Clean Water Act § 401 Water Quality Certification

I-10, I-17 (Split) to SR202L (Santan) Improvement Project

1. Authorization

This State 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.

Based on the information provided and identified in Section 3, ADEQ certifies that the activities proposed for the I-10, I-17 (Split) to SR202L (Santan) Improvement Project will not violate applicable Surface Water Quality Standards (SWQS) in the Salt River.

a. Location

Latitude: 33.4183 Longitude: -112.0178

ADEQ PLC: 225118

ADEQ LTF: 94357

b. Applicant Information

Arizona Department of Transportation

Randy Everett

2140 W. Hilton Avenue

Phoenix, AZ 85009

Authorizing Signature

_____ _____

Trevor Baggiore Date

Water Quality Division

Arizona Department of Environmental Quality

2. Description of Certified Activities

The Arizona Department of Transportation (ADOT) is proposing to increase the traffic capacity of the I-10 corridor between the Loop 202 (Santan) freeway and I-17 and increase the flow capacity of the Tempe Drain to accommodate the 100-year flow event. Activities in waters of the U.S. (WOTUS) would include widening of the I-10 Bridge over the Salt River and concrete lining of the Tempe Drain from University Drive to the Salt River.

Salt River Bridge Widening:
ADOT plans to widen the Salt River Bridge by approximately 38 feet along both the eastbound and westbound lanes of I-10, for a total widening of 76 feet. This widening would require the construction of 10 drilled shafts in the Salt River to support the widened deck. Approximately 0.015 acre of permanent fill will be placed in waters of the U.S. for construction of the 10 drilled shafts. No drilled shafts would be constructed in wetlands. Drilled shafts would measure 9-feet in diameter and range in depth from 123-feet to 106-feet. Concrete, reinforcing steel, and native dirt backfill would be discharged into WOTUS to construct the drilled shafts.

In addition to permanent impacts from the drilled shafts, approximately 0.004 acre of permanent impacts to wetlands would result from the widening of eastbound I-10. The extended bridge deck would block sunlight from reaching wetland vegetation along the Salt River low flow channel, and over time, is anticipated to cause the loss of this wetland vegetation. The extension of the bridge deck would not impact "other waters" of the Salt River. Bridge deck widening would occur after the construction of the 10 drilled shafts and bridge piers.

Approximately 9.196 acres of temporary impacts to WOTUS within the ordinary high water mark (OHWM) of the Salt River, and approximately 0.014 acre of temporary impacts to wetlands, would result from temporary construction activities within the Salt River. This temporary construction is anticipated to occur over (2) years and would include the following:

- Constructing two access ramps on the north embankment of the Salt River.
- Scraping the riverbed up to a depth of two (2) feet to provide native material for construction of the two access ramps.
- Constructing three temporary crossings within the Salt River low flow channel.
- Temporarily redirecting the low flow channel for approximately 73 feet to allow equipment access to one drill shaft, referred to as DS6.
- Equipment and vehicle maneuvering.
- Material lay down.

To construct the bridge widening, equipment would access the Salt River from an existing soil cement ramp located northeast of the Salt River Bridge, and from two temporary access ramps to be constructed on the north embankment of the Salt River on either side of the Salt River Bridge. Discharge of fill material would be required to construct the access ramps; therefore, riverbed would be scraped to a maximum depth of two (2) feet to acquire native fill

material. The contractor may be required to screen finer material from the native riverbed material to plate the top of the access roads and ramps.

Construction access across the Salt River's low flow channel would require the installation of three temporary crossings. Six 42-inch diameter reinforced concrete pipes (RCPs, i.e., two at each crossing) along with native fill material would be placed in the low flow channel as temporary crossings.

Construction is anticipated to commence in August 2022. Bridge widening construction work is anticipated to be completed in Fall 2023, however, final bridge construction completion activities may require access into the Salt River through the end of 2024. When the bridge is complete and access is no longer needed to the Salt River, all temporary drainage features installed in the low flow channel and temporary construction areas would be removed and the area would be returned to preconstruction contours and conditions.

These proposed activities are anticipated to permanently impact a total of 0.019 acres in the Salt River, on both wetland and non-wetland waters.

Tempe Drain Concrete Lining:

The Tempe Drain is an open ditch lined with riprap and/or concrete that collects stormwater runoff from the City of Phoenix, City of Tempe, ADOT, and the Town of Gilbert. The channel runs parallel to I-10 between 32nd Street (University Drive) and the Salt River, and it discharges into the Salt River about 170 feet upstream of where the I-10 Bridge crosses the Salt River. The proposed roadway improvements would encroach into the existing open channel west of 32nd Street. To maintain the existing hydraulic conveyance and improve the drain to convey a 100-year flow event, a 3,300-foot section of the channel would be lined with concrete. The concrete lining would have a 40-foot bottom with 2:1 sloped sides. All vegetation would be removed. 1.31 acres of WOTUS and 0.07 acres of wetlands would be permanently impacted. Riprap would be removed where needed to place the concrete lining.

Construction activities, which do not result in a discharge to a WOTUS, have commenced and consist of vegetation removal from the Tempe Drain. Excavators, chippers, chain saws, and dump trucks would remove vegetation and excavate riprap not being reused in the area. After obtaining permit coverage, ADOT will remove all undesirable material from the drain and then backfill and compact it to obtain the planned flow line of the new concrete lined channel.

A minimal flow of water consistently runs through Tempe Drain. The contractor would reroute the flow during construction operations. The contractor shall develop and implement a Channelization and Contingency Plan for the water reroute that outlines procedures to be followed during the opening, operation, and closing of the temporary bypass. The plan shall include procedures to be followed if high flows occur during construction and shall address protection of existing work, and excavated material from floodwater. Special considerations would be given to stormwater management measures within the Tempe Drain during earthwork and soil disturbance operations so as not to discharge sediment.

The proposed activities in the Tempe Drain are anticipated to permanently impact a total of 1.31 acres, on both wetland and non-wetland waters

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. CWA § 401 WQC application package including the U.S. Army Corps of Engineers Application (Eng. Form 4345) with project descriptions and maps, dated March 31, 2022; received by ADEQ on May 3, 2022. Permittee: Arizona Department of Transportation.
B. U.S. Corps of Engineers (USACE) Public Notice I-10, I-17 (Split) to SR202L (Santan) Improvement Project, comment period April 8 – May 9, 2022. USACE Project Manager: Jesse Rice.
C. State of Arizona Surface Water Quality Standards (SWQS), Arizona Administrative Code (A.A.C.) Title 18, Chapter 11, Article 1, Appendix B. Designated uses for the Salt River are: Aquatic and Wildlife Warm (A&Ww); Partial Body Contact (PBC); 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 Permits / 401 WQCs / mailstop 5415A-1
1110 West Washington Street, Phoenix, Arizona 85007

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

In any correspondence, please reference:
I-10, I-17 (Split) to SR202L (Santan) Improvement Project
USACE File No.: SPL-2019-00178
ADEQ LTF No.: 94357

5. Special Condition

This Certification applies only to the activities described in Section 2 and is based upon the information listed in Section 3. This Certification 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 Certification if the CWA 404 permit is renewed, modified, extended or otherwise changed.

6. Certification Conditions

In the ADEQ § 401 Water Quality Application, ADOT identified the following best management practices that will be implemented during this project:

A Storm Water Pollution Prevention Plan would be required for compliance with the Arizona Pollutant Discharge Elimination System (AZPDES) Construction General Permit. Impacts to

WOTUS would be further minimized by utilizing Best Management Practices designed to reduce erosion, minimize sedimentation, and eliminate non-stormwater pollutants as identified in ADOT's Erosion and Pollution Control Manual for Highway Design and Construction (2020), and ADOT's Standard Specifications for Road and Bridge Construction (2008/2021).

Restrictions and requirements that would be incorporated into the project consist of the following:

- The contractor shall give special attention to the effect of its operations upon the landscape and shall take care to maintain natural surroundings undamaged.
- The contractor shall develop and implement a containment plan for soil, debris, construction materials, and pollutants such as fuels, oil, bitumen, calcium chloride, fresh Portland cement, fresh Portland cement concrete, raw sewage, muddy water, chemicals, or other harmful materials. The containment plan would be approved by ADOT prior to construction.
- The contractor shall develop and implement a Channelization and Contingency Plan for both phases of channelization that outlines procedures to be followed during the opening, operation, and closing of the temporary bypass channels/pipe. The plan shall include procedures to be followed if high flows occur during construction and shall address protection of existing work, uncovered bridge foundations, and excavated material from floodwater. The plan shall incorporate water reroute techniques for both the Salt River and the Tempe Drain.
    - For the Salt River, two temporary pipe crossings would be constructed in the Salt River low-flow channel, and one temporary pipe crossing would be installed in the Tempe Drain outfall channel branch to the Salt River low-flow channel.
    - For the Tempe Drain, temporary channelization would be accomplished either by constructing a temporary dam to bypass pump or divert flow into temporary pipes, or by constructing the north half of the channel lining (i.e., the north slope with a longitudinal construction joint 20 feet [halfway] along the bottom) while maintaining existing flows, then diverting the existing flows to the completed channel lining and constructing the south half of the channel lining.
- No construction activities shall be conducted with the Salt River or Tempe Drain during storm events or other periods when high flows are present.
- Construction activities shall cease in the event of a containment breach until the breach is addressed and further breaches are prevented.
- Water for construction shall not be withdrawn from the Salt River or Tempe Drain.
- Wastewater shall be contained and disposed at an approved off-site location.
- Flows shall be maintained during and after construction to ensure the functions and values of the downstream waters of the United States, including wetlands.
- The contractor shall use temporary bridges and pipes to cross the Salt River and temporary bypass channels as necessary. The contractor would not be permitted to ford the flowing river channel.

- The OHWM of the Salt River and Tempe Drain would be flagged prior to project construction and the flagging would be approved by ADOT.
- No equipment refueling would occur within the OHWM of the Salt River or Tempe Drain.
- The contractor shall keep a regulated work area free of litter and trash. The construction site shall be cleaned up at the end of each day that work is being conducted (e.g., trash and scrap materials removed).
- Upon project completion, all disturbed areas, both inside and outside the OHWM, would be restored to their original contours, elevations, and/or uses. Previously vegetated areas would be restored by seeding and/or planting native species at a ratio similar to the preconstruction condition.
- The contractor shall complete the project in as short a timeframe as possible.
- The contractor shall remove all construction material and debris from the construction site upon completion of the project and all temporarily disturbed areas within the OHWM of the Salt River and Tempe Drain shall be reclaimed to their preconstruction elevations and topography.
- The contractor shall comply with all terms and conditions of the Section 404 Individual Permit as established by the Corps.
- The contractor shall comply with all terms and conditions of the Individual Section 401 Water Quality Certification certified by the Arizona Department of Environmental Quality.
- In addition, the following BMPs from the ADOT Erosion and Pollution Control Manual would be carried out, as appropriate:
    - Sediment Logs
    - Rock Riprap / Rock Mulch
    - Sediment Wattles
    - Sediment Control Berms
    - Temporary Silt Fences
    - Mini-Benching
    - Gravel Bags
    - Rock Check Dams
    - Stabilized Construction Entrance / Exit Gravel Pad
    - Erosion Control Blankets