	2,155
Dry Well Wash	Approximately 500 feet upstream of Barbara Road	1.3	*	*	*	*	1,622

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
Gardner Wash	Above confluence with Ramsgate Wash	*	*	*	*	6,460	*
Granite Creek	Downstream of Bottleneck Wash Confluence	97.2	7,995	11,790	*	15,020	18,640
Granite Creek	Upstream of Bottleneck Wash Confluence	84.7	5,750	8,960	*	11,760	14,755
Granite Creek	At Highway 89A Bridge	76.9	5,430	8,530	*	11,245	14,140
Granite Creek	Upstream of Willow Creek Confluence	47.3	4,495	8,670	*	10,750	10,750
Granite Creek	Upstream of Lake Watson	43.8	11,400	20,040	*	24,190	35,950
Granite Creek	At Slaughterhouse Gulch	39.2	10,900	18,900	*	22,780	33,380
Granite Creek	Downstream of Government Canyon	36.2	9,750	16,320	*	19,445	28,390
Granite Creek	At unnamed Zone A at Whipple Park	31.5	6,690	11,505	*	14,815	24,300
Granite Creek	At unnamed Zone A along North Virginia Street	30.0	5,450	10,960	*	14,200	23,400
Granite Creek	At confluence with North Fork Granite Creek	29.1	3,400	*	10,500	16,800	44,400
Granite Creek	Downstream of Aspen Creek	17.5	3,295	7,310	*	9,830	16,620

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
Granite Creek	Upstream of Aspen Creek	12.5	2,330	5,745	*	7,740	13,470
Granite Creek	Upstream of Manzanita Creek	9.6	1,560	4,260	*	5,900	10,660
Hackberry Creek	At Big Bug Creek	10.6	1,220	2,280	4,050	6,240	14,400
Hassayampa River	At Yavapai/Maricopa County line	524	16,500	*	42,300	72,200	125,700
Hassayampa River	Upstream of confluence with Martinez Wash	422	14,700	*	37,200	53,600	102,500
Hassayampa River	Upstream of Walnut Grove	78.0	4,650	*	11,200	13,000	19,500
Jacks Canyon	Near State Route 179	17.0	2,720	*	7,640	8,350	10,500
J. W. Draw	Upstream of confluence with Green Wash	2.3	*	*	*	1,609	*
J. W. Draw	Approximately 400 feet upstream of Ahonen Road	0.7	*	*	*	*	750
Lonesome Valley Wash	Downstream of confluence with Lonesome Valley Wash Tributary Reach 200	34.8	*	*	*	11,208	*
Lonesome Valley Wash	Downstream of confluence with Lonesome Valley Wash Tributary Reach 500	20.8	*	*	*	8,973	*

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
Lonesome Valley Wash	Downstream of confluence with Lonesome Valley Wash Tributary Reach 360	14.9	*	*	*	7,364	*
Lonesome Valley Wash	Downstream of confluence with Lonesome Valley Wash Tributary Reach 405	4.1	*	*	*	3,320	*
Lonesome Valley Wash	Approximately 0.402 mile upstream of Slash Arrow Drive	2.3	*	*	*	2,170	*
Lonesome Valley Wash Tributary Reach 100	Upstream of confluence with Lonesome Valley Wash	2.8	*	*	*	2,448	*
Lonesome Valley Wash Tributary Reach 100	At upstream limit of detailed study	1.6	*	*	*	1,578	*
Lonesome Valley Wash Tributary Reach 200	Upstream of confluence with Lonesome Valley Wash	13.2	*	*	*	6,413	*
Lonesome Valley Wash Tributary Reach 200	At upstream limit of detailed study	10.7	*	*	*	5,590	*
Lonesome Valley Wash Tributary Reach 330	Upstream of confluence with Lonesome Valley Wash Tributary Reach 350	2.3	*	*	*	2,102	*

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
Lonesome Valley Wash Tributary Reach 350	Upstream of confluence with Lonesome Valley Wash Tributary Reach 360	2.7	*	*	*	2,379	*
Lonesome Valley Wash Tributary Reach 350	At upstream limit of detailed study	0.3	*	*	*	389	*
Lonesome Valley Wash Tributary Reach 360	Upstream of confluence with Lonesome Valley Wash	7.4	*	*	*	4,770	*
Lonesome Valley Wash Tributary Reach 360	At upstream limit of detailed study	3.7	*	*	*	3,002	*
Lonesome Valley Wash Tributary Reach 405	Upstream of confluence with Lonesome Valley Wash	0.9	*	*	*	1,084	*
Lonesome Valley Wash Tributary Reach 500	Upstream of confluence with Lonesome Valley Wash	5.4	*	*	*	3,969	*
Lower Kelly Wash	*	4.6	*	*	*	887	*
Lucky Canyon Wash	Upstream of confluence with Verde River	2.4	*	*	*	3,170	*
Lynx Creek	At Fain Road	40.9	*	*	*	11,392	*
Lynx Creek	Approximately 12,300 feet downstream of Lynx Creek Road	33.0	3,400	*	7,000	9,300	18,500
Manzanita Creek	*	2.4	550	*	1,700	2,700	7,000

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
Manzanita Creek	Upstream of confluence with Granite Creek	2.4	700	*	1,580	2,150	3,750
Manzanita Creek	At upstream limit of study	1.7	460	*	1,260	1,760	3,140
Martinez Wash	At confluence with Hassayampa River	103	9,200	*	27,400	32,000	45,000
Martinez Wash	Upstream of confluence of Antelope Creek	36.5	2,223	*	5,174	6,562	10,108
Miller Creek	At U.S. Route 89	20.0	1	*	1	1,520 ⁴	*
Miller Creek	Approximately 900 feet upstream of U.S. Route 89	20.0	3,635	*	8,990	10,610	14,600
Miller Creek	At upstream limit of detailed study	7.4	*	*	1	3,200	*
Miller Creek at Prescott	*	6.0	820	*	2,600	4,100	10,080
Miller Creek at Prescott	Downstream of confluence with North Fork Miller Creek	5.9	2,390	*	3,820	4,560	6,890
Miller Creek at Prescott	Upstream of confluence with North Fork Miller Creek	4.6	1,260	*	2,670	3,360	5,160
Miller Creek at Prescott	Upstream of Idyllwild Way	3.8	870	*	1,975	2,530	4,730
Mint Wash	At confluence with American Wash	15.3	3,655	5,551	7,099	8,831	13,425

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
Mint Wash	Approximately 5,200 feet southwest of North Williamson Valley Road	7.8	2,197	3,300	4,208	5,211	7,893
Mint Wash	At the confluence of Williamson Valley Wash	61.1	4,716	7,311	9,912	13,344	23,424
Mint Wash	Approximately 480 feet east of North Williamson Valley Road	45.2	4,716	7,311	9,475	11,889	18,847
Mint Wash	Approximately 1.6 miles west of intersection of West Stazenski Road and North Williamson Valley Road	22.9	4,716	7,311	9,475	11,889	18,429
Mint Wash	Approximately 0.8 miles west of intersection of North Williamson Valley Road and CR 69	18.5	5,268	6,517	8,358	10,410	15,883
Model Creek	At confluence with Miller Creek	14.8	3,564	5,252	6,609	8,048	11,691
Model Creek	At U.S. Route 89	13.0	4,745	*	14,050	16,820	23,500
Model Creek	Upstream of confluence of South Rocky Boy Wash	7.0	1,510	*	4,140	4,860	6,900
Mud Springs Wash	At Agua Fria River	0.7	310	*	930	1,420	3,180
Navajo Drive Wash	At confluence with Agua Fria River	2.0	406	*	829	1,068	1,857

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
Navajo Drive Wash	At Town of Prescott Valley	2.0	410	*	830	1,070	1,860
North Fork Granite Creek	*	79.0	220	*	800	1,300	3,400
North Fork Granite Creek	Upstream of confluence with Granite Creek	1.3	1,660	*	2,660	3,140	4,330
North Fork Miller Creek	*	1.3	370	*	1,170	1,180	4,700
North Fork Miller Creek	Confluence with Miller Creek near Prescott	1.3	1,740	*	2,610	3,030	4,175
North Navajo Drive Wash ⁵	At Ranger Road	1.2	1	*	1	740	1
North Navajo Drive Wash ⁵	At Long Look Drive	0.03	1	*	1	103	1
North Tributary to South Branch Agua Fria River	Approximately 700 feet upstream of Glassford Hill Road	5	2	*	2	249	2
Oak Creek	At confluence with Verde River	460	188,100	*	39,900	51,200	86,700
Oak Creek	Upstream of confluence of Spring Creek	358	15,700	*	33,700	43,350	71,550
Oak Creek	Upstream of confluence of Dry Creek	269	10,300	*	21,650	28,700	48,650
Oak Creek	At Yavapai/Coconino County line	241	9,450	*	20,300	26,900	45,650

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
Oak Wash	At confluence with Verde River	5.3	2,320	*	3,411	4,230	11,500
Oak Wash	At Fir Street	4.5	794	*	1,123	1,248	1,677
Powder House Wash Tributary 1	At Powder House Wash	2	2	*	2	222	2
Powder House Wash Tributary 2	At Powder House Wash	2	2	*	2	133	2
Prickly Pear Wash	At Prickly Pear Drive	0.5	*	*	*	520	*
Railroad Wash	At confluence with Cottonwood Ditch	1.2	397	*	506	570	680
Railroad Wash	At East Mingus Culvert	1.1	398	*	507	572	685
Railroad Wash	At East Mingus Avenue and 10th Street	0.9	245	*	312	353	420
Railroad Wash	At East Mingus Avenue and Paula Street	0.8	245	*	310	345	410
Railroad Wash	At bypass Highway U.S. Route 89A	0.5	46 ⁶	*	59 ⁶	66 ⁶	80 ⁶
Railroad Wash	At Cottonwood Airport Runway	0.5	172	*	297	347	518
Ramsgate Wash	Approximately 1,500 feet downstream of Iron Springs Road	34.0	2,390	*	6,500	8,700	14,650
Ramsgate Wash	Above confluence with Dead Mule Canyon Wash	25.0	1,670	*	4,870	6,460	11,360

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
Red Rock Wash	At downstream limit of detailed study	1.7	*	*	*	1,000	*
Red Rock Wash	At Cactus Wren Drive	1.0	*	*	*	510	*
Rio Mesa Wash	At State Route 260	0.8	363	*	549	631	843
Robert Wash	*	3.1	7	*	7	1,624	7
Russell Wash	At confluence with Wet Beaver Creek	15.3	1,610	*	5,300	8,110	18,000
Santa Cruz Wash	At Old U.S. Route 89	1	4,950	*	13,600	19,800	57,100
Santa Cruz Wash	At Road 5 North	28.6	3,000	*	8,240	12,000	34,600
Santa Cruz Wash	Approximately 600 feet downstream of Colorado Way	25.4	7	*	7	11,000	7
Santa Cruz Wash	At Perkins Ville Road	20.5	7	*	7	9,200	7
Santa Cruz Wash	At Road 2 North	13.3	*	*	*	6,400	*
Santa Cruz Wash	At Palo Verde and Lake Shore Drive	10.8	*	*	*	5,400	*
Santa Cruz Wash	Just North of Grasshopper Lane	10.1	*	*	*	5,100	*
Santa Cruz Wash	Approximately 300 feet South of Road 1 South, downstream of confluence of Autumn Wash	7.9	*	*	*	4,100	*
Santa Cruz Wash	At Road 4 South	3.8	*	*	*	2,200	*

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
Silver Springs Gulch	At confluence with Verde River	5.3	2,541	*	3,737	4,634	12,500
Skull Valley Wash	At Kirkland	147	8,000	*	23,300	31,500	54,900
Sols Wash	At Maricopa/Yavapai County Boundary	86.7	3,696	*	7,504	9,419	13,760
South Branch Agua Fria River (At Prescott-Valley)	Approximately 1,650 feet downstream of Glassford Hill Road	5	*	*	*	4,845	*
South Branch Agua Fria River (At Prescott-Valley)	Approximately 1,150 feet upstream of Glassford Hill Road	5	*	*	*	4,660	*
South Branch Oak Wash	At confluence with Oak Wash	0.5	339	*	549	694	944
South Rocky Boy Wash	Upstream of confluence with Model Creek	3.4	880	*	2,340	2,740	3,900
Spring Creek	At confluence with Oak Creek	72.0	6,000	*	19,000	29,000	42,300
Squaw Creek	At Agua Fria River	56.0	3,970	*	11,900	17,500	37,000
Stone Way Wash	At confluence with Miller Creek	0.2	146	205	249	297	411
Telephone Tank Wash	Upstream of confluence with Green Wash	4.4	*	*	*	3,128	*
Telephone Tank Wash Breakout	Upstream of confluence with Green Wash	7.0	*	*	*	4,500	*

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
Telephone Tank Wash Breakout	Upstream of confluence of Robert Wash	3.9	*	*	*	2,900	*
Texas Gulch Main Stream	Upstream of confluence with Agua Fria River	10.2	*	*	*	3,973	*
Texas Gulch Main Stream	At State Route 169	7.4	*	*	*	3,091	*
Texas Gulch Main Stream	Above confluence of West Branch	4.8	*	*	*	1,893	*
Texas Gulch West Branch	Upstream of State Route 169	2.6	*	*	*	1,380	*
Texas Gulch West Branch	Upstream of South Tributary	0.9	*	*	*	620	*
Texas Gulch West Branch	Upstream of North Tributary	0.6	*	*	*	400	*
Timon Wash	Above confluence with Big Chino Wash	2.5	2	*	2	2,225	2
Timon Wash	At upper limit of detailed study	1.7	2	*	2	1,798	2
Verde River	At USGS Gage no. 09506000	4,645	37,000	*	96,800	136,700	276,500
Verde River	Below confluence with West Clear Creek	4,619	36,800	*	96,000	135,600	273,900
Verde River	Below confluence with West Beaver Creek	4,287	33,500	*	86,300	121,200	241,000
Verde River	Below confluence with Oak Creek	3,776	28,700	*	72,100	100,000	193,900
Verde River	At U.S. Route 89 Bridge	3,247	23,900	*	58,200	79,600	149,700

Table 10: Summary of Discharges (continued)

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)				
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Verde River	At USGS Gage no. 09504000	3,124	22,750	*	55,100	75,100	136,700
Virginia Street Wash	Upstream of Atchison, Topeka & Santa Fe Railroad	0.7	*	*	*	1,450	2,045
Virginia Street Wash	Upstream of Gurley Street	0.5	*	*	*	1,170	1,690
Wash P	At Hassayampa River	0.9	2	*	2	898	2
West Clear Creek	Upstream of confluence with Verde River	293	10,600	*	23,600	35,400	62,500
West Fork Miller Creek	At Hays Ranch Road	20.0	2	*	2	9,090 ⁸	2
Wet Beaver Creek	Upstream of Dry Beaver Creek confluence	220	2	*	2	28,330	2
Wet Beaver Creek	Upstream of Russell Wash confluence	199	2	*	2	27,200	2
Wet Beaver Creek	Downstream of Red Tank Draw confluence	189	2	*	2	25,850	2
Wet Beaver Creek	Upstream of Red Tank Draw confluence	135	2	*	2	21,930	2
Wet Beaver Creek	At USGS Gage near Rimrock	111	2	*	2	19,330	2
Williamson Valley Wash	Upstream of confluence with Big Chino Wash	1	6,420	*	13,130	18,265	44,140
Williamson Valley Wash – North Split	*	1	2	*	2	11,510	2

Table 10: Summary of Discharges (continued)

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)				
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Willow Creek	At Willow Creek Road (Willow Creek Reservoir)	19.7	3,750	5,750	7,480	9,425	15,730
Willow Creek	3,000 feet upstream of Willow Creek Road	16.8	2,900	4,480	5,850	7,890	13,730
Willow Creek	At Williamson Valley Road	15.2	2,385	3,730	5,280	7,135	12,580
Willow Creek	At upstream limit of study	9.4	1,130	2,130	3,145	4,430	8,335
Willow Creek Reservoir Tributary	Entering Willow Lake (Willow Creek Reservoir)	2.1	1,600	2,340	2,950	3,610	5,320
Willow Creek Reservoir Tributary	Approximately 500 feet downstream of Smoke Tree Lane	1.5	1,400	2,020	2,520	3,060	4,420
Willow Creek Tributary	At confluence with Willow Creek	1.2	750	1,025	1,270	1,590	2,410
Zalesky Wash	Upstream of confluence with Verde River	5.9	*	*	*	2,887	*

*Data not available

¹Data not applicable

²Data not computed

³9,090 cubic feet per second of flow is lost to West Fork Miller Creek

⁴Discharges for North Navajo Drive Wash were obtained by adjusting discharge values of Navajo Drive Wash

⁵Flow affected by upstream flows, diversions, or obstructions; drainage area does not apply

⁶Discharge is comparatively less because of the existence of the Detention Basin

⁷Discharges for 10-, 2-, and 0.2-percent annual chance floods

⁸West Fork Miller Creek is created from divided flow from Miller Creek

Figure 7: Frequency Discharge-Drainage Area Curves

[Not applicable to this Flood Risk Project]

Table 11: Summary of Non-Coastal Stillwater Elevations

Flooding Source	Location	Elevations (feet NAVD88)				
		10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Willow Lake	Willow Creek Reservoir	5,143.0	5,145.0	5,145.5	5,146.0	5,147.3

Table 12: Stream Gage Information used to Determine Discharges

Flooding Source	Gage Identifier	Agency that Maintains Gage	Site Name	Drainage Area (Square Miles)	Period of Record	
					From	To
Agua Fria River	09512800	USGS	Agua Fria River near Rock Springs	1,111	01/27/1970	Present
Dry Beaver Creek	09505350	USGS	Dry Beaver Creek	142	10/01/1960	Present
Granite Creek	09502960	USGS	Granite Creek at the City of Prescott	30	10/01/2007	Present
Hassayampa River	5308	Flood Control District of Maricopa County	Hassayampa River at Box Canyon	417	11/17/1983	Present
Oak Creek	09504500	USGS	Oak Creek near Cornville	357	07/01/1940	02/02/1993
Oak Creek	09504420	USGS	Oak Creek near the City of Sedona	233	10/01/1981	Present
Verde River	*	*	Verde River at the Town of Camp Verde ¹	4,220	*	*

Table 12: Stream Gage Information used to Determine Discharges (continued)

Flooding Source	Gage Identifier	Agency that Maintains Gage	Site Name	Drainage Area (Square Miles)	Period of Record	
					From	To
Verde River	*	*	Verde River Downstream of the Town of Camp Verde ¹	4,670	*	*
Verde River	09506000	USGS	Verde River near the Town of Camp Verde ¹	5,009	04/01/1934	02/20/1993
Verde River	09504000	USGS	Verde River At the Town of Clarkdale	3,124	06/18/1915	Present
Verde River	09504000	USGS	Verde River near the Town of Clarkdale	3,503	06/18/1915	Present
West Clear Creek	09505800	USGS	West Clear Creek near the Town of Camp Verde	241	12/05/1964	Present
Wet Beaver Creek	09505200	USGS	Wet Beaver Creek near Rimrock, AZ	111	10/01/1961	Present

*Data not available

¹Non-concurrent records from three separate gaging stations

5.2 Hydraulic Analyses

Analyses of the hydraulic characteristics of flooding from the sources studied were carried out to provide estimates of the elevations of floods of the selected recurrence intervals. Base flood elevations on the FIRM represent the elevations shown on the Flood Profiles and in the Floodway Data tables in the FIS Report. Rounded whole-foot elevations may be shown on the FIRM in coastal areas, areas of ponding, and other areas with static base flood elevations. These whole-foot elevations may not exactly reflect the elevations derived from the hydraulic analyses. Flood elevations shown on the FIRM are primarily intended for flood insurance rating purposes. For construction and/or floodplain management purposes, users are cautioned to use the flood elevation data presented in this FIS Report in conjunction with the data shown on the FIRM. The hydraulic analyses for this FIS were based on unobstructed flow. The flood elevations shown on the profiles are thus considered valid only if hydraulic structures remain unobstructed, operate properly, and do not fail.

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

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

Table 13: Summary of Hydrologic and Hydraulic Analyses

Flooding Source	Study Limits Downstream Limit	Study Limits Upstream Limit	Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
Agua Fria River	*	*	Log-Pearson Type III	HEC-RAS 4.1.0	12/2012	*	
All significant flooding sources	*	*	*	*	01/1981	*	
American Wash	Confluence with Mint Wash	Approximately 3.9 miles above the confluence with Mint Wash	HEC-HMS 3.5	HEC-RAS 4.1.0	04/2014	AE	
Antelope Peak Wash	Confluence with Miller Creek	Approximately 600 feet above confluence with Miller Creek	Regional Regression Equations – Region 12	HEC-RAS 4.1.0	04/2014	A	
Backwoods Creek	Confluence with Model Creek	Approximately 800 feet above confluence with Model Creek	Regional Regression Equations – Region 12	HEC-RAS 4.1.0	04/2014	A	
Beaver Creek	Confluence with Verde River	Approximately 8.76 miles above confluence with Verde River	Regression Equations - USGS	HEC-RAS 4.1.0	*	AE	
Big Chino Wash	Detailed study limits, approximately 8,000 feet downstream of Walnut Creek	Approximately 4,000 feet downstream of the Yavapai County boundary	HEC-2	HEC-RAS 4.1.0	04/2014	A	
Big Chino Wash	Sullivan Lake Spillway	Approximately 700 feet upstream of U.S. Route 89	*	*	*	AE	

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

Flooding Source	Study Limits Downstream Limit	Study Limits Upstream Limit	Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
Black Canyon Creek	*	*	Regression Equations - USGS	HEC-RAS 4.1.0	12/2012	*	
Black Canyon Creek	Confluence with Verde River	Approximately 1.3 miles Unnamed Road	Regression Equations - USGS	HEC-RAS 4.1.0	*	A	
Bottleneck Wash	Confluence with Granite Creek	Approximately 3.2 miles above Granite Creek	HEC-1	HEC-RAS 4.1.0	*	AE	
Buckhorn Creek	Approximately 800 feet above confluence with Model Creek	Confluence with Model Creek	Regional Regression Equations – Region 12	HEC-RAS 4.1.0	04/2014	A	
Cherry Creek	Confluence with Verde River	Approximately 1.7 miles above State Highway 260	Regression Equations - USGS	HEC-RAS 4.1.0	*	AE	
Cherry Creek Overflow	Confluence with Verde River	Confluence with Cherry Creek Overflow	Regression Equations - USGS	HEC-RAS 4.1.0	*	A	
Chino Valley Stream	Confluence with Santa Cruz Wash	Approximately 7,800 feet upstream of U.S. Route 89	*	*	*	*	
Cooper Wash	Confluence with Mint Wash	Approximately 0.4 miles above confluence with Mint Wash	Regional Regression Equations – Region 12	HEC-RAS 4.1.0	04/2014	A	
Cottonwood Creek	Confluence with Date Creek	Approximately 3 miles upstream of Date Creek Road	Regional Regression Equations – Region 12	HEC-RAS 4.1.0	04/2014	A	
Cougar Creek	*	*	Regression Equations - USGS	HEC-RAS 4.1.0	12/2012	*	

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

Flooding Source	Study Limits Downstream Limit	Study Limits Upstream Limit	Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
Del Monte Wash	Confluence with Verde River	0.4 miles above Main Street	Regression Equations - USGS	HEC-RAS 4.1.0 and FLO-2D	*	A	
Dillon Wash	Confluence with Mint Wash	Approximately 0.6 miles above confluence with Mint Wash	Regional Regression Equations – Region 12	FLO-2D	04/2014	A	
Dunlap Creek	Confluence with Model Creek	Approximately 0.9 miles above confluence with Model Creek	Regional Regression Equations – Region 12	HEC-RAS 4.1.0	04/2014	A	
Eastwood Creek	Confluence with Kirkland Creek	Approximately 2 miles upstream of Mule Show Ranch Road	Regional Regression Equations – Region 12	HEC-RAS 4.1.0	04/2014	A	
Grampa Wash	Confluence with Verde River	Approximately 0.4 miles above Verde River	Regression Equations - USGS	HEC-RAS 4.1.0	*	A	
Granite Creek	Zone AE limits, approximately 900 feet above Bottleneck Wash	0.36 miles below Bannon Creek	HEC-1	HEC-RAS 4.1.0	*	AE	
Harper Canyon	Confluence with Miller Creek	Approximately 1,300 feet above the confluence with Miller Creek	HEC-HMS 3.5	HEC-RAS 4.1.0	04/2014	A	
Hitt Wash	Confluence with Williamson Valley Wash	Approximately 4,000 feet upstream of Las Vegas Road	Regional Regression Equations – Region 12	HEC-RAS 4.1.0	04/2014	A	
Indian Spring Creek	Confluence with Mud Tank Wash	Approximately 2 miles upstream of Williamson Valley Road	Regional Regression Equations – Region 12	HEC-RAS 4.1.0	04/2014	A	

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

Flooding Source	Study Limits Downstream Limit	Study Limits Upstream Limit	Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
Jerome Canyon Wash	Confluence with Mint Wash	Approximately 0.3 miles above confluence with Mint Wash	Regional Regression Equations – Region 12	HEC-RAS 4.1.0	04/2014	A	
Juniper Spring Wash	Confluence with Miller Creek	Approximately 0.3 miles above confluence with Miller Creek	Regional Regression Equations – Region 12	HEC-RAS 4.1.0	04/2014	A	
Kirkland Creek (North)	Approximately 3.5 miles north of Kirkland Hillside / SR 96 Road	Approximately 1 mile downstream of Single Six Road	Regional Regression Equations – Region 12	HEC-RAS 4.1.0	04/2014	A	
Kirkland Creek (South)	Confluence with Poplar Wash	Approximately 1 mile upstream of confluence with Poplar Wash	Regional Regression Equations – Region 12	HEC-RAS 4.1.0	04/2014	A	
Little Harper Canyon	Confluence with Miller Creek	Approximately 1,950 feet above confluence with Miller Creek	Regional Regression Equations – Region 12	HEC-RAS 4.1.0	04/2014	A	
Little Sickles Wash	Confluence with Sickles Wash	Approximately 0.3 miles above confluence with Sickles Wash	Regional Regression Equations – Region 12	HEC-RAS 4.1.0	04/2014	A	
Long Canyon Creek	Confluence with Strickland Wash	Approximately 900 feet upstream of Wildhorse Run Road	Regional Regression Equations – Region 12	HEC-RAS 4.1.0	04/2014	A	
Maughan Creek	Confluence with Miller Creek	Approximately 0.6 miles above confluence with Miller Creek	Regional Regression Equations – Region 12	HEC-RAS 4.1.0	04/2014	A	

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

Flooding Source	Study Limits Downstream Limit	Study Limits Upstream Limit	Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
Meadowlark Wash	Confluence with Mint Wash	Approximately 0.3 miles above confluence with Mint Wash	Regional Regression Equations – Region 12	HEC-RAS 4.1.0	04/2014	A	
Mescal Wash	Confluence with Verde River	420 feet downstream of confluence of North Fork Mescal Gulch	Regression Equations - USGS	HEC-RAS 4.1.0	*	A	
Miller Creek	Approximately 1.8 miles upstream of confluence with Model Creek	Approximately 5.5 miles upstream of confluence with Model Creek	HEC-HMS 3.5	HEC-RAS 4.1.0	04/2014	AE	
Miller Creek	Confluence with Model Creek	Approximately 2,450 feet upstream of U.S. Route 89	*	*	06/1995	AE	
Miller Creek (Upper)	Approximately 5.5 miles upstream of confluence with Model Creek	Approximately 6.8 miles upstream of confluence with Model Creek	HEC-HMS 3.5	HEC-RAS 4.1.0	04/2014	A	
Mint Wash	Approximately 0.62 miles below Phantom Hill Road	Approximately 0.56 miles above Phantom Hill Road	HEC-HMS 3.5	HEC-RAS 4.1.0	04/2014	AE	
Mint Wash	Confluence with Williamson Valley Wash	Approximately 2 miles below North Jerome Canyon Drive	HEC-HMS 3.5	HEC-RAS 4.1.0	04/2014	A	
Mint Wash	Approximately 2 miles below North Jerome Canyon Drive	Approximately 0.62 miles below Phantom Hill Road	HEC-HMS 3.5	HEC-RAS 4.1.0	04/2014	A	
Mint Wash	Approximately 0.56 miles above Phantom Hill Road	Approximately 1.95 miles above Phantom Hill Road	HEC-HMS 3.5	HEC-RAS 4.1.0	04/2014	A	

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

Flooding Source	Study Limits Downstream Limit	Study Limits Upstream Limit	Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
Model Creek	Approximately 1.6 miles below West Hays Ranch Road	Approximately 750 feet above Model Creek Road	HEC-HMS 3.5	HEC-RAS 4.1.0	04/2014	A	
Model Creek	Confluence with Miller Creek	Approximately 3,500 feet upstream of U.S. Route 89	*	*	06/1995	*	
Mud Springs Wash	*	*	Regression Equations - USGS	HEC-RAS 4.1.0	12/2012	*	
Mud Tank Wash	Confluence with Williamson Valley Wash	Approximately 2 miles upstream of confluence with Indian Spring Creek	Regional Regression Equations – Region 12	HEC-RAS 4.1.0	04/2014	A	
North Fork Date Creek	Approximately 800 feet upstream of confluence with Date Creek	Approximately 2 miles upstream of railroad tracks and Date Creek Road	Regional Regression Equations – Region 12	HEC-RAS 4.1.0	04/2014	A	
North Fork Mescal Gulch	Confluence with Mescal Wash	Approximately 0.83 miles above Mescal Wash	Regression Equations - USGS	HEC-RAS 4.1.0	*	A	
Oak Creek Tributary 1	Confluence with Oak Creek	Approximately 0.37 miles above Oak Creek	Regression Equations - USGS	HEC-RAS 4.1.0	*	A, AE	
Oak Creek Tributary 2	Confluence with Oak Creek	Approximately 0.18 miles above Oak Creek	Regression Equations - USGS	HEC-RAS 4.1.0	*	A, AE	
Oak Creek Tributary 3	Confluence with Oak Creek	Approximately 0.21 miles above Oak Creek	Regression Equations - USGS	HEC-RAS 4.1.0	*	A, AE	
Oak Creek Tributary 4	Confluence with Oak Creek	Approximately 0.3 miles above Oak Creek	Regression Equations - USGS	HEC-RAS 4.1.0	*	A, AE	

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

Flooding Source	Study Limits Downstream Limit	Study Limits Upstream Limit	Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
Oak Wash	Confluence with Verde River	Approximately 0.41 miles above Verde River	Regression Equations - USGS	HEC-RAS 4.1.0	*	A, AE	
Outcrop Creek	Confluence with Mint Wash	Approximately 0.2 miles above confluence with Mint Wash	Regional Regression Equations – Region 12	HEC-RAS 4.1.0	04/2014	A	
Pecks Lake	*	*	Regression Equations - USGS	HEC-RAS 4.1.0	*	A	
Pecks Lake Tributary	Confluence with Verde River	Confluence with Pecks Lake	Regression Equations - USGS	HEC-RAS 4.1.0	*	A	
Pipe Creek	Confluence with Verde River	Western Drive	Regression Equations - USGS	HEC-RAS 4.1.0	*	A	
Poplar Wash	Approximately 2 miles east of intersection of Sorrell Ranch Road & State Route 89	Approximately 3 miles northwest of intersection of Sorrell Ranch Road & State Route 89	Regional Regression Equations – Region 12	HEC-RAS 4.1.0	04/2014	A	
Ritter Creek	Approximately 700 ft east of intersection of Oklahoma Star & S. Date Creek Rd.	Approximately 1 mile east of intersection of Oklahoma Star Rd & S. Date Creek Rd	Regional Regression Equations – Region 12	FLO-2D	04/2014	A	
Santa Cruz Wash	Confluence with Big Chino Wash	Just downstream of Road 5 North	*	*	*	*	
Sickles Wash	Confluence with Miller Creek	Approximately 0.6 miles above confluence with Miller Creek	Regional Regression Equations – Region 12	HEC-RAS 4.1.0	04/2014	A	

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

Flooding Source	Study Limits Downstream Limit	Study Limits Upstream Limit	Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
Silver Spring Gulch	Confluence with Verde River	Approximately 2 miles above confluence with Verde River	Regression Equations - USGS	HEC-RAS 4.1.0 and FLO-2D	*	AE	
South Rocky Boy Wash	*	*	*	*	08/1990	*	
Squaw Creek	*	*	Regression Equations - USGS	HEC-RAS 4.1.0	12/2012	*	
Stone Way Wash	Confluence with Miller Creek	Approximately 1,300 feet above the confluence with Miller Creek	HEC-HMS 3.5	HEC-RAS 4.1.0	04/2014	AE	
Strickland Wash (North)	Approximately 2 miles northwest of intersection of Middle Place Rd and N. Williams Valley Rd.	Approximately 0.5 miles west of intersection of W. Fair Oaks Rd and D Lazy S Farm Rd.	Regional Regression Equations – Region 12	HEC-RAS 4.1.0	04/2014	A	
Strickland Wash (South)	Approximately 1 mile northwest of intersection of N. Balancing Rock Trl and N. Boulder Pass	Approximately 0.5 miles west of intersection of N. Boulder/Calle Diamante and Forest Service Road 9400H	Regional Regression Equations – Region 12	HEC-RAS 4.1.0	04/2014	A	
Unnamed Creek A	Confluence with Big Chino Wash	0.6 miles above Dead Horse Ranch Road	Regression Equations - USGS	HEC-RAS 4.1.0	*	A	
Unnamed Creek B	Confluence with Verde River	0.51 miles above Dead Horse Ranch Road	Regression Equations - USGS	HEC-RAS 4.1.0	*	A	

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

Flooding Source	Study Limits Downstream Limit	Study Limits Upstream Limit	Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
Unnamed Creek C	Confluence with Verde River	0.21 miles above Hayfield Draw Drive	Regression Equations - USGS	HEC-RAS 4.1.0	*	A	
Unnamed Creek D	Confluence with Verde River	Old State Route 260 Road	Regression Equations - USGS	HEC-RAS 4.1.0	*	A	
Unnamed Creek F	Confluence with Verde River	Approximately 190 feet above Salt Mine Road	Regression Equations - USGS	HEC-RAS 4.1.0	*	A	
Unnamed Tributary to Date Creek	Confluence with Date Creek	1 mile north of intersection of Stetson Ranch Rd & O X Ranch Rd	Regional Regression Equations – Region 12	HEC-RAS 4.1.0	04/2014	A	
Unnamed Tributary to Kirkland Creek	Confluence with Kirkland Creek	Approximately 0.5 miles west of intersection of Founders Trail & S. Fipsila Circle	Regional Regression Equations – Region 12	HEC-RAS 4.1.0	04/2014	A	
Unnamed Tributary to Long Canyon Creek	Confluence with Long Canyon Creek	Approximately 1 mile east of intersection of W. Wildhorse Run and N. Tonto Rd.	Regional Regression Equations – Region 12	HEC-RAS 4.1.0	04/2014	A	
Unnamed Tributary to Mud Tank Wash	Confluence with Mud Tank Wash	2 miles southwest of intersection of Forest Service Road 664 & N. Williamson Valley Rd.	Regional Regression Equations – Region 12	HEC-RAS 4.1.0	04/2014	A	
Unnamed Tributary to Strickland Wash	Confluence with Strickland Wash	Approximately 1.5 miles west of intersection of Balancing Rock Trl and N. Boulder Pass	Regional Regression Equations – Region 12	FLO-2D	04/2014	A	

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

Flooding Source	Study Limits Downstream Limit	Study Limits Upstream Limit	Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
Verde River	Approximately 4.75 miles downstream of Gap Creek	Approximately 4.4 miles above Bitter Creek	HEC-SSP	HEC-RAS 4.1.0	*	*	
Waterman Creek	Approximately 1 mile west of intersection of Otoe Way & San Peppy Rd.	Approximately 0.5 miles north of intersection of Oklahoma Star & S. Date Creek Rd	Regional Regression Equations – Region 12	HEC-RAS 4.1.0	04/2014	A	
Whisper Creek	Confluence with Mint Wash	Approximately 0.3 miles above confluence with Mint Wash	Regional Regression Equations – Region 12	HEC-RAS 4.1.0	04/2014	A	
Wikiup Creek	Approximately 0.19 miles below Ash lane	Approximately 200 miles above Ash Lane	Regression Equations - USGS	HEC-RAS 4.1.0	*	A	
Wilbur Canyon Creek	Confluence with Verde River	State Highway 260	Regression Equations - USGS	HEC-RAS 4.1.0	*	A	
Williamson Valley Wash	Approximately 2 miles west of Santa Fe & Big Spring Ranch	Approximately 3 miles west of W. 7 V Ranch Rd. and N. Fair Oaks Rd.	Regional Regression Equations – Region 12	HEC-RAS 4.1.0	04/2014	AE	
Willow Creek	Willow Creek Reservoir	0.6 miles above Pine Lakes Drive	HEC-1	HEC-RAS 4.1.0	*	AE	
Willow Creek Reservoir Tributary	Willow Lake Road	0.34 miles above Bloomingdale Drive	HEC-1	HEC-RAS 4.1.0	*	AE	
Willow Creek Tributary	Willow Creek	950 feet above Country Park Drive	HEC-1	HEC-RAS 4.1.0	*	AE	

*Data not available