



PUBLIC NOTICE

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

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APPLICATION FOR PERMIT

Pantano Wash Bank Protection and River Park
Phase 3: Tanque Verde Road to Fort Lowell Park

Public Notice/Application No.: SPL-2013-00211-KWG

Project: Pantano Wash Bank Protection and River Park Phase 3: Tanque Verde Road to Fort Lowell Park

Comment Period: April 28, 2015 through May 27, 2015

Project Manager: Kevin Grove; 602-230-6957; Kevin.W.Grove@usace.army.mil

Applicant

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Pima County Regional Flood Control District
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Tucson, Arizona 85701

Contact

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97 N. Stone, Third Floor
Tucson, Arizona 85701

Location

Wash 1- Pantano Wash, within the city limits of Tucson, Pima, AZ. Section 31 of Township (T) 13 South (S), Range (R)15 East (E); Section 36 of T13S, R14E; and Section 6 of T14S, R15E, (Lat/Long: 32.254086° N/-110.861045° W)(See Figure 2 - Project Vicinity)

Activity

To construct armored bank (Soil Cement) flood protection, a channel grade control structure in Pantano Wash, and a multi-use pathway facility including a pedestrian bridge over Rose Hill Wash. The project proposes to impact to 6.88 acres of ephemeral waters of the US (Waters) (1.30 acres of permanent impacts/5.58 acres of temporary impacts) (Figures 4 - 8). 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: Kevin W. Grove
3636 N CENTRAL AVE SUITE 900
PHOENIX AZ 85012-1939

Alternatively, comments can be sent electronically to: Kevin.W.Grove@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 to provide proof of water quality certification to the Corps of Engineers prior to permit issuance.

Coastal Zone Management- Not applicable within the State of Arizona.

Essential Fish Habitat- No Essential Fish Habitat (EFH), as defined by the Magnuson-Stevens Fishery Conservation and Management Act, occurs within the project area and no EFH is affected by the proposed project.

Cultural Resources- The latest version of the National Register of Historic Places has been consulted and this site is not listed. This review constitutes the extent of cultural resources investigations by the District Engineer, and he is otherwise unaware of the presence of such resources.

Endangered Species- Preliminary determinations indicate that no federally-listed endangered or threatened species, or listed critical habitat occur within the project area, therefore, the Corps has determined the proposed activity would have 'no effect' to any federally listed species. Consultation under Section 7 of the Endangered Species Act is unwarranted 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). The basic project purposes for the proposed project are recreation and flood risk management. 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 provide an appropriate level of flood protection for at-risk areas adjacent to the river, to stabilize Pantano Wash channel, and to construct/enhance existing recreational facilities in the area.

Additional Project Information

Baseline information-The proposed work begins approximately 650 feet downstream of the Tanque Verde Road bridge over Pantano Wash and extends westerly down Pantano Wash past Ft Lowell Park to Ft Lowell Road. The project area can be accessed from the intersection of Glenn Street and Sahuara Avenue, which is also the location of the proposed recreational staging area.

Flows in Pantano Wash and Rose Hill Wash are ephemeral and seasonal. Seasonal flows vary in duration from a few hours to storm flows and floods that can last up to several weeks. Pantano Wash begins as Cienega Creek, with its headwaters in the Santa Rita, Whetstone, and Empire mountains southeast of Tucson, and becomes Pantano Wash as it enters the Tucson Basin. Approximately 0.7 mile north of the downstream project limit, Pantano Wash joins Tanque Verde Wash to form the Rillito River, a tributary of the Santa Cruz River. Rose Hill Wash enters Pantano Wash south of Glenn Street. In the project area Rose Hill Wash is channelized, with bed and banks lined with concrete, except for approximately 130 feet before its confluence with Pantano Wash.

Previous activities for Phase 1 and Phase 2 of Pantano Wash bank stabilization, conducted between Speedway Boulevard and Tanque Verde Road, included 9,235 linear feet of soil cement bank protection, grade control structures, ramps, and linear park features. Both phases were authorized under SPL-2008-01108-MB. Lands within the project area are primarily publically owned by the City of Tucson and Pima County.

Existing biological resources final report: Pantano Wash Phases 3 and 4- Pantano Bank Protection and River Phase 3 (Tanque Verde to Glenn) and Phase 4 - (Glenn to Craycroft) (RECON, Oct. 2013) describes project area existing conditions and vegetation in detail. Cover types include Sonoran Interior Strand, Mesquite Woodland, Unvegetated Channel Bottom, Sonoran Riparian Scrub, Sonoran Desertscrub, and Disturbed/Developed.

In the project area, the west bank of Pantano Wash has a mix of development types, including a Costco store and parking lot, other businesses, and apartment complexes, townhouses, and single-family homes. The east bank features single-family homes on relatively large lots. Pantano Wash and its banks are used by local residents for recreational purposes, including walking and horseback riding, with access from Fort Lowell Park on the west bank and an access ramp on the east bank downstream of the Tanque Verde Road bridge.

The project would impact approximately 6.88 acres of waters, of which 1.30 acres of impact would be permanent and 5.58 acres would be temporary (Figures 4–8). Temporary disturbances to waters would last no longer than 6 months. Construction equipment would include front-end loaders, excavators, graders, cement mixers, dump trucks, and similar conventional heavy construction equipment. All material required for backfill and soil cement production would be obtained from the project area.

Project description-

The total length of the project is approximately 1.3 miles. The project scope of work, as shown on the enclosed construction plan sheets and Figures 4–8, consists of the following features:

- 8,350 linear feet of soil cement bank protection along Pantano Wash
- Maintenance and public access ramps
- Channel excavation and grading
- Grade control structure across Pantano Wash
- 10,097 linear feet of 16-foot-wide paved pathways along Pantano Wash
- 10,630 linear feet of 4- to-8-foot-wide decomposed granite pathways along Pantano Wash
- 4-foot-wide natural surface, at-grade trail across Pantano Wash
- Decomposed granite pathway connections to Fort Lowell Park and Camino Principal
- Prefabricated steel truss pedestrian bridge across Rose Hill Wash
- Extension of the existing concrete channel bed lining of Rose Hill Wash and construction of a cutoff wall
- Recreational staging area and two recreational nodes on the west bank of Pantano Wash
- Demolitions and removals
- Landscaping with native plants
- Water harvesting basins
- Habitat rubble piles
- Catch basins, scuppers, new culverts, and extensions of existing culverts to convey runoff through the bank protection
- Interpretive signage and public art

The top of the soil cement bank protection would be a minimum of 1 foot above the calculated 100-year water surface elevation. The depth from the finished flowline to the toe of the soil cement would be a minimum of 8 feet. Ramps would be constructed along the face of the soil cement to allow Pima County Regional Flood Control District staff to inspect and maintain the bank protection and to allow equestrian users to access the channel bottom from the top of the banks.

All material for the embankment and general backfill as well as for soil cement production would be excavated from the channel bed of Pantano Wash in the project area. To preclude adverse hydraulic impacts from excessive excavation, no material would be excavated from below the current channel thalweg. Salvaged riprap and demolished soil cement may be used as general backfill; however, such material would not be used within the top 3 feet of backfill. All construction debris, rubble, and other materials that are not recycled on the project, sent to a recycling facility, or taken by the contractor would be disposed of by the contractor at a licensed and approved facility.

A concrete grade control structure would be installed across Pantano Wash near the north end of Wilmot Road, where the channel abruptly transitions from a relatively narrow incised channel to a broader and shallower floodplain. The new grade control structure would extend 18 feet below the ground surface to provide protection against local, single-event drop scour and anticipated long-term channel degradation.

At Rose Hill Wash, the unlined channel in the project area at its confluence with Pantano Wash would be lined with concrete for protection against channel erosion. The pedestrian bridge would allow pathway users to cross over the incised channel of Rose Hill Wash.

The primary recreational staging area would be on the west bank of Pantano Wash, near the corner of Glenn Street and Sahuara Avenue. This area would include paved parking spaces that comply with Americans with Disabilities Act accessibility standards and four equestrian trailer parking spaces, extensive native landscaping, and a seating area for park users. No restrooms or ramadas would be provided. Secondary points of access and recreational nodes would be at Fort Lowell Park and on the west bank of Pantano Wash at Grant Road, between Wilmot Road and Tanque Verde Road, behind the Costco store parking lot. The Fort Lowell area would include a concrete plaza with adobe seatwalls and interpretive signage with information on local history, biology, and cultural resources. A pathway would be constructed from the existing parking area to the river park pathways. The access point at Grant Road would be only for pedestrians and bicyclists.

A continuous 16-foot-wide multi-use pathway paved with asphaltic concrete is proposed for the west bank of Pantano Wash. Adjacent to the paved path and continuous along the project corridor would be an 8-foot-wide soft-surface pathway surfaced with decomposed granite. Where space is limited, the pathway would be adjacent to the paved path. Where more room is available, the decomposed granite path and the paved pathway would be separated. On the east bank, the paved pathway also would be 16 feet wide, but the decomposed granite pathway would be 4 feet wide.

A natural surface, at-grade trail approximately 4 feet wide would extend from the downstream end of the new east bank soil cement across Pantano Wash to Fort Lowell Park on the west bank. Because this trail would cross the channel, it would not be useable when water is flowing in the wash. Trail markers would delineate the trail alignment. The trail would allow park users on the east bank of the Pantano Wash River Park to continue beyond the end of the existing paved path, which currently ends north of Tanque Verde Road, and would provide a connection from the east bank to the proposed staging area and to Fort Lowell Park on the west bank.

Local flows from areas adjacent to the project have the potential to damage project features. To prevent such damage, these flows would be conveyed to Pantano Wash by adding extensions to existing culverts, new culverts, and new scuppers. None of this work would occur in waters of the United States (waters).

Construction haul road routes, including turnaround areas, are shown on Figures 4–8. The construction staging area, which would accommodate the soil cement production plant (batch plant) as well as some material stockpiles and construction equipment, would be on the west side of Pantano Wash, outside Waters, near the intersection of Glenn Street and Sahuara Avenue, in the area that would become the primary recreational staging area. To create the soil cement, trucks would transport material from the Pantano Wash channel (sand, gravel, clay, etc.) to one of the two potential stockpiling locations shown on Figures 4–6 (only one location would be used), where it would remain until it was moved to the batch plant for screening and processing. At the batch plant, the material that passed through a screen of the appropriate size would be mixed with Portland cement and water to become soil cement. Trucks would transport the soil cement from the batch plant to the location on the project site where it is to be used. Material that does not meet specifications for soil cement use would be used as backfill or for other project purposes.

The limits of allowed construction disturbance, shown on Figures 4–8, would be clearly marked to minimize impacts outside the construction zone. Vegetation to be cleared would be verified to be free of any nesting migratory birds, as required by the Migratory Bird Treaty Act. All areas temporarily disturbed by construction activities would be hydroseeded with a local native species plant mix. Additional habitat enhancement features include water harvesting basins; rubble piles of boulders,

rock, and broken concrete to attract native reptiles; plantings of local native species of trees and shrubs; and additional hydroseeding with local native species of subshrubs, perennials, annual herbs, and grasses.

Access for emergency vehicles and maintenance vehicles would be included in the project. The paved pathway would serve as the principal route through the site for emergency vehicles. Gates or removable bollards would be provided where the path intersects adjacent public streets to prevent private vehicles from entering the site while accommodating occasional access by emergency vehicles. Maintenance vehicles, up to and including pickup trucks, would move along the corridor in a manner similar to emergency vehicles. There would be an occasional need for large trucks, loaders, and similar construction equipment to enter Pantano Wash channel to perform maintenance tasks. Similarly, equestrians need to be able to enter and exit the channel. To address these needs, two soil cement ramps would be constructed at each end of the grade control structure, approximately 2,800 feet downstream of the Tanque Verde Road Bridge. A third soil cement ramp would be constructed adjacent to the staging area at Glenn Street and Sahuara Avenue. Access to these ramps would be from the paved pathways. These ramps would complement existing ramps in the vicinity of Tanque Verde Road. The soil cement ramps would also provide escape routes for pedestrians and equestrians who might be in the channel when storm events cause water flows in Pantano Wash.

The proposed activities would result in 5.58 acres of temporary impacts and 1.3 acres of permanent impacts to Waters in two watercourses as indicated in Table 2.

Table 2: Summary of Impacts to Waters of the US

Summary of Impacts to Waters			
Drainage Name	Total Impact to Waters (acres)	Permanent Impacts (acres)	Temporary Impacts (acres)
Pantano Wash	6.81	1.25	5.56
Rose Hill Wash	0.07	0.05	0.02
Total	6.88	1.30	5.58

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: Impacts to Waters cannot be avoided completely because off-site alternatives outside of the Pantano River corridor are not practicable because they do not meet the project purpose to provide flood protection and connections to existing recreational linear pathways and because the available area adjacent to Pantano Wash is too narrow to construct the project along Pantano Wash without some encroachment into Waters. Impacts to Rose Hill Wash from the proposed pedestrian bridge have been avoided by using a design that spans the crossing.

Minimization: Encroachment into Waters has been minimized by a design that uses soil cement for bank protection and a 1:1 slope for the embankment. No stockpiles would be placed in Waters. Implementation of a Stormwater Pollution Prevention Plan would minimize the discharge of pollutants into Waters. The requested limits for temporary impacts in Waters would provide a reasonable, but not excessive, area for access to the construction area, haul roads and turnarounds for vehicles, and for the removal and transport of material needed for backfill and soil cement production. The contractor would be required to clearly mark the designated construction disturbance limits before

beginning any activities in the channel. The project area outside of river channel bottom will be stabilized to control erosion.

Compensation: If the Corps determines that compensatory mitigation is required for the adverse permanent project impacts to Waters (1.30 acres), the Pima County Regional Flood Control District intends to provide that compensation through payment of an appropriate in-lieu fee to a recipient that has been approved by the Corps.

Proposed Special Conditions

Special conditions for the project will be developed.

For additional information please call Kevin Grove of my staff at 602-230-6957 or via e-mail at Kevin.W.Grove@usace.army.mil. This public notice is issued by the Chief, Regulatory Division.

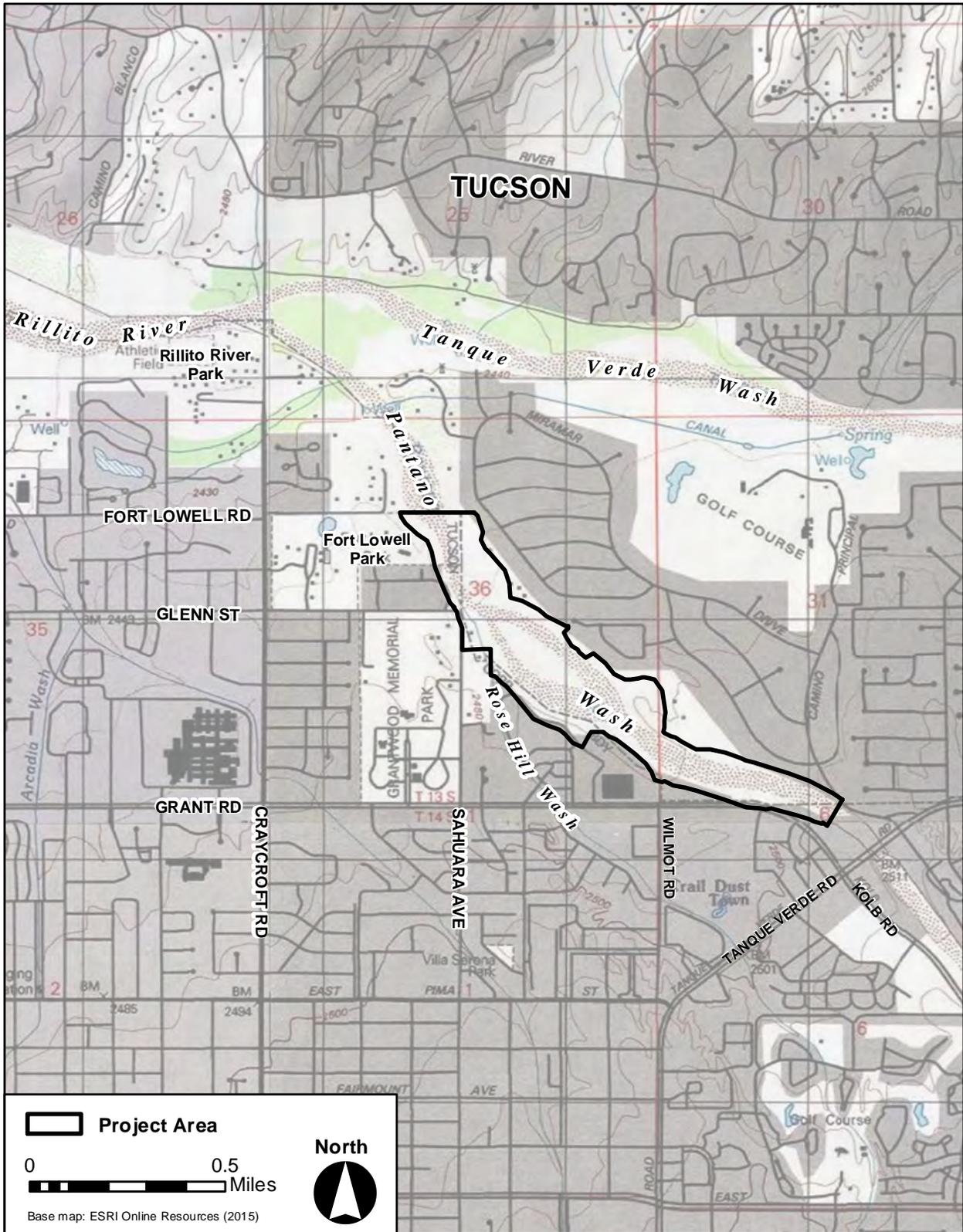


Regulatory Program Goals:

- 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
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PCRFGD No. 5PWFLT
Pantano Wash Bank Protection and River Park Phase 3:
Tanque Verde Road to Fort Lowell Park

Figure 2. Project vicinity

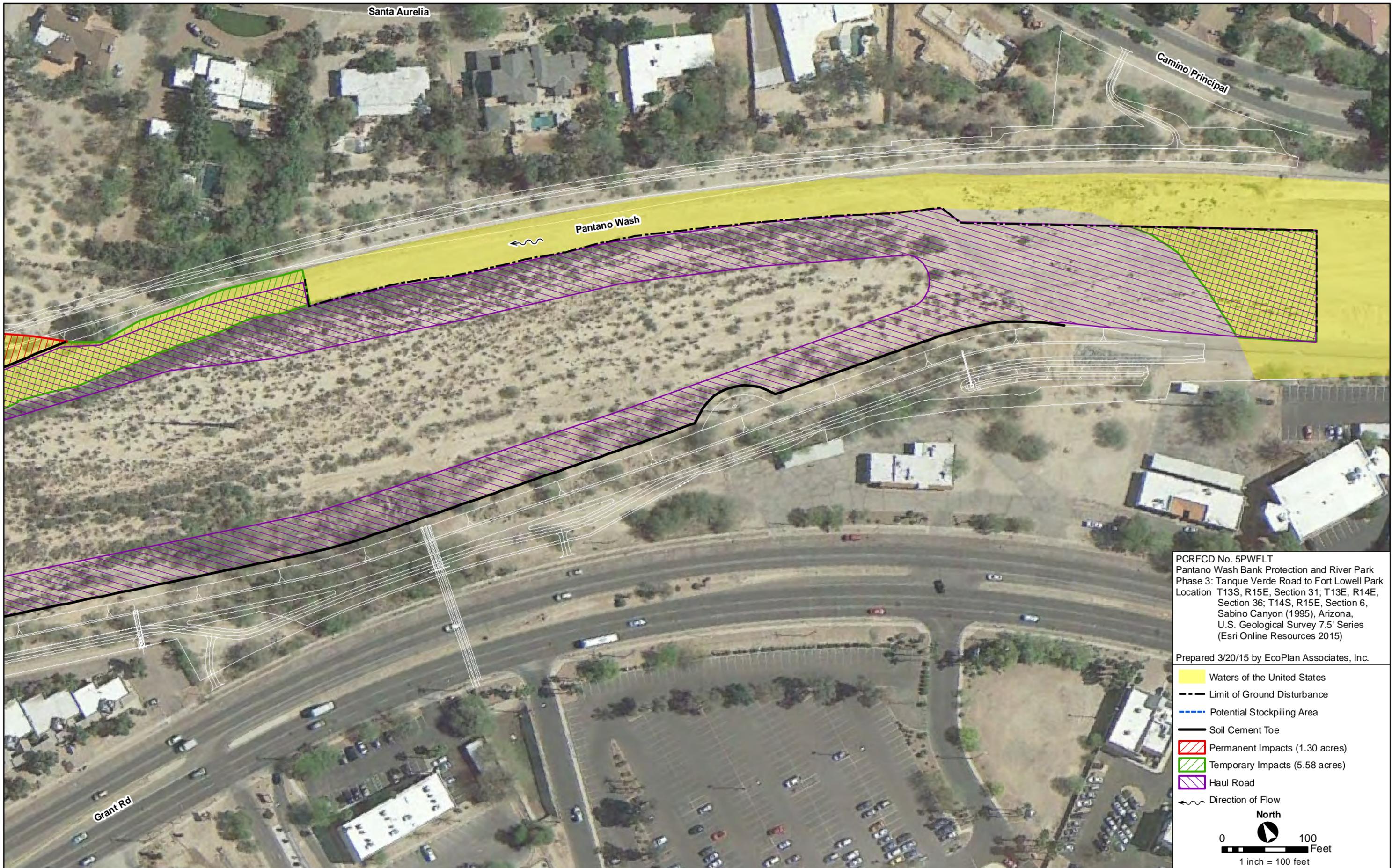
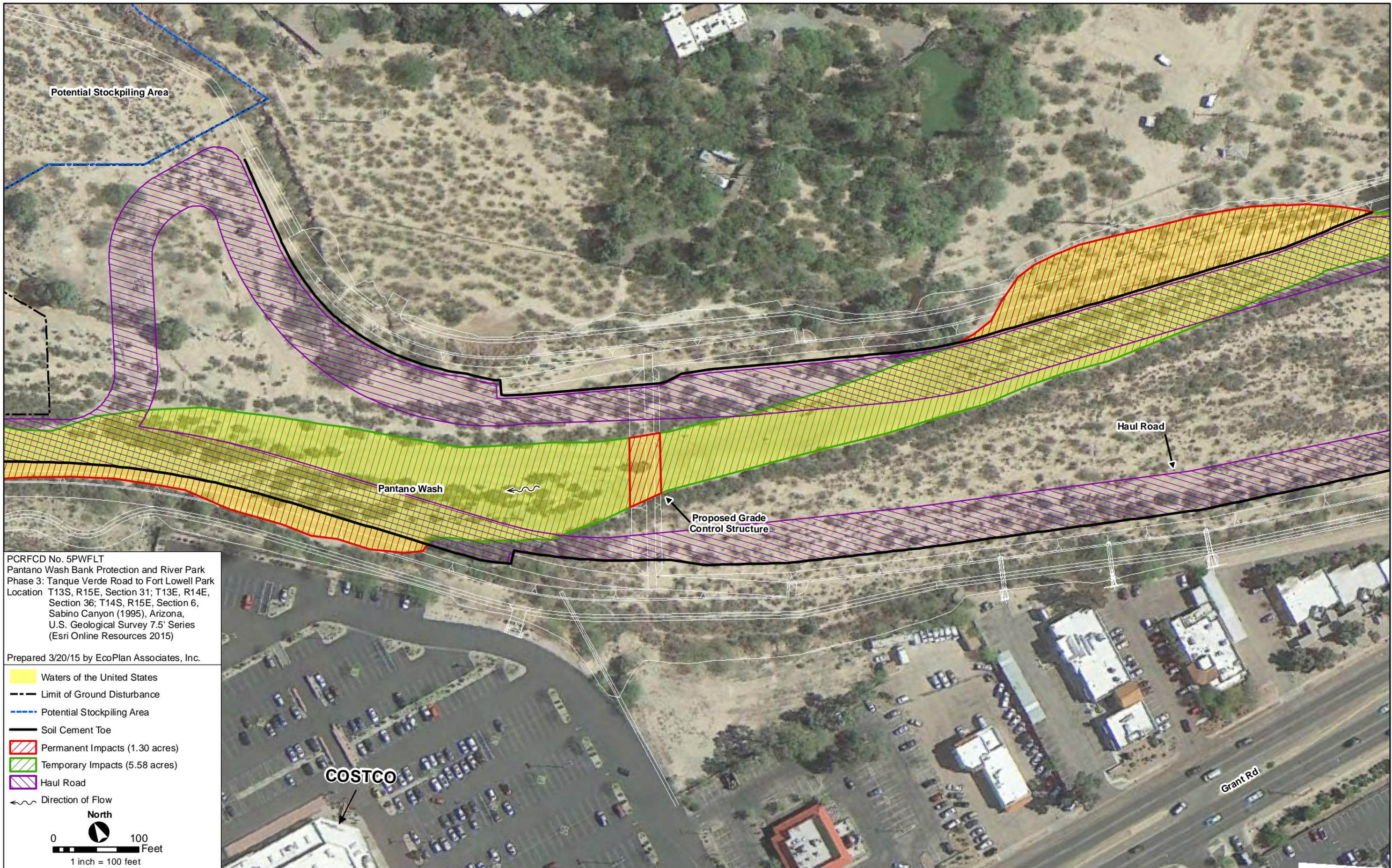


Figure 8. Permanent and temporary impacts to Waters of the United States at Pantano Wash, near Grant Road and Camino Principal



PCRFCD No. 5PWFLT
 Pantano Wash Bank Protection and River Park
 Phase 3: Tanque Verde Road to Fort Lowell Park
 Location T13S, R15E, Section 31; T13E, R14E,
 Section 36; T14S, R15E, Section 6,
 Sabino Canyon (1995), Arizona,
 U.S. Geological Survey 7.5' Series
 (Esri Online Resources 2015)

Prepared 3/20/15 by EcoPlan Associates, Inc.

- Waters of the United States
- Limit of Ground Disturbance
- Potential Stockpiling Area
- Soil Cement Toe
- Permanent Impacts (1.30 acres)
- Temporary Impacts (5.58 acres)
- Haul Road
- Direction of Flow

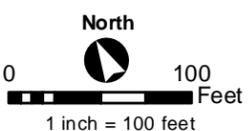


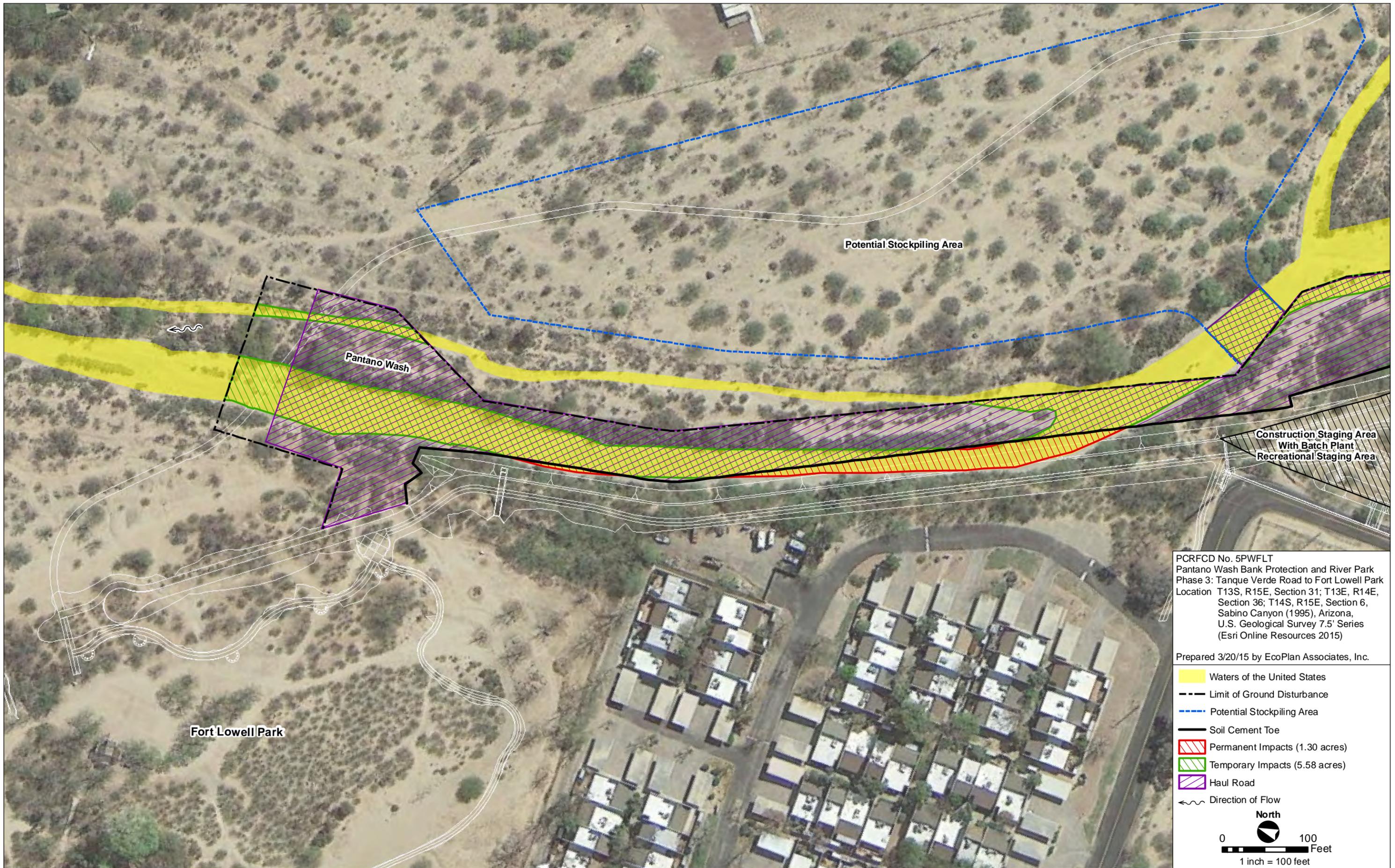
Figure 7. Permanent and temporary impacts to Waters of the United States at Pantano Wash, near Costco and Grant Road



Figure 6. Permanent and temporary impacts to Waters of the United States at Pantano Wash, near Old Farm Apartments and Costco



Figure 5. Permanent and temporary impacts to Waters of the United States at Pantano Wash and Rose Hill Wash, near Sahuara Avenue and the proposed recreational staging area



PCRFCD No. 5PWFLT
 Pantano Wash Bank Protection and River Park
 Phase 3: Tanque Verde Road to Fort Lowell Park
 Location T13S, R15E, Section 31; T13E, R14E,
 Section 36; T14S, R15E, Section 6,
 Sabino Canyon (1995), Arizona,
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 (Esri Online Resources 2015)

Prepared 3/20/15 by EcoPlan Associates, Inc.

- Waters of the United States
 - Limit of Ground Disturbance
 - Potential Stockpiling Area
 - Soil Cement Toe
 - Permanent Impacts (1.30 acres)
 - Temporary Impacts (5.58 acres)
 - Haul Road
 - Direction of Flow
- North**
- 0 100
 Feet
- 1 inch = 100 feet

Figure 4. Permanent and temporary impacts to Waters of the United States at Pantano Wash, Fort Lowell Park to Sahuara Avenue



Figure 3. Key to Figures 4-8