

**River Sands RV Wastewater Treatment Plant
Aquifer Protection Permit No. P-513286
Place ID 191922, LTF No. 80476**

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 permittee is CO River LLC.

The facility is located near Interstate 10 West, exit at Ehrenberg Parker Highway in Ehrenberg in La Paz County in Arizona.

III. Facility Description:

The permittee is authorized to operate River Sands RV Resort WWTP with a maximum monthly average flow of 0.052 mgd at the built out. The facility will consist of three phases, Phase I will be rated at 0.015 mgd, Phase II will be rated at 0.023 mgd and Phase III will be rated at 0.014 mgd. The WWTP will serve RV Resort consisting of 400 RV spaces at the built out, laundry facilities, a small store and a clubhouse.

The treatment train will consist of a common headworks with manual screen, a chlorine contact tank, a de-chlorination and a sludge holding tank. These components are rated for 0.0525 mgd for all three phases. The facility proposed to commence the Phase I and Phase II at the same time.

Phase I and Phase II WWTP: Phase I and Phase II WWTP treatment will have capacity to treat maximum monthly average flow of 0.038 mgd. Phase I will be rated at 0.015 mgd will serve 115 RV spaces. Phase I treatment train will include headworks with screen, a flow equalization tank, an anoxic tank, two aeration tanks, one reaeration tank and a clarifier. Phase II WWTP will be rated at 0.023 mgd (23,375 gallons per day) and new 185 RV spaces will be added. Phase II will utilize the common headworks, flow equalization tank from Phase I, an anoxic tank, two aeration tanks, one reaeration tank and a clarifier.

Phase III WWTP: Phase III treatment train will have capacity to treat 0.014 mgd (14,125 gallons per day) and will add 115 additional RV spaces. The wastewater from common headworks flows to an existing equalization tank and a new flow equalization tank. The flow will be split and diverted to the treatment trains. The Phase III treatment train consists of an anoxic tank, two aeration tanks, one reaeration tank and a clarifier.

The clarified effluent from all three phases will be disinfected through chlorination and then de-chlorinated prior to discharge. The sludge from all three phases will be stored in sludge holding tank. The sludge will be then dewatered to sludge dewatering Geo-membrane Tubes. The Geo-membrane Tubes will be placed on concrete pad. Sludge, including screenings, grit, and scum, will be hauled off-site for management or disposal in accordance with state and federal regulations. The effluent will be discharged through two infiltration ponds located at the site.

IV. Regulatory Status:

This is a new facility and application was received on February 6, 2020.

V. Best Available Demonstrated Control Technology (BADCT):

- The treatment facility shall be 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 shall meet the performance requirement for industrial pre-treatment as per A.A.C. R18-9-B204(B)(6)(b).
- The treatment facility shall not exceed a maximum seepage rate of 550 gallons per day per acre for all containment structures within the treatment works.
- The facility requested alternate (reduced) pathogen monitoring frequency per A.A.C. R18-9-B204(B)(4)(a)(iii). The facility will be installing chlorine residual monitoring equipment.

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

To ensure that site operations do not result in violation of Aquifer Water Quality Standards at the POC, representative samples of the effluent will be collected at the outlet of the chlorine contact basin and will be monitored continuous chlorine residue, weekly for fecal coliform, monthly for total nitrogen, quarterly for metals, semi-annually for volatile and semi-volatile organic compounds.