

TOWN OF GILBERT UNDERGROUND STORAGE AND RECOVERY PROJECT  
Aquifer Protection Permit No. P-102716  
Place ID 2012, LTF No. 94006  
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:**

Permittee: Town of Gilbert  
Facility Location: 402 N. Neely St., Gilbert, Arizona 85234

**III. Facility Description:**

The permittee is authorized to operate an Underground Storage and Recovery (US&R) Project to recharge up to an annual average of 3.0 million gallons per day (mgd). The permitted flow shall increase from 0.8 mgd to a maximum annual average of 3.0 mgd, over a series of up to 11 phases in increments of 0.2 mgd. The effluent recharge flow to the US&R Project will increase in increments due to the potential impact of increased recharge flow to a nearby Cooper and Commerce Water Quality Assurance Revolving Fund (WQARF) Site. The permittee shall operate the US&R Project under each phase for at least two years prior to requesting the next 0.2 mgd increase and shall submit a hydrological report to the Department as described under Section 3.0, Compliance Schedule.

The US&R Project recharges secondary treated effluent from the Town of Gilbert Neely Water Reclamation Facility (WRF), regulated under APP No. 100393. The Recharge of emergency flows from the Town of Gilbert Neely WRF is also permitted. The facility consists of 11 infiltration basins totaling approximately 50 acres of area. The infiltration basins are designed and constructed according to plans approved by ADEQ.

The US&R Project is located south and upgradient of the Cooper and Commerce WQARF Site. In order to minimize the probability that recharge at the US&R Project will contribute to migration of the groundwater contamination plume originating at the Cooper and Commerce WQARF Site, the Town of Gilbert will direct 80% of the effluent to the five (5) basins farthest from the WQARF Site. The remaining 20% of the effluent will be recharged in the remaining basins, primarily to preserve vegetation.

The current depth-to-water beneath the facility ranges from 101.3 to 109.8 feet below land surface (bls). The recent groundwater flow direction in the vicinity of the site is to the northwest.

All industrial hookups and other non-residential hookups to the treatment system shall be authorized according to the applicable federal, state or local regulations.

#### **IV. Amendment Description:**

The purpose of this amendment is to:

1. Increase recharge flow from 1.6 MGD to 1.8 MGD, per previous permit Section 3.0 Compliance Schedule Item (CSI) No. 2,
2. Set Alert Levels (ALs) and Aquifer Quality Limits (AQLs) in upgradient monitoring wells G1A and G4A to “Monitor” only as these wells do not meet the definition of a POC Well under A.R.S 49-244, and
3. Re-calculate nitrogen and nitrate ALs and AQLs for downgradient POC wells, G-7A, G-9A, and G-11, based on data from upgradient monitoring wells which demonstrate a rising trend in nitrogen species from off-site and upgradient sources.

The permit category for this amendment was determined to be an “Significant Amendment” as per A.A.C. R18-9-A211.B.2 and 4.

#### **V. Regulatory Status**

The Facility was last inspected on August 17, 2022. The Facility does not have any current open enforcement actions.

#### **VI. Best Available Demonstrated Control Technology (BADCT):**

Not applicable as per A.A.C. R18-9-A201(C).

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

The Town of Gilbert Underground Storage and Recovery Project demonstrates compliance with AWQS at the POCs established at the locations listed in Section 2.4, Table 2: Points of Compliance in the Permit. Under Groundwater Monitoring Tables 16 through 20 in the Permit, the Permittee will monitor for Nitrogen Species, E. coli, Total Coliform, Water Levels, Dissolved Metals, VOCs and SVOCs. The Permittee will conduct Discharge Flow Monitoring under Tables 9 through 15 of the Permit, which will require monitoring for Daily and Annual Flow Rates. Additionally, Discharge Monitoring is required under the Town of Gilbert Neely Water Reclamation Facility (WRF), regulated under APP No. 100393.