



PUBLIC NOTICE

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

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**APPLICATION FOR PERMIT
I-17 New River Bridges**

Public Notice/Application No.: SPL-2015-00086-AP

Project: I-17 New River Bridges (Structures #1290 and #1291)

Comment Period: December 30, 2015 through January 28, 2016

Project Manager: Ann Palaruan; 602-230-6955; Cynthia.A.Palaruan@usace.army.mil

Applicant

Madhu Reddy
Arizona Department of Transportation (ADOT)
Phoenix District Engineer
2140 West Hilton Avenue
Phoenix, Arizona 85009

Contact

Joanie Cady
Arizona Department of Transportation (ADOT)
Environmental Planning Group
1611 W. Jackson St, MD EM02
Phoenix, Arizona 85007

Location

New River located near the community of New River, Maricopa County, AZ. The cadastral location includes a portion of Township 7 North, Range 2 East, Section 34 (Gila and Salt River Baseline and Meridian). The I-17 New River Bridges (Str 1290 & 1291) cross New River at 33.90577°N, -112.14617°W, NAD 83, Zone 12 North.

Activity

Install scour countermeasures for the I-17 Bridges over New River (Str 1290 & 1291) (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: ANN PALARUAN/CORPS FILE# SPL-2015-00086-AP
3636 N CENTRAL AVENUE, SUITE 900
PHOENIX, ARIZONA 85012-1939

Alternatively, comments can be sent electronically to: 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 this site is not listed. Concurrence for a “no historic properties affected” has been obtained from the Federal Highways Administration, Gila River Indian Community, Hopi Tribe, Tohono O’odham Nation, White Mountain Apache Tribe, and Arizona State Historic Preservation Office.

Endangered Species- Preliminary determinations indicate that the proposed activity would not affect federally-listed endangered or threatened species, or their critical habitat. Therefore, formal consultation under Section 7 of the Endangered Species Act does not appear to be 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 scour countermeasures at the New River bridges in order to protect the bridge piers and abutments from scour and erosion during storm flows, and to minimize future maintenance costs.

Additional Project Information

Baseline information- The I-17 New River bridges were built in 1968. The northbound and southbound bridges allow for safer highway travel on I-17 over the New River. In 1980, a riprap mattress with filter fabric was installed as a temporary scour countermeasure; and in 1981, the bridges were widened to their current width. The existing I-17 New River bridges are 9-span continuous reinforced concrete slab bridges that are both 346.73 feet in length and 45.17 feet in width. The foundation for each bridge consists of concrete walls on spread footings supporting the abutments and the eight piers. ADOT has identified that river material surrounding the New River bridges has been undermined as a result of periodic storm flows and the bridge abutments and pier footings have become susceptible to erosion and scour.

The New River bridges are located at the southern end of the New River Mountains in central Arizona, at approximately 1,975 feet in elevation. This area occurs within the Sonoran Desert Ecoregion, which has high summer temperatures, mild winters, and a characteristic bimodal rainfall pattern (Marshall et al. 2000). A major flood event occurred in the New River on August 19, 2014, which scoured nearly all of the vegetation within the river channel and redistributed the cobble and sediments in the riverbed.

The Clean Water Act (CWA) Section 404 jurisdictional area within the proposed project area consists of 3.967 acres of New River (see Figure 6). New River is an ephemeral stream that flows northeast to southwest through the project area (ADWR 2010). The project area is located within the New River sub-watershed (HUC 1507010208), within the Agua Fria Watershed (HUC 15070102), which is a part of the larger Lower Gila Watershed (HUC 1507) (USEPA 2013; USGS 2014). New River originates in the New River Mountains to the east of the project area, travels southwest through metropolitan Phoenix where it joins the Agua Fria River approximately 31 miles to the southwest of the project area. The Agua Fria River discharges into the Gila River, a CWA Section 404 Traditional Navigable Water from Powers Butte to Gillespie Dam. Powers Butte is approximately 65 river miles downstream of the project area. No special aquatic sites are present within the project area.

Portions of the project area are mapped by Federal Emergency Management Agency (FEMA) as a 100-year floodplain for New River (Figure 3; FEMA FIRM 04013C0370G). The project is within FEMA Flood Zone AE, indicating the project site is part of a flood zone which has base flood elevations determined.

The project area occurs within the Arizona Uplands subdivision of the Sonoran Desertscrub Biotic Community, which is characterized by high temperatures, generally low precipitation, and an assemblage of vegetation and wildlife species that is specifically adapted to these conditions (Turner and Brown 1994). Prior to the aforementioned flood event, there was a low to moderate density of xeroriparian vegetation in the river channel, consisting primarily of singlewhorl burrobrush, desert broom, sweetbush (*Bebbia juncea*), coyote willow (*Salix exigua*), and salt cedar (*Tamarix* sp.). Following the flood, a few salt cedar, burrobrush, and desert broom saplings were the only plants remaining within the project limits underneath the bridges. Vegetation in upland areas in the vicinity of the New River bridges is dominated by velvet mesquite, foothills and blue paloverdes (*Parkinsonia microphylla* and *P. florida*), catclaw acacia (*Acacia greggii*), desert broom (*Baccharis sarothroides*), triangle-leaf bursage (*Ambrosia deltoidea*), brittlebush (*Encelia farinosa*), and numerous saguaro cacti (*Carnegiea gigantea*). Several noxious and invasive weeds species were observed in the I-17 median and roadside to the north and south of the New River crossing, including buffelgrass (*Pennisetum ciliare*), Russian thistle (*Salsola tragus*), and Bermudagrass (*Cynodon dactylon*).

The bottom of the New River channel is a matrix of sandy and gravelly loams intermixed with surface cobbles of various sizes. Soils within the project limits are thermic semiarid soils of the Lithic Torriothents-Lithic Haplustolls-Rock Outcrop Association, which consist of well-drained, shallow soils and rock outcrop on semi-arid, mid-elevation-elevation hills and mountains (Hendricks 1985). No hydric soils are located within the project area (USDA 2015).

There are no designated or proposed critical habitat within the project limits. Wildlife observed in the project area includes turkey vulture (*Cathartes aura*), Abert's towhees (*Melospiza aberti*), curve-billed thrashers (*Toxostoma curvirostre*), cactus wrens (*Campylorhynchus brunneicapillus*), and a phainopepla (*Phainopepla nitens*). Cliff swallow (*Petrochelidon pyrrhonota*) nests have been observed on the undersides of both of the New River bridges.

Project description- ADOT, in coordination with the Federal Highway Administration (FHWA), is planning to install scour countermeasures for the I-17 bridges over New River (ADOT Structures #1290 and #1291). The Clean Water Act (CWA) Section 404 jurisdictional area within the proposed project area consists of 3.967 acres in New River. Of this amount, ADOT's proposed scour countermeasures for the I-17 bridges (Str 1290 & 1291) will require approximately 0.767 permanent and 1.861 temporary acres of impact in New River. As part of the project, the CWA Section 404 jurisdictional area of New River that will not be permanently impacted will be recontoured to pre-construction grade conditions following the completion of construction, wherever practicable. Only the minimum area required for the scour protection proposed under this project will be impacted. See Figure 6 for further details. The project would include the following:

- Remove soil and vegetation underneath the bridges
- Remove riprap mattress around the piers
- Install a new 6-inch-deep concrete floor approximately 3 feet below the channel bed underneath each of the bridges that would extend from abutment to abutment and 10 feet upstream and downstream of the bridges
- Construct cutoff walls at both upstream (approximately 4 feet deep) and downstream (approximately 6 feet deep) ends of each of the concrete floors under the bridges
- Backfill excavated material over the new concrete floors
- Install 4-inch-thick shotcrete bank protection at the bridge abutments
- Construct a temporary access road between the I-17 frontage road and the river bed

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 and Minimization Information

It will not be practicable to avoid the Clean Water Act (CWA) Section 404 jurisdictional area of New River during project construction since engineering restraints require the proposed structures to be constructed within New River. Thus, New River occurring within the project area cannot be avoided. Complete avoidance of impacts to New River was determined to not be possible in achieving the project purpose; therefore, impacts to New River were minimized to the maximum extent practicable.

Permanent impacts have been minimized by reducing the size of the concrete scour aprons to the greatest extent practicable while still adequately protecting the piers and abutments from scour and erosion. Permanent impacts within New River will include only the minimum area and fill material required for the modifications. To avoid additional permanent impacts to New River, all areas of the channel bottom not permanently altered will be recontoured to pre-construction grade conditions following the completion of construction activities wherever practicable. In addition, although installation of a temporary access road will be required for project construction, the fill materials used will be removed from New River following completion of construction activities.

Activities associated with project activities will require the general site clearing of desert scrubland vegetation within New River and immediately adjacent uplands within the project area. Desert scrubland vegetation such as burrobrush (*Hymenoclea monogyra*), velvet mesquite (*Prosopis velutina*), desert broom (*Baccharis sarothroides*), and other varieties of shrubs and grasses may be removed throughout the project area. However, vegetation within the river is sparse so vegetation removal will be minimal and will be only the minimum amount necessary to provide an adequate work zone and construction access. Approximately 4 acres of vegetation may be removed within the project area, with up to 2.628 acres located in the sparsely vegetated New River; as a result of recent storm events, a majority of the river within the project site is absent of vegetation. Undeveloped upland areas within the project area that are disturbed during construction will be reseeded with a native seed mix and allowed to naturally 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 will be minor, during and after construction of the proposed project.

Compensatory Mitigation

The proposed action will result in approximately 0.767 acres of permanent impact to New River within the project area, which is located in the Lower Gila Watershed (USGS 2014). A D O T proposes compensatory mitigation for the unavoidable impact to New River through contribution to an in-lieu fee program at a ratio of 1:1. 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 Ann Palaruan of my staff at 602-230-6955 or via e-mail at 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, ARIZONA 85012-1939

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

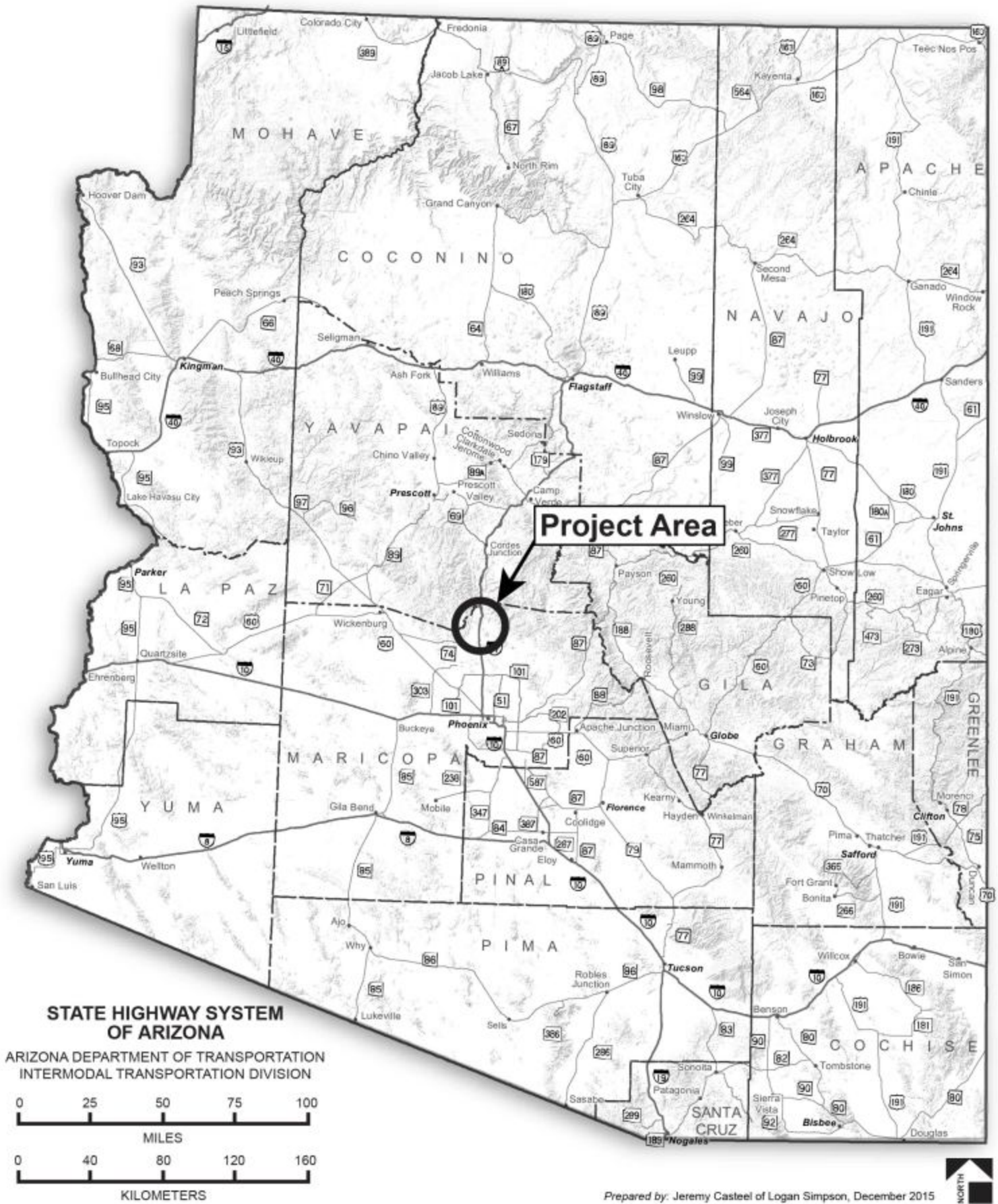
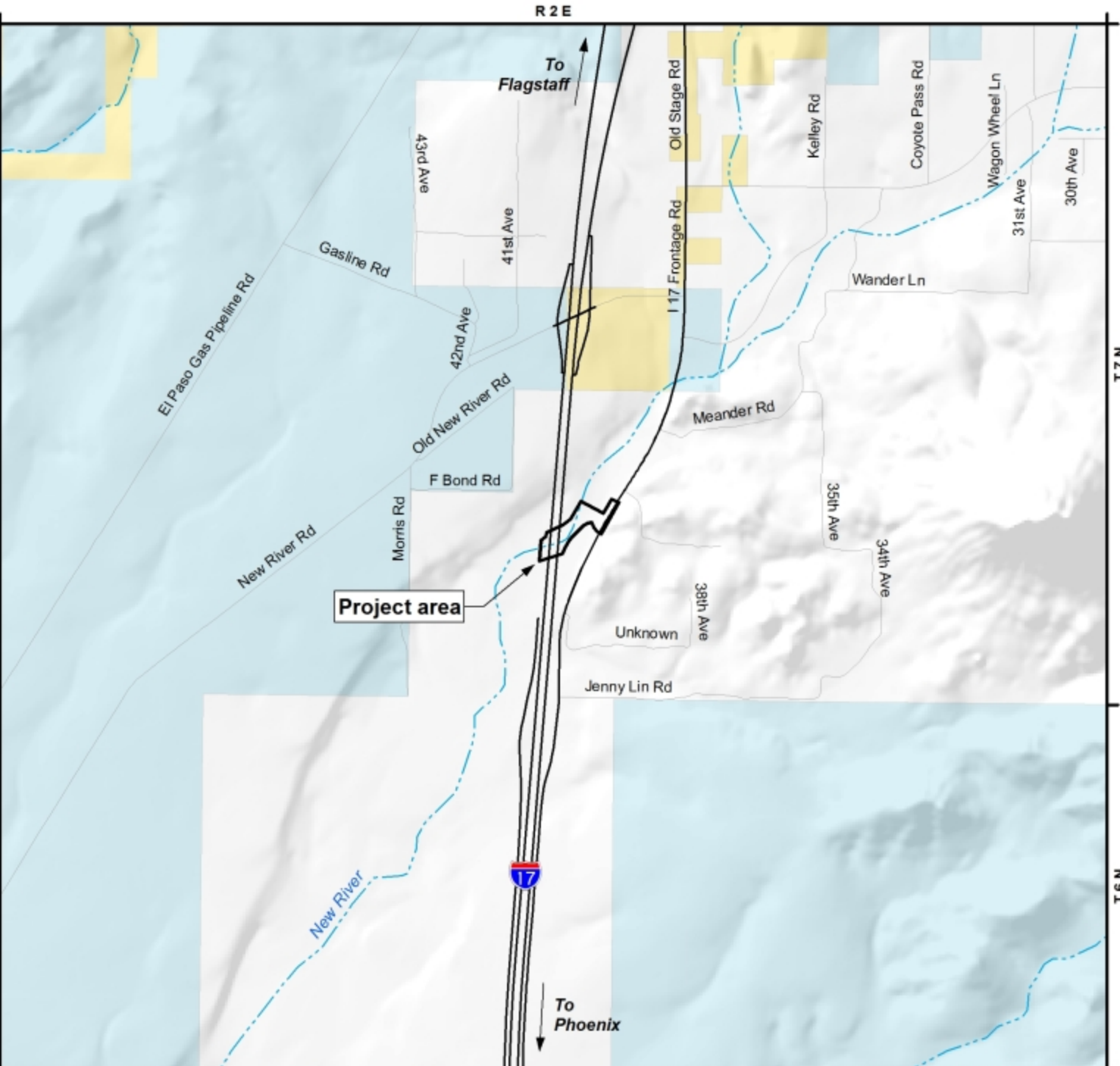


Figure 1. State Location Map



Source: Land Ownership GIS Coverage provided by Arizona State Land Department (2012); Arizona Transportation Information System GIS Coverage (2013)

Prepared by: Jeremy Casteel of Logan Simpson, December 2015

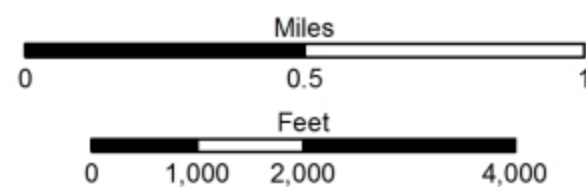
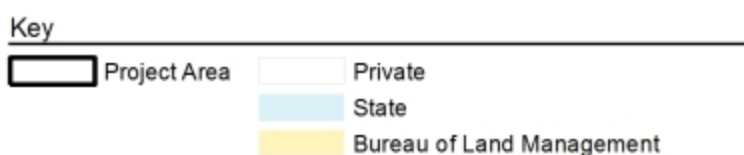
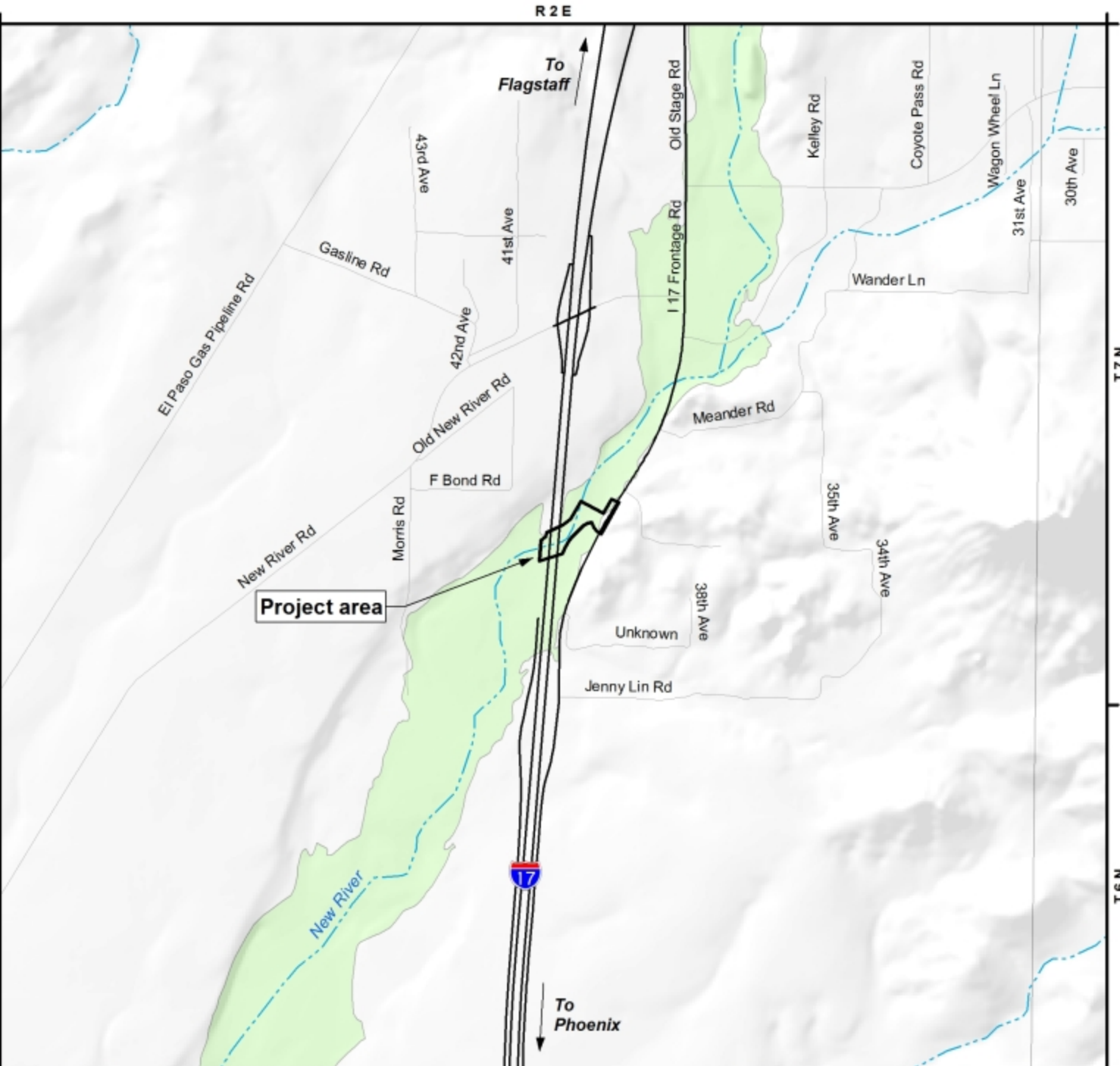


Figure 2. Project Vicinity Map



Source: FEMA Q3 Flood Data

Prepared by: Jeremy Casteel of Logan Simpson, December 2015

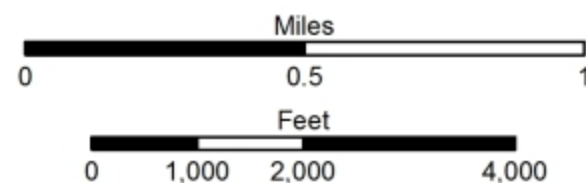
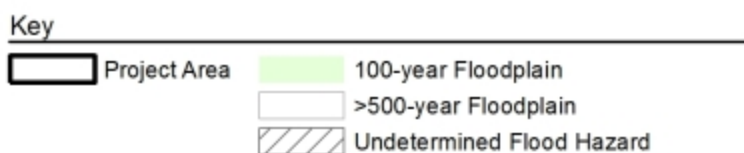
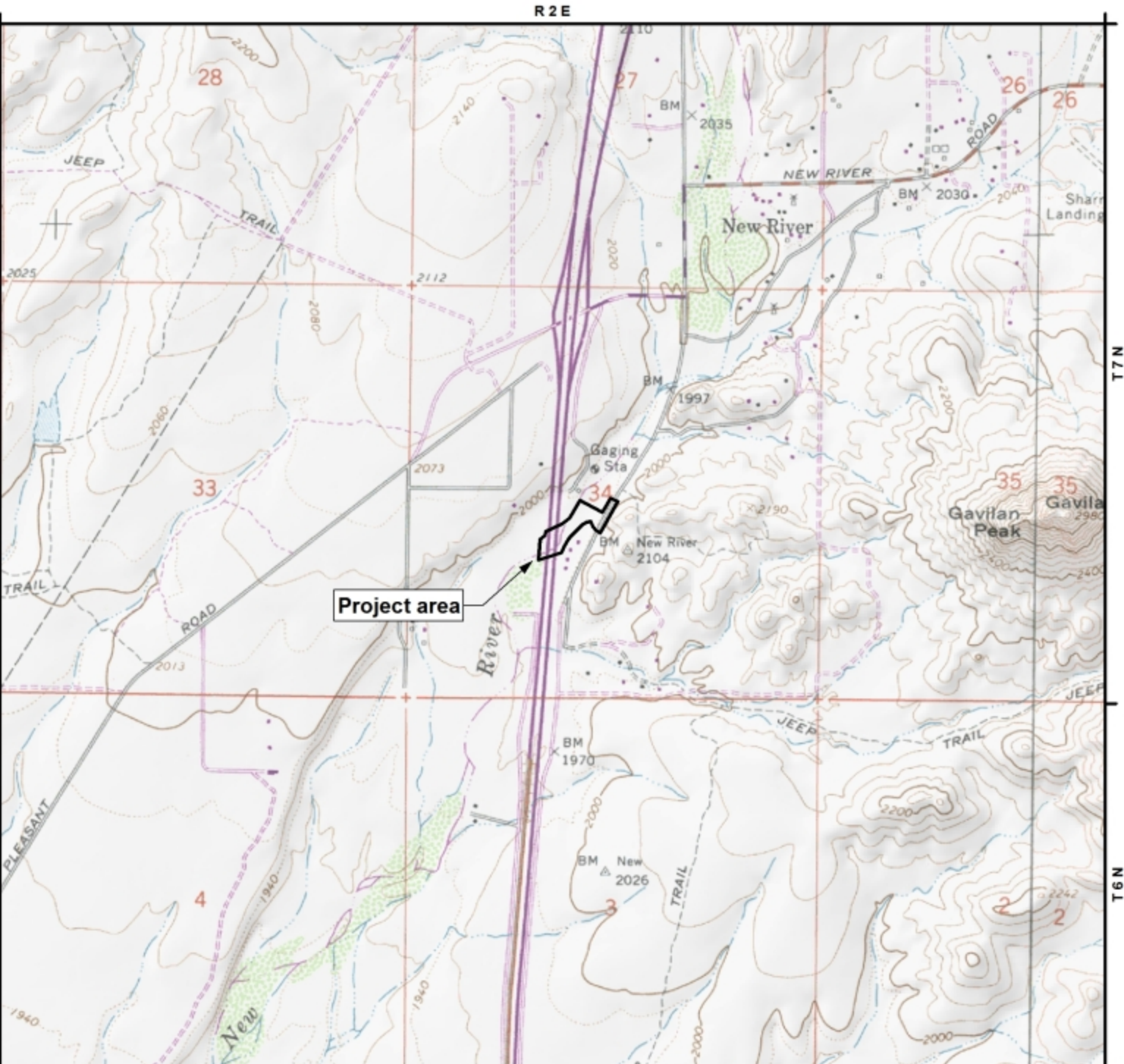



Figure 3. Floodplain Illustration



Source: USGS 7.5' Quadrangles: New River, Ariz. (1964, 1981); Daisy Mountain, Ariz. (1964)

Prepared by: Jeremy Casteel of Logan Simpson, December 2015

Key

 Project area

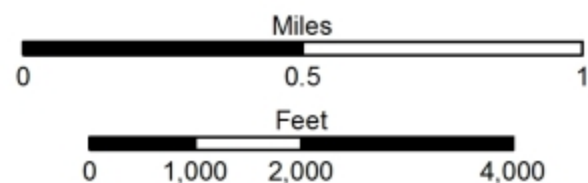



Figure 4. Topographic Map



Key

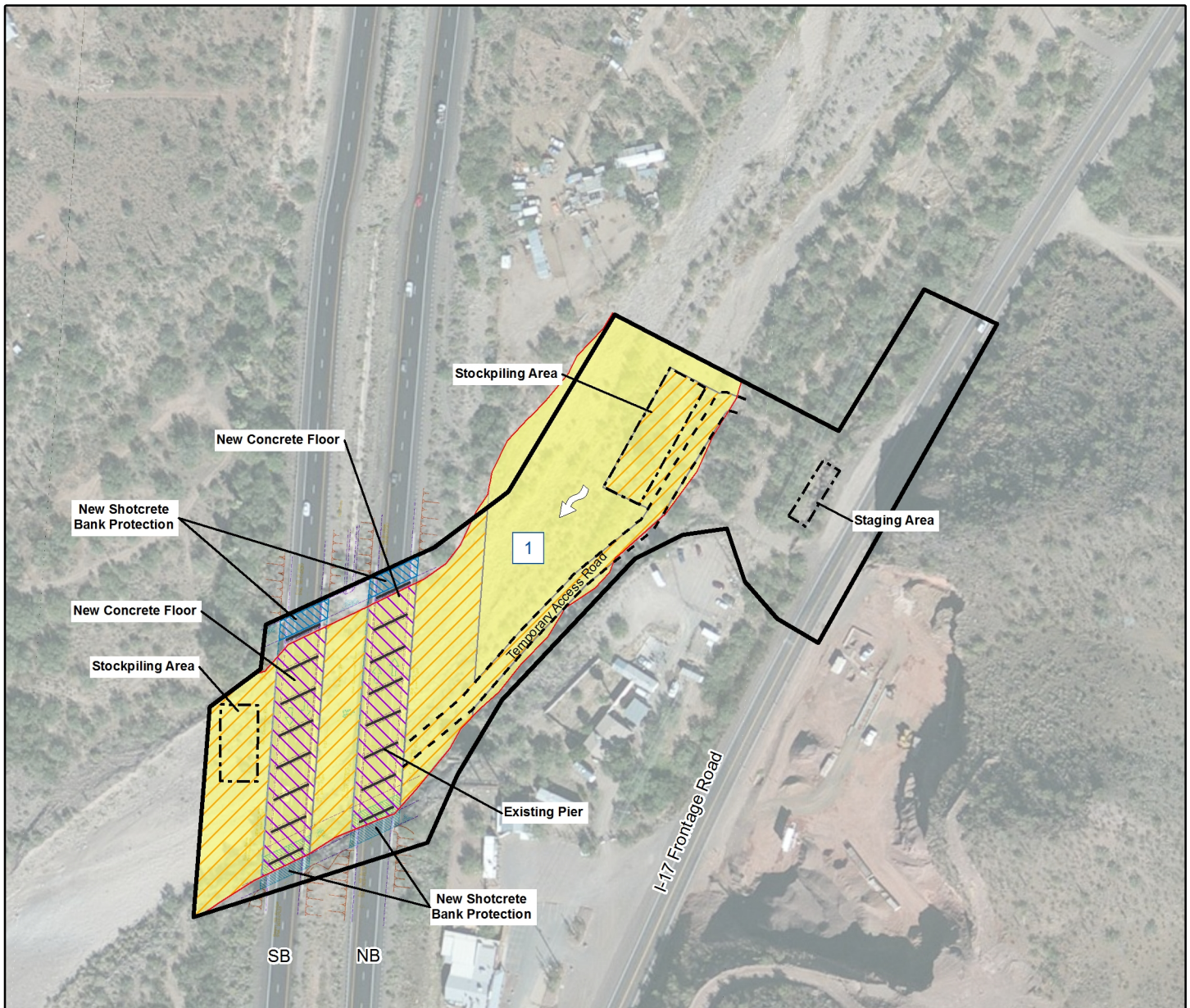
 Project area

Feet

0 200 400



Figure 5. Project Area Map

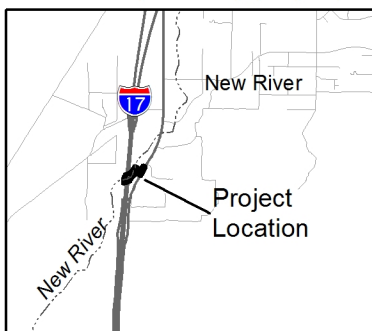


Key

#	Wash Number		Waters of the United States in Project Area (3.967 acres)
	Project Area		Temporary Impacts to Waters of the United States (1.861 acres)
			Permanent Impacts to Waters of the United States (0.767 acres)

Aerial Date: 6/4/13
Source: National Agriculture Imagery Program (NAIP)

Prepared by: Jeremy Casteel of Logan Simpson, December 2015



Section 404 Individual Permit
New River Bridges, Str #1290 & 1291
017 MA 231 H8268 01C
Federal Aid No: 017-A(226)T

Source: USGS 7.5' Quadrangles
New River, Ariz. (1964, 1981);
T7N, R2E, Sec 34;
UTM 1983 Zone 12S
394090.64mE, 3752247.64mN

Feet
0 100 200



December 2015

Figure 6