

City of Surprise - SPA-1 Bell Road Lake/Surprise Center Recharge Facility
Aquifer Protection Permit No. P-511946
Place ID 149002, LTF No. 63329

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:

15105 West Bell Road
Surprise, Arizona 85374

III. Facility Description:

The City of Surprise is authorized to operate the Bell Road Lake/Surprise Center (BRL-SC) Recharge Facility, an underground storage and recovery project for the recharge of up to 9.830 million gallons per day (mgd) of effluent. The BRL-SC shall receive Class A+ Reclaimed water conveyed via an underground pipeline from the City of Surprise - SPA-1 Water Reclamation Facility (WRF) permitted under APP P-102478. The City of Surprise - SPA-1 WRF produces effluent that is denitrified, filtered, and disinfected to meet Best Available Demonstrated Control Technology (BADCT) standards for new facilities, as per A.A.C. R18-9-B204. The permittee has an underground Storage Facility and Water Storage Permits issued by Arizona Department of Water Resources (ADWR) for this facility.

The BRL-SC will consist of twenty-five (25) Vadose Zone (VZ) (injection) and ten (10) Contingency VZ wells to be located 3-miles north-northwest of the SPA-1- WRF.

IV. Regulatory Status:

Not constructed

V. Best Available Demonstrated Control Technology (BADCT):

Underground storage and recovery projects are exempt from BADCT as per A.A.C. R18-9-A201(C). The Class A+ reclaimed water being injected and recharged at the BRL-SC is conveyed from the SPA-1 WRF. The SPA-1 WRF was designed, constructed, operated, and maintained to meet the treatment performance criteria for new facilities as specified in A.A.C. R18-9-B204 per APP P-102478.

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

The City SPA-1 Water Reclamation Facility (WRF) produces effluent water that is denitrified, filtered, and disinfected to meet Best Available Demonstrated Control Technology (BADCT) standards for new facilities, as per A.A.C. R18-9-B204. The permittee has an underground Storage Facility and Water Storage Permits issued by Arizona Department of Water Resources (ADWR) for this facility. The BRL-SC shall receive Class A+ Reclaimed water conveyed via an underground pipeline from the City of Surprise SPA-1 WRF, currently permitted under APP P-102478. Groundwater monitoring is required under this permit.

Inspection of the pump, vadose-zone wells, facility piping and flowmeters will be performed at least weekly.