

LIBERTY ELEMENTARY SCHOOL ONSITE WASTEWATER FACILITY

Aquifer Protection Permit No. P-513464

Place ID 29765, LTF No. 85691

New Individual APP

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:

Liberty Elementary School District #25
19818 W US Highway 85
Buckeye, AZ, 85326
Maricopa County

III. Facility Description:

The permittee is authorized to operate the Liberty Elementary School Onsite Wastewater Facility with a 0.00585 million gallons per day (5,850 gallons per day) flow. The Facility will consist of two Existing Septic Tank Systems and an upgraded Textile Filter System. The wastewater consists of typical domestic sewage from the restrooms at the school buildings, district office and at warehouse, and water from the cafeteria kitchen.

The Existing Septic Tank Systems and existing Textile Filter System were operated under a General Permit. The Textile Filter System will serve the existing and three new school buildings. The new buildings will have a cafeteria and restrooms. The school will have 500 elementary students and 40 staff members.

- Existing Septic Tank System for District Office: This Existing Septic Tank System serves the district office located on the north part of the school site. The Septic Tank System is designed for 2000 gpd and consists of a 4,200 gallons conventional septic tank and subsurface trenches for disposal.
- Existing Septic Tank System for Warehouse: This Existing Septic Tank System was serving historic school building previously which is now converted to a warehouse. This Existing Septic Tank System now serves a warehouse located south part of the school site. The approximate flow from this warehouse is 50 gpd. The Existing Septic Tank System consists of a 5,700 gallons septic tank and leach lines for disposal.
- Textile Filter Treatment System: The facility consisted of the existing Textile Filter System which will be upgraded by adding new treatment tanks. The existing septic tank, an

Advantex AX-100 Textile Filter and existing subsurface trenches will be used for upgraded system. The upgraded Textile Filter System will serve to existing and three new school buildings and a cafeteria. The school will have 500 elementary students and 40 staff members. Textile Filter Treatment System is designed for 3,800 gpd flow. The treatment system will consists of a grease interceptor for flow from a cafeteria, an existing 15,000 gpd septic tank, a 4,000 gallons pre-anoxic tank, an existing first stage Advantex AX-100 Textile filter, second stage Advantex AX-100 Textile filter, a 2,000 gallons post-anoxic tank and UV disinfection. The effluent will be discharged through subsurface trenches. Disposal of treated effluent is through 8 Subsurface Trenches, each 100 ft in length. The total estimated area of the leach fields is 16,600 ft² or 0.38 acres.

The depth to groundwater is approximately 25 ft below land surface and flows to the southwest.

IV. 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.

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

Groundwater monitoring is required at the point of compliance wells upon completion of Ambient Monitoring per Permit Section 3.0, Compliance Scheduled Item No. 5. POC #1 will be installed per Permit Section 3.0, Compliance Scheduled Item No. 3.

The Points of Compliance (POCs) have been established at the following locations:

Table 1: POINT(S) OF COMPLIANCE				
POC #	POC Location	ADWR No.	Latitude (North)	Longitude (West)
POC #1	Downgradient of Subsurface Trenches	TBD	33° 22' 44.05"	112° 29' 47.83"

The Permittee will monitor their Discharge through Permit Table 9: Routine Discharge Monitoring that consists of monitoring for Total Flow, Fecal Coliform, Total Nitrogen, Dissolved Metals, and Volatile and Semi-Volatile Organic Compounds.