CERTIFICATION

STATE OF ARIZONA
Clean Water Act §401 Water Quality WQC
U.S. Army Corps of Engineers File No.: SPL-2014-00259-JMR
ADEQ LTF No.: 69336

1. AUTHORIZATION

This State Water Quality Water Quality Certification (WQC) is issued by the Arizona Department of Environmental Quality (ADEQ) under the authority of §401(a) of the Federal Clean Water Act (CWA) (33 U.S.C. §1251 et seq.) and Arizona Revised Statutes (ARS) §49-202.

The conditions listed in Section 5 are in addition to conditions in the pending U.S. Army Corps of Engineers (USACE) Application No. SPL-2014-00259-JMR. These conditions are enforceable by the USACE and are subject to civil penalties if violated. Criminal penalties may also be levied if a person knowingly violates any provision of the CWA.

Subject to the conditions in Section 5, ADEQ certifies that based on the information in Section 3, the activities proposed for the US 93 Carrow to Stephens highway project will not violate applicable Surface Water Quality Standards (SWQS) in the Big Sandy River.

Pursuant to ARS 49-202C, ADEQ's review authority extends only to activities occurring within the ordinary high water mark of WUS. Not all of the project elements involve discharges of dredged or fill material to WUS requiring a §401 WQC.

This §401 WQC is not applicable to portions of the project that may be located on the Hualapai Indian Reservation.

APPLICANT INFORMATION

Project Name: US 93 Carrow to Stephens
Latitude: 34° 48' 48.7614" Longitude: -113° 37' 33.8484"

Applicant: Arizona Department of Transportation
Alvin Stump, District Engineer
1109 E. Commerce Drive
Prescott, Arizona 86305

AUTHORIZING SIGNATURE

_____ _____

Christopher Henninger
Water Quality Division
Arizona Department of Environmental Quality

Date

Reading file: SWGP18-0000

2. DESCRIPTION OF ACTIVITIES TO BE CERTIFIED

The Arizona Department of Transportation (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 within Waters of the U.S. (WUS), 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 Waters of the U.S. (WUS). In total, ADOT is proposing to permanently impact 6.132 acres and temporarily impact an additional 4.527 acres of WUS.

3. INFORMATION REVIEWED

During the development of this WQC, ADEQ had access to and reviewed the following documents which are on file with ADEQ:

A. U.S. Army Corps of Engineers (USACE), Los Angeles District Public Notice: SPL-2014-00259-JMR for US 93 Carrow to Stephens; comment period December 11, 2017 – January 11, 2018
B. CWA §401 WQC application package including the CWA §404 permit application with project descriptions and maps, dated November 27, 2017 and received by ADEQ on December 15, 2017. Permittee: Alvin Stump, Arizona Department of Environmental Quality
C. State of Arizona Surface Water Quality Standards (SWQS), Arizona Administrative Code (A.A.C.) Title 18, Chapter 11, Article 1. Designated uses for the Big Sandy River are: Agricultural - Livestock watering (AgL), Aquatic and Wildlife warm (A&Ww), and Full Body Contact (FBC), and Fish Consumption (FC)

4. NOTIFICATION PROVISIONS

For any correspondence regarding this project, the ADEQ mailing address is:
Arizona Department of Environmental Quality
Rosi Sherrill
Surface Water Section / 401 WQCs / mailstop 5415A-1
1110 West Washington Street
Phoenix, Arizona 85007

For questions or general comments:
Email: ls7@azdeq.gov Voice: (602) 771-4409

In any correspondence, reference:
US 93 Carrow to Stephens
USACE File No.: SPL-2014-00259-JMR
ADEQ LTF No.: 69336
Reading file: SWGP1618-0000

5. CONDITIONS FOR STATE 401 WATER QUALITY WQC

For the purposes of this WQC the following definitions apply:

- Waters of the U.S. (WUS) as defined by the USACE and U.S. Environmental Protection Agency (EPA) under the Clean Water Act. This WQC applies only to activities within a WUS.
- Fill material means soil, sand, gravel and other natural materials that are similar in physical, chemical and biological composition to existing natural materials in the project area and which are free from pollutants in quantities and concentrations that can cause or contribute to an exceedance of applicable Surface Water Quality Standards (SWQS).

GENERAL CONDITIONS

1. ADEQ's §401 WQC of these activities proposed by the applicable CWA §404 Permit, does not affect or modify in any way the obligations or liability of any person for any

damages, injury, or loss, resulting from these activities. This WQC is not intended to waive any other federal, state or local laws.

2. If monitoring, by ADEQ or others, indicates that a discharge from the certified activities results in a violation of Arizona's surface water quality standards (numeric or narrative), ADEQ may file a Report of Potential Unauthorized Activity with the USACE, requesting an investigation of the situation.

3. Issuance of a §401 WQC does not imply or suggest that requirements for other permits including, but not limited to Aquifer Protection Permits, Arizona Pollutant Discharge Elimination System Permits, Construction General Permits, DeMinimis Permits and Reclaimed Water permits are met or superseded. Applicant should contact ADEQ to ensure all applicable permits are obtained.

4. This WQC applies only to the activities described in Section 2 and is based upon the information listed in Section 3. This WQC is valid for the same period as the CWA §404 permit issued by the USACE. The applicant must apply for renewal, modification or extension of this WQC if the CWA§404 permit is renewed, modified, extended or otherwise changed. This WQC may be reopened by ADEQ at any time due to a change (e.g., lowered or more stringent) in a SWQS for a parameter likely to result from project activities. ADEQ may add or modify conditions in this WQC to ensure that the applicant's activities comply with the most recent SWQS.

5. The applicant shall provide a copy of this WQC to all appropriate contractors and subcontractors. The applicant shall also post and maintain a legible copy of this WQC in a weather-resistant location at the construction site where it may be seen by the workers.

6. The applicant shall notify ADEQ within 30 days of submitting the notice of completion of work required by the CWA §404 permit for this activity.

7. The applicant is responsible to ensure that certified activities do not cause or contribute to any exceedances of SWQS in any WUS.

8. This WQC does not authorize the discharge of mining, construction or demolition wastes, wastewater, process residues or other potential pollutants to any WUS except as specified in the application, supporting documents, and/or in the CWA §404 permit.

SPECIFIC CONDITIONS

Except as specified in the application and supporting documents, including those documents referenced in Section 3, and allowed in the CWA §404 permit, the following specific conditions apply:

Erosion Prevention and Hydraulic Alterations

9. Clearing, grubbing, scraping or otherwise exposing erodible surfaces shall be minimized to the extent necessary for each construction phase or location.

10. Dredged or fill material shall be placed so that it is stable, meaning after placement, the material does not show signs of excessive erosion. Indicators of excess erosion include: gullying, head cutting, caving, block slippage, material sloughing, etc. Material shall not discharge (e.g., via leaching, runoff) pollutants into streams or wetlands.
11. Erosion control, sediment control and/or bank protection measures shall be installed before construction and pre-operation activities, and shall be maintained during construction and post-construction periods to minimize channel or bank erosion, soil loss and sedimentation. Control measures shall not be constructed of uncemented or unconfined imported soil, or other materials easily transported by flow.
12. The effectiveness of all pollution control measures, including erosion and sediment control measures, shall be inspected, maintained and modified (as necessary) to reduce pollutants and ensure compliance with SWQS in any WUS.
13. Direct runoff of water used for irrigation or dust control shall be limited to the extent practicable and shall not cause downstream erosion or flooding nor cause an exceedance of applicable SWQS in any WUS.
14. Except where the activities certified herein are intended to permanently alter any WUS, all disturbed areas within WUS shall be restored and (re)vegetated as indicated in the application documents if approved by the USACE (including offsite/in lieu mitigation). Denuded areas within WUS not intended to be permanently altered shall be revegetated as soon as physically practicable. Vegetation shall be maintained on unarmored banks and slopes to stabilize soil and prevent erosion. Fill used to support vegetation rooting or growth shall be protected from erosion.
15. Activities herein certified shall, as much as practicable, be performed during periods of low flow (baseflow or less) in any perennial WUS, or no flow in any ephemeral or intermittent WUS. No work shall be done, nor shall any equipment or vehicles enter any WUS while flow is present, unless all conditions in this WQC are met.
16. When flow is present in any WUS within the project area, the applicant and any contractor will not alter the flow by any means except to prevent erosion or pollution of any WUS.
17. Any disturbance within the ordinary high water mark of a WUS that is not intended to be permanently altered shall be stabilized to prevent erosion and sedimentation.
18. Applicant will take measures necessary to prevent approaches to any WUS crossing from causing erosion or contributing sediment to any WUS.
19. The applicant shall implement control measures necessary to maintain designated used(s) in WUS both upstream and downstream of the project area.

Sediment Loads

20. When flow in any WUS in the work area is sufficient to erode, carry or deposit material, activities certified herein shall cease until:
    - The flow decreases below the point where sediment movement ceases; or

- Control measures have been undertaken: equipment and materials easily transported by flow are protected with non-erodible barriers or moved outside the flow area.

21. Silt laden or turbid water resulting from activities certified herein shall managed in a manner to reduce sediment load prior to discharging so as not to exceed SWQS in any WUS.

22. Any washing or dewatering of fill material must occur outside of any WUS prior to placement and the rinsate from such washing shall be settled, filtered or otherwise treated to prevent migration of pollutants (including sediment) or from causing erosion to any WUS. Other than replacement of native fill or material used to support vegetation rooting or growth, fill placed in locations subject to scour must resist washout whether such resistance is derived via particle size limits, presence of a binder, vegetation, or other armoring.

Pollution Prevention

23. If activities certified herein are likely to cause or contribute to an exceedance of SWQS in any WUS operations shall cease until the problem is resolved or until control measures have been implemented.

24. Except as approved in the 404 permit, construction material and/or fill (other than native fill or that necessary to support re-vegetation) placed in any WUS, shall not include pollutants in concentrations that will that will cause or contribute to a violation of a SWQS in any WUS.

    Acceptable construction materials that will or may contact water in any WUS are: untreated logs and lumber; natural stone (crushed or not), crushed clean concrete (recycled concrete); native fill; precast, sprayed or cast-in-place concrete (including soil cement and unmodified grouts); steel (including galvanized); plastic and aluminum. Other materials allowed for this project, only if placed in accordance with application and supporting documents, are mining residues including tires, waste rock, gangue and tailings. Use of other materials may be allowed, but require prior written approval from ADEQ.

25. The applicant will erect any barriers, covers, shields and other protective devices as necessary to prevent any construction materials, equipment or contaminants/pollutants from falling, being thrown or otherwise entering any WUS.

26. Area(s) must be designated, entirely outside of any WUS, for equipment staging and storage. In addition, the applicant must designate areas, located entirely outside of any WUS, for fuel, oil and other petroleum product storage and for solid waste containment. All precautions shall be taken to avoid the release of wastes, fuel or other pollutants to any WUS.

    Any equipment maintenance, washing or fueling that cannot be done offsite will be performed in the designated area with the following exception: equipment too large or unwieldy to be readily moved, such as large cranes, may be fueled and serviced in the WUS (but outside of standing or flowing water) as long as material specifically manufactured and sold as spill containment is in place during fueling/servicing. All

equipment shall be inspected for leaks, all leaks shall be repaired and all repaired equipment will be cleaned to remove any fuel or other fluid residue prior to use within (including crossing) any WUS.

27. Upon completion of the activities certified herein, areas within any WUS shall be promptly cleared of all forms, piling, construction residues, equipment, debris or other obstructions.

28. If fully, partially or occasionally submerged structures are constructed of cast-in-place concrete instead of pre-cast concrete, applicant will take steps using sheet piling or temporary dams to prevent contact between water (instream and runoff) and the concrete until it cures and until any curing agents have evaporated or are no longer a pollutant threat.

29. Washout of concrete handling equipment must not take place within any WUS and any washout runoff shall be prevented from entering any WUS.

30. Any permanent WUS crossings other than fords, shall not be equipped with gutters, drains, scuppers or other conveyances that allow untreated runoff (due to events equal to or lesser in magnitude than the design event for the crossing structure) to directly enter a WUS if such runoff can be directed to a local stormwater drainage, containment and/or treatment system.

Temporary and Permanent Structures

31. Permanent and temporary pipes and culvert crossings shall be adequately sized to handle expected flow and properly set with end section, splash pads, headwalls or other structures that dissipate water energy to control erosion.

32. Debris will be cleared as needed from culverts, ditches, dips and other drainage structures in any WUS to prevent clogging or conditions that may lead to washout.

33. All temporary structures constructed of imported materials and all permanent structures, including but not limited to, access roadways; culvert crossings; staging areas; material stockpiles; berms, dikes and pads, shall be constructed so as to accommodate overtopping and resist washout by streamflow.

34. Any temporary crossing, other than fords on native material, shall be constructed in such a manner so as to provide armoring of the stream channel. Materials used to provide this armoring shall not include anything easily transportable by flow. Examples of acceptable materials include steel plates, untreated wooden planks, pre-cast concrete planks or blocks; examples of unacceptable materials include clay, silt, sand and gravel finer than cobble (roughly fist-sized). The armoring must, via mass, anchoring systems or a combination of the two, resist washout.

35. No vehicles or equipment shall ford any unarmored WUS crossing when flow is present.

36. Any ford, other than fords on native material, shall be designed, and maintained as necessary, to carry the proposed traffic without causing erosion or sedimentation of the stream channel while dry or during a flow event equal to or less than the design event for the crossing.

37. No unarmored ford shall be subject to heavy-truck or equipment traffic after a flow event until the streambed is dry enough to support the traffic without disturbing streambed material to a greater extent than in dry conditions. Light vehicles (less than 14,000 pounds gross weight) are not restricted by this condition.
38. Temporary structures constructed of imported materials are to be removed no later than upon completion of the permitted activity.
39. Temporary structures constructed of native materials, if they provide an obstacle to flow, or can contribute to or cause erosion, or cause changes in sediment load, are to be removed no later than upon completion of the permitted activity.