

HUC Campus 2 Water Reclamation Facility

Aquifer Protection Permit No. P-513090

Place ID 190845, LTF No. 99256

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 Maricopa County Parcels 504-12-134 & 504-12-136; the site is approximately 825 ft. West and 1,260 ft North from the intersection of W. Buckeye Rd. and S 343rd Ave. located in Tonapah, Arizona 85354.

III. Facility Description:

The Global Water - Hassayampa Utilities Co, Inc. is authorized to operate the HUC Campus 2 Water Reclamation Facility with a maximum average monthly flow of 60,000 gpd for Phase 1, and a total of 120,000 gpd for Phase 2. Prior to receiving enough flow for Phase 1 operation, vaulting and hauling is permitted up to 10,000 gallons per day. Wastewater influent is delivered to the WRF via a forcemain and offsite pump station covered under a type 4 general permit. This WRF is an above ground Smith and Loveless package plant. The treated effluent will be recharged through two Recharge Basins or discharged at Dickey Wash covered by AZPDES permit. The facility will produce Class A+ effluent that may be utilized under a valid reuse permit. The Department has graded this facility as a Grade 2 Wastewater Treatment Plant for both phases. The facility shall have an operator in direct responsible charge who is certified for the grade of the facility and inspects the facility weekly.

IV. Amendment Description:

Under this amendment the facility will add two recharge basins, named Recharge Basin 1 (north) and Recharge Basin 2 (south). The recharge basins will be three feet deep with an operating level at 1 foot and 2 feet of freeboard. The total combined recharge rate through the recharge basins will be 0.322 mgd per the latest percolation testing. Thus, the facility has adequate disposal capacity with one basin out of service. The permit category for this amendment was determined to be an "Significant Amendment" as per A.A.C. R18-9-A211(B)(9).

In addition, the type of filter, the number of UV light reactors and the number of lamps per reactor were updated with an equivalent or better performance system than the originally permitted.

V. Best Available Demonstrated Control Technology (BADCT):

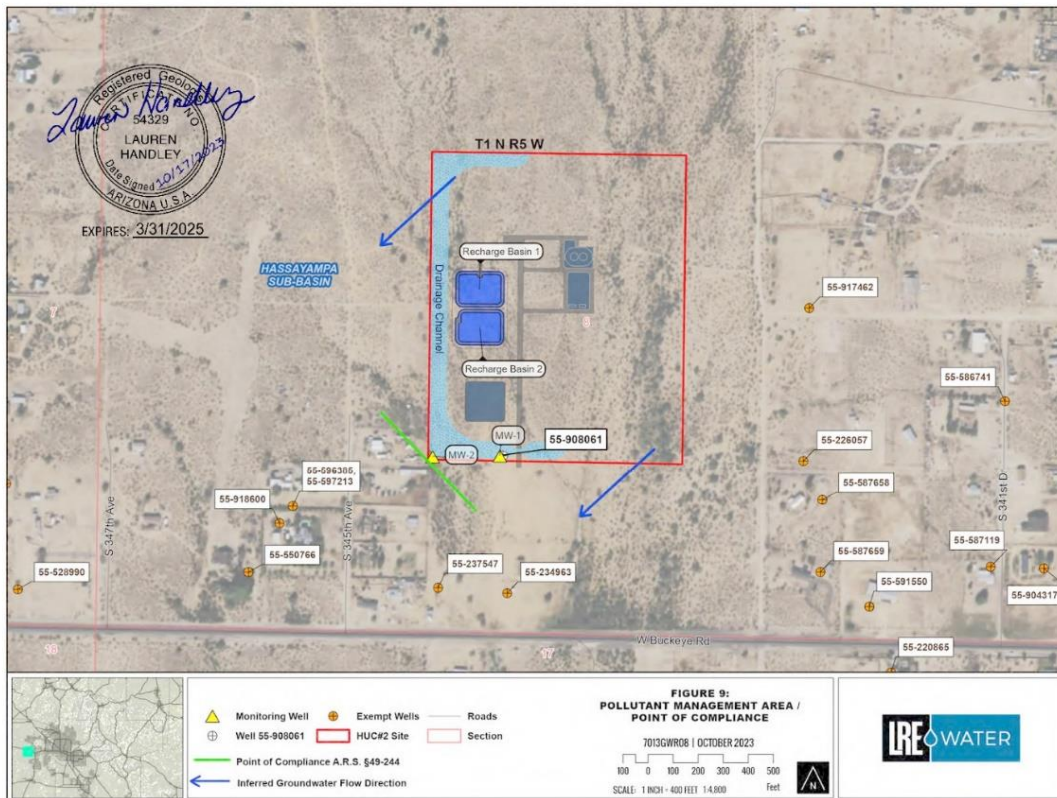
The two recharge basins were designed as per design report signed, dated, and sealed by an Arizona-registered professional engineer, Steven John Wedwick (Civil #35182), dated October 27, 2023 and

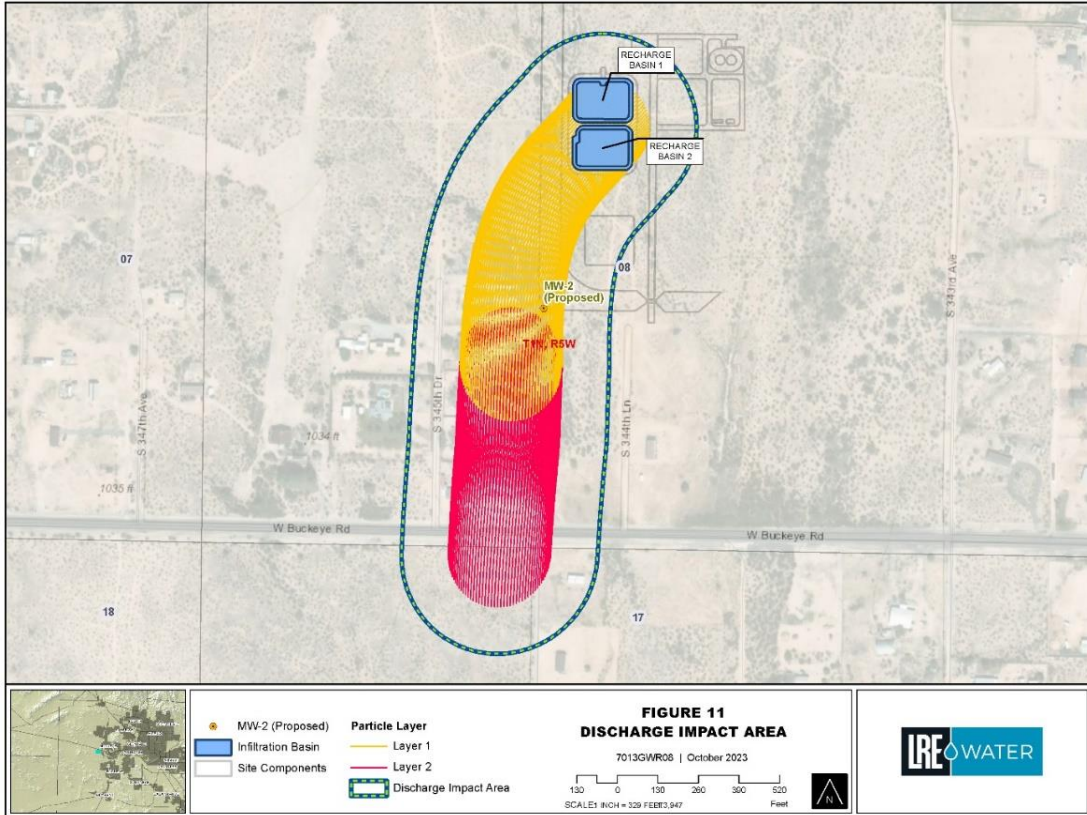
the plans were signed by an Arizona-registered professional engineer, Brian McBride (Civil #33441), under Wilson & Company, dated May 19, 2023. The basins are considered to meet BADCT requirements.

With this amendment two additional CSIs were added, named CSI #7 and #8. These CSIs require that prior to utilizing the two Recharge Basins the permittee shall submit a signed, dated, and sealed Engineer's Certificate of Completion in a format approved by the Department that confirms that the two Recharge Basins are constructed according to the Department-approved design report, plans and specifications, as applicable, as well as to notify ADEQ of commencement of discharge into the Recharge Basins.

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

Under this amendment the facility will add a new conceptual POC#3 well named MW-2 located Down-gradient at the southwest boundary of the facility. This POC well is a conceptual location and no groundwater monitoring is required. The direction of the groundwater flow is to the southwest. Figure 9 shows the Pollutant Management Area and Figure 11 shows the Discharge Impact Area.





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