

Red Rock Correctional Facility Wastewater Treatment Facility
Aquifer Protection Permit No. P-105663
Place ID 91573, LTF No. 77356
Significant Amendment

I. Introduction:

The Arizona Department of Environmental Quality (ADEQ) proposes to issue an Aquifer Protection Permit (APP) for the subject facility that covers the life of the facility, including operational, closure, and post-closure periods unless suspended or revoked pursuant to Arizona Administrative Code (A.A.C.) R18-9-A213. The requirements contained in this permit will allow the permittee to comply with the two key requirements of the Aquifer Protection Program: 1) meet Aquifer Water Quality Standards (AWQS) at the Point of Compliance (POC); and 2) demonstrate Best Available Demonstrated Control Technology (BADCT). BADCT's purpose is to employ engineering controls, processes, operating methods or other alternatives, including site-specific characteristics (i.e., the local subsurface geology), to reduce discharge of pollutants to the greatest degree achievable before they reach the aquifer or to prevent pollutants from reaching the aquifer.

II. Facility Location:

1750 E. Arica Road
Eloy, Arizona, 85131

III. Facility Description:

The permittee is authorized to operate the Red Rock Correctional Facility Wastewater Treatment Facility (WWTF), a 0.545 million gallon per day (mgd) facility. The treatment process consists of headworks with auger grinder, two influent lift stations, alkalinity tank, aerobic and anoxic basins, clarifiers, UV disinfection units, effluent pump stations, sludge storage tank, rotary fan sludge dewatering unit, and four lined sludge drying beds. Approximately 44,000 gallons per day (gpd) of filter backwash water from on-site portable water softener units and skimmings from the secondary clarifier may be delivered to the headworks for treatment. Dried sludge is transported offsite to an approved landfill for disposal. The WWTF serves the Red Rock and Saguaro Correctional Facilities. Effluent may be discharged to one of four on-site evaporation/infiltration basins containing a total of 80 shallow vadose-zone wells (20 wells per basin).

IV. Amendment Description:

ADEQ reviewed and approved the following changes to the permit:

- Revise the AQL of 20.9 mg/L for Nitrate as Nitrogen (NO₃-N) and Nitrite as Nitrogen (NO₂-N) for POC Well, MW#1. Note that the AQL for these nitrogen species also serves as the AQL for the same parameters at the Eloy WRF POC Well, MW #3b under APP 102749.
- Replace Total Coliform with *E. Coli* as a monitoring parameter for the POC Well in Section 4.2 Table IIB, Groundwater Monitoring for Sampling Point Number 2, MW#1.
- Change title of Table II to Table IIA.
- Added the Monitor Well #2 (ADWR # 55-218483) from the Eloy Detention Center Water Reclamation Facility Permit #102749 as a Point of Compliance Well (POC #2) for this facility. Core Civic owns and operates the Eloy Complex which consists of four correctional facilities: 1) the Eloy Detention Center; 2) Red Rock Correctional Center;

3) the La Palma Correctional Facility; and the 4) Saguaro Correctional Center. The Eloy complex is served by two wastewater treatment plants that includes the Red Rock Correctional Center WWTP and the Eloy Detention Center WRF.

V. Regulatory Status:

The latest inspection dated February 13, 2020 indicates that the facility was found to be in compliance with the APP and Arizona rules and statutes.

VI. Best Available Demonstrated Control Technology (BADCT):

The treatment facility shall be designed, constructed, operated, and maintained to meet the treatment performance criteria for new facilities as specified in A.A.C. R18-9-B204. The facility shall meet the performance requirement for industrial pre-treatment as per A.A.C. R18-9-B204(B)(6)(b).

VII. Compliance with Aquifer Water Quality Standards (AWQS):

To ensure that site operations do not result in a violation of Aquifer Water Quality Standards at the point of compliance, representative samples of the effluent point of discharge from the effluent pump station. (see Section 4.2, Table IA, in the permit).

Groundwater monitoring is required under this permit per Section 4.2, Table IIA for *E. Coli*, nitrogen species, metals and organic compounds.

Facility inspection and operational monitoring will be performed on a routine basis (see Section 4.2, Table III, in the permit)