



# PUBLIC NOTICE

**U.S. ARMY CORPS OF ENGINEERS  
LOS ANGELES DISTRICT**

**BUILDING STRONG®**

**APPLICATION FOR PERMIT  
SR 88 Apache Trail, Apache Junction  
to Tortilla Flat**

**Public Notice/Application No.:** SPL-2011-00437-AP

**Project:** SR 88 Apache Trail, Apache Junction to Tortilla Flat

**Comment Period:** 15 January 2016 through 13 February 2016

**Project Manager:** Cynthia Palaruan; 602-230-6955; [Cynthia.A.Palaruan@usace.army.mil](mailto:Cynthia.A.Palaruan@usace.army.mil)

---

**Applicant**

Madhu Reddy  
Arizona Department of Transportation (ADOT)  
Central Construction District  
4550 N. Black Canyon Hwy  
Phoenix, Arizona 85017

**Contact**

Marinela Konomi  
ADOT  
Environmental Planning Group  
1611 W. Jackson MD EM02  
Phoenix, Arizona 85007

**Location**

The project is located along SR 88 (also known as Apache Trail) from milepost (MP) 203.40 to MP 220.20, approximately 3 miles northeast of Apache Junction in the vicinity of Tortilla Flat, in Maricopa County, Arizona (33.527221°N, -111.389191°W, NAD 83). The project would occur within lands managed by the US Department of Agriculture (USDA), US Forest Service, and Tonto National Forest (TNF) Mesa Ranger District. The cadastral location includes Township 2 North, Range 9 East, portions of Sections 4, 5, 8-12, 17, 19, 20, and 30, and Township 2 North, Range 10 East, portions of Sections 4, 5, 8, 9, and 10 (Gila and Salt River Baseline and Meridian).

**Activity**

ADOT's proposed project would involve the discharge of dredged and/or fill material in Tortilla Creek consisting of 0.002 acre of permanent impacts to wetlands and 0.108 acre of temporary impacts to waters, for the repair of the concrete ford. For more information see page 3 of this notice and attached drawings. For more information see Additional Information section below.

---

Interested parties are hereby notified an application has been received for a Department of the Army permit for the activity described herein and shown on the attached drawing(s). We invite you to review today's public notice and provide views on the proposed work. By providing substantive, site-specific comments to the Corps Regulatory Division, you provide information that supports the Corps' decision-making process. All comments received during the comment period become part of the record and will be considered in the decision. This permit will be issued, issued with special conditions, or denied under Section 404 of the Clean Water Act. Comments should be mailed to:

DEPARTMENT OF THE ARMY  
LOS ANGELES DISTRICT, U.S. ARMY CORPS OF ENGINEERS  
REGULATORY DIVISION  
ATTN: Cynthia Palaruan  
3636 N Central Avenue, Suite 900

Alternatively, comments can be sent electronically to: [Cynthia.A.Palaruan@usace.army.mil](mailto:Cynthia.A.Palaruan@usace.army.mil)

The mission of the U.S. Army Corps of Engineers Regulatory Program is to protect the Nation's aquatic resources, while allowing reasonable development through fair, flexible and balanced permit decisions. The Corps evaluates permit applications for essentially all construction activities that occur in the Nation's waters, including wetlands. The Regulatory Program in the Los Angeles District is executed to protect aquatic resources by developing and implementing short- and long-term initiatives to improve regulatory products, processes, program transparency, and customer feedback considering current staffing levels and historical funding trends.

Corps permits are necessary for any work, including construction and dredging, in the Nation's navigable water and their tributary waters. The Corps balances the reasonably foreseeable benefits and detriments of proposed projects, and makes permit decisions that recognize the essential values of the Nation's aquatic ecosystems to the general public, as well as the property rights of private citizens who want to use their land. The Corps strives to make its permit decisions in a timely manner that minimizes impacts to the regulated public.

During the permit process, the Corps considers the views of other Federal, state and local agencies, interest groups, and the general public. The results of this careful public interest review are fair and equitable decisions that allow reasonable use of private property, infrastructure development, and growth of the economy, while offsetting the authorized impacts to the waters of the United States. The permit review process serves to first avoid and then minimize adverse effects of projects on aquatic resources to the maximum practicable extent. Any remaining unavoidable adverse impacts to the aquatic environment are offset by compensatory mitigation requirements, which may include restoration, enhancement, establishment, and/or preservation of aquatic ecosystem system functions and services.

### **Evaluation Factors**

The decision whether to issue a permit will be based on an evaluation of the probable impact including cumulative impacts of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit, which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered including the cumulative effects thereof. Factors that will be considered include conservation, economics, aesthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values, flood hazards, flood plain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food production and, in general, the needs and welfare of the people. In addition, if the proposal would discharge dredged or fill material, the evaluation of the activity will include application of the EPA Guidelines (40 CFR Part 230) as required by Section 404 (b)(1) of the Clean Water Act.

The Corps of Engineers is soliciting comments from the public; Federal, state, and local agencies and officials; Indian tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments

are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

### **Preliminary Review of Selected Factors**

**EIS Determination**- A preliminary determination has been made an environmental impact statement is not required for the proposed work.

**Water Quality**- The applicant is required to obtain water quality certification, under Section 401 of the Clean Water Act, from the Arizona Department of Environmental Quality. Section 401 requires any applicant for an individual Section 404 permit provide proof of water quality certification to the Corps of Engineers prior to permit issuance.

**Cultural Resources**- The latest version of the National Register of Historic Places has been consulted and there are sites within the project area. A Programmatic Agreement is being prepared to resolve any adverse effects that project activities may have on historic properties.

**Endangered Species**- Project activities would affect federally-listed endangered or threatened species, or their critical habitat. Formal consultation under Section 7 of the Endangered Species Act is currently in progress and pending final results.

**Public Hearing**- Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for public hearing shall state with particularity the reasons for holding a public hearing.

### **Proposed Activity for Which a Permit is Required**

**Basic Project Purpose**- The basic project purpose comprises the fundamental, essential, or irreducible purpose of the proposed project, and is used by the Corps to determine whether the applicant's project is water dependent (i.e., requires access or proximity to or siting within the special aquatic site to fulfill its basic purpose). Establishment of the basic project purpose is necessary only when the proposed activity would discharge dredged or fill material into a special aquatic site (e.g., wetlands, pool and riffle complex, mudflats, coral reefs). The basic project purpose for the proposed project is transportation. The project **is not** water dependent.

**Overall Project Purpose**- The overall project purpose serves as the basis for the Corps' 404(b)(1) alternatives analysis and is determined by further defining the basic project purpose in a manner that more specifically describes the applicant's goals for the project, and which allows a reasonable range of alternatives to be analyzed. The overall project purpose for the proposed project is to improve safety and traffic operations along SR 88 and to repair the concrete ford at Tortilla Creek.

### **Additional Project Information**

**Baseline information**- SR 88 is a 22- to 28-foot-wide, two-lane rural major collector roadway that connects Apache Junction and Roosevelt Lake, and provides access east to the town of Miami and west to SR 87 via SR 188. SR 88 is paved from Apache Junction to approximately MP 220, while the remainder of the road is unpaved until just west of Roosevelt Dam and the junction of SR 88 and SR 188. Currently, SR 88 connects the Phoenix Metropolitan Area to major recreation areas in this portion of the TNF including Canyon, Apache, and Roosevelt lakes. To some of these recreation areas, SR 88 provides the only vehicular access.

SR 88 was originally built between 1903 and 1905 as a wagon haul/service road during construction of the Roosevelt Dam. The federal government transferred ownership of the road from the US Bureau of Reclamation to the Salt River Valley Water Users' Association, now known as the Salt River Project, which, in turn, transferred ownership to the State of Arizona. While ownership of the road was transferred to the State, the underlying land is under the jurisdiction of the TNF.

The Apache Trail is recognized as part of the Historic State Highway System. The Apache Trail has been determined eligible for inclusion in the National Register of Historic Places (NRHP). In addition, SR 88 was designated by the State Transportation Board on June 20, 1986 as a state historic road, and in 1998 the TNF designated it as a scenic byway, owing to its impressive slopes, cliff faces, lake vistas, and historical importance. Several contributing elements area located along the Apache Trail roadway, including the concrete ford structure at the crossing of Tortilla Creek. In addition, ADOT designated a portion of SR 88 from MP 193.9 to MP 242.66 as the Apache Trail Historic Road in recognition of the scenic views provided to the motorists as they traverse the area and the unique piece of Arizona history. The unique scenic qualities of the Superstition Mountains and access to the local lakes draw tourists as well as local traffic to SR 88.

Over the past 14 years, traffic volume data shows that the number of vehicles traveling on SR 88 has remained relatively consistent and overall, the roadway has been operating at an acceptable level of service for a rural highway. SR 88, however, has a unique mix of traffic, including passenger vehicles, vehicles pulling trailers, RVs, motorcycles, and bicycles. With the mix of motorists using the road, along with the anticipated increase in the state's tourism and the expected population growth within Maricopa and Pinal counties, safety and operational issues on SR 88 will continue to be a concern for the traveling public. Engineering evaluations along SR 88 have identified numerous deficiencies based on ADOT design guidelines. The existing two-lane rural roadway has roadway condition issues related to pavement, drainage, roadway geometrics, signage, pull-outs, and rockfall hazards. The pavement surface of SR 88 throughout the project area has degraded from vehicular traffic and weathering. Surface water flows due to precipitation have eroded some of the roadway surface and underlying material, including at the transition to the eastbound Boulder Canyon Bridge, requiring regular maintenance.

The Tortilla Creek low-water crossing at MP 213.40 is a concrete ford structure and contains an 18-inch CMP. The ford was constructed in two phases, with the initial 17.5-foot downstream section constructed in the 1920's. The crossing was widened to the upstream side a total of 6 feet in the 1940s. The ford has since had an asphalt overlay applied, but currently asphalt only occurs on the ford's transitions to the roadway. The original ford is considered to be in acceptable condition, but the newer portion is cracked and deteriorating. Periodically, flow events within Tortilla Creek that are not conveyed via the CMP overtop the ford structure, creating a hazard to the traveling public.

*Terrain:* The project area is located within the Basin and Range physiographic province, which is characterized by low desert surrounded by fault-block mountain ranges (Chronic 1983). The project area lies between the Superstition Mountains to the east and south, the Goldfield Mountains to the west, and the Salt River to the north. The elevation at Tortilla Creek's crossing of SR 88 is approximately 1,757 above mean sea level. Precipitation averages approximately 13 inches, and temperatures average 90 degrees Fahrenheit (F) during the summer and 54 degrees F during the winter (Turner and Brown 1994). Tortilla

Creek (perennial) flows generally southwest through the project area, and discharges into Canyon Lake approximately 1.7 miles downstream of the ford on SR 88. The project area is located within the Lower Salt watershed (HUC 15060106), within the Salt River Basin (HUC 1506) (USEPA 2013; USGS 2015). The 100-year floodplain is not mapped for the project area (FEMA 2015).

Soils and Substrate. Soils in the project area are in the TS6 Lithic Torriorthents-Lithic Haplustolls-Rock Outcrop Association (Hendricks 1985), which are well-drained, shallow soils and rock outcrop on semiarid, mid-elevation hills and mountains. These soils formed in residuum weathered from many rocks including granite, gneiss, rhyolite, andesite, tuffs, limestone, sandstone and basalt. Torrifluvents are present along drainageways. Steep slopes, shallow depth to bedrock, and rock fragments on the surface are common in this association. No USDA National Resources Conservation Service (NRCS) Web Soil Survey data is available for the project area (USDA NRCS 2014). The project area is located mostly within the far northern edge of the Superstition Mountains and the far eastern edge of the Goldfield Mountains, which is a rugged landscape with numerous ridges, canyons, and mesas. The local geology consists of Tertiary age rhyolite, rhyolitic tuff, and welded tuff flows within the northern and eastern portions of the project area, and some granites and conglomerates in the southwestern portions of the project area. The substrate within Tortilla Creek exhibits exposed bedrock and large boulders up to 4 feet in diameter, with areas of coarse sand mixed with cobble and small rocks generally less than 1 foot in diameter.

Vegetation & Habitat. The project area is situated within the Arizona Uplands subdivision of the Sonoran Desertscrub Biotic Community (Turner and Brown 1994), which is characterized by high temperatures, generally low precipitation, and an assemblage of vegetation and wildlife species that is specifically adapted to these conditions. Vegetation in the project area in the vicinity of Tortilla Creek consists of upland desertscrub vegetation, with areas of riparian vegetation and emergent marsh (i.e., wetland) vegetation. Vegetation in upland areas includes palo verde (*Parkinsonia microphylla*), mesquite (*Prosopis velutina*), jojoba (*Simmondsia chinensis*), creosotebush (*Larrea tridentata*), catclaw acacia (*Acacia greggii*), bursage (*Ambrosia spp.*), saguaro (*Carnegiea gigantea*), and other various cacti, shrubs, grasses, and forbs. Riparian and wetland vegetation includes cattail (*Typha latifolia*), giant reed (*Arundo donax*), common buttonbush (*Cephalanthus occidentalis*), Goodding's willow (*Salix gooddingii*), and a variety of other hydrophytic forbs.

Wildlife. Characteristic fauna of Sonoran Desertscrub, Arizona Upland biome include white-tailed deer, desert mule deer, javelina, black-tailed jackrabbit, cottontail, Harris's ground squirrel, white-throated woodrat, Merriam's kangaroo rat, coyote, kit fox, Harris's hawk, roadrunner, Gambel's quail, mockingbird, cactus wren, Gila woodpecker, Mojave rattlesnake, Gila monster, regal horned lizard, western whiptail, and Sonoran desert toad.

Project description- ADOT, in coordination with the Federal Highway Administration (FHWA) and the TNF, is planning a safety improvement and pavement preservation project along SR 88. ADOT has identified various deficiencies along SR 88 from MP 203.40 to MP 220.20 and are proposing improvements that would enhance safety and traffic operations for the traveling public. One of the identified deficiencies consists of the surface of the concrete ford crossing at Tortilla Creek which has cracked due vehicular traffic and exposure to flows. A temporary construction easement from TNF would be needed for construction.

**The following project activities would require a Corps permit:**

- Repair the concrete ford across Tortilla Creek (MP 213.40) near Tortilla Flat through the following activities:
  - Excavate for the construction of a 15-foot-wide temporary access road within Tortilla Creek upstream of the concrete ford
  - Construct pump and sump locations upstream of the concrete ford for dewatering purposes
  - Reinforce the upstream slope of the excavation area with filter fabric and sandbags to prevent erosion, and install a French drain to collect groundwater seepage
  - Remove and reconstruct a 6-foot-wide by 202-foot-long upstream portion of the concrete ford
  - Install a new 4-foot cut-off wall upstream of the reconstructed portion of the ford to prevent undercutting
  - Remove debris from within the existing 18-inch corrugated metal pipe (CMP)
  - Line the existing CMP with a new 16-inch CMP and application of grout
  - Place structural backfill in the excavated area upstream of the ford
  - Repair the existing cracks and spalls on the 17.5-foot-wide downstream portion of ford.
  - Mill to remove damaged asphalt on top of ford
  - Apply methacrylate seal to the concrete ford to prevent water intrusion

**The project activities listed below would not cause permanent impacts to Waters and would not require a Corps permit:**

- Mill and replace the pavement between MP 203.40 and MP 213.35
- Apply a double application of seal coat on the existing roadway and paved turnouts and pullouts from MP 213.35 to MP 220.20
- Repave 11 pullouts, construct new pavement at 29 pullouts, and remove the pavement at 5 pullouts within the project limits
- Repave 8 turnouts, construct new pavement at 6 turnouts, and widen 1 paved pullout within the project limits
- Stabilize the road shoulders as needed throughout the project area
- Stabilize the edge of the pavement by installing a safety edge
- Modify existing culverts to accommodate the curve improvements at MP 204.50, MP 206.36, and MP 210.43
- Remove a large rock above the roadway at approximate MP 212.70
- Construct spot repairs of the roadway section at MP 218.70, MP 219.10, MP 219.20, and MP 219.60
- Reconstruct the roadway curves at six locations:
  - Curve 1 – MP 203.40 to MP 203.60
  - Curve 2 – MP 204.24 to MP 204.36
  - Curve 3 – MP 204.43 to MP 204.53
  - Curve 4 – MP 206.32 to MP 206.50
  - Curve 5 – MP 208.20 to MP 208.50
  - Curve 6 – MP 210.40 to MP 210.50
- Improve roadway drainage immediately west of Boulder Canyon Bridge (MP 211.05) by modifying the crown of pavement
- Install new, extend, reconstruct, or modify guardrail as needed within the project limits
- Remark/restripe the roadway and install a centerline rumble strip
- Remove and replace existing signs

- Install new signs including a new dynamic message sign and camera at westbound MP 211.10
- Using contractor staging areas at approximately MP 201.90, MP 208.00, MP 213.30, and MP 214.40
- Installation of traffic control barriers during construction
- Controlling weeds using chemical and manual methods, as appropriate
- Apply a double application of seal coat on the low-water crossing at Mesquite Creek (MP 214.40)

Proposed Mitigation– The proposed mitigation may change as a result of comments received in response to this public notice, the applicant's response to those comments, and/or the need for the project to comply with the 404(b)(1) Guidelines. In consideration of the above, the proposed mitigation sequence (avoidance/minimization/compensation), as applied to the proposed project is summarized below:

**Avoidance:**

It would not be practicable to avoid Waters during project construction since engineering restraints require the proposed improvements to be completed within Waters. Thus, the Waters occurring within the project area cannot be avoided. Complete avoidance of impacts to Waters was determined to not be possible in achieving the project purpose; therefore, impacts to Waters were minimized to the maximum extent practicable.

**Minimization:**

Permanent impacts at Tortilla Creek would include only the minimum area required for the improvements. Permanent impacts at Tortilla Creek have been minimized by limiting construction equipment to the upstream side of the concrete ford only, thereby avoiding disturbance to downstream wetlands. While the proposed temporary access road and associated excavation would impact wetlands, this disturbance is necessary to remove and replace the upstream portion of concrete ford and to install the new cut-off wall. Additional impacts to Waters as a result of these activities have been minimized by limiting the construction equipment to a single point of entry and not allowing a turn-around. A single point of entry and absence of a turn-around would avoid impacts to additional wetlands and adjacent riparian vegetation. A minor amount of work would be needed on the downstream side of the concrete ford to complete the grouting of the CMP and crack and spalling repairs, but only foot traffic would be allowed downstream of the ford and no vegetation removal would occur. To avoid additional permanent impacts to Waters, all temporarily disturbed areas of Tortilla Creek altered during construction would be recontoured to preconstruction grade conditions following the completion of activities.

The ford crossing work would be restricted to the period from April through June, when flows are typically low and sometimes absent. Fish/frog removal activities would be completed in any surface water before equipment is allowed to enter the channel. Block nets would be installed and monitored to prevent fish and frogs from entering the work area if surface flows are present. If needed, berms, concrete barriers, or other temporary structure(s) may be installed in order to aid in dewatering the work area. These barriers may form a complete or partial barrier across the channel, but would be located so that no wetlands would be impacted and would be completed so that only nuisance flows are contained. Any barrier would be removed in its entirety following construction. Dewatering would occur through the use of sump locations and pumps to maintain flows to downstream portions of Tortilla Creek.

Activities associated with the project would require the general clearing of vegetation within Waters and immediately adjacent uplands within the project area. While most of the work would take place on the existing pavement, ground disturbance and vegetation removal would be required in various locations along the route to reconstruct curves, construct spot repairs, reconstruct and add new guardrail, remove a large rock spire that is perched above the roadway, use staging areas, and repair the concrete ford across Tortilla Creek. Vegetation including several Goodding's willow trees and small patches of wetland vegetation (e.g., buttonbush, giant reed) would be impacted by vegetation clearing on the upstream side of the ford crossing at Tortilla Creek. Whenever practicable, vegetation would be cut to allow for re-growth instead of removed or uprooted. Approximately 0.002 acre of wetland vegetation would be removed within the project area. Approximately 4 acres of desertscrub vegetation would be cleared throughout the project area; however, all disturbed upland areas that would not be landscaped or otherwise permanently stabilized by construction would be reseeded with a native seed mix and allowed to revegetate following project completion. Therefore, the proposed project is not expected to have significant impact on the vegetative cover occurring in the area and impacts to wildlife and/or their habitat during and after construction of the proposed project would be minor.

**Compensation:**

The proposed action will result in 0.002 acre of permanent impacts to wetlands within Tortilla Creek in the project area, which is located in the Salt River Basin (HUC 1506) (USEPA 2013; USGS 2015). ADOT will provide in-lieu fees at a ratio to be determined to compensate for the loss of Waters associated with this project. The Corps will include the payment of in-lieu fees as a special condition of the permit.

**Proposed Special Conditions**

Special Conditions have not yet been developed and will be based on the results of the EA and 404 permit analysis.

For additional information please call Cynthia Palaruan of my staff at 602-230-6955 or via e-mail at [Cynthia.A.Palaruan@usace.army.mil](mailto:Cynthia.A.Palaruan@usace.army.mil). This public notice is issued by the Chief, Regulatory Division.



*Regulatory Program Goals:*

- To provide strong protection of the nation's aquatic environment, including wetlands.
- To ensure the Corps provides the regulated public with fair and reasonable decisions.
- To enhance the efficiency of the Corps' administration of its regulatory program.

---

**DEPARTMENT OF THE ARMY**  
**LOS ANGELES DISTRICT, U.S. ARMY CORPS OF ENGINEERS**  
3636 N Central Avenue, Suite 900  
Phoenix, AZ 85012-1939

**[WWW.SPL.USACE.ARMY.MIL/MISSIONS/REGULATORY](http://WWW.SPL.USACE.ARMY.MIL/MISSIONS/REGULATORY)**

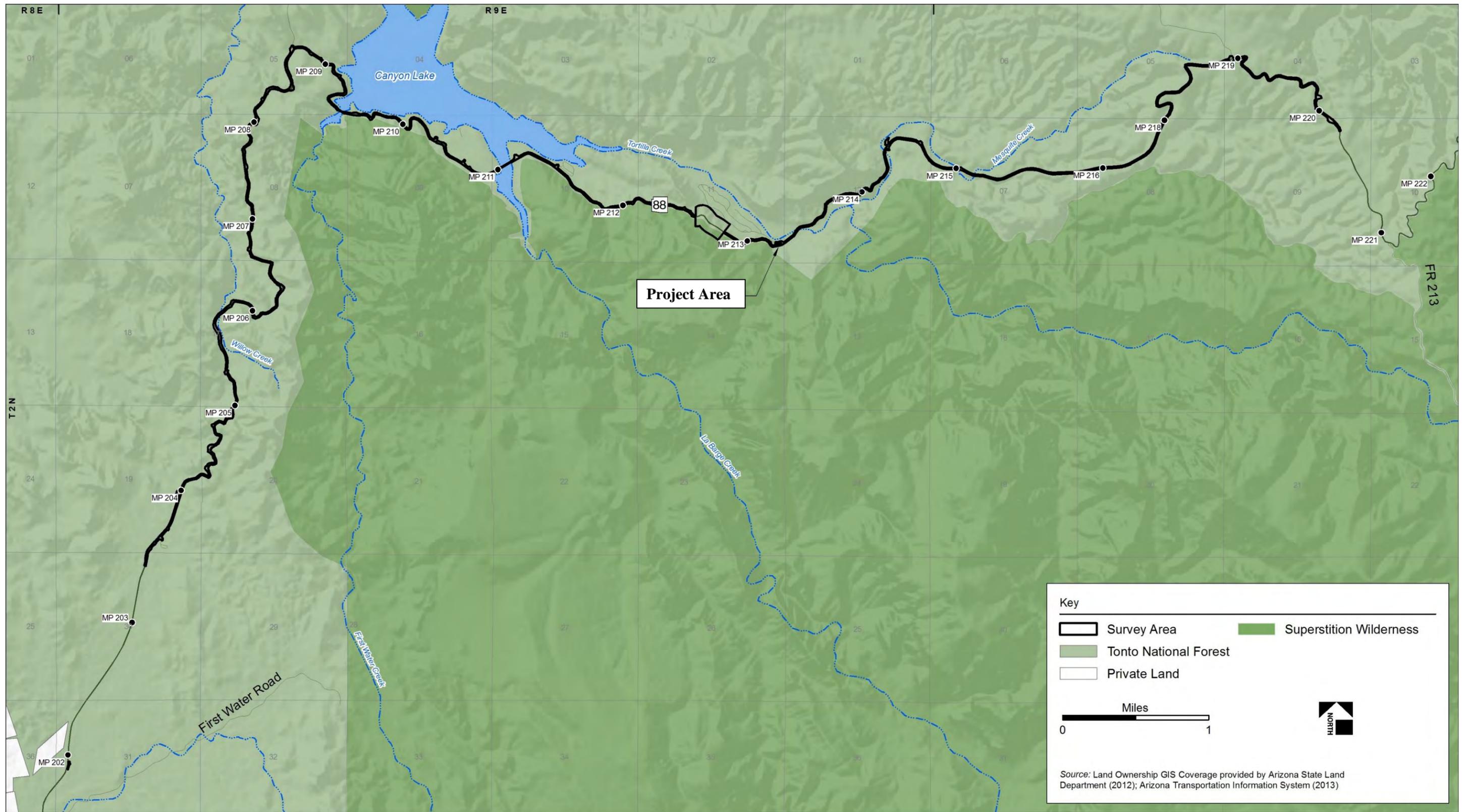


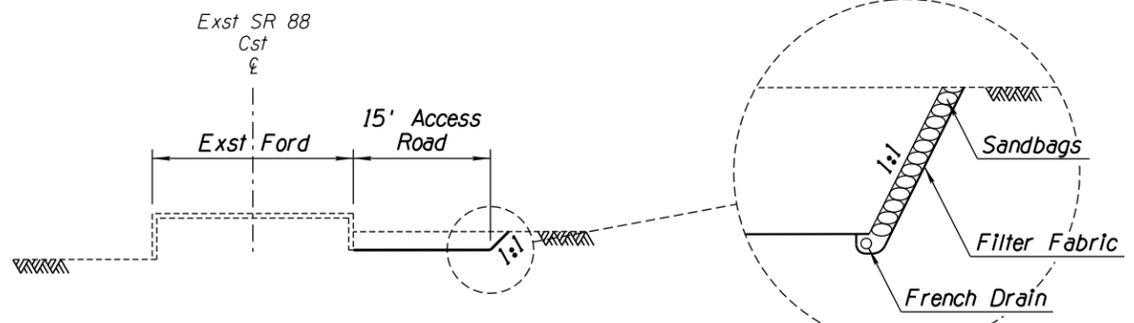
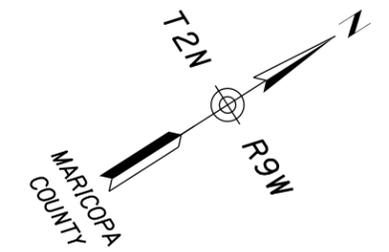
Figure 2. Project Vicinity Map



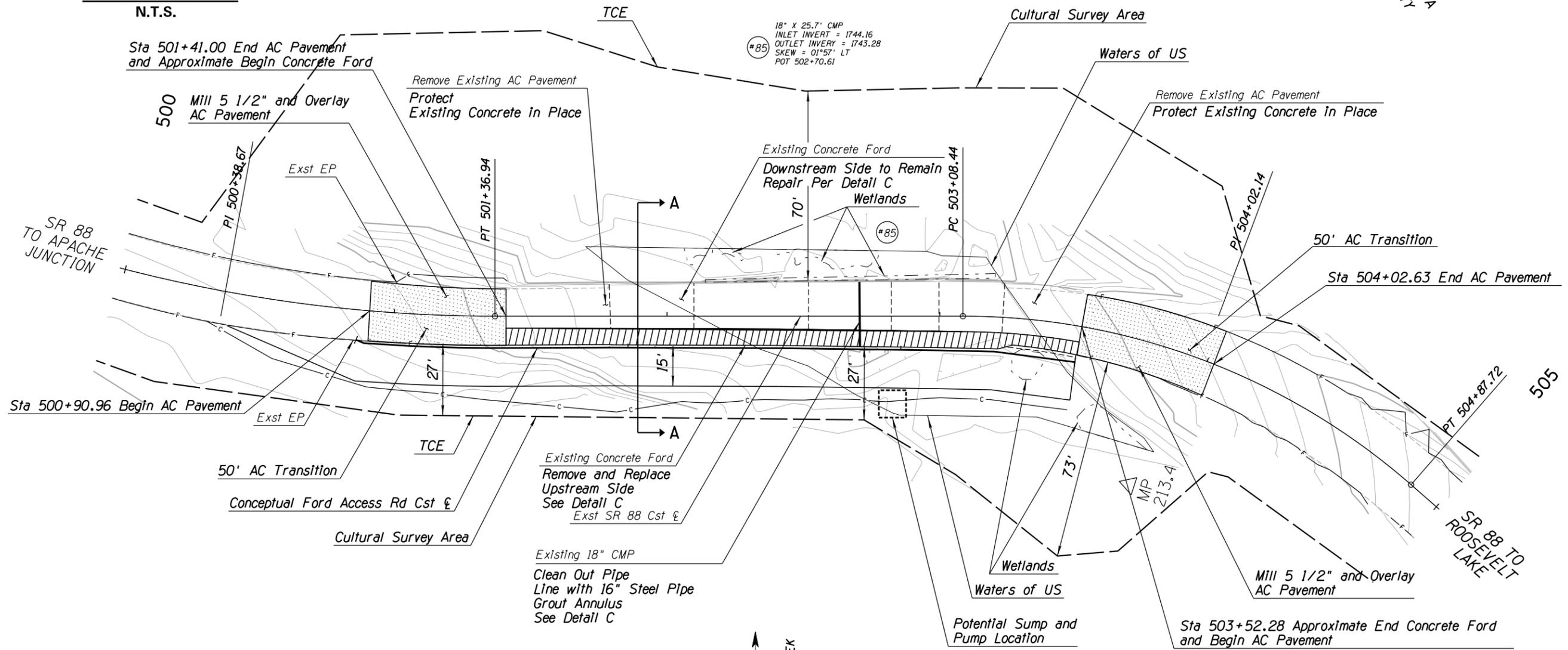
Figure 3. Topographic Map

| F.H.W.A. REGION | STATE | PROJECT NO. | SHEET NO. | TOTAL SHEETS | AS BUILT |
|-----------------|-------|-------------|-----------|--------------|----------|
| 9               | ARIZ. | 088-A(202)T | 58        | 145          |          |

088 MA 198



**SECTION A-A**  
N.T.S.



- Notes:**
- Contractor shall not disturb any area outside of the environmentally cleared area or the TCE.
  - Excavation for the Access Road need not be deeper than the depth of the existing cutoff wall. The conceptual plan assumes that the upstream cutoff wall is approximately 4' deep.
  - Excavated material shall be removed from the boundaries of the Waters of the US and stockpiled on higher ground.
  - Dewatering of the construction area shall be the responsibility of the contractor and in accordance with the environmental permits.
  - This conceptual plan assumes that the contractor will use pumps to remove water from the upstream work area and transfer it to the downstream side.
  - The Access Road backslope may be stabilized with filter fabric and sandbags.
  - Water may be collected in a sump area and/or with a French Drain.
  - After construction, stockpiled material shall be replaced to approximate the grade condition at the start of construction
  - Contractor shall control grout and prevent contamination of the area by use of a bulkhead and kicker or some other appropriate means. Bulkhead and kicker shall be temporary and leave the existing concrete ford and the streambed in an undamaged state.

|                                    |       |                             |                                  |  |  |
|------------------------------------|-------|-----------------------------|----------------------------------|--|--|
| DESIGN                             | EPC   | DATE                        | 3/15                             | ARIZONA DEPARTMENT OF TRANSPORTATION<br>INTERMODAL TRANSPORTATION DIVISION<br><b>ROADWAY DESIGN SERVICES</b> | PRELIMINARY<br><b>DRAFT</b><br>Review<br>NOT FOR<br>CONSTRUCTION<br>OR RECORDING |
| DRAWN                              | WDF   | DATE                        | 3/15                             |  |  |
| CHECKED                            | AME   | DATE                        | 3/15                             |  |  |
| <b>Michael Baker INTERNATIONAL</b> |       | PLAN SHEET<br>CONCRETE FORD |                                  |  |  |
| ROUTE                              | SR 88 | LOCATION                    | APACHE JUNCTION TO TORTILLA FLAT |  | DWG. NO. C-02.21   |
| TRACS NO. H8112 OIC                |       |                             | 088-A(202)T                      |  | OF   |

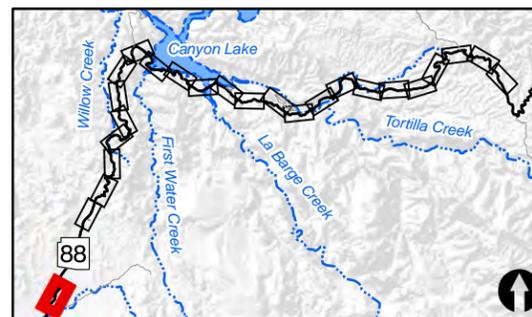


Aerial Date: June 5, 2013  
 Source: National Agriculture Imagery Program USDA

Prepared by: Vicki Casteel of Logan Simpson, December, 2015

Key

 Project Area (0.245 acres)

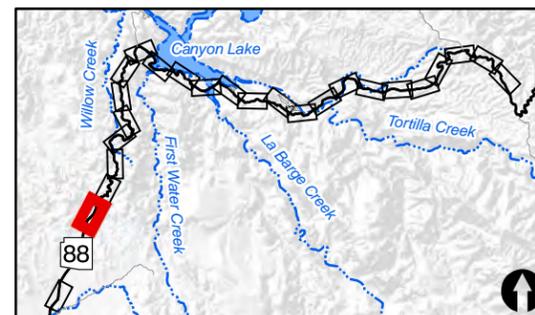
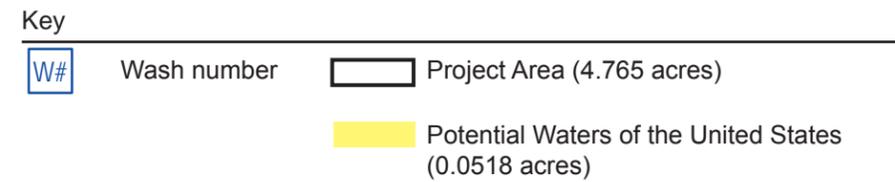


|  |  |  |
|--|--|--|
| Section 404 Individual Permit<br>Impact Figures<br>Apache Trail to Tortilla Flat<br>088 MA 203 H8112 01C<br>STP 088-A(202)T; STP 088-A(200)T     |  | December 2015  |
| Source: USGS 7.5' Quadrangles<br>Goldfield, Ariz. (1978, 1983),<br>T2N, R9E, Sec. 31, and 36;<br>UTM 1983 Zone 12N;<br>455835.94mE, 3703932.07mN |  | <br>1" = 200' |
|  |  | <br>Figure 4A |



Aerial Date: June 5, 2013  
 Source: National Agriculture Imagery Program USDA

Prepared by: Vicki Casteel of Logan Simpson, December, 2015



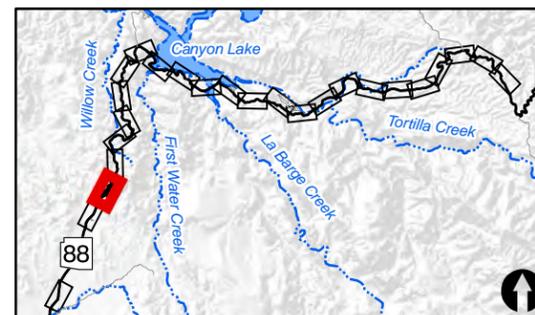
|  |                                       |                                  |
|--|---------------------------------------|----------------------------------|
| Section 404 Individual Permit<br>Impact Figures<br>Apache Trail to Tortilla Flat<br>088 MA 203 H8112 01C<br>STP 088-A(202)T; STP 088-A(200)T     |                                       |                                  |
| Source: USGS 7.5' Quadrangles<br>Goldfield, Ariz. (1978, 1983),<br>T2N, R9E, Sec. 19, and 30;<br>UTM 1983 Zone 12N;<br>456865.98mE, 3706507.77mN | <b>Feet</b><br><br>0 200<br>1" = 200' | December 2015<br><hr/> Figure 4B |

Acres of washes and project area within matchline included on next sheet.



Aerial Date: June 5, 2013  
 Source: National Agriculture Imagery Program USDA

Prepared by: Vicki Casteel of Logan Simpson, December, 2015



|  |                       |                                |
|--|-----------------------|--------------------------------|
| Section 404 Individual Permit<br>Impact Figures<br>Apache Trail to Tortilla Flat<br>088 MA 203 H8112 01C<br>STP 088-A(202)T; STP 088-A(200)T                                     |                       |                                |
| Source: USGS 7.5' Quadrangles<br>Goldfield, Ariz. (1978, 1983),<br>Mormon Flat Dam, Ariz (1965);<br>T2N, R9E, Sec. 19, and 20;<br>UTM 1983 Zone 12N;<br>457355.76mE, 3707265.1mN | Feet<br><br>1" = 200' | December 2015<br><br>Figure 4C |

Acres of washes and project area within matchline included on next sheet.

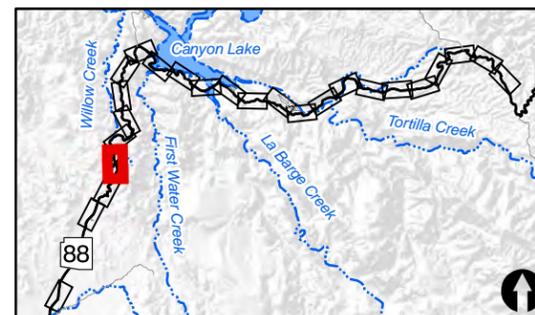


Aerial Date: June 5, 2013  
 Source: National Agriculture Imagery Program USDA

Prepared by: Vicki Casteel of Logan Simpson, December, 2015

**Key**

W# Wash number      Project Area (5.05 acres)



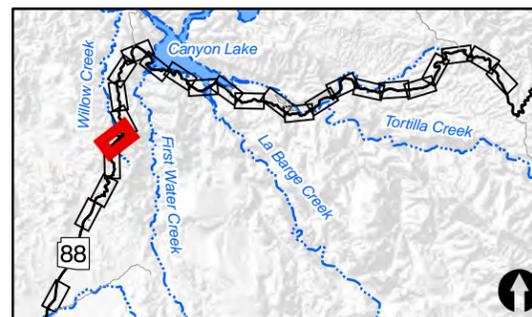
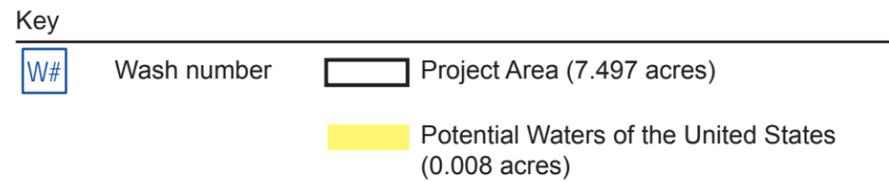
|   |  |               |
|---|--|---------------|
| Section 404 Individual Permit<br>Impact Figures<br>Apache Trail to Tortilla Flat<br>088 MA 203 H8112 01C<br>STP 088-A(202)T; STP 088-A(200)T    |  | December 2015 |
| Source: USGS 7.5' Quadrangles<br>Mormon Flat Dam, Ariz (1965);<br>T2N, R9E, Sec. 17, and 20;<br>UTM 1983 Zone 12N;<br>457613.51mE, 3708109.78mN | <b>Feet</b><br>0      200<br>1" = 200' |               |
|   |  | Figure 4D     |

Acres of washes and project area within matchline included on next sheet.



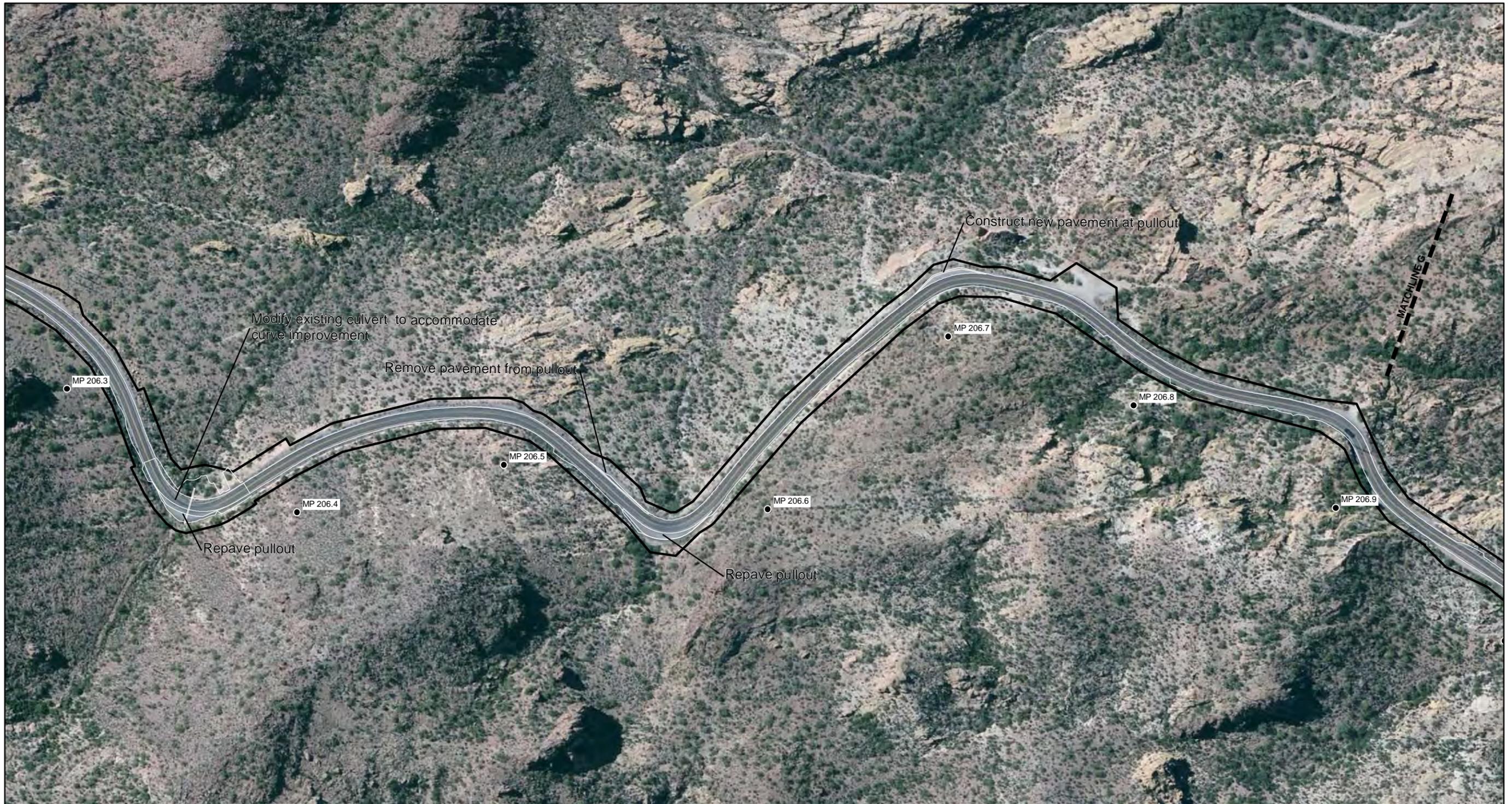
Aerial Date: June 5, 2013  
 Source: National Agriculture Imagery Program USDA

Prepared by: Vicki Casteel of Logan Simpson, December, 2015



|   |                       |                                  |
|---|-----------------------|----------------------------------|
| Section 404 Individual Permit<br>Impact Figures<br>Apache Trail to Tortilla Flat<br>088 MA 203 H8112 01C<br>STP 088-A(202)T; STP 088-A(200)T    |                       |                                  |
| Source: USGS 7.5' Quadrangles<br>Mormon Flat Dam, Ariz (1965);<br>T2N, R9E, Sec. 17, and 18;<br>UTM 1983 Zone 12N;<br>457759.12mE, 3708895.16mN | Feet<br><br>1" = 200' | December 2015<br><hr/> Figure 4E |

Acres of washes and project area within matchline included on next sheet.

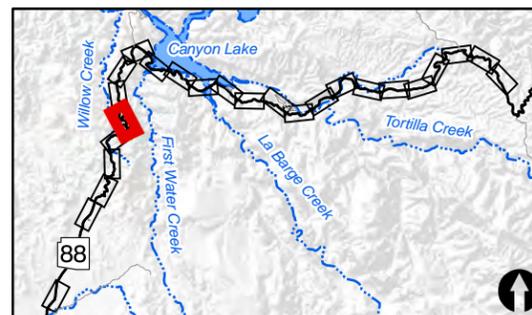


Aerial Date: June 5, 2013  
 Source: National Agriculture Imagery Program USDA

Prepared by: Vicki Casteel of Logan Simpson, December, 2015

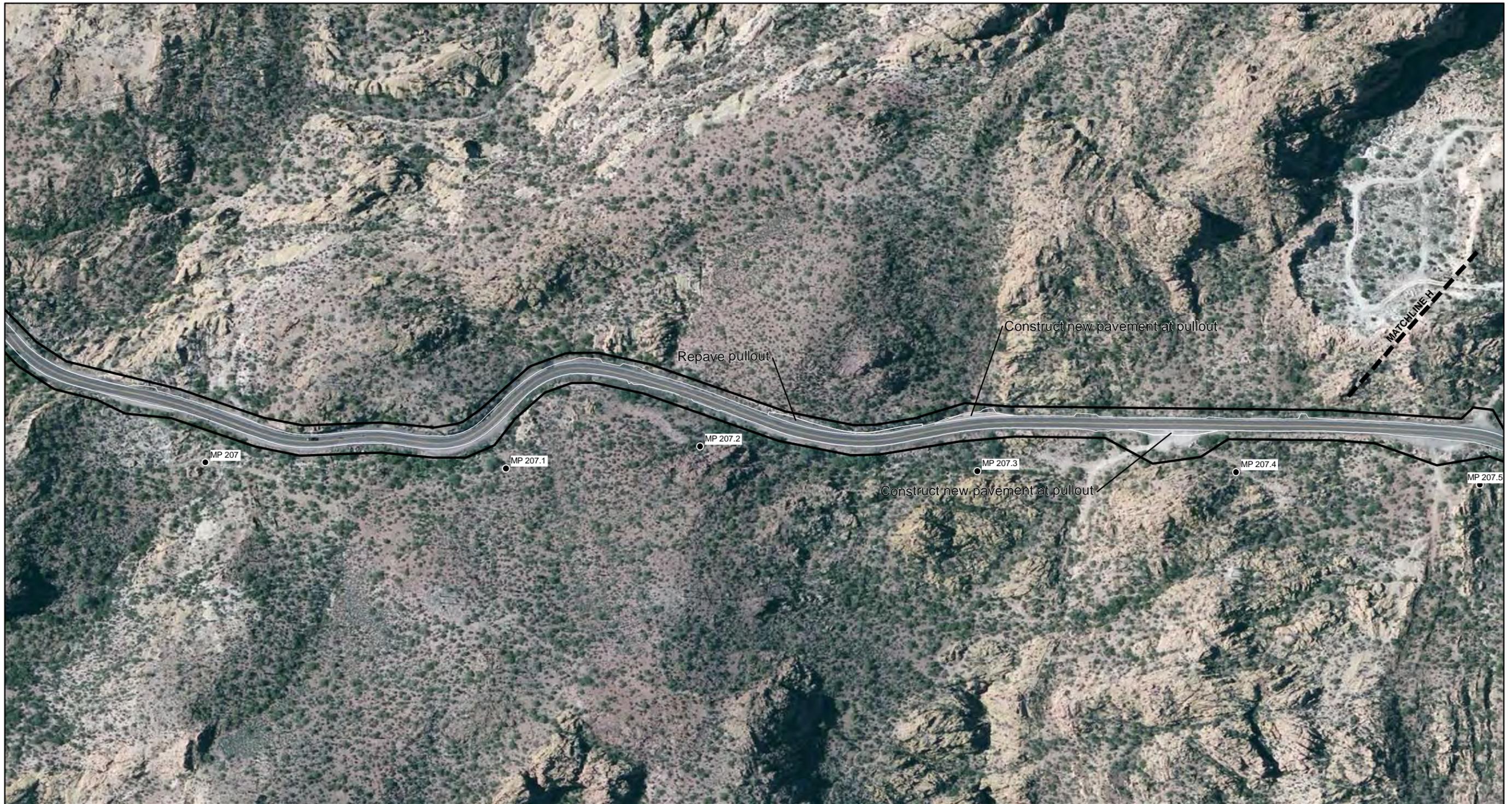
Key

- W# Wash number
- Project Area (5.223 acres)



|  |               |
|--|---------------|
| Section 404 Individual Permit<br>Impact Figures<br>Apache Trail to Tortilla Flat<br>088 MA 203 H8112 01C<br>STP 088-A(202)T; STP 088-A(200)T   |               |
| Source: USGS 7.5' Quadrangles<br>Mormon Flat Dam, Ariz (1965);<br>T2N, R9E, Sec. 8, and 17;<br>UTM 1983 Zone 12N;<br>457980.74mE, 3709452.12mN | December 2015 |
| Feet<br>0 ————— 200<br>1" = 200'   |               |
| Figure 4F  |               |

Acres of washes and project area within matchline included on next sheet.

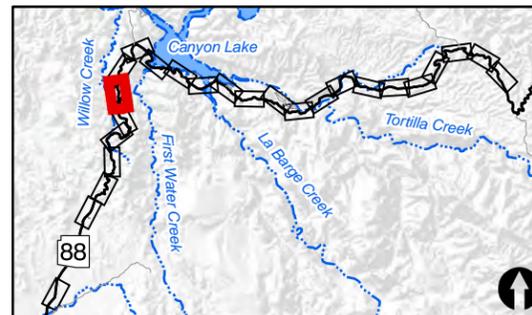


Aerial Date: June 5, 2013  
 Source: National Agriculture Imagery Program USDA

Prepared by: Vicki Casteel of Logan Simpson, December, 2015

Key

W# Wash number      Project Area (4.057 acres)



|  |                                 |               |
|--|---------------------------------|---------------|
| Section 404 Individual Permit<br>Impact Figures<br>Apache Trail to Tortilla Flat<br>088 MA 203 H8112 01C<br>STP 088-A(202)T; STP 088-A(200)T |                                 | December 2015 |
| Source: USGS 7.5' Quadrangles<br>Mormon Flat Dam, Ariz (1965);<br>T2N, R9E, Sec. 8;<br>UTM 1983 Zone 12N;<br>457810.49mE, 3710250.29mN       | Feet<br>0      200<br>1" = 200' |               |
|  |                                 | Figure 4G     |

Acres of washes and project area within matchline included on next sheet.

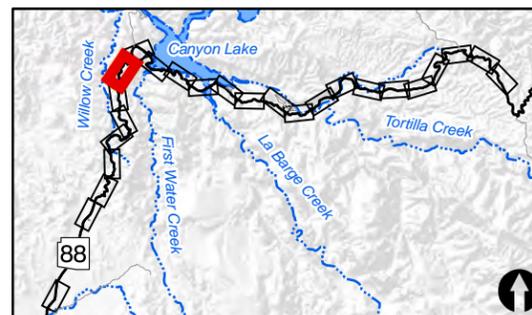


Aerial Date: June 5, 2013  
 Source: National Agriculture Imagery Program USDA

Prepared by: Vicki Casteel of Logan Simpson, December, 2015

Key

- W# Wash number
- Project Area (4.952 acres)



|   |   |                     |  |           |
|---|---|---------------------|--|-----------|
| Section 404 Individual Permit<br>Impact Figures<br>Apache Trail to Tortilla Flat<br>088 MA 203 H8112 01C<br>STP 088-A(202)T; STP 088-A(200)T  |   |                     |  |           |
| Source: USGS 7.5' Quadrangles<br>Mormon Flat Dam, Ariz (1965);<br>T2N, R9E, Sec. 5, and 8;<br>UTM 1983 Zone 12N;<br>457930.15mE, 3711040.87mN | <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center;">           Feet<br/>           0 ————— 200         </td> <td rowspan="2" style="text-align: center; vertical-align: middle;"> </td> </tr> <tr> <td style="text-align: center;">           1" = 200'         </td> </tr> </table> | Feet<br>0 ————— 200 |  | 1" = 200' |
| Feet<br>0 ————— 200   |   |                     |  |           |
| 1" = 200'   |   |                     |  |           |
| December 2015   |   |                     |  |           |
| Figure 4H   |   |                     |  |           |

Acres of washes and project area within matchline included on next sheet.

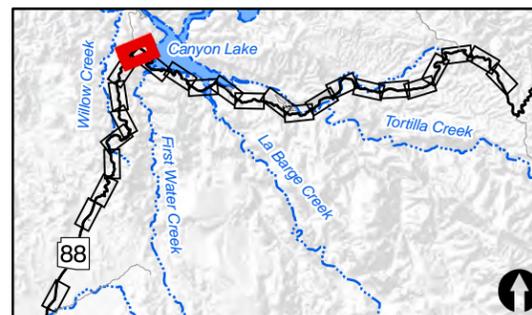


Aerial Date: June 5, 2013  
 Source: National Agriculture Imagery Program USDA

Prepared by: Vicki Casteel of Logan Simpson, December, 2015

Key

- W# Wash number
- Project Area (6.886 acres)
- Potential Waters of the United States (0.003 acres)
- Flood Pool Elevation (Approximately 1,660' amsl)



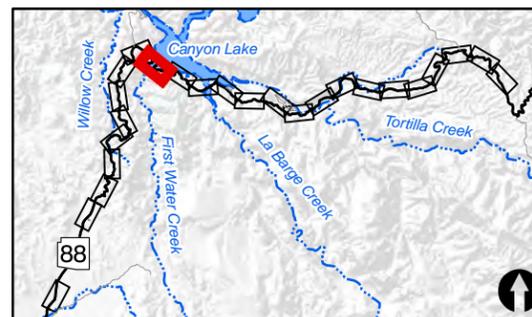
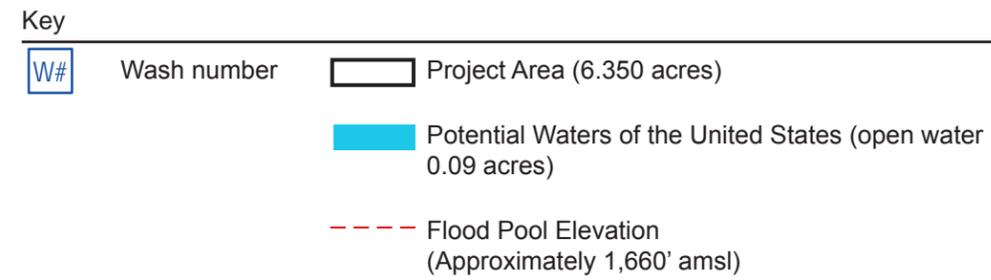
|   |                                |                                |
|---|--------------------------------|--------------------------------|
| Section 404 Individual Permit<br>Impact Figures<br>Apache Trail to Tortilla Flat<br>088 MA 203 H8112 01C<br>STP 088-A(202)T; STP 088-A(200)T  |                                |                                |
| Source: USGS 7.5' Quadrangles<br>Mormon Flat Dam, Ariz (1965);<br>T2N, R9E, Sec. 4, and 5;<br>UTM 1983 Zone 12N;<br>458425.46mE, 3711632.98mN | Feet<br><br>0 200<br>1" = 200' | December 2015<br><br>Figure 4I |

Acres of washes and project area within matchline included on next sheet.



Aerial Date: June 5, 2013  
 Source: National Agriculture Imagery Program USDA

Prepared by: Vicki Casteel of Logan Simpson, December, 2015



|   |  |               |
|---|--|---------------|
| Section 404 Individual Permit<br>Impact Figures<br>Apache Trail to Tortilla Flat<br>088 MA 203 H8112 01C<br>STP 088-A(202)T; STP 088-A(200)T        |  | December 2015 |
| Source: USGS 7.5' Quadrangles<br>Mormon Flat Dam, Ariz (1965);<br>T2N, R9E, Sec. 4, 5, 8, and 9;<br>UTM 1983 Zone 12N;<br>458984.29mE, 3711183.97mN |  | <br>1" = 200' |
|   |  |               |
|   |  | Figure 4J     |

Acres of washes and project area within matchline included on next sheet.

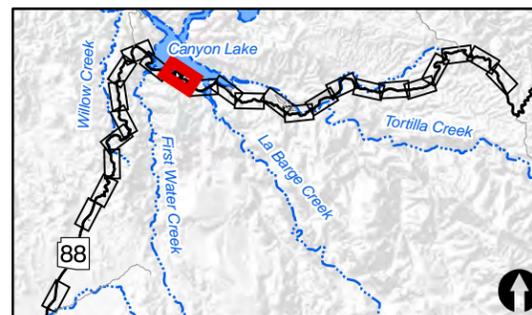


Aerial Date: June 5, 2013  
 Source: National Agriculture Imagery Program USDA

Prepared by: Vicki Casteel of Logan Simpson, December, 2015

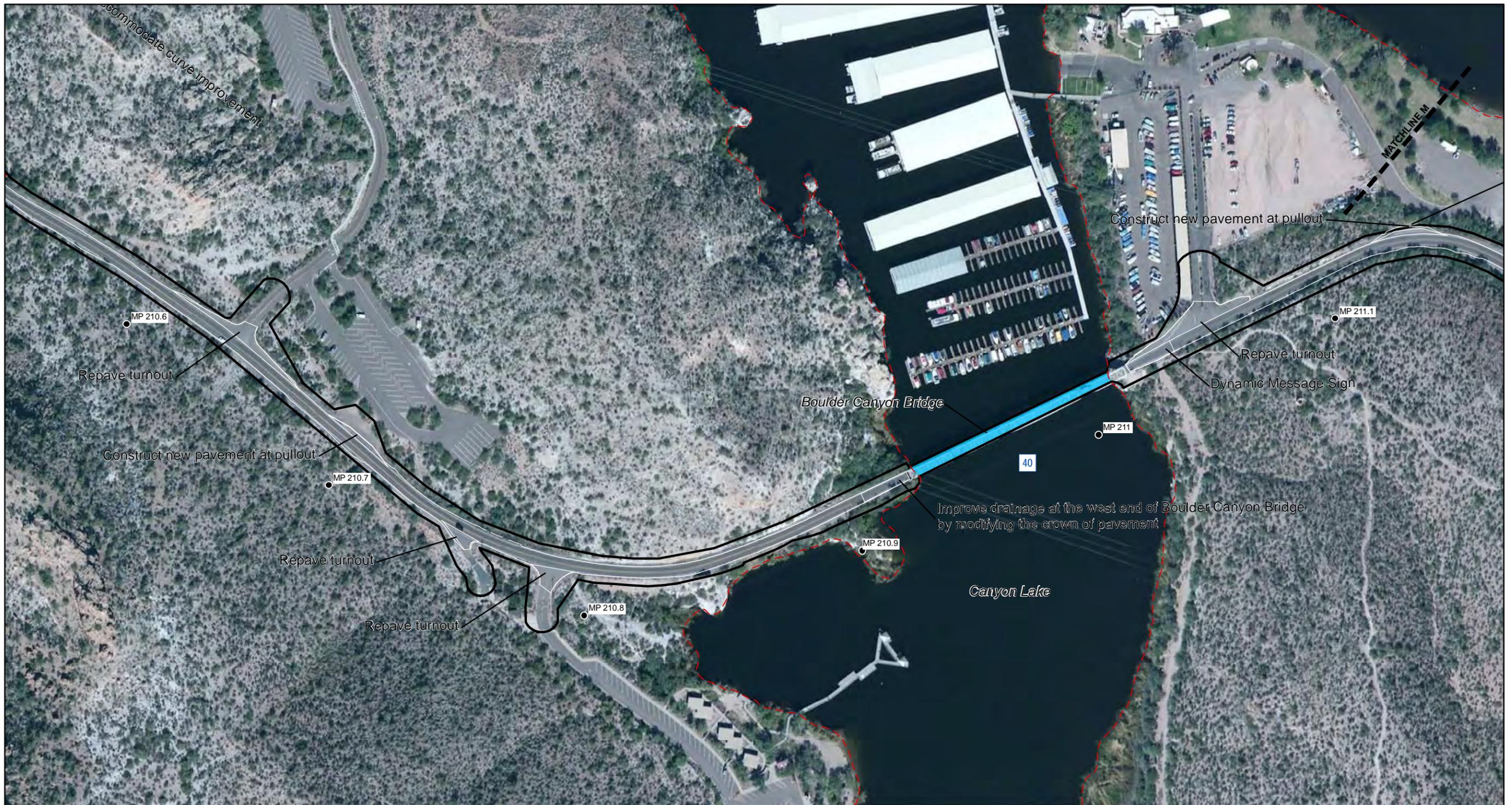
Key

- W# Wash number
- Project Area (5.250 acres)
- Potential Waters of the United States (0.006 acres)
- Flood Pool Elevation (Approximately 1,660' amsl)



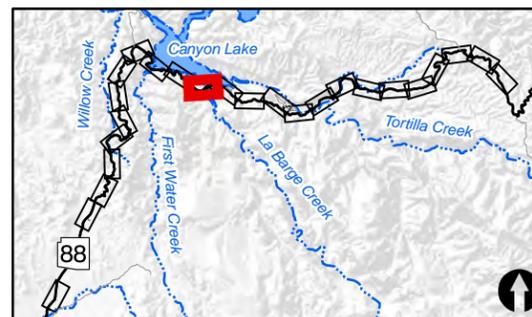
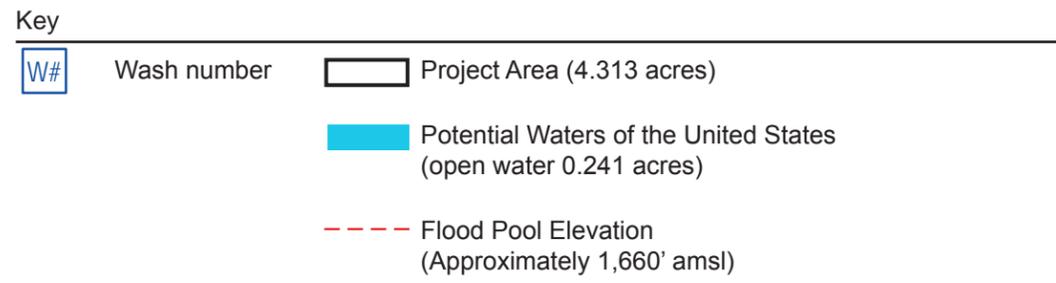
|   |  |                                  |  |               |  |           |  |
|---|--|----------------------------------|--|---------------|--|-----------|--|
| Section 404 Individual Permit<br>Impact Figures<br>Apache Trail to Tortilla Flat<br>088 MA 203 H8112 01C<br>STP 088-A(202)T; STP 088-A(200)T  |  |                                  |  |               |  |           |  |
| Source: USGS 7.5' Quadrangles<br>Mormon Flat Dam, Ariz (1965);<br>T2N, R9E, Sec. 4, and 9;<br>UTM 1983 Zone 12N;<br>459774.44mE, 3710877.77mN | <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center;">           Feet<br/>           0 ————— 200<br/>           1" = 200'         </td> <td style="text-align: center; vertical-align: middle;"> </td> </tr> <tr> <td colspan="2" style="text-align: center;">December 2015</td> </tr> <tr> <td colspan="2" style="text-align: center;">Figure 4K</td> </tr> </table> | Feet<br>0 ————— 200<br>1" = 200' |  | December 2015 |  | Figure 4K |  |
| Feet<br>0 ————— 200<br>1" = 200'  |  |                                  |  |               |  |           |  |
| December 2015   |  |                                  |  |               |  |           |  |
| Figure 4K   |  |                                  |  |               |  |           |  |

Acres of washes and project area within matchline included on next sheet.



Aerial Date: June 5, 2013  
 Source: National Agriculture Imagery Program USDA

Prepared by: Vicki Casteel of Logan Simpson, December, 2015



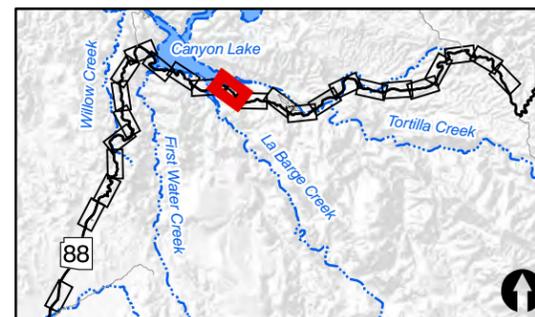
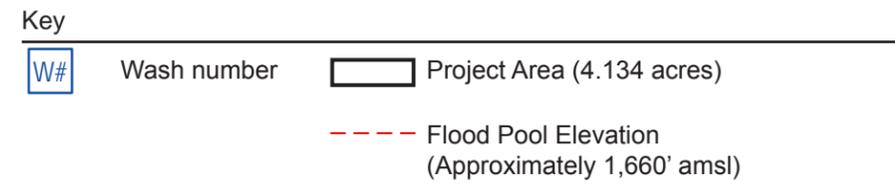
|   |                              |
|---|------------------------------|
| <b>Section 404 Individual Permit<br/>         Impact Figures</b><br>Apache Trail to Tortilla Flat<br>088 MA 203 H8112 01C<br>STP 088-A(202)T; STP 088-A(200)T |                              |
| Source: USGS 7.5' Quadrangles<br>Mormon Flat Dam, Ariz (1965);<br>T2N, R9E, Sec. 9, and 10;<br>UTM 1983 Zone 12N;<br>460494.65mE, 3710524.21mN                | <b>Feet</b><br><br>1" = 200' |
|   |                              |
| December 2015<br>Figure 4L  |                              |

Acres of washes and project area within matchline included on next sheet.



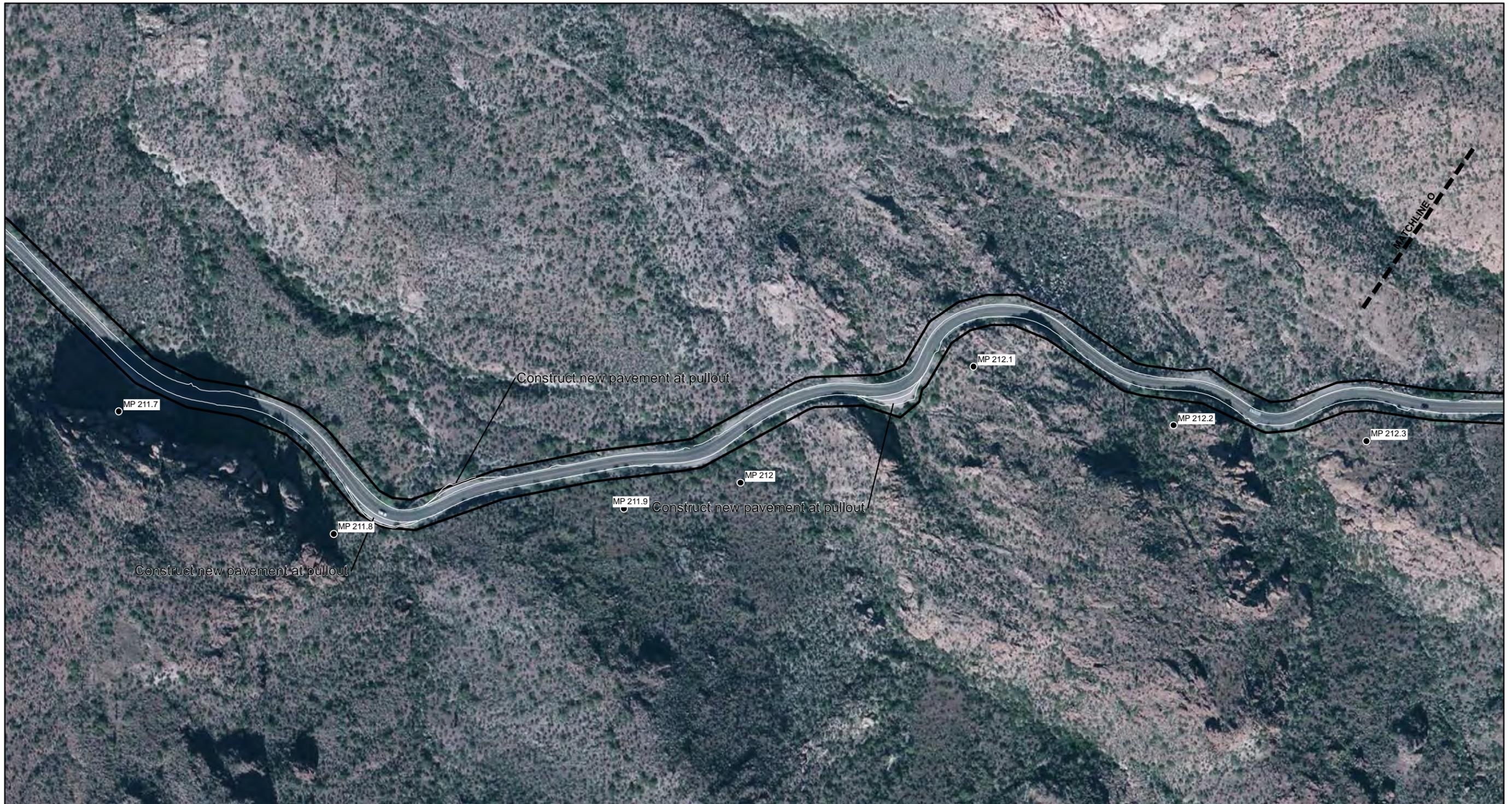
Aerial Date: June 5, 2013  
 Source: National Agriculture Imagery Program USDA

Prepared by: Vicki Casteel of Logan Simpson, December, 2015



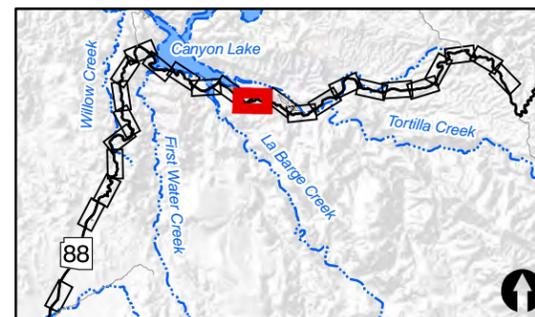
|   |  |   |  |               |  |           |  |
|---|--|---|--|---------------|--|-----------|--|
| <b>Section 404 Individual Permit<br/>         Impact Figures</b><br>Apache Trail to Tortilla Flat<br>088 MA 203 H8112 01C<br>STP 088-A(202)T; STP 088-A(200)T |  |   |  |               |  |           |  |
| Source: USGS 7.5' Quadrangles<br>Mormon Flat Dam, Ariz (1965);<br>T2N, R9E, Sec. 10;<br>UTM 1983 Zone 12N;<br>461242.93mE, 3710434.39mN                       | <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center;"> <b>Feet</b><br/>           0 ————— 200<br/>           1" = 200'         </td> <td style="text-align: center;"> </td> </tr> <tr> <td colspan="2" style="text-align: center;">December 2015</td> </tr> <tr> <td colspan="2" style="text-align: center;">Figure 4M</td> </tr> </table> | <b>Feet</b><br>0 ————— 200<br>1" = 200' |  | December 2015 |  | Figure 4M |  |
| <b>Feet</b><br>0 ————— 200<br>1" = 200'   |  |   |  |               |  |           |  |
| December 2015   |  |   |  |               |  |           |  |
| Figure 4M   |  |   |  |               |  |           |  |

Acres of washes and project area within matchline included on next sheet.



Aerial Date: June 5, 2013  
 Source: National Agriculture Imagery Program USDA

Prepared by: Vicki Casteel of Logan Simpson, December, 2015



|   |                                       |                                  |
|---|---------------------------------------|----------------------------------|
| Section 404 Individual Permit<br>Impact Figures<br>Apache Trail to Tortilla Flat<br>088 MA 203 H8112 01C<br>STP 088-A(202)T; STP 088-A(200)T    |                                       |                                  |
| Source: USGS 7.5' Quadrangles<br>Mormon Flat Dam, Ariz (1965);<br>T2N, R9E, Sec. 10, and 11;<br>UTM 1983 Zone 12N;<br>461963.92mE, 3710101.28mN | <b>Feet</b><br><br>0 200<br>1" = 200' | December 2015<br><hr/> Figure 4N |

Acres of washes and project area within matchline included on next sheet.

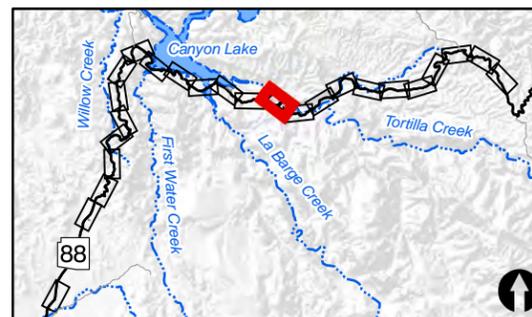


Aerial Date: June 5, 2013  
 Source: National Agriculture Imagery Program USDA

Prepared by: Vicki Casteel of Logan Simpson, December, 2015

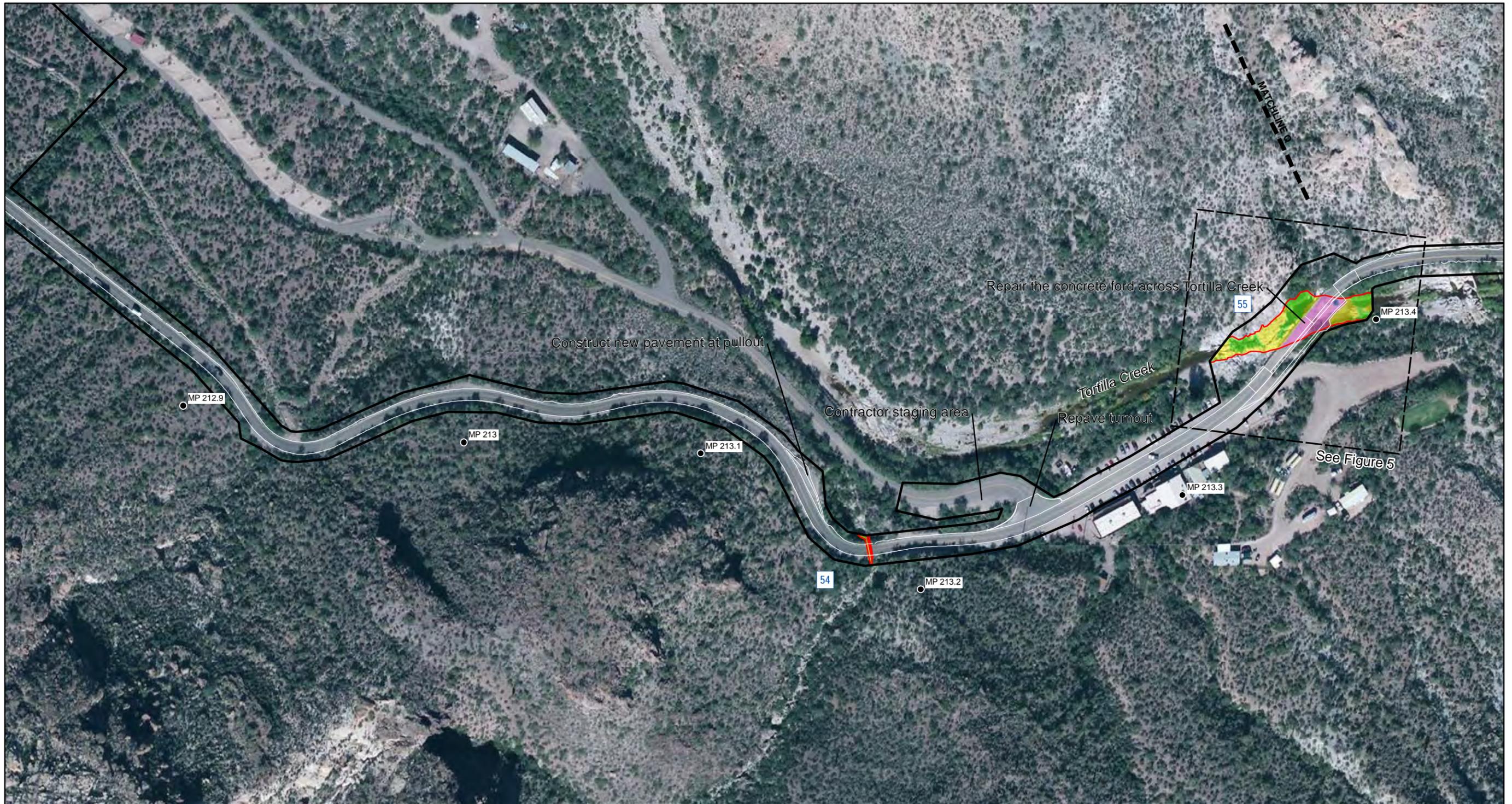
Key

W# Wash number      Project Area (40.658 acres)



|  |  |               |
|--|--|---------------|
| Section 404 Individual Permit<br>Impact Figures<br>Apache Trail to Tortilla Flat<br>088 MA 203 H8112 01C<br>STP 088-A(202)T; STP 088-A(200)T |  | December 2015 |
| Source: USGS 7.5' Quadrangles<br>Mormon Flat Dam, Ariz (1965);<br>T2N, R9E, Sec. 11;<br>UTM 1983 Zone 12N;<br>462833.95mE, 3710054.22mN      |  | Figure 40     |

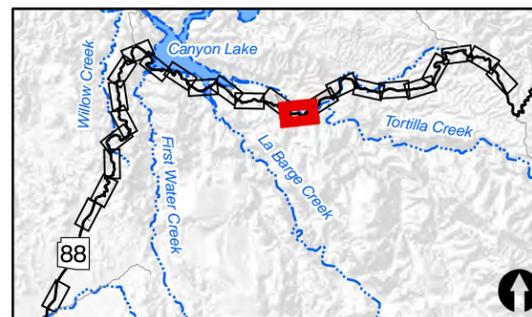
Acres of washes and project area within matchline included on next sheet.



Aerial Date: June 5, 2013  
 Source: National Agriculture Imagery Program USDA

Prepared by: Vicki Casteel of Logan Simpson, December, 2015

| Key |   |
|-----|---|
|     | Wash number   |
|     | Project Area (7.198 acres)  |
|     | Potential Wetlands (0.132 acre) (Tortilla Creek)  |
|     | Potential Waters of the United States (0.169 acre)<br>(Includes 0.008 acre wash 54 and 0.161 ac Tortilla Creek) |
|     | Permanent Impacts to Wetlands (0.002 acre) (Tortilla Creek)   |
|     | Temporary Impacts to Waters of the United States (0.108 acre)<br>(Tortilla Creek)                               |



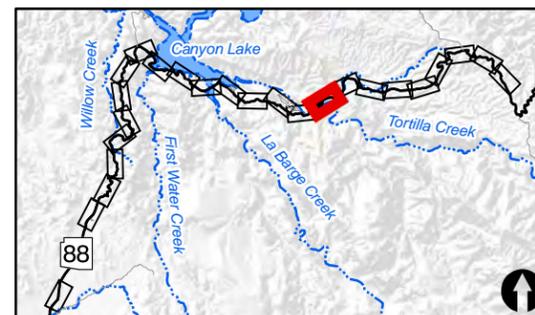
|   |                       |                                |
|---|-----------------------|--------------------------------|
| <b>Section 404 Individual Permit<br/>         Impact Figures</b><br>Apache Trail to Tortilla Flat<br>088 MA 203 H8112 01C<br>STP 088-A(202)T; STP 088-A(200)T |                       |                                |
| Source: USGS 7.5' Quadrangles<br>Mormon Flat Dam, Ariz (1965);<br>T2N, R9E, Sec. 11, and 12, and 14;<br>UTM 1983 Zone 12N;<br>463526.21mE, 3709713.02mN       | Feet<br><br>1" = 200' | December 2015<br><br>Figure 4P |

Acres of washes and project area within matchline included on next sheet.



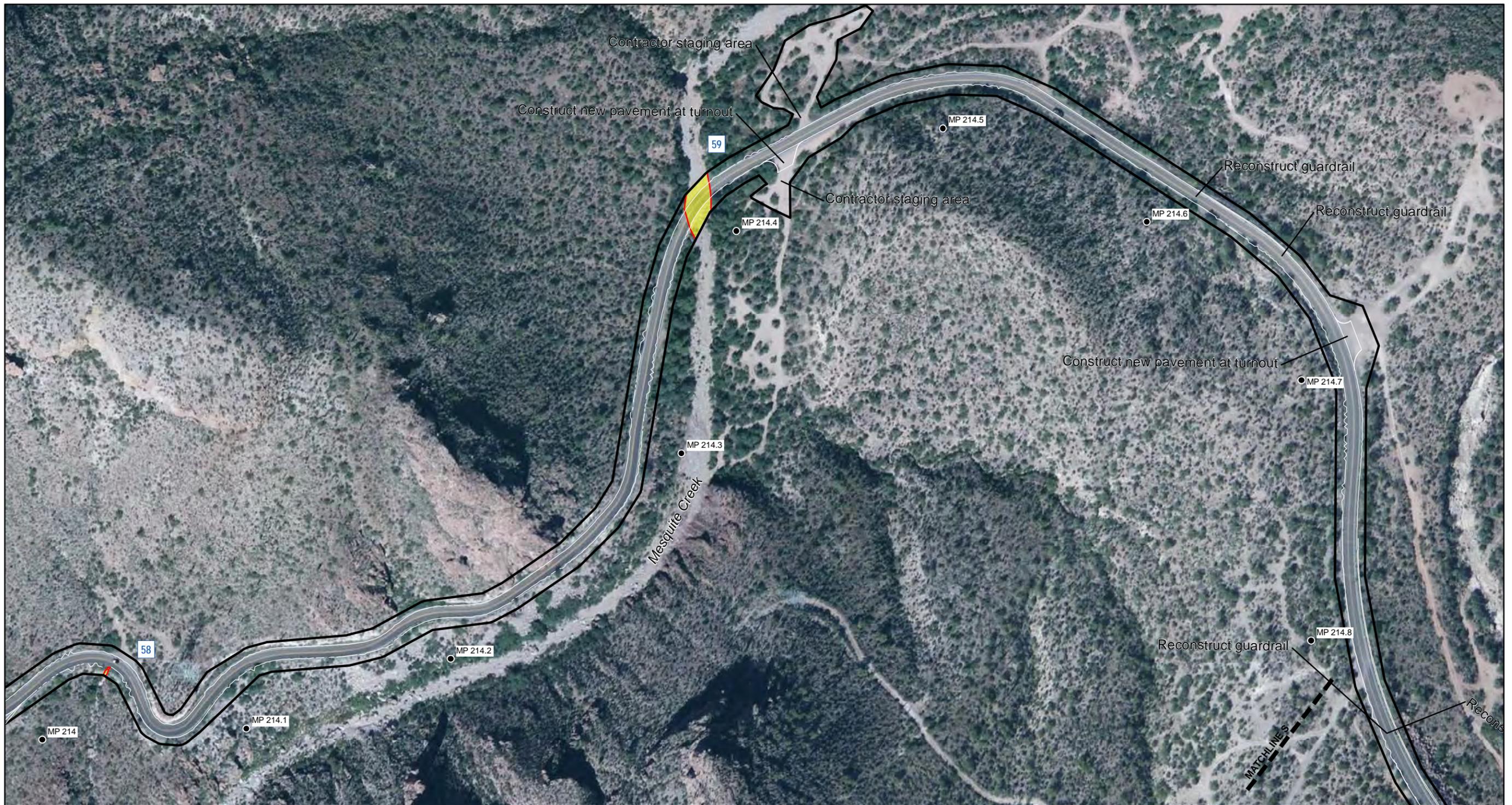
Aerial Date: June 5, 2013  
 Source: National Agriculture Imagery Program USDA

Prepared by: Vicki Casteel of Logan Simpson, December, 2015



|   |                       |                                |
|---|-----------------------|--------------------------------|
| Section 404 Individual Permit<br>Impact Figures<br>Apache Trail to Tortilla Flat<br>088 MA 203 H8112 01C<br>STP 088-A(202)T; STP 088-A(200)T    |                       |                                |
| Source: USGS 7.5' Quadrangles<br>Mormon Flat Dam, Ariz (1965);<br>T2N, R9E, Sec. 11, and 12;<br>UTM 1983 Zone 12N;<br>464256.65mE, 3710083.32mN | Feet<br><br>1" = 200' | December 2015<br><br>Figure 4Q |

Acres of washes and project area within matchline included on next sheet.

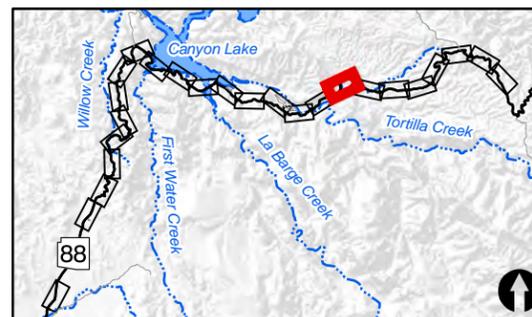


Aerial Date: June 5, 2013  
 Source: National Agriculture Imagery Program USDA

Prepared by: Vicki Casteel of Logan Simpson, December, 2015

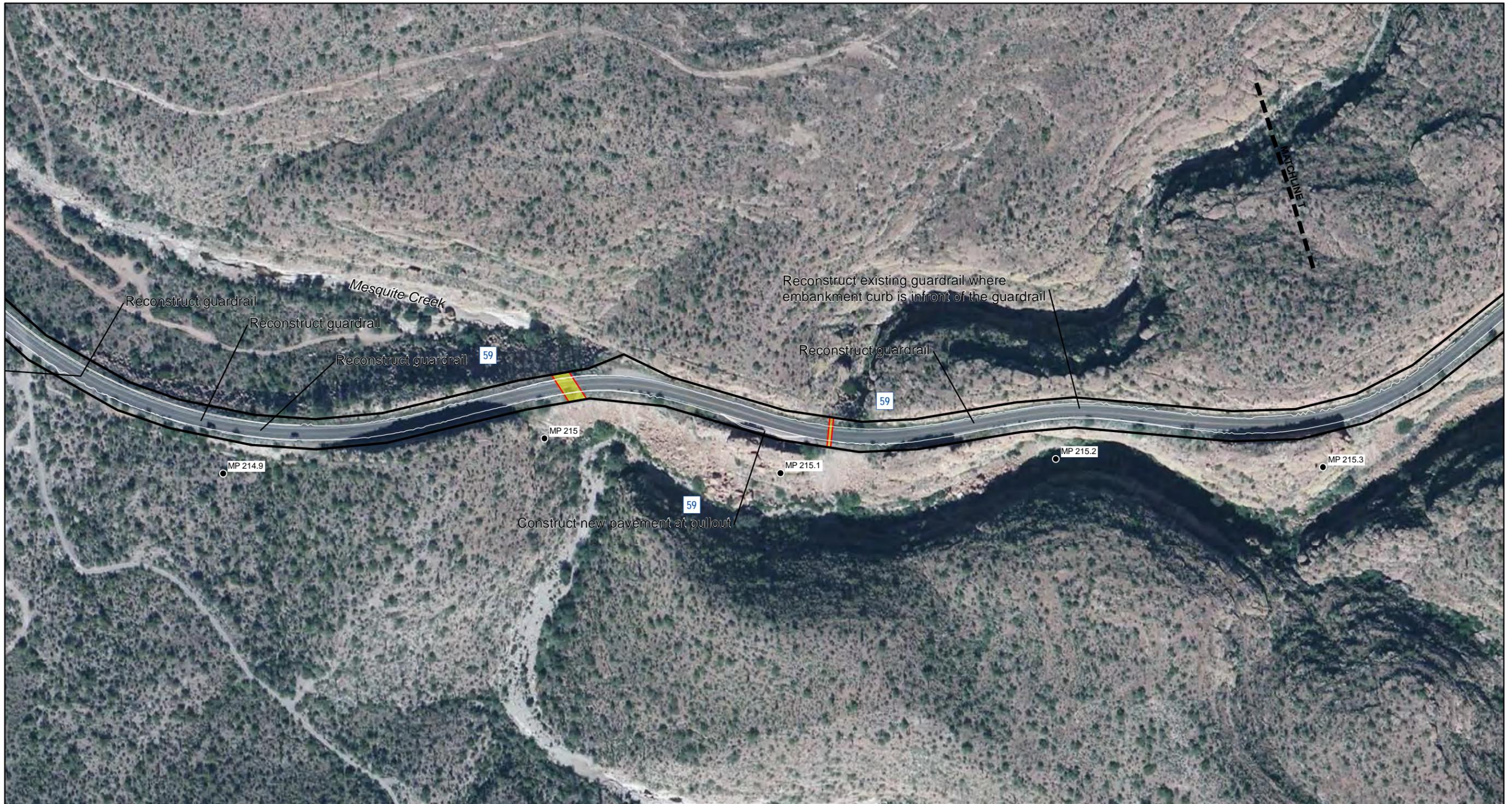
Key

- W# Wash number
- Project Area (6.758 acres)
- Potential Waters of the United States (0.102 acre)



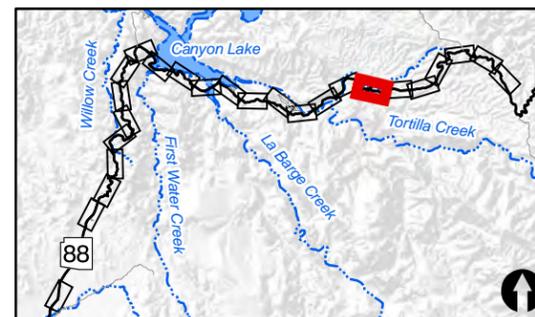
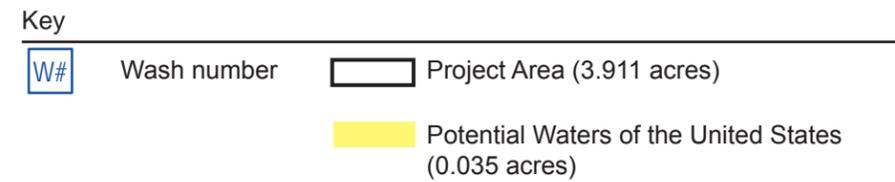
|  |                       |                                |
|--|-----------------------|--------------------------------|
| Section 404 Individual Permit<br>Impact Figures<br>Apache Trail to Tortilla Flat<br>088 MA 203 H8112 01C<br>STP 088-A(202)T; STP 088-A(200)T |                       |                                |
| Source: USGS 7.5' Quadrangles<br>Mormon Flat Dam, Ariz (1965);<br>T2N, R9E, Sec. 12;<br>UTM 1983 Zone 12N;<br>464909mE, 3710573.98mN         | Feet<br><br>1" = 200' | December 2015<br><br>Figure 4R |

Acres of washes and project area within matchline included on next sheet.



Aerial Date: June 5, 2013  
 Source: National Agriculture Imagery Program USDA

Prepared by: Vicki Casteel of Logan Simpson, December, 2015



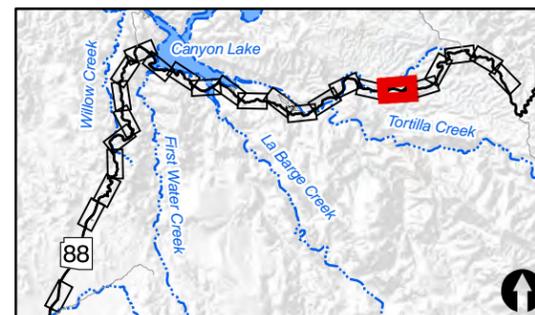
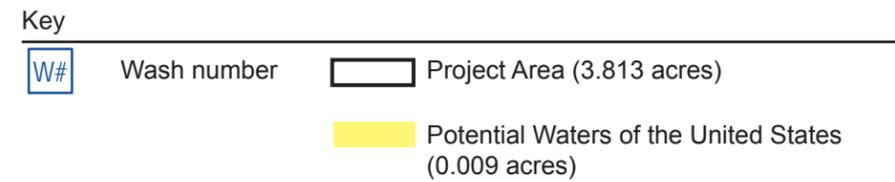
|   |   |      |  |   |     |           |  |   |               |           |
|---|---|------|--|---|-----|-----------|--|---|---------------|-----------|
| <b>Section 404 Individual Permit<br/>         Impact Figures</b><br>Apache Trail to Tortilla Flat<br>088 MA 203 H8112 01C<br>STP 088-A(202)T; STP 088-A(200)T     |   |      |  |   |     |           |  |   |               |           |
| Source: USGS 7.5' Quadrangles<br>Horse Mesa Dam, Ariz (1965, 1978);<br>T2N, R9E, Sec. 12,<br>T2N R10E, Sec. 7;<br>UTM 1983 Zone 12N;<br>465740.15mE, 3710449.39mN | <table border="1"> <tr> <td colspan="2" style="text-align: center;">Feet</td> </tr> <tr> <td style="text-align: center;">0</td> <td style="text-align: center;">200</td> </tr> <tr> <td colspan="2" style="text-align: center;">1" = 200'</td> </tr> </table> | Feet |  | 0 | 200 | 1" = 200' |  | <table border="1"> <tr> <td style="text-align: center;">December 2015</td> </tr> <tr> <td style="text-align: center;">Figure 4S</td> </tr> </table> | December 2015 | Figure 4S |
| Feet  |   |      |  |   |     |           |  |   |               |           |
| 0   | 200   |      |  |   |     |           |  |   |               |           |
| 1" = 200'   |   |      |  |   |     |           |  |   |               |           |
| December 2015   |   |      |  |   |     |           |  |   |               |           |
| Figure 4S   |   |      |  |   |     |           |  |   |               |           |

Acres of washes and project area within matchline included on next sheet.



Aerial Date: June 5, 2013  
 Source: National Agriculture Imagery Program USDA

Prepared by: Vicki Casteel of Logan Simpson, December, 2015



|   |   |  |  |
|---|---|--|--|
| <b>Section 404 Individual Permit<br/>         Impact Figures</b><br>Apache Trail to Tortilla Flat<br>088 MA 203 H8112 01C<br>STP 088-A(202)T; STP 088-A(200)T |   |  |  |
| Source: USGS 7.5' Quadrangles<br>Horse Mesa Dam, Ariz (1965, 1978);<br>T2N R10E, Sec. 7, and 8;<br>UTM 1983 Zone 12N;<br>466550mE, 3710450.15mN               | <table border="1"> <tr> <td style="text-align: center;"> <b>Feet</b><br/>           0                      200<br/>           1" = 200'         </td> <td style="text-align: center;"> </td> </tr> </table> | <b>Feet</b><br>0                      200<br>1" = 200' |  |
| <b>Feet</b><br>0                      200<br>1" = 200'  |   |  |  |
| December 2015<br>Figure 4T  |   |  |  |

Acres of washes and project area within matchline included on next sheet.

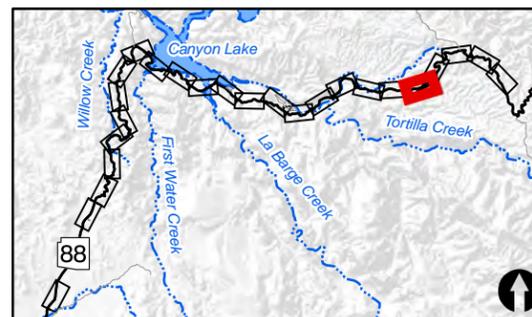


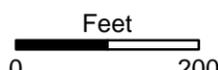
Aerial Date: June 5, 2013  
 Source: National Agriculture Imagery Program USDA

Prepared by: Vicki Casteel of Logan Simpson, December, 2015

Key

 Project Area (3.771 acres)



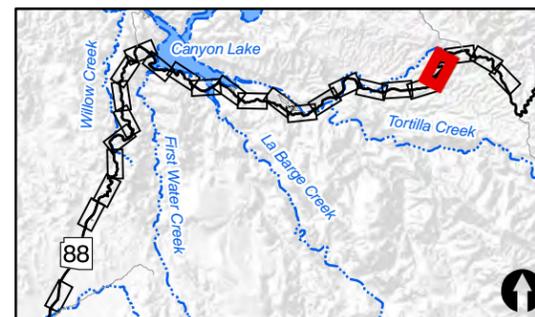
|   |   |   |
|---|---|---|
| Section 404 Individual Permit<br>Impact Figures<br>Apache Trail to Tortilla Flat<br>088 MA 203 H8112 01C<br>STP 088-A(202)T; STP 088-A(200)T      |   | December 2015   |
| Source: USGS 7.5' Quadrangles<br>Horse Mesa Dam, Ariz (1965, 1978);<br>T2N R10E, Sec. 7, and 8;<br>UTM 1983 Zone 12N;<br>467364.4mE, 3710525.38mN | Feet<br><br>0 200<br>1" = 200' |  |
|   |   | Figure 4U   |

Acres of washes and project area within matchline included on next sheet.



Aerial Date: June 5, 2013  
 Source: National Agriculture Imagery Program USDA

Prepared by: Vicki Casteel of Logan Simpson, December, 2015



|   |                                |
|---|--------------------------------|
| Section 404 Individual Permit<br>Impact Figures<br>Apache Trail to Tortilla Flat<br>088 MA 203 H8112 01C<br>STP 088-A(202)T; STP 088-A(200)T      |                                |
| Source: USGS 7.5' Quadrangles<br>Horse Mesa Dam, Ariz (1965, 1978);<br>T2N R10E, Sec. 5, and 8;<br>UTM 1983 Zone 12N;<br>467855.7mE, 3711084.28mN | December 2015<br><br>Figure 4V |
| Feet<br>0 ————— 200<br>1" = 200'  |                                |

Acres of washes and project area within matchline included on next sheet.

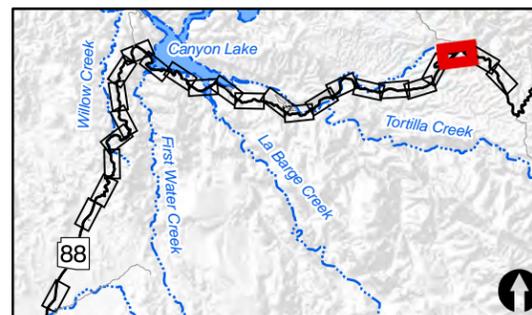


Aerial Date: June 5, 2013  
 Source: National Agriculture Imagery Program USDA

Prepared by: Vicki Casteel of Logan Simpson, December, 2015

Key

W# Wash number      Project Area (6.292 acres)



|  |  |               |
|--|--|---------------|
| Section 404 Individual Permit<br>Impact Figures<br>Apache Trail to Tortilla Flat<br>088 MA 203 H8112 01C<br>STP 088-A(202)T; STP 088-A(200)T       |  | December 2015 |
| Source: USGS 7.5' Quadrangles<br>Horse Mesa Dam, Ariz (1965, 1978);<br>T2N R10E, Sec. 4, and 5;<br>UTM 1983 Zone 12N;<br>468534.31mE, 3711559.03mN |  | 1" = 200'<br> |

Acres of washes and project area within matchline included on next sheet.

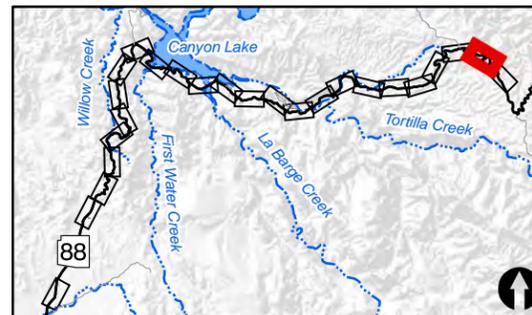


Aerial Date: June 5, 2013  
 Source: National Agriculture Imagery Program USDA

Prepared by: Vicki Casteel of Logan Simpson, December, 2015

Key

W# Wash number      Project Area (5.596 acres)



|  |                                 |               |
|--|---------------------------------|---------------|
| Section 404 Individual Permit<br>Impact Figures<br>Apache Trail to Tortilla Flat<br>088 MA 203 H8112 01C<br>STP 088-A(202)T; STP 088-A(200)T       |                                 | December 2015 |
| Source: USGS 7.5' Quadrangles<br>Horse Mesa Dam, Ariz (1965, 1978);<br>T2N R10E, Sec. 4, and 9;<br>UTM 1983 Zone 12N;<br>469368.66mE, 3711388.79mN | Feet<br>0      200<br>1" = 200' | <br>Figure 4X |

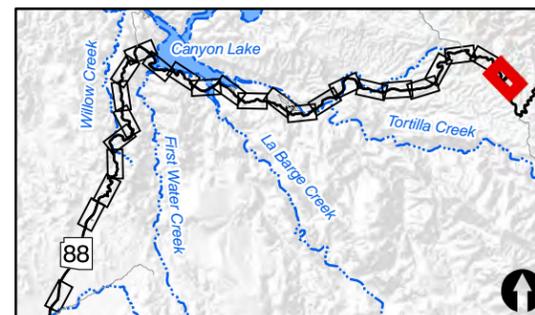
Acres of washes and project area within matchline included on next sheet.



Aerial Date: June 5, 2013  
 Source: National Agriculture Imagery Program USDA

Prepared by: Vicki Casteel of Logan Simpson, December, 2015

Key  
 [Black Outline] Project Area (1.789 acres)



|  |                                  |               |
|--|----------------------------------|---------------|
| Section 404 Individual Permit<br>Impact Figures<br>Apache Trail to Tortilla Flat<br>088 MA 203 H8112 01C<br>STP 088-A(202)T; STP 088-A(200)T           |                                  | December 2015 |
| Source: USGS 7.5' Quadrangles<br>Horse Mesa Dam, Ariz (1965, 1978);<br>T2N R10E, Sec. 4, 9, and 10;<br>UTM 1983 Zone 12N;<br>469959.28mE, 3710794.24mN | Feet<br>0 ————— 200<br>1" = 200' |               |
|  |                                  | Figure 4Y     |