

Beaver Creek Preserve Wastewater Treatment Plant
Aquifer Protection Permit No. P-105724
PLACE ID 113173, LTF 78025
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:

6066 N Stratford Ct
Rimrock, Arizona

III. Facility Description:

The permittee is authorized to operate the Beaver Creek Preserve Wastewater Treatment Plant (WWTP) with a treatment capacity of 35,000 gallons per day (gpd). Due to the limited disposal capacity, the permittee is allowed to operate the WWTP with a maximum monthly average flow of 7,500 gpd only. The facility can increase the treatment capacity at the WWTP by adding additional disposal capacity per Section 3.0, Compliance Schedule Item 3.1.

The WWTP process consists of the headworks with a bar screen, two (2) anoxic tanks, two (2) aeration tanks with mixers, a clarifier, a filter, Ultra Violet (UV) disinfection, an emergency chlorination tank, an emergency storage tank, an aerobic sludge digester and an effluent pump station. During the low flows (approximately 1,100 gpd), the WWTP only operates one anoxic tank and one aeration tank. The facility may add a second UV disinfection unit if needed to meet the discharge limit for Fecal Coliform. The sludge is hauled off-site for management and disposal in accordance with state and federal regulations.

The effluent may be disposed through a recharge well. Prior to injection, the effluent will undergo secondary treatment using a Sanitron UV Unit to insure that the all the fecal coliform will be removed from the Class B+ effluent. Disposal of effluent through the subsurface irrigation fields shall only be used as a back-up during peak effluent flows. The depth to groundwater is approximately 180 feet below land surface (bls) and the direction of groundwater flow is to the southwest.

IV. Amendment Description:

The purpose of this amendment is to change the ownership of the facility, add a recharge well as an additional disposal method and to update the closure cost from \$100,000.00 to \$122,353.00. The new closure cost includes the closure cost of the recharge well.

V. Regulatory Status:

An application for this Permit Amendment (Other) was received on January 14, 2020. On February 21, 2020, the permittee requested a change to the disposal method by adding a recharge well. The permit category for this amendment was determined to be an “Significant Amendment” in accordance with A.A.C. R18-9-A211(B)(9), change in the disposal method.

The latest inspection dated September 17, 2019 indicated that the facility was found to not be in compliance with the APP and Arizona rules and statutes. The facility was issued a Notice of Opportunity to Correct Deficiencies on October 3, 2019 and was closed on February 27, 2020.

The Notice was issued for failing to have calibration information in the O & M Manual for the Mag Flow Meter and observed standing reclaim water at the open access irrigation site.

VI. Best Available Demonstrated Control Technology (BADCT):

The WWTP was 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 violation of Aquifer Water Quality Standards at the point of compliance, representative samples of the effluent shall be collected at the flow meter located at the line going to the effluent discharge at sampling point 2 (see Section 4.2, Table I, in the permit).

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