

Alpine Sanitary District Wastewater Treatment Facility  
Aquifer Protection Permit No. P-101437  
Place ID 1444, LTF No. 95352  
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. Permittee & Facility Location:**

The facility is located at County Road 2311 approximately one-half mile south of Highway 180, in Alpine, in Apache County, Arizona.

**III. Facility Description:**

The Alpine Sanitary District Wastewater Treatment Facility is authorized to treat a maximum daily average flow of 76,560 gallons per day (gpd). The facility includes three lagoons which provide primary and secondary treatment through sedimentation and anaerobic digestion. The lagoons are lined with low permeability soil liners and effluent disposal is generally by evaporation in the lagoons. Effluent may also be discharged to Pond #4 after treatment in Lagoon #3 to remove phosphorus and disinfection through a chlorination/de-chlorination system.

**IV. Amendment Description:**

The purpose of this amendment is to make the following changes:

1. Revise the groundwater monitoring requirements at the Point of Compliance (POC) monitor well POC #2. Monitoring at POC #2 will only be required in the event of an operational performance violation or exceedance, or an exceedance of a discharge limit Alert Level (AL). POC #2 was originally installed to monitor groundwater attributed to discharges to Pond #4. There has only been one discharge to Pond #4 in the last ten years. The routine monitoring that has been done at POC #2 is therefore measuring ambient groundwater conditions. POC #2 is screened in an upper alluvial groundwater system that is in direct connection with the nearby San Francisco River, and samples measured at the well may be impacted by other point and non-point sources. There are several possible sources of constituents measured at POC #2, therefore it cannot be accurately concluded that any exceedances observed at POC #2 are from the Alpine facility. The contingency groundwater monitoring is intended to identify potential impacts to shallow groundwater from an unexpected event or discharge treatment deficiency.

2. Update the permit to the latest version which includes a table of contents, format changes and additional language changes that do not significantly alter the content and requirements of the permit.
3. Update CSI Items.

The permit category for this amendment was determined to be an “Significant Amendment” as per A.A.C. R18-9-A211(B)(5).

**V. Best Available Demonstrated Control Technology (BADCT):**

The Alpine Sanitary District WWTP is designed to meet the treatment performance criteria for existing facilities as specified in A.A.C. R18-9-B205.

**VI. Compliance with Aquifer Water Quality Standards (AWQS):**

To ensure that site operations do not result in violation of Aquifer Water Quality Standards at the POC, representative samples of the effluent will be collected at the end of the chlorination/de-chlorination system when there is a discharge to Pond #4. Samples will be monitored for E.coli, nitrogen species, metals, and volatile and semi-volatile organic compounds (VOCs and SVOCs).

To ensure that site operations do not result in violation of Reclaimed Water Standards for the beneficial use of Class B reclaimed water, representative samples of the reclaimed water will be collected at the end of the chlorination/de-chlorination system and will be monitored for E.coli.

Facility inspections and operational monitoring shall be performed on a routine basis.