

Town of Camp Verde Water Reclamation Facility
Aquifer Protection Permit No. P-101360
Place ID 1403, LTF No. 82369
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

Town of Camp Verde
395 South Main Street
Camp Verde, Arizona 86322

III. Facility Name & Location:

Town of Camp Verde Water Reclamation Facility
880 S. Cowboy Trail
Camp Verde, Arizona, 86322

IV. Facility Description:

The Town of Camp Verde is authorized to operate the Camp Verde Water Reclamation Facility, with a design capacity of 1.3 million gallons per day (mgd) at full build-out; however, permitted flow shall be limited to 0.65 mgd until adequate disposal capacity is demonstrated under an APP amendment, as per Section 3.0, Compliance Schedule, Item No. 6.

Phase I WRF: The design capacity of the Phase I WRF is 0.65 mgd. The treatment process for the Phase I WRF consists of the headworks with bar screens, an extended aeration treatment train with nitrification and denitrification, clarifiers, ultraviolet (UV) disinfection, a backup chlorination system, a septage receiving station, and an effluent pump station. Filtration shall be provided as necessary to meet the discharge standards. Effluent may be disposed by infiltration and evaporation in the Duck Ponds, or delivered for beneficial reuse under a valid Recycled Water Permit.

The facility consists of two (2) aerobic sludge digesters and a belt press for sludge dewatering. The sludge is treated through the south aerobic digester and dewatered through a belt press. The two (2) treatment lagoons from the existing Lagoon Plant will be repurposed as sludge dewatering lagoons to store and dewater the waste activated sludge from the aerobic digester. The septage will

be digested in the north aerobic digester and then dried through the eight (8) new sludge drying beds. The facility will be adding two (2) new concrete-paved drying area (solids drying areas) for composting and miscellaneous solid handling activities. Solids from the screenings, grit and scum, shall be haul off-site for management and disposal.

Phase II WRF: The design capacity of the Phase II WRF is 1.30 mgd. The treatment process shall consist of the headworks with bar screens, two (2) 0.65 mgd extended aeration treatment trains with nitrification and denitrification, clarifiers, ultraviolet (UV) disinfection, a backup chlorination system, a septage receiving station, an effluent pump station, two (2) aerobic digesters, a belt press for sludge dewatering, two (2) sludge drying lagoons, eight (8) sludge drying beds and two (2) solids handling areas. Filtration shall be provided as necessary to meet the discharge standards. Effluent shall be disposed by infiltration and evaporation in the Duck Ponds, or delivered for beneficial reuse under a valid Recycled Water Permit. 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. **Amendment Description:**

The purpose of this amendment is to:

1. Update the Facility Address in Section 1.1 of the Permit.
2. Update the Annual Registration Fee Flow Rate in Section 1.1 and 2.1 to the current rate of 0.65 mgd instead of the full build-out amount of 1.35 mgd.
3. Remove CSI No.5 from the previous Permit because this Amendment increases the flow rate to 0.65 mgd.
4. Remove all Interim WRF language from the permit and the previous permit Table 1A for the Interim WRF.
5. Sections 2.2.5 and 2.5.3 of the Permit, update reclaimed water classification and monitoring to Class A+ to the Irrigation Storage Pond and irrigation reuse at the Sports Complex, while maintaining the Class B+ to the existing evaporation/infiltration ponds and truck fill station for construction water reuse.
6. Section 3.0, add Compliance Schedule Item No. 8, for the permittee to submit well abandonment documents for conceptual POC No.2 which was abandoned due to location in the middle of the concrete lined sludge drying/processing area.
7. Section 3.0, add Compliance Schedule Item No. 9, for the permittee to submit an updated contingency plan within 90 days of permit issuance.
8. Section 4.2, update monitoring for total metals to dissolved metals in the Groundwater Monitoring Tables 12 and 13 for POCs 1 and 3. This change is to establish consistent groundwater quality monitoring standards between Aquifer Protection Permits that are aligned with widely accepted practices within the scientific community and ADEQ substantive policy. Analyzing for dissolved metals provides a more accurate measurement of the water quality by filtering out particulate matter that may have come from external sources (well casings, sampling equipment, etc.).
9. Section 4.2, Table 14, replace performance levels of three linear feet for both freeboard for sludge lagoons and duck pond freeboard to performance levels of three vertical feet.

The permit category for this amendment was determined to be an “Significant Amendment” in accordance with A.A.C. R18-9-A211(B)(2)(b), “A physical change in a permitted facility or a change in its method of operation results in: an increase in design flow of a sewage treatment facility.”

VI. Regulatory Status

The Facility was last inspected on 8/26/21 and was determined to be in compliance at the time of inspection.

VII. Best Available Demonstrated Control Technology (BADCT):

The treatment train, sludge drying beds and solids handling area at WRF is designed to meet the treatment performance criteria for new facilities as specified in Arizona Administrative Code R18-9-B204. The sludge drying lagoons meets the performance criteria for existing facilities as specified in Arizona Administrative Code R18-9-B205.

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

To ensure that site operations do not result in violation of Aquifer Water Quality Standards at the point of compliance, representative samples of the effluent shall be collected at the Sampler at the downstream end of the back-up chlorination system (see Section 4.2, Tables 8 and 9, in the permit).

Reclaimed monitoring for Class A+ reuse is required under permit Section 4.2, Table 10 for Fecal Coliform, Total Nitrogen, Turbidity, and Enteric Virus. Reclaimed monitoring for Class B+ reuse is required under permit Section 4.2, Table 11 for Fecal Coliform and Total Nitrogen.

Groundwater monitoring is required under this permit per Section 4.2, Tables 12 and 13 for Fecal Coliform, nitrogen species, metals and organic compounds.

Facility inspection and operational monitoring will be performed on a routine basis (see Section 4.2, Table 14, in the permit).