

Lake Pleasant Regional Park
Aquifer Protection Permit No. 100602
Place ID No. 998, LTF No. 65061

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:

The Lake Pleasant Regional Park is located near Morristown and covers a total of over 23,000 acres of mountainous desert landscape and resides in both Maricopa and Yavapai Counties.

III. Facility Description:

The Maricopa County Parks and Recreation Department is authorized to operate onsite systems located in the Lake Pleasant Regional Park (Park). The Park covers a total of over 23,000 acres of mountainous desert landscape and resides in both Maricopa and Yavapai Counties. The onsite systems at the Park were permitted under General Permit through county. The addition of new onsite systems and increase in flow required the facility to obtain an Individual Aquifer Protection Permit. The Park have 17 onsite treatment systems consisting of septic tanks with disposal system with a total capacity of 0.028 million gallons per day (mgd). Fourteen of the onsite systems use evapotranspiration (ET) beds for disposal works, with the three remaining onsite systems utilizing trenches/fields for disposal works.

IV. Regulatory Status

This facility was operating under General Permit through county. The addition of a new onsite system and increase in flow required the facility to obtain an Individual APP. The onsite systems at the facility will be permitted under an Individual APP.

V. Best Available Demonstrated Control Technology (BADCT):

Septic tanks and fields are constructed, operated, and maintained to meet performance and design requirements in R18-9-E302. This includes facilities for which the original permit could not be found.

ET Beds are constructed, operated, and maintained to meet performance and design requirements in R18-9-E306 and R18-9-E307. This includes facilities for which the original permit could not be found.

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

Seven subsurface borings were drilled and logged during a geophysical investigation conducted by Maxim Technologies, Inc. The boring logs from the investigation show refusal at bedrock ranging from approximately five feet below ground surface (bgs) to approximately 15 feet bgs. The logs also show consistent soil composition across all borings of poorly graded gravel with silt and sand (GP-GM). The soil is noted as very dense, slightly damp, and greyish brown. Groundwater flow direction at the site varies. Based on the groundwater elevation contours provided in applicaiton, groundwater flow appears to flow away from the lake as a result of recharge.