



PUBLIC NOTICE

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

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**APPLICATION FOR PERMIT
U.S. Highway 93, Carrow to Stephens**

Public Notice/Application No.: SPL-2014-00259-JMR

Project: US 93, Carrow to Stephens (Tracs 093 MO 115 H8232 01C)

Comment Period: December 11th, 2017 through January 11th, 2018

Project Manager: Jesse Rice; (602) 230-6854; Jesse.M.Rice@usace.army.mil

Applicant

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Contact

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Location

The project is located on U.S. Highway 93 between milepost (MP) 116.10 and MP 119.50 near the community of Wikieup, Mohave County, AZ (decimal degrees: 34.786351, -113.623802). The cadastral location for the project area is:

- Township 17 North, Range 13 West, portions of Sections 26 and 35;
- Township 16.5 North, Range 13 West, portions of Sections 21, 28, and 33; and
- Township 16 North, Range 13 West, portions of Sections 3 and 4.

Activity

The Arizona Department of Transportation (ADOT) is proposing to complete Phase 9 of the U.S. Highway 93, Wikieup to Interstate 40 roadway improvement project. ADOT is proposing to construct a divided four-lane highway that would replace some sections of the existing US 93 alignment and result in new alignments in other sections. The project would connect two previously constructed four-lane sections of U.S. Highway 93 (see attached drawings). For more information see Additional Project 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 drawings. 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: Jesse Rice
3636 North Central Avenue Suite 900
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Alternatively, comments can be sent electronically to: Jesse.M.Rice@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 (WUS). 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.

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- Sites which are may be eligible for inclusion on the National Register of Historic Places have been identified may be adversely impacted by the project. The Federal Highway Administration (FHWA) has developed a programmatic agreement (PA) in order to comply with the requirements of Section 106 of the National Historic Preservation Act. The Corps is a signatory to the PA, which designates FHWA as lead federal agency for compliance under the Act.

Endangered Species- Preliminary determinations indicate 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). The basic project purpose for the proposed project is transportation. The project is not water dependent. No fills are proposed within special aquatic sites.

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 the operational characteristics of US 93, which is a primary highway that links Phoenix to northwest Arizona and beyond to Las Vegas, Nevada, and to increase the traffic capacity along US 93 to meet projected future traffic volumes along this regional highway.

Additional Project Information

Baseline information- The US 93 corridor spans approximately 161 miles in western and northwestern Arizona. It originates in Wickenburg, Arizona and provides a primary link to northwestern portions of the state including Kingman and I-40, and beyond to Las Vegas, Nevada and ultimately Canada. US 93 through the project limits is host to a corridor-wide study and improvement effort from Wickenburg to Kingman that was initiated with the completion of a study in 1992 which recommended capacity and design changes along the length of the corridor. The proposed project covers approximately 3.4 miles of US 93 which is defined as Implementation Segment 9 in the US 93 – Wikieup to Interstate 40. For the majority of the proposed project area, US 93 is a two-lane highway with minimal shoulder widths.

Hydrology: The Big Sandy River flows north to south along the entire length of the project limits. The river is located east of the US 93 alignment, and is the lowest elevation in the vicinity. Although reaches of the Big Sandy River are perennial, it is ephemeral along the entire length of the project limits. Likewise, all drainages within the project limits are ephemeral and flow toward the Big Sandy River. The nearest perennial reach of the Big Sandy River, is greater than 25 miles downstream (south) of the project limits. The Big Sandy River is a tributary to the Bill Williams River approximately 35 river miles downstream of the project limits, which empties to the Colorado River approximately 42 river miles from its confluence with the Big Sandy River.

Topography, Geology and Soils: The project area is in a relatively flat valley situated between the Hualapai Mountains to the west and the Aquarius Mountains to the east. Elevations within the project area range from 2,070 feet to 2,240 feet above sea level. Geologic formations in the project area are quaternary and early Pleistocene to late Pliocene alluvial surficial deposits (Ludington et al. 2005). Soils in the project area are primarily Thermic Semiarid soils of the Latene-Nickel-Pinaleno Association, which consists of deep, gravelly, limy, moderately coarse to moderately fine-textured soils on dissected alluvial fan surfaces. However, soils along the Big Sandy River are Thermic Arid soils of the Anthony-Vinton-Agua Association, consisting of well-drained, deep, medium to coarse-textured soils derived from granite and other rocks (Hendricks 1985). Substrate along the Big Sandy River is characterized by predominantly sand, as the name implies, that is unconsolidated resulting in frequent and often drastic changes in channel morphology and elevations after a flow event. Similarly, substrates along WUS throughout the project limits are primarily characterized by coarse to fine sand, though a few drainages have cobbles scattered amongst the sandy substrate.

Vegetation: Vegetation is typical of the Sonoran Desert uplands and is characterized by shrubs and sub-shrubs evenly distributed across an exposed gravelly landscape that largely lacks ground cover, with scattered shrubby trees throughout. Species found within project limits include shrubs such as creosote (*Larrea tridentata*), burrobrush (*Hymenoclea monogyra*), catclaw acacia (*Acacia greggii*), desert broom (*Baccharis sarothroides*), sweetbush (*Bebbia juncea*) and whitethorn acacia (*Acacia constricta*); trees including mesquite (*Prosopis* sp.), ironwood (*Olneya tesota*) and palo verde (*Parkinsonia* sp.); and scattered ocotillo (*Fouquieria splendens*). Except for the Big Sandy River, WUS in the area typically consist of same vegetation species as the surrounding uplands. Vegetation along the Big Sandy River forms a dense bosque comprised of mostly mesquite trees, with salt cedar (*Tamarix* sp.), desert broom and an occasional cottonwood tree (*Populus* sp.) present. Although

vegetation along the river is fairly dense, a closed canopy, multi-storied or riparian gallery forest, or wetland vegetation are not present.

Project description- ADOT proposes to construct 3.4 miles of divided four-lane highway that would connect two previously completed segments of four-lane highway. Some sections of the new roadway would utilize some of the existing US 93 alignment, while others sections would be built in new alignments. Although the existing US 93 alignment will be used for portions of this project, the existing roadway profile requires reconstruction to provide adequate stopping sight distance and to elevate the driving surface above the flood level of the Big Sandy River.

The scope of work for this project consists of:

- Constructing a divided four-lane highway including slope cuts predominantly along a new alignment
- Constructing cross roads for private, business, and Bureau of Land Management (BLM) properties adjacent to new divided highway
- Constructing temporary detour roads that will be removed once construction is completed
- Removing the existing bridge and constructing two new bridges over Gunsight Canyon at MP 118.00
- Installing scour protection slabs with cutoff walls and bank protection at the two new bridges
- Installing bank protection along 2,980 linear feet of Big Sandy River utilizing Cement Stabilized Alluvium (CSA)
- Constructing 20 drainage structures, which include pipe culverts, corrugated metal pipes (CMP), concrete box culverts (CBCs) and reinforced concrete box culverts (RCBC) with riprap aprons or riprap stilling basin/energy dissipaters, as necessary
- Converting portions of the existing US 93 into a frontage/private roadway that will be milled and resurfaced
- Removing other portions of the existing US 93 that will not be part of the frontage/private roadway.
- Relocating utilities, as necessary
- Utilizing excess backfill material that is excavated from the Big Sandy River during project activities for Cement Stabilized Alluvium (CSA) bank protection

Construction activities would impact 18 wash locations which have been preliminarily determined to be WUS. In total, ADOT is proposing to permanently impact 6.132 acres and temporarily impact an additional 4.527 acres of WUS. Table 1 describes the activities proposed in each WUS, while Table 2 summarizes the area impacted in each WUS. Please refer to the attached impact sheets for more information.

Wash No.	Sta No.	EXISTING	PROPOSED			
		Drainage Structure Type height x width x length	Existing Structure Changes/New Structure INCLUDE DETAIL #	Drainage Structure Type height x width x length	Riprap/ Concrete Outlet Protection Length x depth	Riprap/ Concrete Inlet Protection Length x depth
1	3778+90 NB to 3808+70 NB	N/A	Construct 8' wide CSA Bank Protection, in 8' lifts to 21.3' below the existing riverbed elevation along 2,980' of NB US 93. (Detail G)	N/A	N/A	N/A
	3784+75 NB	N/A	Construct new 2-6'x10'x228' CBC that outlets through the Big Sandy River CSA Bank Protection, with a concrete apron and headwall at the CBC inlet and outlet, and a riprap settling basin at the CBC outlet (Detail D03 & F)	2 span 6'x10'x228' CBC	10'x6" concrete apron 100'x24" riprap settling basin	10'x18" concrete apron
	3787+45 NB	N/A	Install new 36"x129' and 36"x133' pipe culverts that are connected with a median catch basin, outlets through the Big Sandy River CSA Bank Protection, and has a riprap apron at the outlet. (Detail D12, I & F)	36"x262' pipe culvert	12'x24" riprap apron	N/A

Table 1. Activities proposed in WUS. The referenced detail sheets are not provided in this notice; please see the attached impact sheets.

Wash No.	Sta No.	EXISTING		PROPOSED		
		Drainage Structure Type height x width x length	Existing Structure Changes/New Structure INCLUDE DETAIL #	Drainage Structure Type height x width x length	Riprap/ Concrete Outlet Protection Length x depth	Riprap/ Concrete Inlet Protection Length x depth
1	3795+50.00 NB	N/A	Install new 36"x128' and 36"x138' pipe culverts that are connected with a median catch basin, and has a riprap apron at the outlet. Outlets to the pipe culvert located at Sta 3794+99.15 NB, 104.26' Rt (Detail D14, I & F)	36"x266' pipe culvert	12'x24" riprap apron	N/A
	3794+99.15 NB, 104.26' Rt	N/A	Install new 36"x32' pipe culvert through the Big Sandy River CSA Bank Protection and riprap apron at the outlet. The new 36"x32' pipe culvert is located at the riprap outlet of the new 36"x128' and 36"x138' pipe culverts under US 93 at Sta 3795+50.00 NB. (Detail D14 & F)	36"x32' pipe culvert	12'x24" riprap apron	N/A
	3799+25 NB	N/A	Construct new 8'x12'x193' CBC that has a concrete headwall and depressed inlet, a concrete apron and headwall at the CBC outlet, and a riprap settling basin at the outlet with a 3' wide grouted wildlife path along the south edge of the basin. Outlets to the CBC located at Sta 3798+09 NB, 128.30' Rt. (Detail D04, E & F)	8'x12'x193' CBC	25'x6" concrete apron 48'x18" riprap settling basin with 3' wide grouted path	24'-9"x 6" concrete depressed inlet
	3798+09 NB, 128.30' Rt	N/A	Construct new 6'x10'x12' CBC through the Big Sandy River CSA Bank Protection with a concrete apron and headwall at the CBC inlet and outlet, and riprap settling basin at the outlet with a 3' wide grouted wildlife path along the south edge of the basin. The new 6'x10'x12' CBC is located at the riprap outlet of the new 8'x12'x193' CBC under US 93 at Sta 3799+25 NB. (Detail D04 & F)	6'x10'x12' CBC	10'x6" concrete apron 50'x18" riprap settling basin with 3' wide grouted path	6'x18" concrete apron
5	3926+40 NB 3926+90.04 SB 547+01 EXST US 93	36"x 92' CMP	Remove existing CMP. New construction includes 36"x79', 36"x94' and 36"x118' pipe culverts connected with catch basins in the median and SB US 93 shoulder; a riprap faced earthen berm behind a catch basin at the inlet; and a riprap apron and channel grading at the outlet to achieve positive flow. (Detail D40, I & F)	36"x291' pipe culvert	12'x24" riprap apron	4'x48" concrete catch basin
8	3919+45 NB 3920+21.25 SB 538+50 EXST US 93	48"x 86' CMP	Remove existing CMP. Flows will be diverted away from existing channel to the new pipe culvert at Sta 3920+21.25 SB, and all Waters downstream of the new SB US 93 cut/fill line would be considered loss. Construction for the new culvert that will receive flows includes 36"x112' and 36"x152' pipe culverts connected with a catch basin in the median; a catch basin at the inlet, a riprap apron at the outlet, and channel grading at both the inlet and outlet to achieve positive flow. (Detail D37, I, & F)	36"x264' pipe culvert	12'x24" riprap apron	4'x48" concrete catch basin
9	3915+00 NB 534+70 EXST US 93	2 span 7'x6'x72' CBC	Remove existing CBC. Construct new 2-6'x10'x216' CBC, with a concrete headwall and depressed inlet, a concrete apron and headwall at the outlet, and a riprap settling basin at the outlet (Detail D09, E & F)	2 span 6'x10'x216' CBC	20'x6" concrete apron 100'x24" riprap settling basin	18'-5"x6" concrete depressed inlet
	21+45 access road	N/A	Construct new 2-6'x10'x56' CBC, with a concrete headwall and depressed inlet, a concrete apron and headwall at the outlet, and a riprap settling basin at the outlet (Detail D48, E & F)	2 span 6'x10'x56' CBC	21'x6" concrete apron 100'x18" riprap settling basin	20'-9"x6" concrete depressed inlet
12	3892+33 NB	N/A	New construction includes a 12'x12'x216' CBC with a lightwell in the median, concrete apron and headwall at the CBC inlet and outlet, and a riprap settling basin at the outlet with 3' wide grouted wildlife paths along both edges of the basin. (Detail D08, D & F)	12'x12'x216' CBC	26'x6" concrete apron 60'x18" riprap settling basin with 3' wide grouted path	13'x12" concrete apron

Table 1 Continued. Activities proposed in WUS. The referenced detail sheets are not provided in this notice; please see the attached impact sheets.

Wash No.	Sta No.	EXISTING		PROPOSED		
		Drainage Structure Type height x width x length	Existing Structure Changes/New Structure INCLUDE DETAIL #	Drainage Structure Type height x width x length	Riprap/ Concrete Outlet Protection Length x depth	Riprap/ Concrete Inlet Protection Length x depth
14	506+98 EXST US 93	2 span 10'x10'x75' CBC	Flows will be diverted along the new SB 93, away from existing channel to a new CBC at Sta 3892+33 NB. However, the new CBC at Sta 3892+33 NB will outlet to the existing Wash 14 channel downstream of the new US 93. Existing culvert under existing US 93 will remain for the access road. (Detail D08)	N/A	N/A	N/A
16	3884+68 NB 3885+30 SB 491+49 EXST US 93	60'x121' CMP	Install new 24"x100", 24"x102", and 24"x148" CMPs that are connected with catch basins in the median and SB US 93 shoulder. Construct a riprap faced earthen berm behind a new catch basin at the inlet, and a riprap apron at the outlet. Due to a road cut placing the new US 93 approximately 57' below the existing ground elevation, flows at the new CMP outlet will be diverted along the new NB US 93 and away from the existing channel. Thus, all Waters downstream of the new CMP outlet would be considered loss. Although the flows will be diverted, the existing CMP under existing US 93 will remain for the access road. (Detail D29, I and F)	24"x350' CMP	8'x24" riprap apron	3'x36" concrete catch basin
26	3862+42 NB 481+00 EXST US 93	2 span 7'x6'x35' CBC	New construction includes 8'x12'x335' RCBC with 2 lightwells in the median, concrete apron and headwall at the CBC inlet and outlet, and a riprap settling basin at the outlet. Existing culvert under existing US 93 will remain for the access road. (Detail D06, D & F)	8'x12'x335' RCBC	21'x6" concrete apron 60'x18" riprap settling basin	12'x18" concrete apron
28	3846+90 SB to 3855+70 SB	N/A	No permanent structures will be constructed. Temporary impact only from construction access, and over-excavation for the CSA Bank Protection located at Sta 3847+01 SB for the new SB Gunsight Canyon Bridge. (Detail H)	N/A	N/A	N/A
29	3845+39 to 3847+01 NB 3845+39 to 3847+01 SB 464+81 EXST US 93	4 span 7'x10'x35' CBC	Remove existing CBC. Construct new NB and SB 4-span 64'-10"x162' Continuous Concrete Slab Bridges. Both bridges will have a concrete floor that extends 10' on either side of the superstructure and is buried a minimum of 3' below the finished channel grade. Additional new construction at Gunsight Canyon includes channel grading downstream of the new NB bridge to achieve positive flow and CSA Bank Protection along the abutments. (Gunsight Canyon General Plan Sheets & Detail H)	2, 4 span 64'-10"x162' Continuous Concrete Slab Bridges	N/A	N/A
31	3832+90 NB 453+79 EXST US 93	36'x57' CMP	Flows will be diverted away from existing channel to the new pipe culvert at Sta 3832+90 NB, and all Waters downstream of the new SB US 93 cut/fill line would be considered loss. Construction for the new culvert that will receive flows includes a 42"x380' pipe culvert with a catch basin and channel grading at the inlet to achieve positive flow, and a riprap apron at the outlet. (Detail D20 & F). The existing CMP will be extended with a temporary 20"x28"x50' arch culvert to be used for US 93 detour during construction. Both the existing CMP and temporary arch culvert will be removed when construction is complete and the detour is removed. (Detail D21).	42"x380' pipe culvert	14'x24" riprap apron	4'x48" concrete catch basin

Table 1 Continued. Activities proposed in WUS. The referenced detail sheets are not provided in this notice; please see the attached impact sheets.

Wash No.	Sta No.	EXISTING		PROPOSED		
		Drainage Structure Type height x width x length	Existing Structure Changes/New Structure INCLUDE DETAIL #	Drainage Structure Type height x width x length	Riprap/ Concrete Outlet Protection Length x depth	Riprap/ Concrete Inlet Protection Length x depth
32	3826+70 NB 3826+73.31 SB 445+20 EXST US 93	36"x81' CMP	Remove existing CMP. New construction includes 36"x130' and 36"x184' pipe culverts connected with a catch basin in the median, and a riprap apron at the outlet. Flows at the new culvert outlet will be diverted away from the existing channel. Thus, all Waters downstream of the new SB US 93 cut/fill line would be considered loss (Detail D19, I & F)	36"x314' pipe culvert	12"x24" riprap apron	N/A
34	3819+15 NB 439+20 EXST US 93	2 span 7'x6'x47' CBC	Remove existing CBC. Construct new 2-6'x10'x204' CBC, with a concrete headwall and depressed inlet, a concrete apron and headwall at the outlet, and a riprap settling basin at the outlet with 3' wide grouted wildlife paths along both edges of the basin. (Detail D05, E & F)	2 span 6'x10'x204' CBC	20"x6" concrete apron 100"x18" riprap settling basin with 3' wide grouted path	18'-10"x6" concrete depressed inlet
35	439+33 EXST US 93	N/A	Construction access only. (No detail sheet)	N/A	N/A	N/A
37	3812+00 NB 3812+55 SB 431+49 EXST US 93	24"x53' CMP	Install new 36"x52', 36"x100', and 36"x124' pipe culverts that are connected with catch basins in the median and SB US 93 shoulder. Construct a catch basin at the inlet, and a riprap apron at the outlet. The new culvert will divert flows away from the existing channel, and the existing channel will be filled with roadway fill material. Thus, all Waters downstream of the new culvert inlet would be considered loss. Existing CMP under existing US 93 will remain for the access road. (Detail D16, I & F)	36"x276' pipe culvert	12"x24" riprap apron	4'x48" concrete catch basin
39	420+00 EXST US 93	2 pipe 24"x44' CMP	Construction access only. Existing CMP under existing US 93 will remain for the access road. (No detail sheet)	N/A	N/A	N/A
42	3791+31 NB 3791+59.91 SB 410+33 EXST US 93 410+38 EXST US 93	24"x84' CMP 24"x82' CMP	New construction includes 48"x100' and 48"x136' CMPs connected with a catch basin in the median, concrete apron and headwall at the inlet, and a riprap apron at the outlet. Existing CMPs under existing US 93 will remain for the access road. (Detail D13, I & F)	48"x 236' CMP	16"x24" riprap apron	10'x12" concrete apron
47	557+40 EXST US 93	7'x6'x104' CBC	Existing culvert will be removed and not replaced. Waters are present starting at the outlet of the existing culvert, and all Waters present along this drainage are considered loss. (No detail sheet)	N/A	N/A	N/A

Table 1 Continued. Activities proposed in WUS. The referenced detail sheets are not provided in this notice; please see the attached impact sheets.

Table 2. Summary of Impacts to Waters of the US.			
Drainage Name	Amount of Waters (ac)	Permanent Impacts (ac)	Temporary Impacts (ac)
Big Sandy River (1)	168.059	4.510	3.102
Unnamed Wash 5	0.123	0.042	0.071
Unnamed Wash 8	0.067	0.041	0.026
Unnamed Wash 9	0.233	0.080	0.141
Unnamed Wash 12	0.215	0.053	0.115
Unnamed Wash 14	0.941	0.179	0.346
Unnamed Wash 16	0.320	0.293	0.016
Unnamed Wash 26	0.116	0.050	0.005
Unnamed Wash 28	0.251	0.000	0.247
Gunsight Canyon (29)	0.829	0.594	0.122
Unnamed Wash 31	0.036	0.016	0.013
Unnamed Wash 32	0.044	0.031	0.008
Unnamed Wash 34	0.525	0.178	0.244
Unnamed Wash 35	0.047	0.000	0.015
Unnamed Wash 37	0.078	0.036	0.026
Unnamed Wash 39	0.034	0.000	0.018
Unnamed Wash 42	0.039	0.008	0.012
Unnamed Wash 47	0.021	0.021	0.000
Totals (Acre)	171.978	6.132	4.527

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 overall project purpose is to improve the operational characteristics of US 93, and work within WUS would be required to replace or modify existing structures to achieve this purpose. Furthermore, other alignments that avoid WUS would result in adverse socio-economic impacts or would impact resources which are eligible for listing on the National Register of Historic Places (NRHP). Specifically, alignments that avoid the Big Sandy River, where most of the impacts to WUS will occur, would have to be located further west. Moving the highway to the west may result in the displacement of Luchia's Restaurant, which is located in a NRHP-eligible building and is one of the few businesses in the area. Other western alignments which avoid both the restaurant and the Big Sandy River would be located in steeper terrain and may result in the displacement of residences in the area. These alignments would bypass the restaurant and reduce its visibility from the new highway. Therefore, alignments west of the currently proposed alignment were not considered practicable due to the adverse socio-economic and cultural resource impacts associated with them.

In addition to the restaurant, historical structures associated with the Carrow-Stephens Ranch were also avoided due to their eligibility for listing on the NRHP and potential for development as a public recreation area in the future by the Bureau of Land Management (BLM). Based on these considerations, the applicant determined that avoidance of WUS was not practicable. After reviewing the alternatives analysis and independently evaluating opportunities for avoidance, the Corps has concurred with the applicant.

Minimization: Several features were incorporated into project design in order to minimize impacts to WUS:

- The use of drainage structure designs which require the least maintenance were selected to avoid re-occurring impacts to Waters from maintenance activities.

- Two borrow sources in the Big Sandy River, potentially impacting up to 300 acres of WUS, were proposed with the original scope for this project. However, additional material from potential false cuts is available and use of this material would not impact Waters. Therefore, the two borrow sources within the Big Sandy River were eliminated from the project.
- The offset location of the bank protection in the Big Sandy River was evaluated based on proximity to the edge of the US 93 roadway. In roadway design, a clear zone is a drivable roadside area that allows a driver to stop safely or regain control of a vehicle that has left the roadway. By constructing the bank protection outside of the roadway's clear zone, a safe area for recovery would be provided before a driver would encounter the hazardous slope of the bank protection. However, this configuration would require a larger footprint for the alignment in order to provide an adequate clear zone. In order to reduce the area impacted in the Big Sandy River, the bank protection would be constructed within the clear zone and a guardrail would be installed adjacent to the roadway in order to protect vehicles from the hazardous slope of the bank protection.
- For the bank protection located in the Big Sandy River, the applicant considered using either a concrete retaining wall, sloped gabion basket revetment, or CSA. The BLM has identified the area where the bank protection would be located as a Visual Resource Management (VRM) Class II area in the Kingman Resource Area Resource Management Plan. Class II objectives only allow for minimal visual changes in the landscape. Any changes must repeat the basic elements of form, line, color, and texture found in the predominant natural features of the landscape. The CSA is a durable material consisting of native material that would match the existing form, line, color and texture of the surrounding landscape. Gabion baskets would require frequent maintenance to replace the baskets as they deteriorate, resulting in additional impacts to WUS in the future when maintenance occurs. While the concrete retaining wall would be most durable and impact the least amount of the Big Sandy River, it does not meet the VRM Class II objectives. Therefore, CSA was determined to be the best bank protection method due to its low maintenance needs and its ability to meet the VRM Class II objectives.
- During construction, impacts would be limited to the minimum necessary to accomplish the project, and portions of WUS that would not be impacted by project activities will be flagged and signed for avoidance prior to construction activities in those areas.
- All areas temporarily impacted by construction activities would be reclaimed to their existing elevation and topography.
- To reduce impacts to water quality, a Section 401 Water Quality Certification from the Arizona Department of Environmental Quality would be required for the project, which would contain requirements to minimize impacts to water quality. In addition, a Storm Water Pollution Prevention Plan (SWPPP) would be required and implemented for compliance with the Arizona Pollutant Discharge Elimination System (AZPDES) 2013 Construction General Permit.

Compensation: The applicant has proposed to provide compensatory mitigation for impacts to WUS in the form of in-lieu fees. To mitigate impacts to ephemeral WUS, the applicant would purchase 9.06 credits from the Arizona Game and Fish Department's (AZGFD) in-lieu fee program at a 1.48:1 ratio to offset permanent impacts to 6.132 acres of WUS.

Proposed Special Conditions

The following list is comprised of proposed Permit Special Conditions, which are required of similar types of projects:

1. **Mitigation.**

Prior to initiating construction in WUS, and to mitigate for impacts to 6.132 acres of non-wetland WUS, the Permittee shall provide documentation verifying purchase of 9.06 restoration/enhancement credits (impacts mitigated at a 1.48:1 ratio) from the Corps-approved Arizona Game and Fish Department (AZGFD) in-lieu fee program (ILFP). The Permittee shall not initiate work in WUS prior to receiving written confirmation (by letter or e-mail) from the Corps Regulatory Division as to compliance with this special condition. The Permittee retains responsibility for providing the compensatory mitigation until the number and resource type of credits described above have been secured from AZGFD and the district engineer has received documentation that confirms that AZGFD has accepted the responsibility for providing the required compensatory mitigation in accordance with the ILFP instrument.

2. **Notification.**

The Permittee shall provide notification, via email or letter, to the Corps Regulatory Division at least one week prior to the start of work, as to the anticipated beginning and ending dates of construction.

3. **Flagging.**

The Permittee shall fence, stake or flag the construction limits for all work within WUS prior to initial construction. Offset stakes with the distance to the limits indicated on the marker are acceptable where marking of the exact location is unfeasible or creates a hazard. The contractor(s) shall be thoroughly familiar with each of the project boundaries, and all perimeter markings shall be maintained intact during construction. The Permittee shall monitor each of the construction zones to ensure fencing, staking, or flagging remains in place and no disturbance occurs outside of the construction limits within WUS.

4. **Maintenance of flows.**

Except when required by the Section 401 Water Quality Certification, appropriate measures must be taken to maintain normal downstream flows and minimize flooding to the maximum extent practicable. No work will occur when water is present in the worksite except the Big Sandy River. No alteration of flows during construction are authorized.

5. **Dewatering.**

Dewatering and diversion of flows around the project site within the Big Sandy River is authorized during construction. Water removed from the work area will be returned to the channel without contributing to an increase in sediment downstream of the project site. To prevent erosion at the discharge point, energy dissipation and/or scour protection will be utilized as appropriate, and must be removed after dewatering operations have ceased.

6. **Temporary fills.**

Temporary fills must consist of materials, and placed in a manner, that will not be eroded by expected normal flows. No stockpiling or staging of materials or equipment is authorized within WUS. Temporary haul roads placed across WUS shall be designed so that expected flows are not restricted. Constructing at-grade crossings or placing pipes to convey flows are examples of appropriate means to ensure flows are not blocked by roads. Temporary fills necessary in order to dewater or temporarily divert flows around the worksite, such as coffer dams, are authorized

within the Big Sandy River during construction. After the initial construction activity is completed, temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations, to the maximum extent possible. The location of these temporary fills must be located to avoid the removal of mature trees, to utilize previously disturbed areas to the maximum extent possible, and minimize the total area of disturbance. All project areas disturbed by construction-related activities must be stabilized and upland areas reseeded with a native seed mixture that is appropriate for the site conditions.

7. Fill free of contaminants

All fill placed in WUS must be of suitable material (no trash, debris, asphalt, etc.). All discharges of fill material into WUS must be free from toxic pollutants in toxic amounts (Section 307 of the CWA)

8. Invasive species.

The Permittee is responsible for controlling and preventing the spread of noxious invasive species in WUS. The Permittee shall utilize integrated vegetation management practices in accordance with State and Federal Laws and Executive Orders to manage invasive species in WUS.

9. Endangered Species

This DA permit does not authorize you to take any threatened or endangered species or to adversely modify its designated critical habitat. In order to legally take a listed species, you must have separate authorization under the Endangered Species Act (ESA) (e.g. ESA Section 10 permit, or a Biological Opinion under ESA Section 7, with "incidental take" provisions with which you must comply).

10. Migratory Birds and Bald and Golden Eagles.

The Permittee is responsible for ensuring their action complies with the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act. The Permittee is responsible for contacting the appropriate local office of the U.S. Fish and Wildlife Service to determine applicable measures to reduce impacts to migratory birds or eagles, including whether incidental take permits are necessary and available for a particular activity.

11. Programmatic Agreement.

The Permittee shall fully implement the Programmatic Agreement among the Federal Highway Administration, Arizona Department of Transportation, the Bureau of Land Management, Arizona State Land Department, Arizona State Museum, the Hualapai Tribe, Hopi Tribe, Yavapai-Prescott Indian Tribe, Fort Mojave Indian Tribe, Yavapai-Apache Nation, Colorado River Indian Tribes, the U.S. Army Corps of Engineers, Arizona State Historic Preservation Office, and Advisory Council on Historic Preservation regarding the historic properties along United States Route 93 between Wikieup and I-40. This requirement is meant to assure compliance under Section 106 of the National Historic Preservation Act.

For additional information please call Jesse Rice of my staff at (602) 230-6854 or via e-mail at Jesse.M.Rice@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 North Central Avenue Suite 900
Phoenix, AZ 85012-1939

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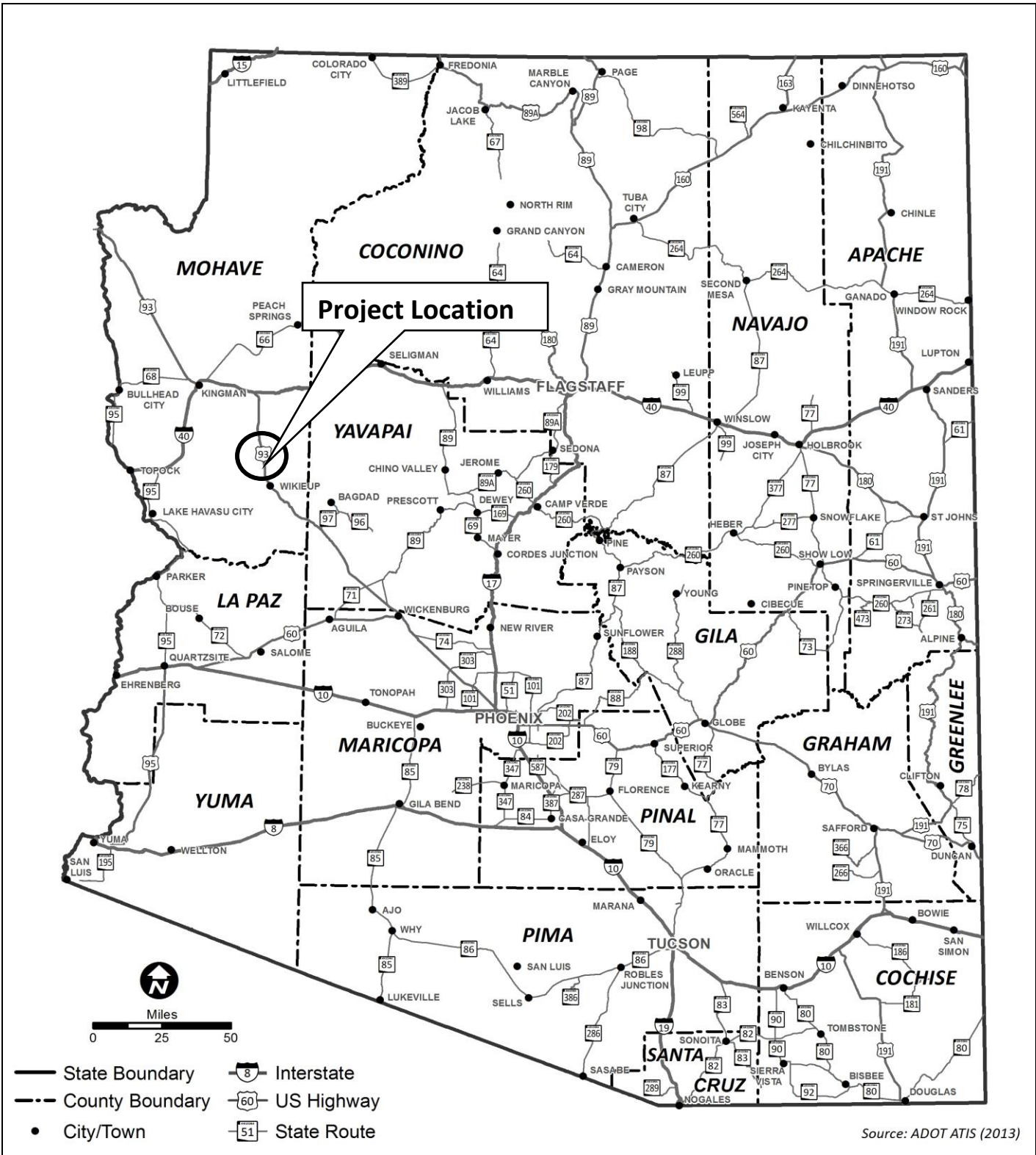


Figure 1. State Location Map

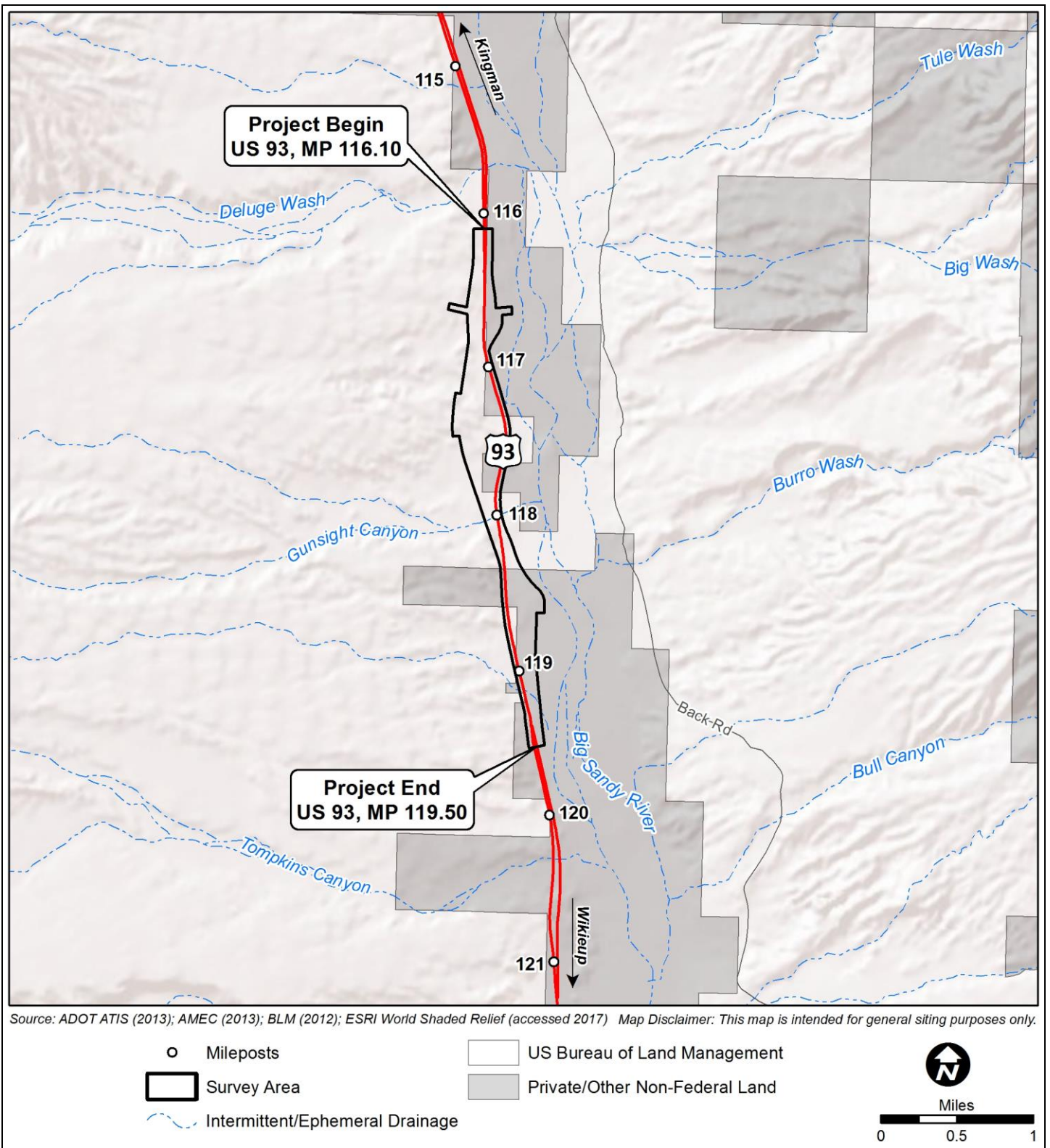


Figure 2. Project Vicinity Map

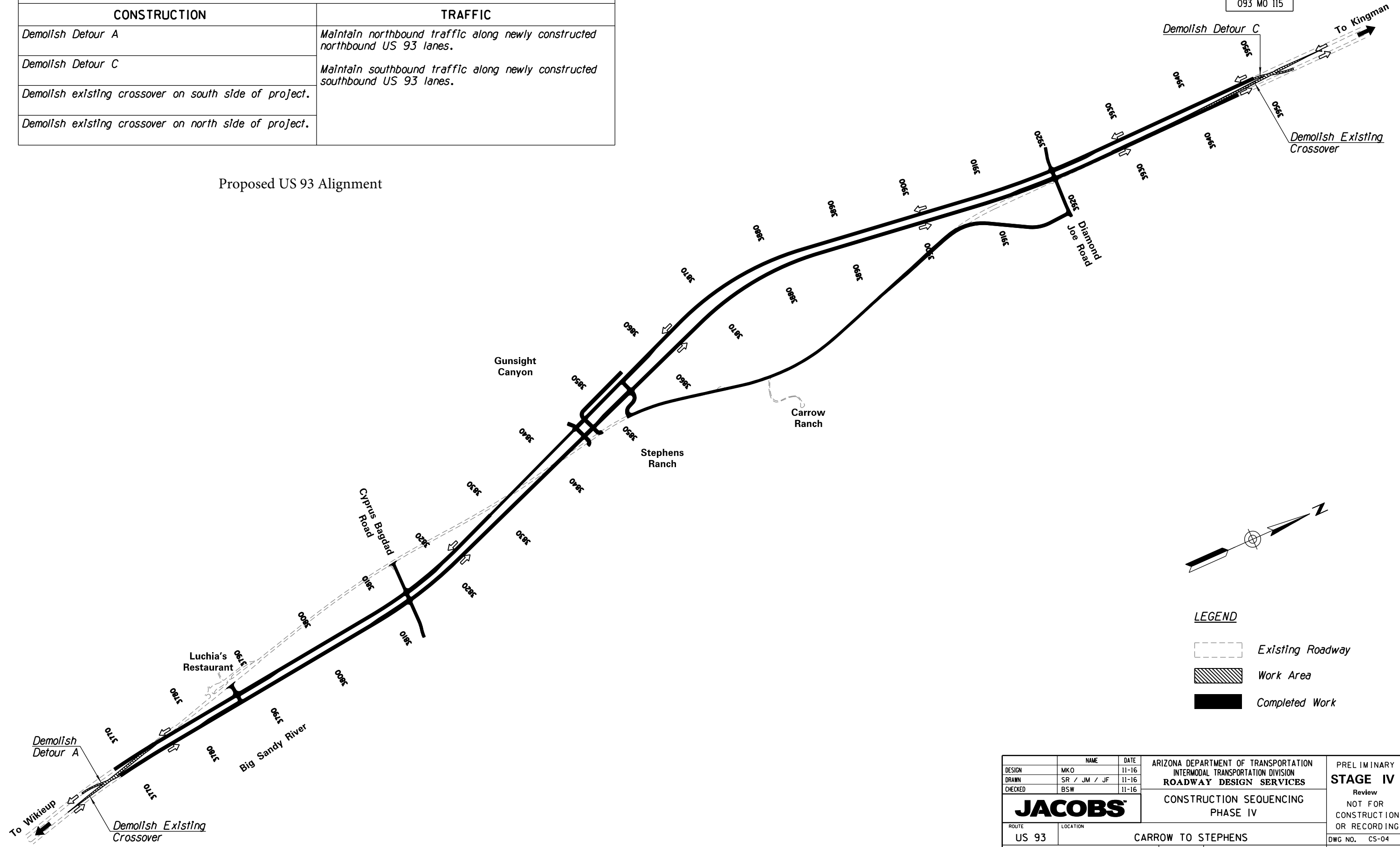
PHASE IV

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	093-B(205)N	152	292	




093 MO 115

CONSTRUCTION	TRAFFIC
Demolish Detour A	Maintain northbound traffic along newly constructed northbound US 93 lanes.
Demolish Detour C	Maintain southbound traffic along newly constructed southbound US 93 lanes.
Demolish existing crossover on south side of project.	
Demolish existing crossover on north side of project.	

Proposed US 93 Alignment



LEGEND

-  Existing Roadway
-  Work Area
-  Completed Work

DESIGN	MKO	DATE	11-16	ARIZONA DEPARTMENT OF TRANSPORTATION INTERMODAL TRANSPORTATION DIVISION ROADWAY DESIGN SERVICES	PRELIMINARY STAGE IV Review NOT FOR CONSTRUCTION OR RECORDING
DRAWN	SR / JM / JF	DATE	11-16		
CHECKED	BSW	DATE	11-16		
JACOBS		CONSTRUCTION SEQUENCING PHASE IV			
ROUTE	US 93	LOCATION	CARROW TO STEPHENS		DWG NO. CS-04
TRACS NO.	H8232 01C		093-B(205)N		OF

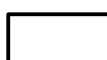







SURVEY NO. FINISHED PLANS REVISIONS DATE LOCATION FINISHED PLANS SURVEY NO. DATE REVISIONS LOCATION DATE

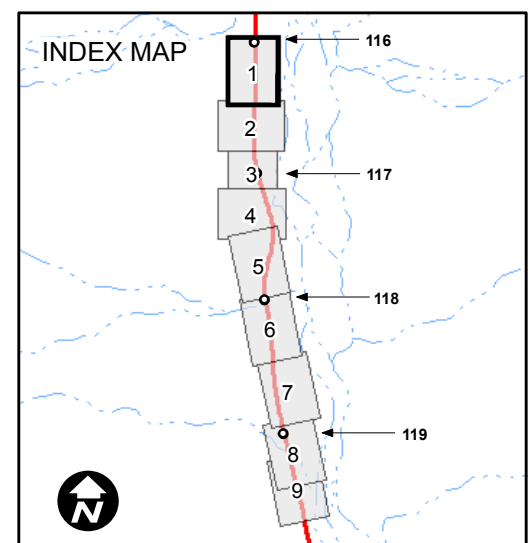
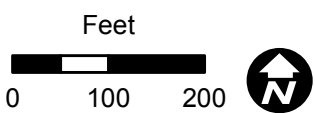
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Sources: ADOT ATIS (2013), AZTEC (2017); ESRI World Imagery (2015); AMEC Foster Wheeler/Jacobs Design (Received 06/22/17)

IMPACTS TO WATERS OF THE US
NH 093-B(205)N
093 MO 115 H8232 01C
US 93, Carrow to Stephens
Print Date: 11/27/2017
Jessica Rybczynski, AZTEC
Page 1 of 9

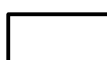








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(Average Width of OHWM)
Arrow Indicates Flow Direction |

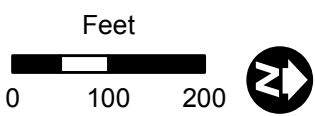
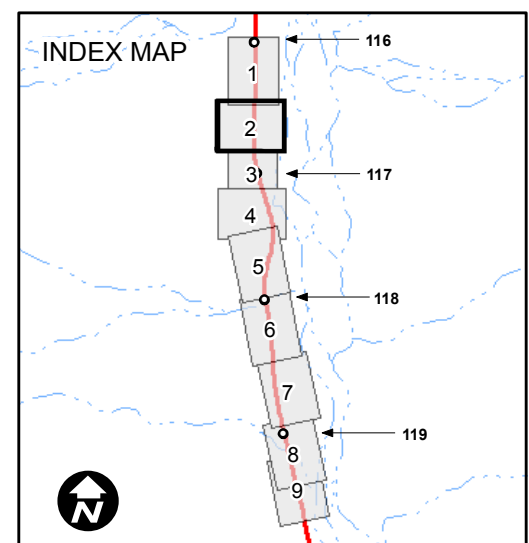


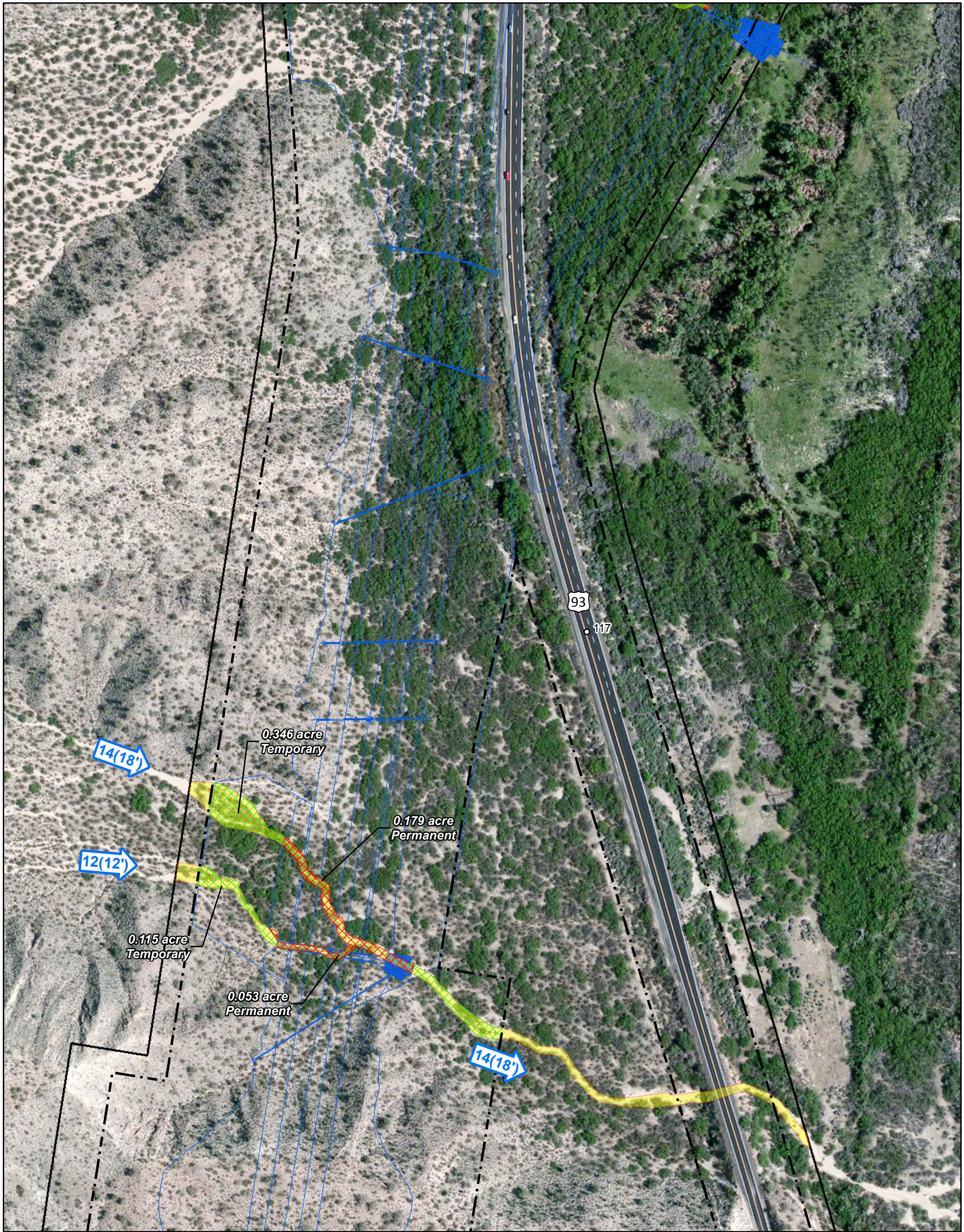


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IMPACTS TO WATERS OF THE US
NH 093-B(205)N
093 MO 115 H8232 01C
US 93, Carrow to Stephens
Print Date: 11/27/2017
Jessica Rybczynski, AZTEC
Page 2 of 9









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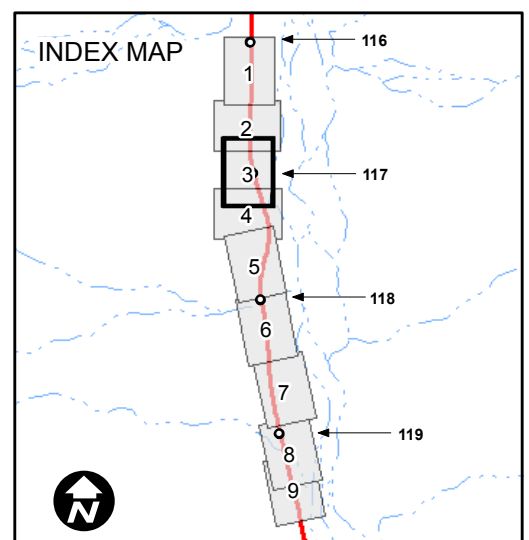
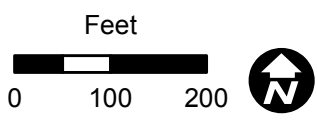


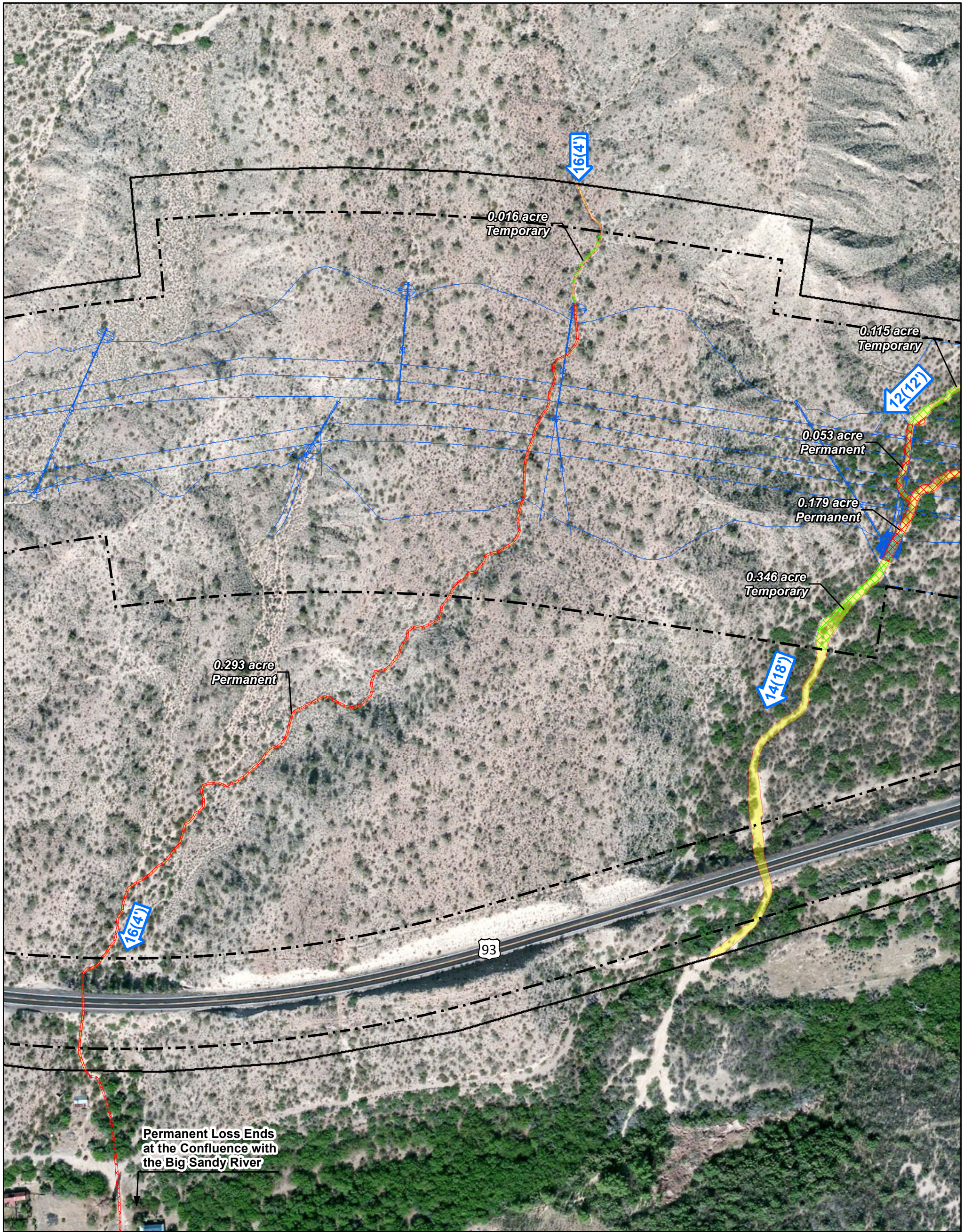


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IMPACTS TO WATERS OF THE US
NH 093-B(205)N
093 MO 115 H8232 01C
US 93, Carrow to Stephens
Print Date: 11/27/2017
Jessica Rybczynski, AZTEC
Page 3 of 9

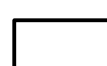

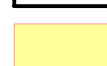





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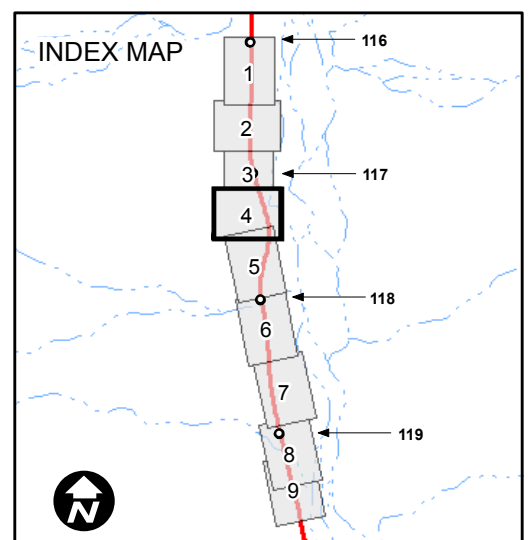
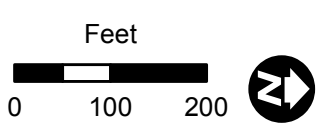


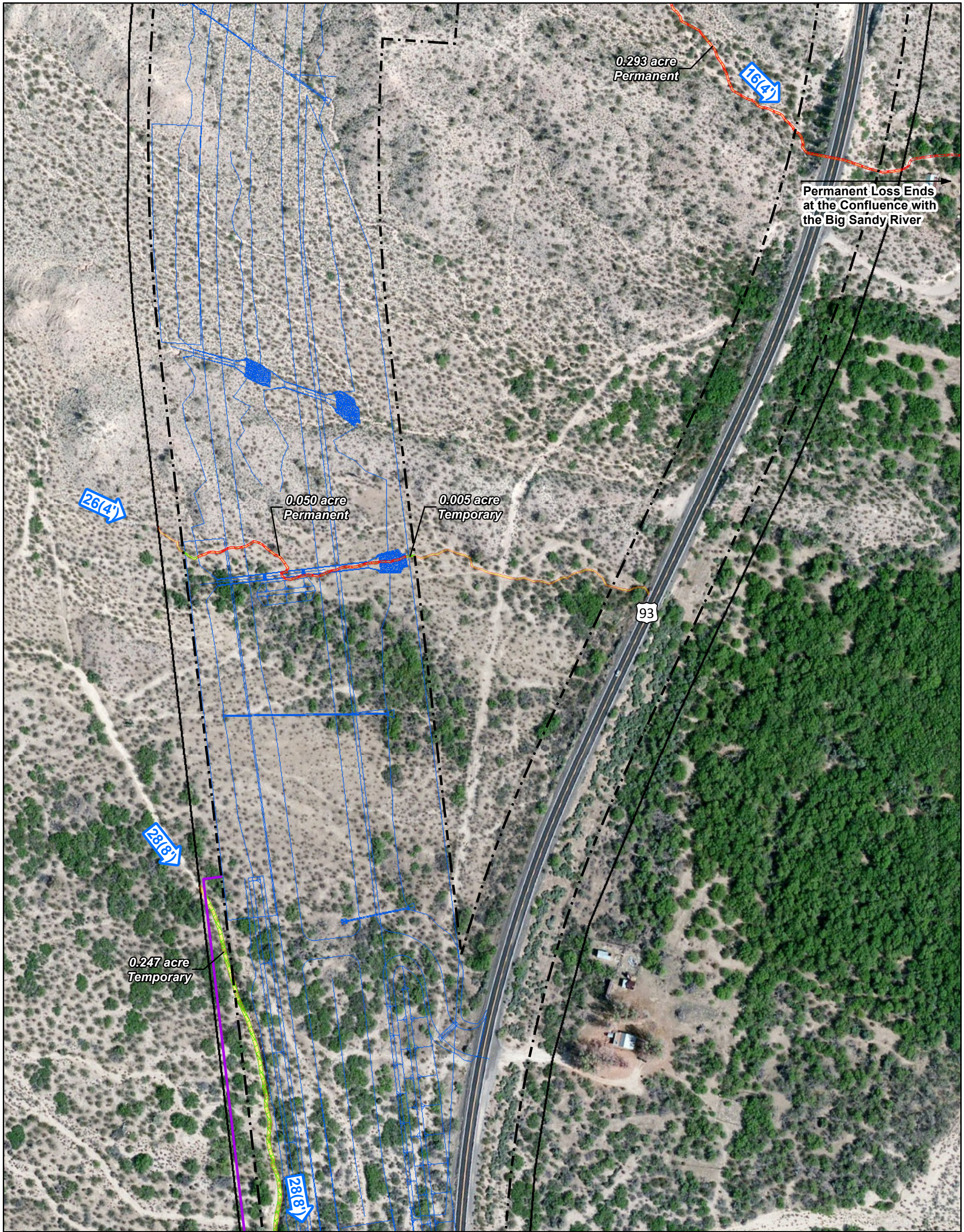


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IMPACTS TO WATERS OF THE US
NH 093-B(205)N
093 MO 115 H8232 01C
US 93, Carrow to Stephens
Print Date: 11/27/2017
Jessica Rybczynski, AZTEC
Page 4 of 9









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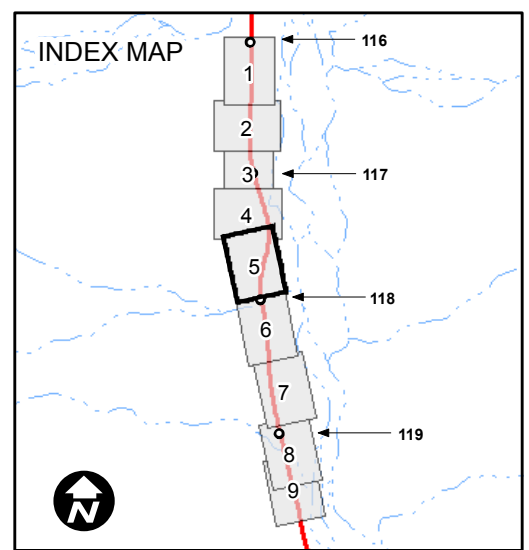
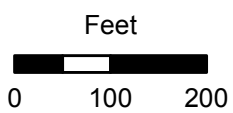




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IMPACTS TO WATERS OF THE US
NH 093-B(205)N
093 MO 115 H8232 01C
US 93, Carrow to Stephens
Print Date: 11/27/2017
Jessica Rybczynski, AZTEC
Page 5 of 9

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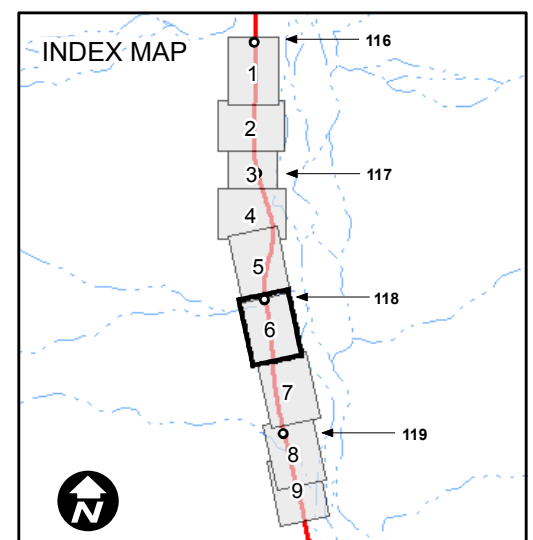
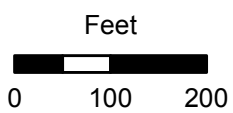


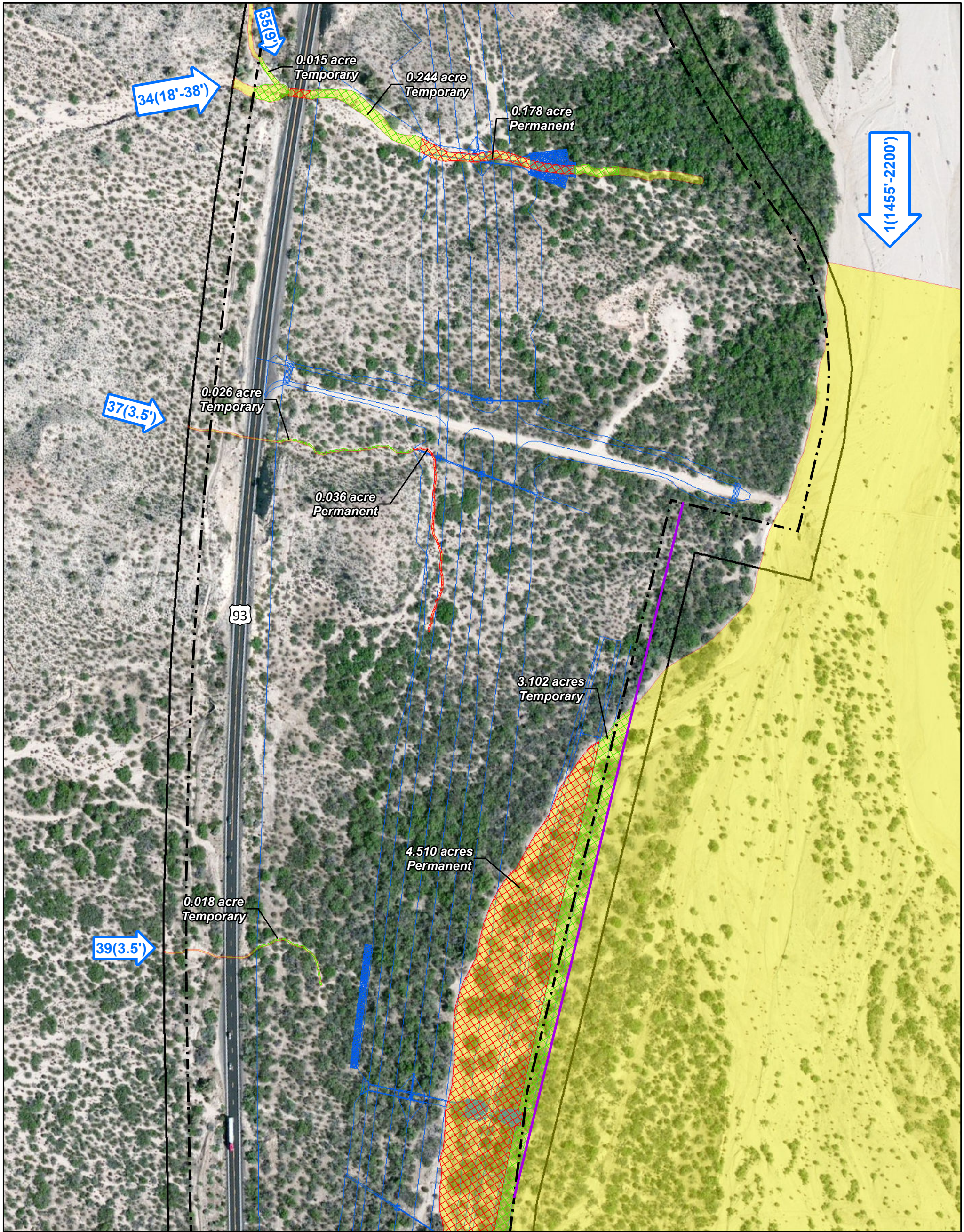


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IMPACTS TO WATERS OF THE US
NH 093-B(205)N
093 MO 115 H8232 01C
US 93, Carrow to Stephens
Print Date: 11/27/2017
Jessica Rybczynski, AZTEC
Page 6 of 9

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| | Survey Area | | 95% Design Plans |
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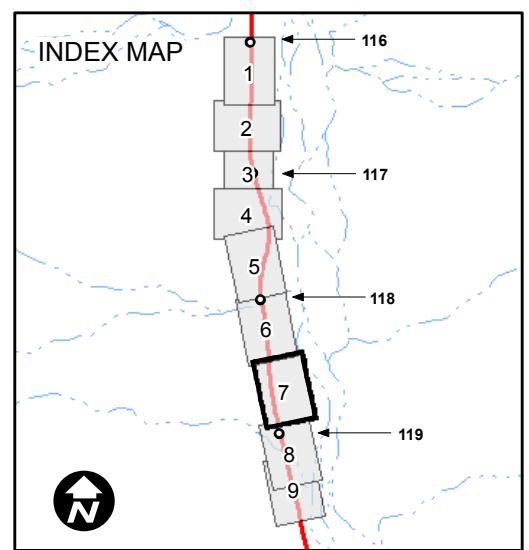
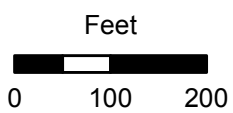


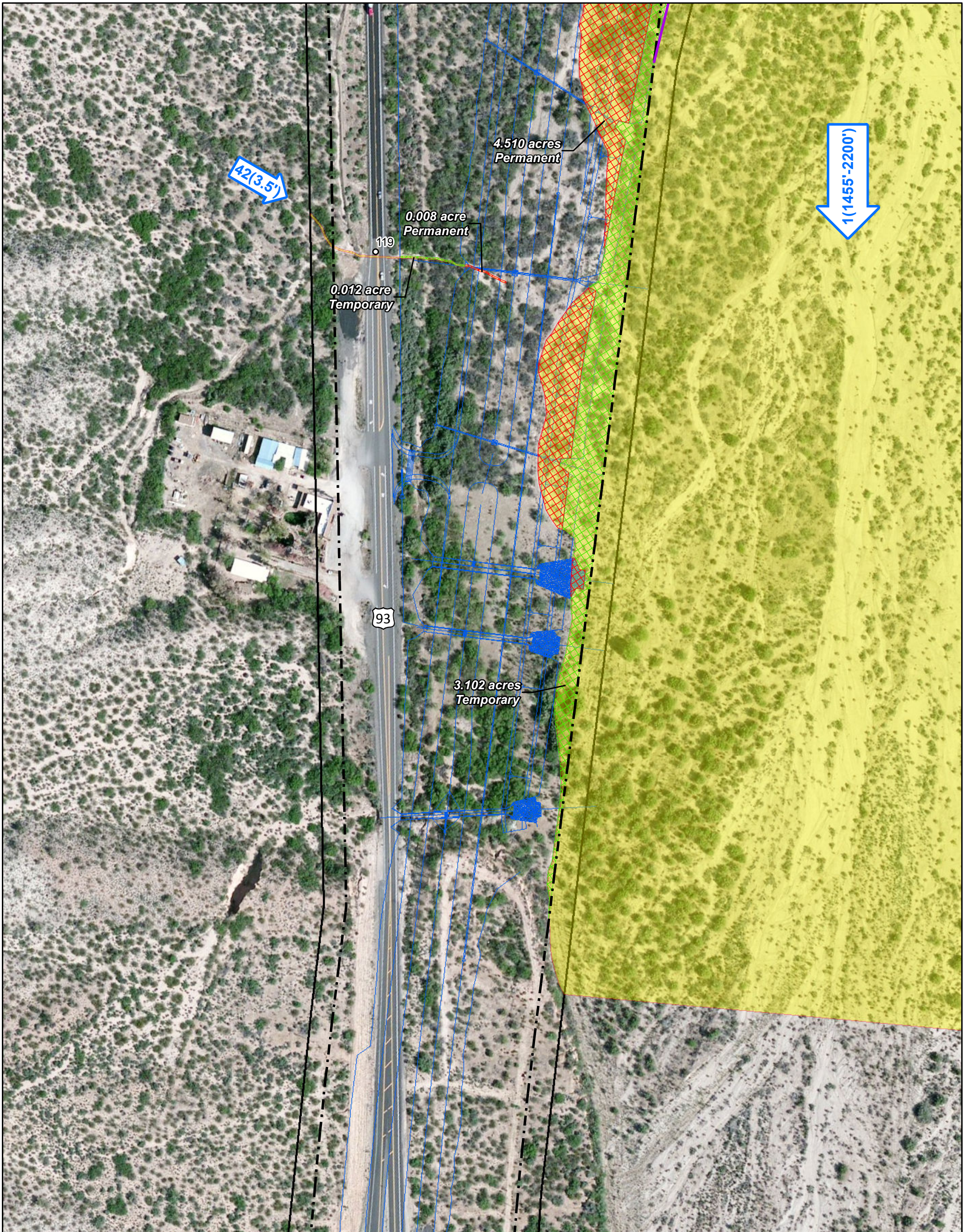


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IMPACTS TO WATERS OF THE US
NH 093-B(205)N
093 MO 115 H8232 01C
US 93, Carrow to Stephens
Print Date: 11/27/2017
Jessica Rybczynski, AZTEC
Page 7 of 9

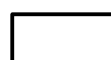







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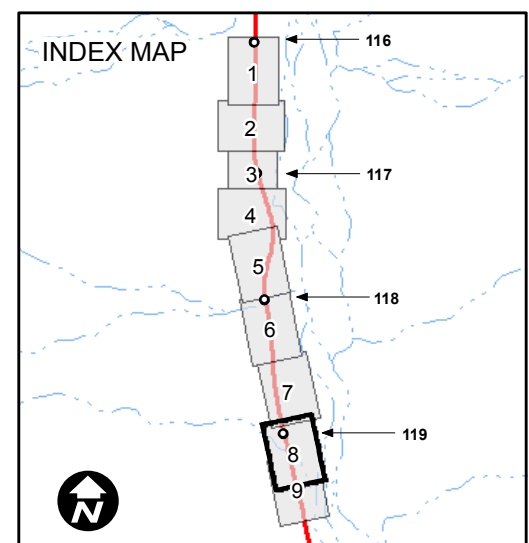




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IMPACTS TO WATERS OF THE US
NH 093-B(205)N
093 MO 115 H8232 01C
US 93, Carrow to Stephens
Print Date: 11/27/2017
Jessica Rybczynski, AZTEC
Page 8 of 9

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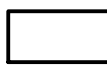







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IMPACTS TO WATERS OF THE US
NH 093-B(205)N
093 MO 115 H8232 01C
US 93, Carrow to Stephens
Print Date: 11/27/2017
Jessica Rybczynski, AZTEC
Page 9 of 9

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