



Katie Hobbs
Governor

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY



Karen Peters
Cabinet Executive Officer
Executive Deputy Director

Clean Water Act § 401 Water Quality Certification Cave Springs Scour Protection 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. This § 401 WQC will become part of the U.S. Army Corps of Engineers (USACE) § 404 permit SPL-2023-00612.

Based on the information provided and identified in Section 3, ADEQ certifies that the proposed activities for the Cave Springs Scour Protection Project will not violate applicable Surface Water Quality Standards (SWQS) in Oak Creek.

a. Location

Latitude: 34.998847 Longitude: -111.739711

ADEQ PLC: 240149
ADEQ LTF: 102815

b. Project Proponent Information

Red Rock Ranger District, Coconino National Forest
Alexander Schlueter
8375 State Route 179
Sedona, AZ 83651

Authorizing Signature

Josephine Maressa, Deputy Director
Water Quality Division
Arizona Department of Environmental Quality

Date

2. Description of Certified Activities

The Cave Springs Scour Protection Project is located within the Cave Springs Campground, in Oak Creek Canyon, north of Sedona, Arizona. This project proposes to replace an aging, grouted, riprap bank protection structure that has experienced repeated failures, and to prevent the undercutting of an existing low water crossing within the Campground.

The implementation of this project by the Forest Service will include:

- The replacement of the existing 352-foot grouted riprap structure with a stepped concrete wall, extending a minimum of two (2) feet into the stream bed.
- The stepped concrete wall will provide bank stabilization and avoid the necessity of the installation of a vertical concrete wall along the streambank.
- To address concerns on the Campground low water crossing, a vertical concrete wall and footer will be installed at the downstream edge of the crossing. The footer will extend a minimum of two (2) feet into the stream bed.

Additionally, the following activities will occur:

- Vegetation will be removed along the riprap bank;
- Oak creek will be diverted for approximately 500-feet during construction, using a temporary coffer dam diverting flow through pipes. The diverted water will be returned to the Creek downstream of the construction area;
- Heavy equipment will need access to the Creek and a single, temporary opening will be created between the paved Forest Road (FR89D) and the main channel of the creek for access;
- The removal of riprap includes excavating and removing the excavated materials off-site. Whenever possible, access for the removal of riprap will be done from the FR89D side of the creek;
- The installation of the stepped concrete wall will require a trench to be excavated at the base of the bank, 2- to 3-feet wide, down to bedrock or to a minimum of 2.5-feet to provide a solid anchored base below the scour line. The trench will extend for approximately 352-feet and excess material will be hauled off-site;
- Concrete (reinforced with rebar) will be poured from a concrete truck with long hose from the road. The concrete cure time is approximately two weeks. Steps will be 1.5-foot tall with a total height of the wall at 9-feet. The stair-stepped wall may be finished with a small section of riprap (non-grouted) at the top;
- A guardrail will be constructed along the campground road for the length of the new wall;
- Repairs to the low-water crossing will include a concrete wall and footer, approximately 60 feet long, structurally tied (using rebar) into the edge of the existing undermined concrete slab and extended a minimum of two feet into the channel substrate. It is not anticipated that equipment will need to work within the channel to accomplish this repair; rather work would be conducted from the low-water crossing or paved road;

- A small portion of the channel next to the low-water crossing will need to be dewatered to improve and repair the structure. Surface flow in the main channel at the low-water location will be re-routed around the dewatered repair section.
- Minimal ground disturbance will take place in the Campground, such as staging areas for equipment and materials. Upon completion of construction, this area will be seeded and monitored for re-vegetation success.

Oak Creek is an outstanding Arizona water (OAW), and as such, requires an individual § 401 WQC to ensure that the proposed activities will not cause or contribute to an exceedance of a surface water quality standard (SWQS) in the waterbody and that any water quality impacts are temporary. Temporary water quality impacts are those impacts that occur for a period of six months or less, per A.A.C. R18-11-107.01(C)(4).

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 USACE PCN application and associated details, plans and maps; dated and received by ADEQ on February 27, 2024. Permittee: Red Rock Ranger District, Coconino National Forest, Attn.: Kate Day
- B. 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 Oak Creek are: Agriculture – Irrigation (AGI), Agriculture – Livestock (AGL), Aquatic and Wildlife Cold (A&Wc), Domestic Water Supply (DWS), Full Body Contact (FBC), and Fish Consumption (FC).
- C. Arizona Administrative Code Title 18 Chapter 11, Article 112 (R18-11-112(G)2) Outstanding Arizona Waters

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
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:

Cave Springs Bank Stabilization Project
USACE File No.: SPL-2023-00612
ADEQ LTF No.: 102815

5. Certification Notes:

This WQC applies only to the activities described in Section 2 and is based upon the information listed in Section 3.

As noted in Section 1, this WQC will become part of the USACE § 404 permit SPL-2023-00612 and is valid for the same time period as that permit. The project proponent must apply for renewal, modification or extension of this WQC if the CWA 404 permit is renewed, modified, extended or otherwise changed.

6. Certification Condition:

Discharges from dewatering activities occurring in the diverted channel “area of construction” shall not be discharged back into Oak Creek. Any such discharges must be directed to other areas of the site or captured and trucked off-site, pursuant to Arizona Surface Water Quality Standards in A.A.C. R18-11-107(C).