



PUBLIC NOTICE

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

BUILDING STRONG®

**APPLICATION FOR PERMIT
SR 264, Burnside to Fish Wash**

Public Notice/Application No.: SPL-2012-00629-KAT

Project: SR 264, Burnside to Fish Wash (Tracs 264 AP 441 H8246 01C)

Comment Period: September 24, 2015 through October 23, 2015

Project Manager: Kathleen Tucker; 602-230-6956; Kathleen.A.Tucker@usace.army.mil

Applicant

Lynn Johnson
Arizona Department of Transportation
Holbrook District Engineer
2407 East Navajo Boulevard
Holbrook, Arizona 86025-1828

Contact

Charles Beck
Arizona Department of Transportation
Environmental Planning Group
1611 W. Jackson St, MD EM02
Phoenix, Arizona 85007

Location

Pueblo Colorado Wash within the community of Ganado, Apache, AZ. The cadastral location is Township 27 North, Range 25 East, portions of Sections 12 and 13; Township 27 North, Range 26 East, portions of Sections 18-21, 25-28; and Township 27 North, Range 27 East, portions of Sections 29 and 30 (Gila and Salt River Baseline and Meridian). The SR 264 Ganado Wash Bridge crosses Pueblo Colorado Wash (also known as Ganado Wash) at 35.710452°N, -109.553458°W, NAD 83, Zone 12 North.

Activity

Bridge replacement in association with SR 264, Burnside to Fish Wash project (Tracs 264 AP 441 H8246 01C) (see attached drawings). For more information see page 3 of this notice.

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: KATHLEEN TUCKER
3636 N CENTRAL AVENUE, SUITE 900
PHOENIX, ARIZONA 85012-1939

Alternatively, comments can be sent electronically to: Kathleen.A.Tucker@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 and the Navajo Nation Environmental Protection Agency. 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 this site is listed. Concurrence for a “no adverse affect” has been obtained from Navajo Nation Historic Preservation Department, National Park Service and Arizona State Historic Preservation Office. In addition, a Programmatic Agreement is in place to address additional cultural resources not discovered.

Endangered Species- Informal Section 7 consultation was performed with a may affect for the Zuni bluehead sucker and no affect for their critical habitat. Therefore, formal consultation under Section 7 of the Endangered Species Act is not required at this time.

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 is to provide a smoother and more stable roadway surface for motorists, provide design features to help prevent cars from driving down steep embankment slopes, and to reduce vehicle collision. Ganado Wash Bridge would be removed in accordance with ADOT standards, replaced with a wider structure to reduce the potential for erosion due to scour, provide shoulders and sidewalks, match the future five-lane roadway configuration on SR 264 (thereby reducing overall traffic congestion and avoiding bottle-necking at the bridge) and to restore the HTP park entrance.

Additional Project Information

Baseline information- The SR 264 roadway consists of two 12-foot travel lanes with 5-foot shoulders, in each direction of travel. The roadway narrows at the Ganado Wash Bridge to 1-foot shoulders without sidewalks. The existing Ganado Wash Bridge is a 7-span concrete slab bridge with a maximum span length of 30 feet. The bridge piers are steel pipe piles with a concrete base footer. Two sets of piers straddle the Pueblo Colorado Wash, each located on the edges of the banks. Erosion has occurred around the piers making the bridge vulnerable to scour. A pedestrian trail meanders along the wash crossing under the bridge providing connection between a local residential area and the HTP.

The project is located within the rural residential and agricultural town of Ganado, within the Great Basin Desertscrub Biotic Community (Turner 1994) at approximately 6,370 feet elevation. The surrounding landscape is flat with mesas and low hills. The Chinle Formation is the predominant geologic feature in the area (Ludington et al 2005). Soils in the area are Mesic Arid soils of the Badland-Torriorthents-Torrifluvents Association which consists of well drained, fine textured soils on eroded uplands and floodplains weathered from sedimentary rocks (Hendricks 1985). The vegetative community throughout the area is dominated by rabbitbrush (*Chrysothamnus* spp.), scattered juniper (*Juniperus* spp.) and various grasses such as Bermuda grass (*Cynodon dactylon*), cheatgrass (*Bromus tectorum*), and foxtail barley (*Hordeum jubatum*).

Pueblo Colorado Wash flows southwesterly through the project limits. The wash is seasonally perennial, with heaviest flows occurring during the snowmelt and monsoon seasons. Approximately three miles upstream of the project area, a diversion dam directs water from Pueblo Colorado Wash to Ganado Lake for agricultural use. Pueblo Colorado Wash exhibits an intermittent riparian corridor of sapling and mature Fremont cottonwood trees (*Populus fremontii*) with linear patches of bulrush (*Scirpus* spp), Parish's spikerush (*Eleocharis parishii*), and alkali buttercup (*Ranunculus cymbalaria*) growing along the inner banks of the 20-foot wide and three-foot deep Pueblo Colorado Wash channel. Impacts from cattle, such as vegetation damage and bank erosion, are evident along the drainage. This section of the drainage is included within a 1.5 mile restoration project involving HTP, the Navajo Nation, and the Arizona Water Protection Fund. Restoration efforts are focused on reducing bank erosion and creating a natural, dynamic floodplain through exotic vegetation removal (i.e. Saltcedar [*Tamarix ramosissima*] and Russian olive [*Elaeagnus angustifolia*]); native plant revegetation (*Scirpus*, *Populus*, and *Salix* species); cattle exclusion; and construction of in-stream erosion control structures (NPS 2000).

There is no designated or proposed critical habitat within the project limits. However, proposed critical habitat for the Zuni bluehead sucker (*Catostomus discorbolus yarrow*) is located approximately five stream miles upstream of the project limits. Pueblo Colorado Wash exhibits intermittent, seasonal flows, a sandy silt substrate, and limited shade. Excessive amounts of silt can suffocate eggs and limit algal food production, and infrequent flows provide less habitat for an insect food base (USFWS 2013b,c). Therefore, suitable habitat elements for Zuni bluehead sucker are not present within the project area. Drainages with intermittent flows can serve as connective habitat between occupied sites during wetted periods (USFWS 2013a).

Wildlife utilizing habitat at Ganado Wash Bridge may include lizards, gopher and bull snakes (*Pituophis* spp.), passerine birds such as American Robin (*Turdus migratorius*), Say's Phoebe (*Sayornis saya*), and various sparrows (*Passer* sp.), and occasional use by aquatic insects and amphibians such as Woodhouse toads (*Bufo woodhousii*) when water is present. Mammals that may occasionally use the project area include jackrabbits (*Lepus californicus*), cottontail rabbits (*Sylvilagus* sp.), striped skunks (*Mephitis mephitis*), coyotes (*Canis latrans*), and gray foxes (*Urocyon*

cinereoargenteus).

Project description- ADOT, in association with the Federal Highway Administration (FHWA) is planning to rehabilitate and widen shoulders along SR 264 between MP 441.19 and MP 450.00 within the existing ADOT easement through Navajo Nation lands and lands managed by the National Park Service HTP. The project would include the following improvements along SR 264:

- Widening the roadway to provide a 34-foot or 46-foot typical cross section and extending the existing cross-drainage structures to accommodate the widening
- Installing erosion protection measures as necessary
- Removing and replacing Ganado Wash Bridge
- Overlaying the full existing pavement width and turnouts with asphaltic concrete and asphalt rubber–asphaltic concrete friction course
- Milling the existing roadway for vertical tapers at the beginning and ending project limits
- Replacing existing and installing new guardrail and associated posts at various locations throughout the project area
- Replacing missing or damaged signs, delineators, and object markers throughout the project limits, as needed
- Constructing concrete signpost foundations for square tube posts for existing signs
- Installing recessed pavement markers along the centerline throughout the project limits
- Removing trees in the recovery area and within 10 feet from the bottom of the slope
- Installing rumble strips on the shoulders and centerline throughout the project limits
- Seeding all areas disturbed by construction

Multiple culverts are being extended throughout the project limits to accommodate the widened shoulders. However, only two of these culverts would require work within presumed waters of the US and would include adding fill material at inlets and outlets, removing vegetation as necessary, grading the unnamed washes where possible to meet preconstruction elevations, and reseeding disturbed areas outside of the ordinary high water mark.

Ganado Wash Bridge (Structure # 1046) at MP 446.20 would be removed and replaced with a wider structure with shoulders and sidewalks that spans Pueblo Colorado Wash. SR 264 would also be widened to a five-lane roadway in the immediate vicinity of the bridge to match the new bridge configuration. Replacing the bridge also includes the following items:

- Removing the existing Ganado Wash Bridge
- Constructing a new bridge in two phases to accommodate the future five-lanes (two travel lanes in each direction and a continuous center lane) with sidewalks on both sides; including piers, abutments, concrete barriers, and approach slabs
- Replacing guardrail and guardrail end treatments
- Relocating the HTP entrance back to its original location east of the bridge at MP 446.26
- Removing the existing frontage road to HTP
- Removing, replacing and/or installing corrugated metal pipes (CMP) and riprap at private turnouts
- Removing a few cottonwood trees located in uplands
- Removing and replacing fencing as necessary
- Installing traffic/roadway signs
- Relocating utilities as necessary
- Re-establishing a trail underneath the bridge to HTP

- Staging and accessing at all four corners of the bridge outside waters of US, and
- Reseeding disturbed areas with a native seed mix

The Ganado Wash Bridge was constructed over Pueblo Colorado Wash (Wash 1) which has been delineated as waters of the US. The proposed work within waters of the US in Pueblo Colorado Wash (Wash 1) consists of the following:

- Utilizing all non-avoidance areas within the wash for temporary construction access to demolish the existing bridge and construct the new bridge
- Excavating approximately 245 cubic yards of native river material around existing piers
- Removing the existing bridge piers to a minimum depth of 1 foot below ground line or five feet below finished subgrade elevation per ADOT standards
- Removing vegetation including riparian and wetland vegetation due to excavation for bridge pier removal
- Backfilling approximately 245 cubic yards of excavated native river material
- Placing temporary mats or pads over wetland vegetation for occasional, low disturbance construction vehicle wash crossings when no flows are present
- Impacts to waters of the US due to the proposed action are displayed in Table 1 below. As previously discussed, work within waters of the US would occur within ADOT easement through lands managed by HTP and the Navajo Nation. The Arizona Department of Environmental Quality (ADEQ) is responsible for issuing the individual Section 401 certification for work in waters of the US on easement through HTP, and the Navajo Nation Environmental Protection Agency is responsible for issuing the Section 401 certification for work within waters of the US on easement through Navajo Nation lands. For clarification purposes, Table 1 shows the total impacts to waters of the US with impacts being displayed separately according to the land they occur on. New easements are not anticipated to be required. Construction is anticipated to begin in spring 2016, and the overall project is expected to take approximately eight months to complete.

Table 1. Impacts to waters of the US.					
Drainage Name	Water of the US	Amount Waters of the US (ac)	Temporary Impact (ac)	Permanent Impact (ac)	Total Impact (ac)
Pueblo Colorado Wash (Wash 1)	Other Waters	0.0740	0.0260	0.0250	0.0510
	Wetlands	0.1060	0.0380	0.0170	0.0550
Unnamed Wash (PE 4)	Other Waters	0.0370	0.0070	0.0100	0.0170
	Wetlands	0.0000	0.0000	0.0000	0.0000
Unnamed Wash (PE 19)	Other Waters	0.0670	0.0050	0.0400	0.0450
	Wetlands	0.0000	0.0000	0.0000	0.0000
Overall Project Total (ac)		0.2600	0.0760	0.920	0.1680
*Impacts to wetlands are temporary because mats would cover vegetation preventing permanent damage to soils.					

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: The alternatives analysis for this project indicated that it would not be practicable to avoid waters of the US during project construction. After reviewing the alternatives analysis and independently evaluating opportunities for avoidance, the Corps has concurred that avoidance of waters of the US is not practicable for this project.

Minimization: Impacts to waters of the US would be limited to the minimum necessary to accomplish this project. Several measures would be implemented in order to minimize impacts to waters of the US including wetland vegetation. Two temporary access roads would be constructed outside of waters of the US, one on the northeast side of the wash and one on the southwest side of the wash, to reduce the need to cross Pueblo Colorado Wash minimizing the destruction of wetland vegetation and the natural channel banks. In the event that occasional construction vehicle wash crossings are necessary, temporary mats or pads would be placed over wetland vegetation in specific locations in order to distribute the weight of the vehicle evenly avoiding permanent impact to vegetation. These mats would be removed immediately after the vehicle has crossed the stream, to avoid losing them in a flashflood. No vehicle wash crossings would occur when surface water is present in the wash, further reducing the chance for destruction of soils and vegetation. Bridge piers that currently occur along the banks of the wash would be removed to a minimum depth of one-foot feet below ground surface or five feet below finished subgrade, providing an opportunity for more natural conditions to be restored along the banks. Although wetland vegetation would be impacted due to removal of the bridge piers, the new bridge would span the wash and no permanent structures would be installed in the wash. Thus, after construction, the wash would continue to function with a natural riverine surface providing opportunities for regeneration of the wetland vegetation species in the area. Future maintenance of the bridge occurring directly within the wash is expected to be minimal given the bridge would span the channel; thus, construction of the Preferred Alternative provides for less activity in waters of the US in the future as well. The original jurisdictional delineation survey included a larger area beyond the ADOT easement due to anticipated temporary construction easements (TCE). In an effort to reduce impacts and minimize disturbance to waters of the US, the project design was revised such that construction would stay within ADOT easement and avoid the need for a TCE. Furthermore, it was determined that the contractor could avoid portions of the wash within ADOT easement; therefore, 18-foot-wide avoidance areas at the north and south ends of the ADOT easement within Pueblo Colorado Wash were designated for no impacts to waters as no work would occur in these areas. The project scope includes measures that will rectify impacts to waters of the US. The contractor would be responsible for returning the wash to preconstruction contours to the maximum extent practicable. Revegetation and application of native seed mix in disturbed areas are included in the scope of work to rectify impacts to vegetation. Based on the alternatives analysis, the Preferred Alternative is the least environmentally damaging practicable alternative.

Compensation: The proposed action will result in 0.1680 acre of impacts to waters of the US including 0.0510 acre of other seasonally perennial waters, 0.0620 acre of ephemeral waters, and 0.0550 acre of wetland. Permanent impacts include 0.0750 acre of other waters of the US and 0.017 acre of wetlands. The remaining waters of the US within the project area would be

temporarily impacted or avoided.

The wetland area extends well beyond the project limits, and the amount of impacted wetland area next to the road is considered minor relative to the available wetland habitat along the Pueblo Colorado Wash. Furthermore, although wetland vegetation within the footprint of the bridge pier excavation would be permanently impacted, long-term impacts to wetland vegetation within the project limits are expected to be minimal. No permanent structures will be built within the wash, and flows will go unaltered. Much of the wetland vegetation in the project limits will remain intact due to no work in the wash when surface water is present, utilizing temporary mats for occasional wash crossings and removing them immediately after crossing the stream, and establishing avoidance areas. Thus, sedge and rush species would be able to naturally re-propagate and regenerate portions of the impacted vegetation communities because a natural ground surface will be present along with natural flows and an availability of seeds from native plants in the area. Over time, it is expected that the wetland would regain its present functions and values.

However, in order to ensure that all functions and values of the impacted waters of the US are not lost, the applicant proposes a selection of options to compensate for impacts to waters of the US. Under the first option, the applicant proposes to pay in-lieu fees of a designated amount to an approved in-lieu-fee mitigation site selected by the Corps to compensate for losses to waters of the US. The preferred alternative would permanently impact 0.025 acre of other waters of the US and 0.017 acre of wetlands due to excavation. The applicant proposes to pay in-lieu-fees at a ratio of 1:1 for permanent impacts to other waters of the US and a 3:1 ratio for permanent impacts to wetlands. The Corps is currently reviewing the mitigation requirements for this project to determine the appropriate mitigation ratio and cost-per-acre to be implemented at a selected in-lieu-fee site.

Proposed Special Conditions

The proposed Permit Special Conditions are in the process of being developed.

For additional information please call Kathleen Tucker of my staff at 602-230-6956 or via e-mail at Kathleen.A.Tucker@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, ARIZONA 85012-1939

WWW.SPL.USACE.ARMY.MIL/MISSIONS/REGULATORY

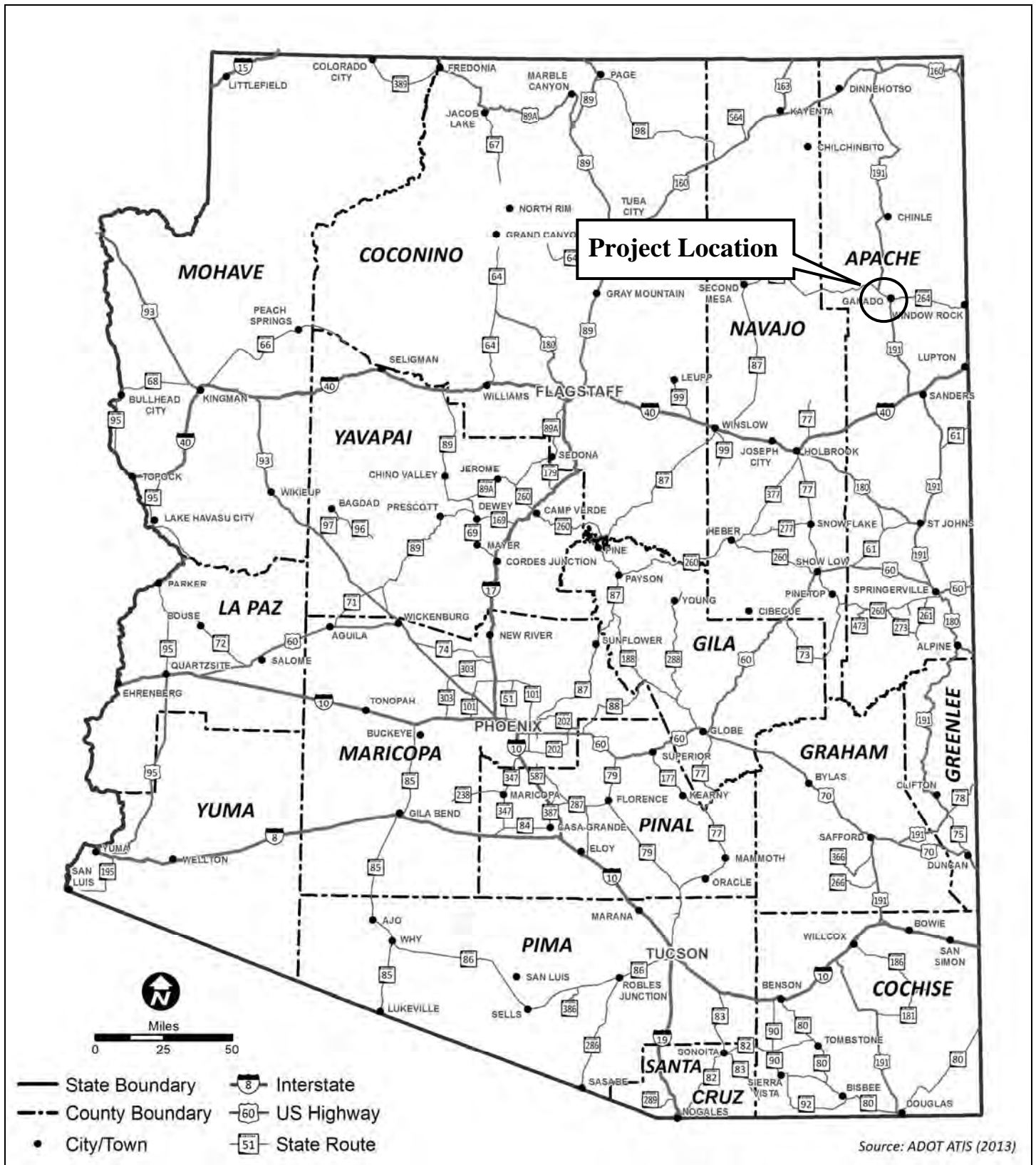


Figure 1. State Location Map

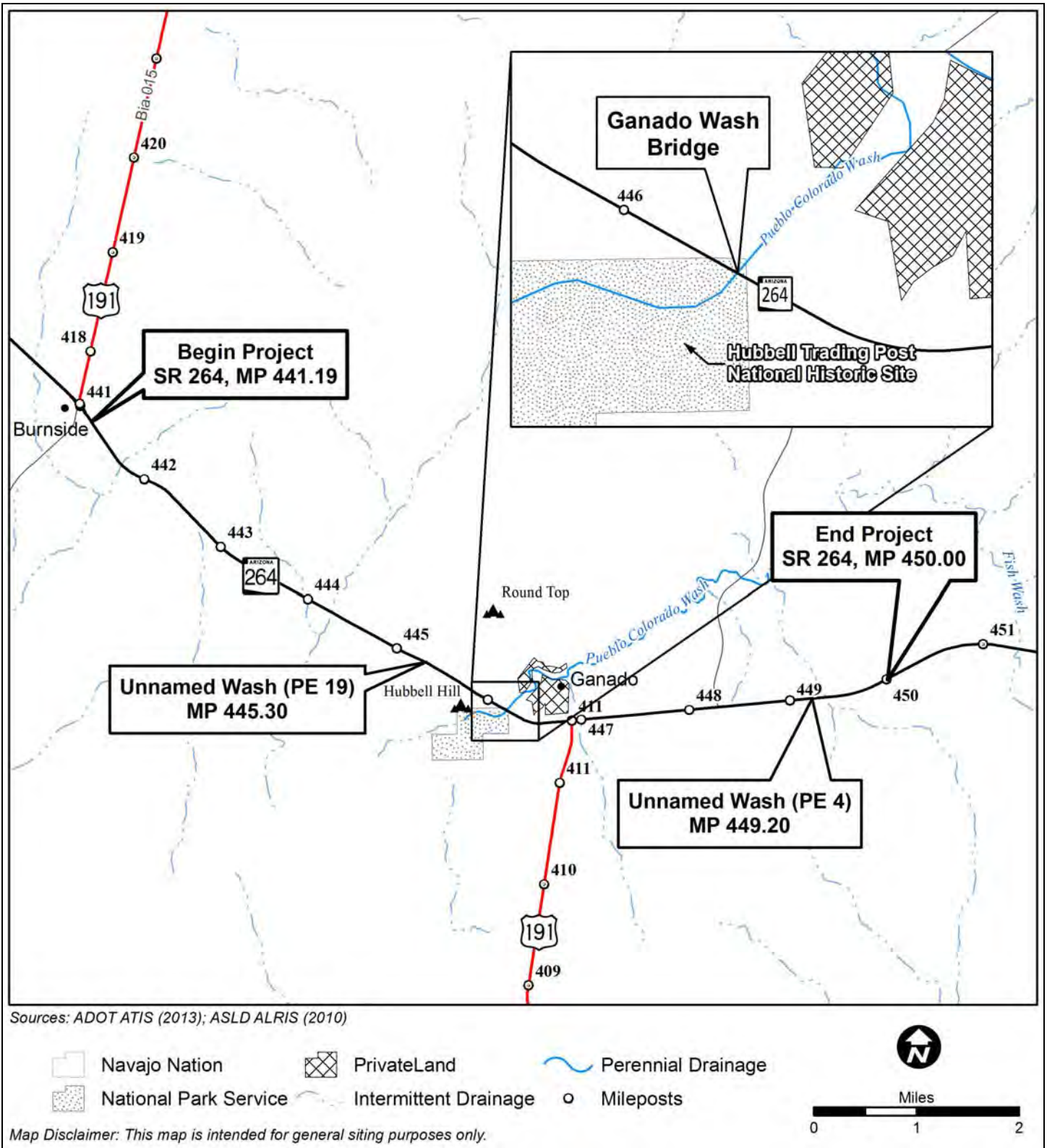
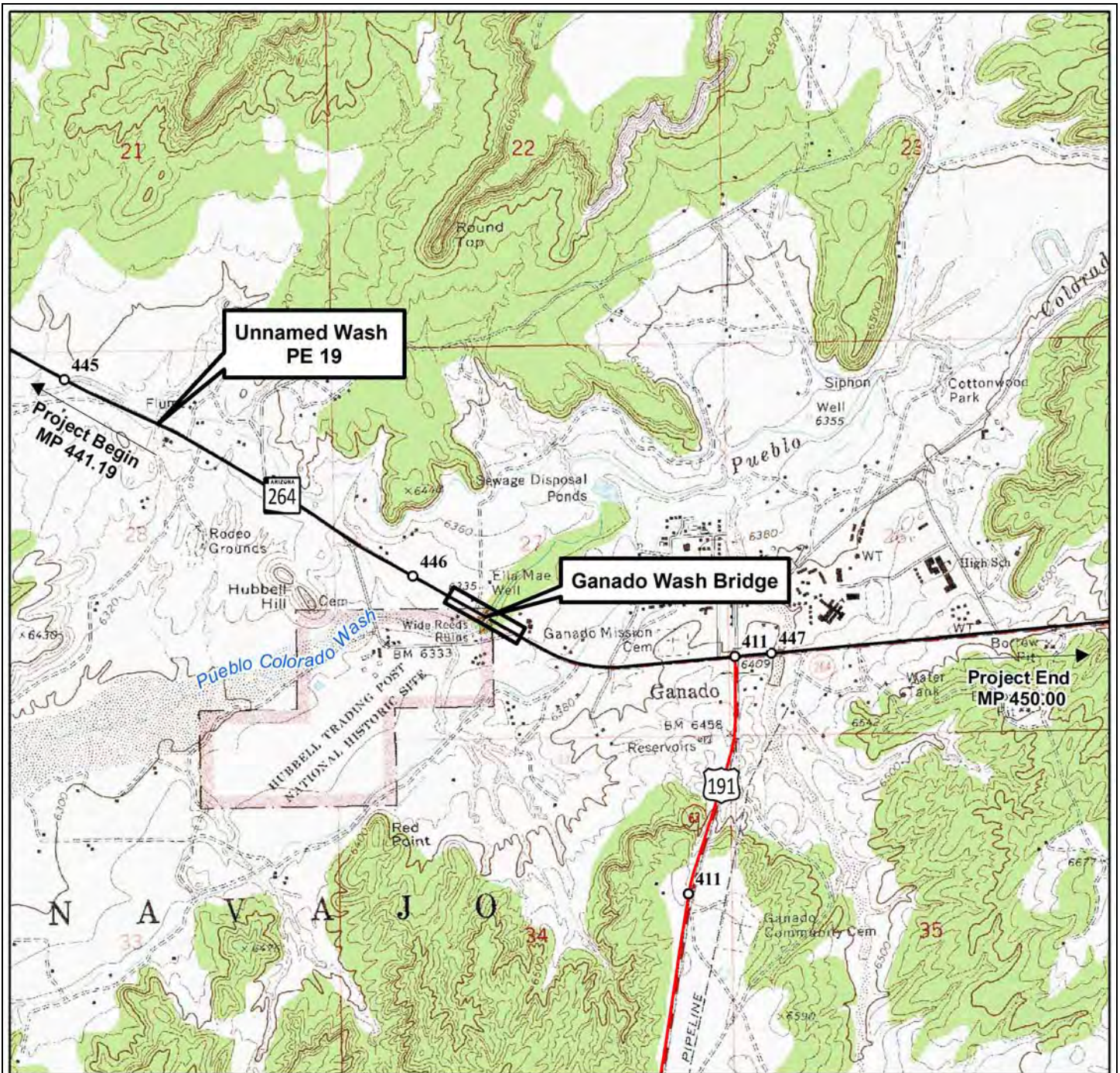


Figure 2. Project Vicinity Map



Sources: ADOT ATIS (2014); USGS 7.5' Quadrangles: Ganado, AZ (1973)

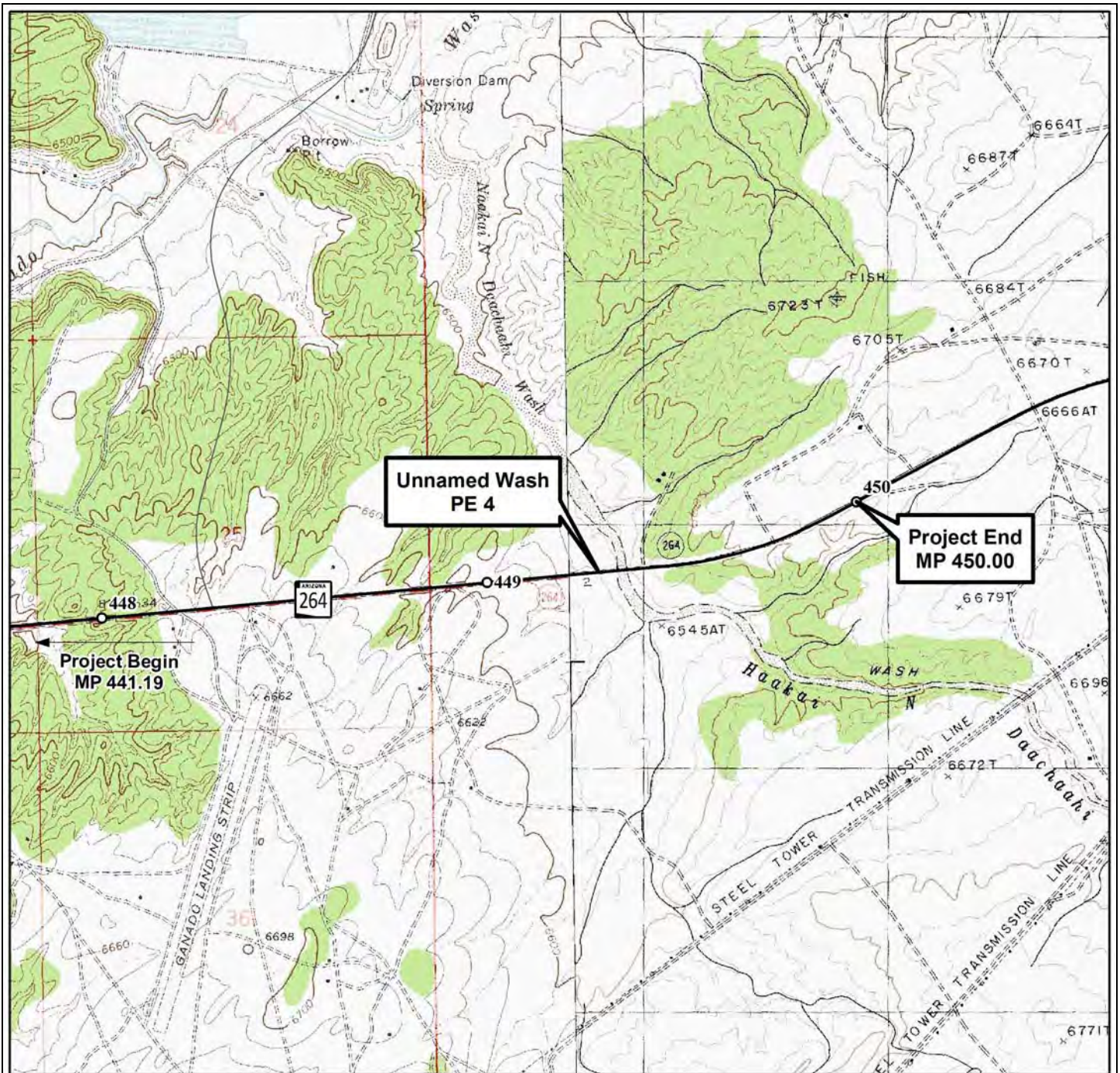
○ Mileposts □ Survey Area



Feet
0 500 1,000

Map Disclaimer: This map is intended for general siting purposes only.

Figure 3. Survey Area Topographic and Floodplain Map for Ganado Wash Bridge and Unnamed Wash (PE 19)



Sources: ADOT ATIS (2014); USGS 7.5' Quadrangles: Ganado, AZ (1973); Kinlichee, AZ (1983)

○ Mileposts

Map Disclaimer: This map is intended for general siting purposes only.

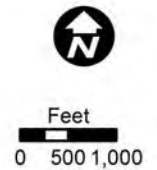
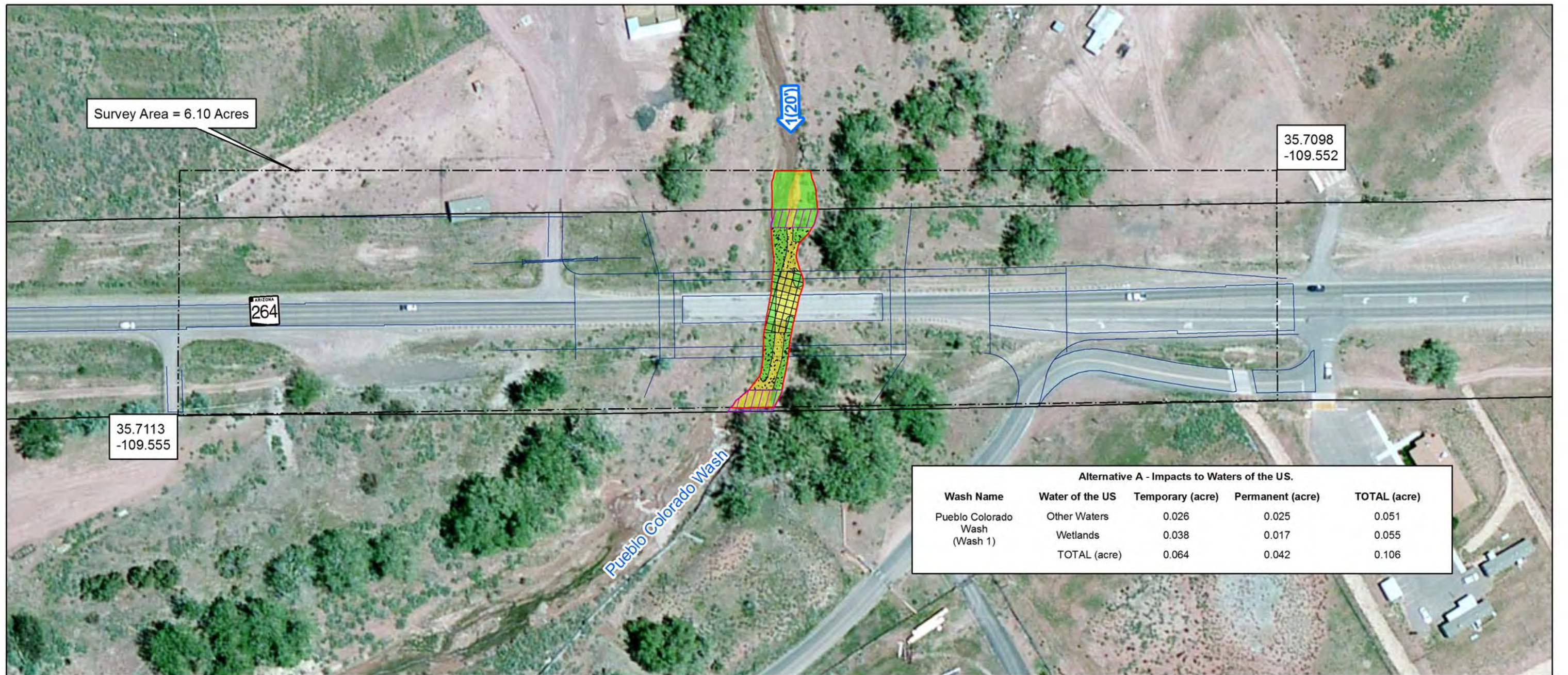
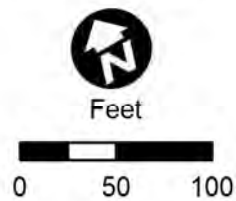


Figure 4. Topographic and Floodplain Map for Unnamed Wash (PE 4)



Sources: ADOT ATIS (2013); ESRI World Imagery (2013); AZTEC (2014). Corresponding USGS 7.5' Quadrangles: Ganado, AZ (1973).



- [Solid Box] ADOT Easement
- [Dotted Box] Survey Area
- [Cross-hatched Box] Permanent Impact
- [Dotted Box] Temporary Impact
- [Hatched Box] Avoidance Area
- [Red Outline Box] OHWM
- [Yellow Box] Other Waters
- [Green Box] Wetland
- [Line] Design Files
- [Arrow with #XX] Watercourse Number (Average Width of OHWM)
Arrow Indicates Flow Direction

Figure 6. Impacts to Waters of the US for Ganado Wash Bridge, Alternative A – 3-span Steel Structure (Preferred Alternative)

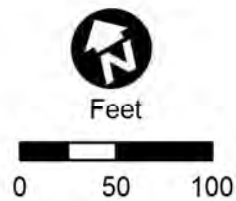


35.7098
-109.552

35.7113
-109.555

Alternative B - Impacts to Waters of the US.				
Wash Name	Water of the US	Temporary (acre)	Permanent (acre)	TOTAL (acre)
Pueblo Colorado Wash (Wash 1)	Other Waters	0.021	0.030	0.051
	Wetlands	0.029	0.026	0.055
	TOTAL (acre)	0.050	0.056	0.106

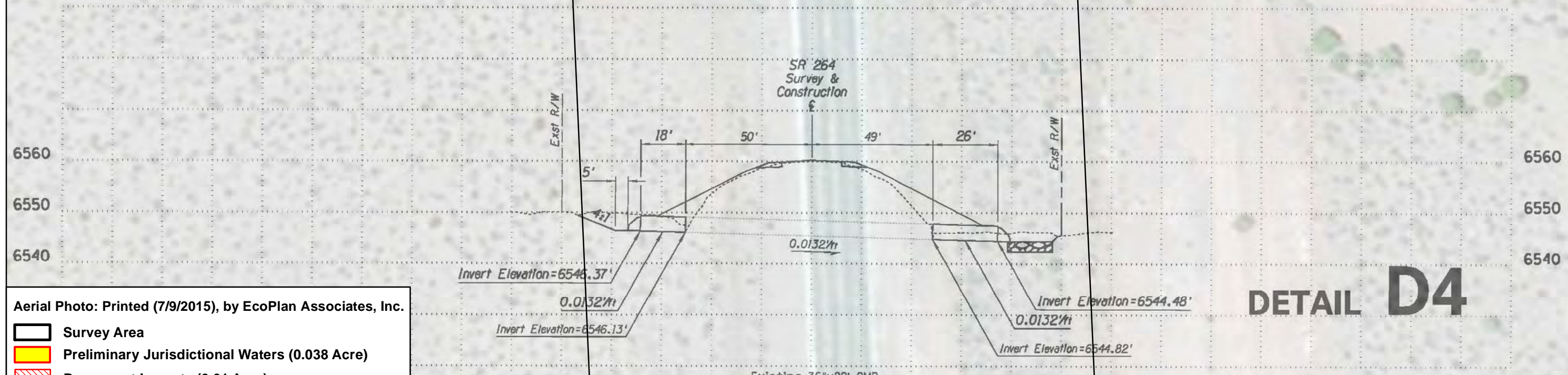
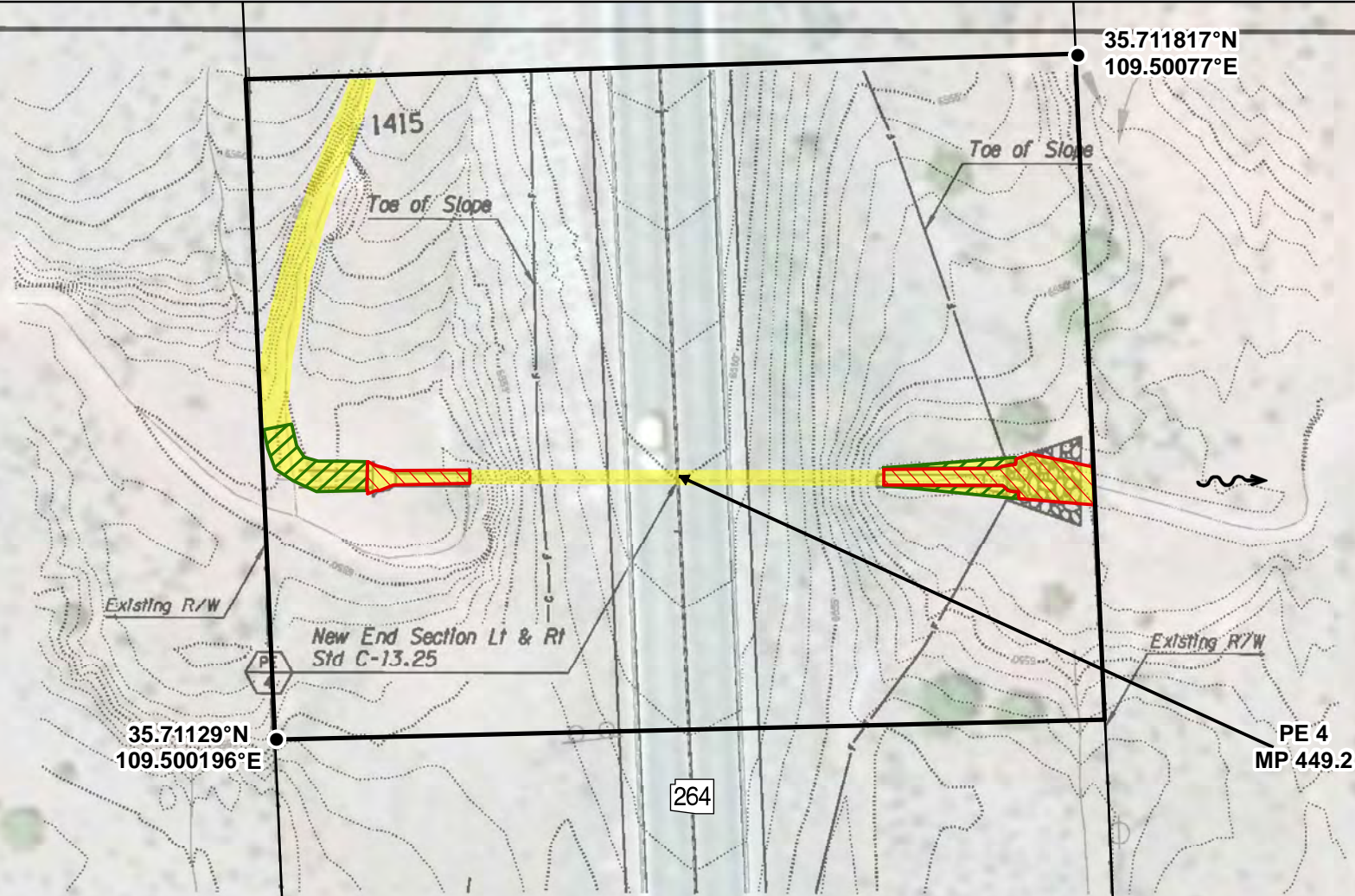
Sources: ADOT ATIS (2013); ESRI World Imagery (2013); AZTEC (2014). Corresponding USGS 7.5' Quadrangles: Ganado, AZ (1973).



- ADOT Easement
- Permanent Impact
- Avoidance Area
- Other Waters
- Design Files
- Temporary Impact
- OHWM
- Wetland
- Watercourse Number (Average Width of OHWM)
Arrow Indicates Flow Direction

Figure 7. Impacts to Waters of the US for Ganado Wash Bridge, Alternative B – 2-span Steel Structure

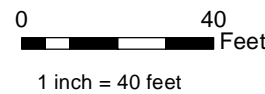
FEDERAL REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	264-AC2111T			
264 AP 441					



DETAIL D4

Aerial Photo: Printed (7/9/2015), by EcoPlan Associates, Inc.

- Survey Area
- Preliminary Jurisdictional Waters (0.038 Acre)
- Permanent Impacts (0.01 Acre)
- Temporary Impacts (0.007 Acre)



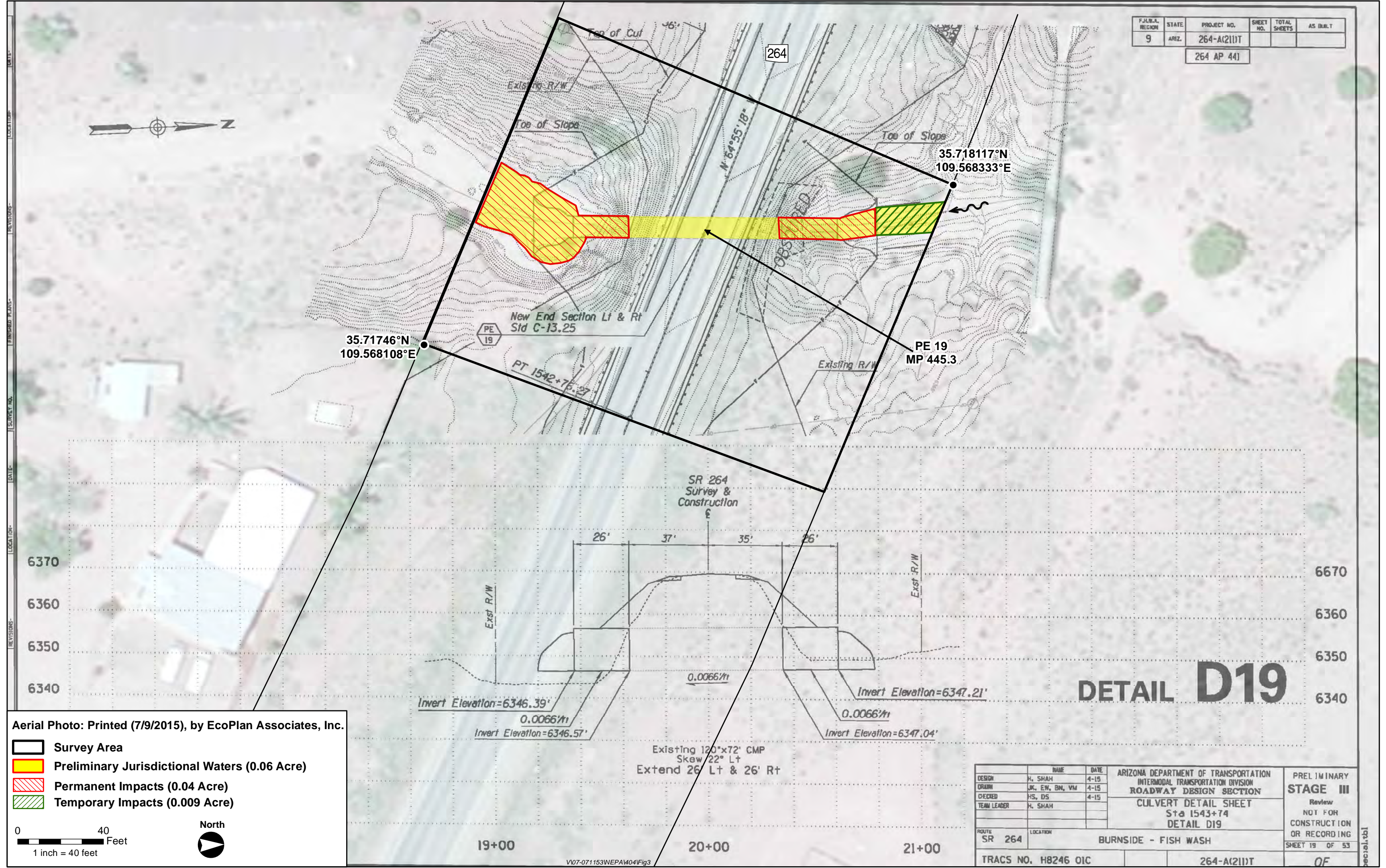
Existing 36"x99" CMP
Skew 2°50' Rt
Extend 18' Lt & 26' Rt

DESIGN	NAME	DATE
DESIGN	H. SHAH	4-15
DRAWN	JR, EW, BM, VM	4-15
CHECKED	HS, DS	4-15
TEAM LEADER	H. SHAH	

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
ROADWAY DESIGN SECTION
CULVERT DETAIL SHEET
Sta 1414+12
DETAIL D4

PRELIMINARY
STAGE III
Review
NOT FOR
CONSTRUCTION

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	264-A(2)11T			
264 AP 44)					

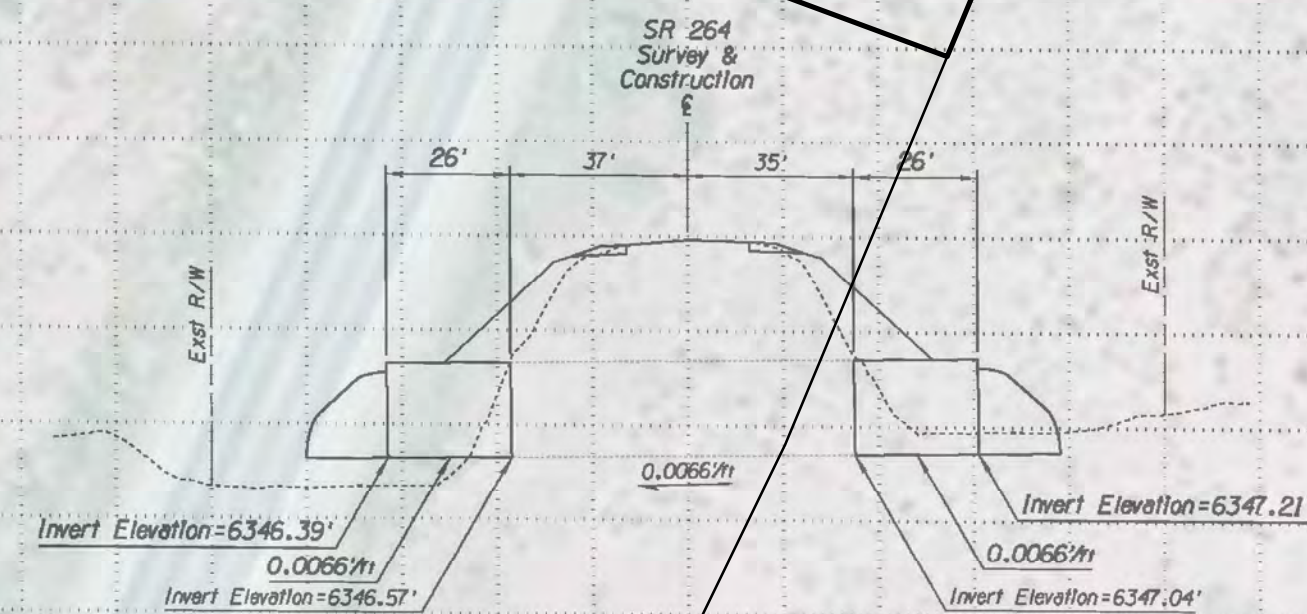


Aerial Photo: Printed (7/9/2015), by EcoPlan Associates, Inc.

- Survey Area
- Preliminary Jurisdictional Waters (0.06 Acre)
- Permanent Impacts (0.04 Acre)
- Temporary Impacts (0.009 Acre)

0 40
 1 inch = 40 feet

North



DETAIL D19

DESIGN	H. SHAH	4-15	ARIZONA DEPARTMENT OF TRANSPORTATION INTERMODAL TRANSPORTATION DIVISION ROADWAY DESIGN SECTION CULVERT DETAIL SHEET Sta 1543+74 DETAIL D19	PRELIMINARY STAGE III Review NOT FOR CONSTRUCTION OR RECORDING SHEET 19 OF 53
DRAWN	JK, EW, BN, VM	4-15		
CHECKED	HS, DS	4-15		
TEAM LEADER	H. SHAH			
ROUTE	SR 264	LOCATION	BURNSIDE - FISH WASH	
TRACS NO. H8246 OIC			264-A(2)11T	OF