

Ed Pastor Kino Environmental Restoration Project Plant
Aquifer Protection Permit No. P-103617
Place ID 8916, LTF No. 72657
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:

2725 E. Ajo Way
Tucson, Arizona 85713

III. Facility Description:

The permittee is authorized to operate the Ed Pastor Kino Environmental Restoration Project (KERP) with a maximum monthly average inflow of 2.0 million gallons per day (mgd) of reclaimed water. The KERP consists of an Irrigation Pond, a Deep Pond, a Small Pond and various other lined water courses for storage and disposal of reclaimed water. All the KERP ponds are lined with 40 mil HDPE liners. The water courses are lined with a 4-inch rebar-reinforced gunite shell with embedded cobbles, lined with a HDPE liner, soil cement, or soil that will restrict infiltration to less than 550 gallons-per-acre per day.

The sources of inflow to the KERP includes:

Reclaimed water from the Tucson Reclaimed Water Treatment Plant (APP No. P-100147 (Class A)); Groundwater which is chlorinated prior to delivery to the KERP; Effluent from the Randolph Park Water Reclamation Plant (APP No. P-100635 (Class A)), and Stormwater from the site and adjoining properties.

Water in the KERP is disposed of by evapo-transpiration, irrigation, or incidentally disposed of via the Julian Wash under a valid AZPDES (AZ0025291) permit. Reclaimed water mixed with storm water may enter the unlined portions of the basin during significant storm events.

IV. Amendment Description:

The purpose of this amendment is:

- removal of fecal coliform monitoring requirement from Table I of the permit

- addition of reporting requirement for *E.coli*. The permittee will obtain the analytical results for *E.coli* from Tucson Reclaimed WTP APP No. P-100147 and report under this permit
- updated closure and post-closure cost

V. Regulatory Status:

The latest inspection dated April 8, 2015, 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):

All of the KERP ponds are lined with 40 mil HDPE liners. The water courses are lined with a 4-inch rebar-reinforced gunite shell with embedded cobbles, HDPE liner, soil cement, or soil to restrict infiltration to less than 550 gallons per acre per day.

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

The permittee shall monitor the effluent for the parameters listed under Section 4.2, Table I. Flows will be measured at the point of discharge to the KERP at sampling point #1. A representative sample of the wastewater shall be collected at sampling point #2 - reclaimed water booster pump station located at the Tucson Reclaimed Water Treatment Plant under APP No. P-100147.

Groundwater monitoring is not required under this permit. Irrigation with reclaimed water shall follow the Operational Requirements per Section 2.2.4, #4 of the permit.

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