

Global Water-Hassayampa Utilities Company, Inc.
HUC Campus 2 Water Reclamation Facility
Aquifer Protection Permit No. P-513090
Place ID 190845, LTF No. 91988
New Permit

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; From the intersection of W. Buckeye Rd. and S 343rd Ave, the site is approximately 825 ft. West and 1,260 ft. North located in Tonapah, Arizona 85354.

III. Facility Description:

The Global Water - Hassayampa Utilities Co, Inc. is authorized to operate the Global Water - Hassayampa Utilities Co, Inc. Water Reclamation Facility Campus 2 with a maximum average monthly flow of 120,000 gallons per day (gpd) for Phase 2 and 60,000 gpd for Phase 1. Prior to receiving enough flow for Phase 1 operation, vaulting and hauling is permitted up to 10,000 gallons per day. 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. Best Available Demonstrated Control Technology (BADCT):

Start-Up Plan: During the initial start-up, up to 10,000 gallons per day of influent may be vaulted and hauled off-site to an approved facility as per Section 4.1, Table IA. Domestic wastewater from the residential development will be fed by a forcemain to the 20,000 gallon effluent equalization tank (aerated as necessary) with a 100,000 gallon Emergency Overflow Tank as back-up volume. The system consists of a flowmeter, followed by a mechanical fine screen, two influent air-lift pumps with a covered effluent equalization tank (aerated as necessary) and odor control system. The odor control system will consist of a negative pressure air evacuation system and biofilter assembly to eliminate any nuisance odors.

Phase 1 WRF: Flow from the collection system forcemain goes through an influent flowmeter then flows through a mechanical fine screen with a wash compactor and solids bagging system, or can overflow through a manual barscreen into a 20,000 gallon aerated (as necessary) emergency overflow and equalization tank with an available additional 100,000 gallon capacity overflow tank for peak flows and to perform plant maintenance. From the equalization tank, two 43 gallon per minute (gpm)

air-lift pumps transfer influent into the first of two anoxic tanks prior to entering the FAST secondary treatment tank, which contains fixed-film activated sludge media. Mixed liquors are returned from the end of the FAST tank back to the 1st anoxic tank for denitrification. The effluent that passes through the FAST tank goes through a clarifier and a duplex gravity filter prior to UV disinfection and discharge to an effluent pump station. The Class A+ effluent may be utilized under a valid reuse permit or discharged at Dickey Wash covered by an AZPDES permit (AZPDES Permit number AZ0026611).

Return Activated Sludge is returned to Anoxic Tank #1 or wasted to an aerated sludge holding tank for storage. The aerated sludge holding tank will have storage capacity of approximately 30 days and will implement decanting to 1.5% solids. The facility will not process sludge on site. All sludge will be periodically trucked to an off-site facility for processing and disposal in accordance with Part 503 of the Clean Water Act and Title 18, Chapter 9 of the AAC.

Phase 2 WRF: A second treatment plant that will mirror the Phase 1 WRF FAST package plant will be installed and include a mechanical fine screen, additional 20,000 gpd equalization basin, two anoxic zones, FAST secondary treatment tank, clarifier, duplex gravity filter, UV system, and aerated sludge holding tank. Disinfected effluent will be discharged to the combined effluent pumping station, which will include a 3rd effluent pump.

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

V. Pre-Operational Requirements:

Prior to utilizing the Initial Start-Up Plan, the permittee shall submit an Engineer's Certificate of Completion, in a format approved by the Department, which confirms that the vault and haul system is constructed according to the Department-approved design report or plans and specifications, as applicable, per the Section 3.0, Compliance Schedule Item Number 1.

The facility shall monitor flows per Section 4.1, Table 6: FLOW MONITORING INITIAL START-UP. Once the flow rate reaches 10,000 gpd, the facility shall commence the operation of the Phase 1 WRF. At start-up, the permittee must notify ADEQ Ground Protection Value Stream prior to being authorized to operate the Fixed Activated Sludge Treatment (FAST) package plant for the Phase 1 permitted capacity of 60,000 gpd.

Prior to initiating use of the Phase 1 Water Reclamation Facility, the permittee shall submit a signed, dated, and sealed Engineer's Certificate of Completion in a format approved by the Department per the Compliance Schedule Item Number 3 in Section 3.0. The certificate shall be submitted to the Groundwater Protection Value Stream and approved prior to use of the new facility

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

There are two conceptual point of compliance well locations and no groundwater monitoring is required. The Director may amend this permit to require installation of the well(s) and initiation of groundwater monitoring at the POC or to designate additional points of compliance if information on groundwater gradients or groundwater usage indicates the need.