

## **Rio de Flag Water Reclamation Plant**

Aquifer Protection Permit No. 102421

Place ID No. 5605, LTF No. 71878

### **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. Facility Location:**

The Rio de Flag Water Reclamation Plant (WRP) is located at 600 S. Babbitt Drive, Flagstaff, Arizona, Coconino County.

#### **III. Facility Description:**

The Rio de Flag Water Reclamation Plant (WRP) operates with a monthly average flow of 4 million gallons per day (mgd). The treatment process consists of bar screens, an influent lift station, primary clarification, activated sludge treatment with de-nitrification, secondary clarification, disc filtration and/or dual media filtration, UV disinfection, and a backup chlorination and de-chlorination system. Only effluent discharged to the Rio de Flag River is de-chlorinated. Sludge, grit, and scum flow by gravity via the sanitary sewer system to the Wildcat Hill WRP for processing under APP #P-100760. Screenings are hauled off-site for disposal in accordance with state and federal regulations. All treatment components are constructed of reinforced concrete, and include noise and odor controls.

The WRP produces reclaimed water meeting Class A+ Reclaimed Water Standards and pumps it to a reclaimed water distribution system for beneficial use under a valid reclaimed water permit. Effluent is also discharged to the Rio de Flag River, Frances Short Pond, and the Pine Canyon Golf Course Lakes under AZPDES permits.

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

The purpose of this amendment is to update the Closure / Post-Closure cost estimates, and remove monitoring requirements for Point of Compliance (POC) Well #1. The City of Flagstaff has demonstrated through the use of monitoring data that the Rio de Flag WRP is able to consistently treat effluent to Class A+ reclaimed water standards, and maintain compliance for discharge monitoring and groundwater monitoring.

**V. Regulatory Status**

There are no current enforcement actions for this facility.

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

The WRP is designed, constructed, operated, and maintained to meet the treatment performance criteria for new facilities as specified in A.A.C. R18-9-B204. The facility meets the requirements for industrial pre-treatment as per A.A.C. R18-9-B204(B)(6)(b), and all containment structures in the treatment works are designed so as not to exceed a maximum seepage rate of 550 gallons per day per acre

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

The WRP has demonstrated the ability to meet AWQS at the existing POC and treat effluent to Class A+ Reclaimed Water Standards.