

**STATE OF ARIZONA
AQUIFER PROTECTION PERMIT NO. P-102873
PLACE ID 400, LTF 73525
SIGNIFICANT AMENDMENT**

1.0 AUTHORIZATION

In compliance with the provisions of Arizona Revised Statutes (A.R.S.) Title 49, Chapter 2, Articles 1, 2 and 3, Arizona Administrative Code (A.A.C.) Title 18, Chapter 9, Articles 1 and 2, A. A. C. Title 18, Chapter 11, Article 4 and amendments thereto, and the conditions set forth in this permit, the Arizona Department of Environmental Quality (ADEQ) hereby authorizes the Superstition Mountains Community Facilities District No. 1 Wastewater Treatment Plant located at 5661 South Ironwood Drive, in Apache Junction, Arizona (Pinal County), over groundwater of the east Salt River Valley Groundwater Sub-Basin, in the Phoenix Active Management Area (AMA), in Township 01 S, Range 08 E, Section 08, of the Gila and Salt River Baseline and Meridian.

This permit becomes effective on the date of the Water Quality Division Director's signature and shall be valid for the life of the facility (operational, closure, and post-closure periods) unless suspended or revoked pursuant to A.A.C. R18-9-A213. The permittee shall construct, operate and maintain the permitted facilities:

1. Following all the conditions of this permit including the design and operational information documented or referenced below, and
2. Such that Aquifer Water Quality Standards (AWQS) are not violated at the applicable point(s) of compliance (POC) set forth below or if an AWQS for a pollutant has been exceeded in an aquifer at the time of permit issuance, that no additional degradation of the aquifer relative to that pollutant and as determined at the applicable POC occurs as a result of the discharge from the facility.

1.1 PERMITTEE INFORMATION

Facility Name: Superstition Mountains Community Facilities District No.1 Wastewater Treatment Plant

Facility Address: 5661 South Ironwood Drive
Apache Junction, Arizona 85120

County: Pinal County

Permittee: Superstition Mountains Community Facilities District No.1

Permittee Address: 5661 South Ironwood Drive
Apache Junction, Arizona 85120

Permitted Flow Rate: 3,000,000 gallons per day (gpd)

Facility Contact: Darron Anglin

Emergency Phone No.: (480) 941-6760

Latitude/Longitude: 33° 21' 40" N/111° 33' 30" W

Legal Description: Township 01 S, Range 08 E, Section 08, of the Gila and Salt River Baseline and Meridian.

1.2 AUTHORIZING SIGNATURE

Trevor Baggione, Director, Water Quality Division
Arizona Department of Environmental Quality

Signed this _____ day of _____, 2020

THIS AMENDED PERMIT SUPERCEDES ALL PREVIOUS PERMITS

2.0 SPECIFIC CONDITIONS [A.R.S. §§ 49-203(4), 49-241(A)]

2.1 Facility / Site Description [A.R.S. § 49-243(K)(8)]

The Superstition Mountains Community Facilities District No. 1 (SMCFD) is authorized to operate the SMCFD Wastewater Treatment Plant (WWTP) with a maximum average monthly flow of 3.0 million gallons per day (mgd). The WWTP will be rerated from 2.1 mgd to 3.0 mgd in three phases.

Existing WWTP:

The 2.1 mgd treatment process consists of a headworks with screens and two (2) grit removal systems, two (2) Biolac treatment systems for extended aeration/activated sludge processing with nitrogen removal, two (2) clarifiers, chlorination and de-chlorination. The Biolac Basins are lined with 60-mil HDPE liners. Sludge is placed in two (2) asphalt lined sludge thickening lagoons, dried in two (2) asphalt lined sludge drying beds and six (6) concrete rapid sludge drying beds. The permittee may also use the biosolid storage area for composting the sludge before disposal off site.

Phase II - 2.6 mgd:

The WWTP may increase the design flows to 2.6 mgd upon completing upgrades at the plant and submitting the Engineer's Certificate of Completion (ECOC) per Section 3.0, Compliance Schedule, Item 3.1. The treatment process consists of a headworks with screens and two (2) grit removal systems, two (2) Biolac treatment systems for extended aeration/activated sludge processes with nitrogen removal, new aeration blowers, six (6) clarifiers, one new disk filter unit, chlorination and de-chlorination. The facility may install an additional disk filter unit for future use when needed.

The Existing Biolac Basins and Sludge handling facilities will remain in use. The Biolac Basins are lined with 60-mil HDPE liners. Sludge is placed in two asphalt lined sludge thickening lagoons, then dried in two asphalt lined sludge drying beds and six concrete rapid sludge drying beds. The permittee may also use the biosolid storage area for composting the sludge before disposal off site.

Phase III - 3 mgd:

The WWTP may increase the design flow to 3 mgd upon installation of the additional diffusers in the Biolac Basins per Section 3.0, Compliance Schedule Item 3.5. The treatment process consists of a headworks with screens and two (2) grit removal systems, two (2) Biolac treatment systems for extended aeration /activated sludge processes with nitrogen removal, new additional diffusers, aeration blowers, six (6) clarifiers, one disk filter unit, one future disk filter unit, chlorination and de-chlorination. The facility may install an additional disk filter unit for future use when needed.

The Existing Biolac Basins and Sludge handling facilities will remain in use. The Biolac Basins are lined with 60-mil HDPE liners. Sludge is placed in two asphalt lined sludge thickening lagoons, then dried in two asphalt lined sludge drying beds and six concrete rapid sludge drying beds. The permittee may also use the biosolid storage area for composting the sludge before disposal off site.

Effluent may be discharged to Weeks Wash under AZPDES permit #AZ0023931 and/or recharged through the seven (7) existing recharge basins and the five (5) new recharge basins, the 36 vadose zone wells and/or reused under a valid Reclaimed Water Permit for beneficial purposes. The vadose zone wells are constructed in the existing recharge basins #1 through #7 to enhance the recharge activity. The five (5) new recharge basins will be constructed as needed. The facility may construct up to 50 boreholes within the each of the new recharge basins to increase the recharge rates. The boreholes will be constructed four (4) feet in diameter and 80 ft deep and consist of only rock material.

Amendment Description

ADEQ reviewed and approved the following changes:

- Re-rating of the existing treatment train from 2.1 mgd to 3 mgd contingent upon all the upgrades at the plant in phases;

- The addition of new tertiary disk filter units, one unit will be added as part of this amendment and the second unit will be added in the future when needed. Each unit can treat up to 3 mgd flow;
- Replacement of the existing blowers with new blowers to accommodate the increased flow;
- The addition of aeration diffusers;
- Replacing POC well MW-1 with MW-1A. POC well MW-1 was improperly screened due to increasing water levels;
- Update the Closure Cost from \$1,273,000.00 to \$1,380,000.00;
- The addition of five (5) new recharge basins which will be added as needed; and
- The addition of a new sodium hypochlorite pump for chlorination.

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

The WWTP includes the following permitted discharging facilities:

Facility	Latitude	Longitude
WWTP	33° 21' 40" N	111° 33' 30" W
Sludge Lagoon - East (lined)	33° 21' 44" N	111° 33' 25" W
Sludge Lagoon - West (lined)	33° 21' 44" N	111° 33' 26" W
Sludge Drying Bed – North (lined)	33° 21' 42" N	111° 33' 21" W
Sludge Drying Bed - South (lined)	33° 21' 41" N	111° 33' 27" W
Rapid Sludge Drying Beds	33° 21' 40" N	111° 33' 29" W
Weekes Wash Outfall	33° 21' 30" N	111° 33' 32" W
Recharge Basin 1	33° 21' 41.5" N	111° 33' 29.7" W
Recharge Basin 2	33° 21' 39" N	111° 33' 35.8" W
Recharge Basin 3	33° 21' 37.8" N	111° 33' 32.4" W
Recharge Basin 4	33° 21' 36.4" N	111° 33' 29.1" W
Recharge Basin 5	33° 21' 37.2" N	111° 33' 36.6" W
Recharge Basin 6	33° 21' 35.9" N	111° 33' 33.4" W
Recharge Basin 7	33° 21' 34.7" N	111° 33' 29.8" W
Recharge Basin 8	33° 21' 33" N	111° 33' 32" W
Recharge Basin 9	33° 21' 35" N	111° 33' 36" W
Recharge Basin 10	33° 21' 31" N	111° 33' 35" W
Recharge Basin 11	33° 21' 32" N	111° 33' 40" W
Recharge Basin 12	33° 21' 35.7" N	111° 33' 40.5" W
Recharge Basin 1 Vadose zone wells		
Vadose zone well 1-1	33° 21' 42.36" N	111° 33' 29.39" W
Vadose zone well 1-2	33° 21' 41.55" N	111° 33' 29.94" W
Vadose zone well 1-4	33° 21' 41.93" N	111° 33' 29.28" W
Vadose zone well 1-5	33° 21' 40.93" N	111° 33' 29.85" W
Vadose zone well 1-6	33° 21' 42.09" N	111° 33' 29.75" W
Vadose zone well 1-7	33° 21' 41.27" N	111° 33' 29.19" W
Recharge Basin 2 Vadose zone wells		
Vadose zone well 2-1	33° 21' 39.31" N	111° 33' 36.64" W

Vadose zone well 2-2	33° 21' 49.74" N	111° 33' 35.95" W
Vadose zone well 2-3	33° 21' 38.58" N	111° 33' 36.58" W
Vadose zone well 2-4	33° 21' 39.20" N	111° 33' 35.37" W
Vadose zone well 2-5	33° 21' 38.58" N	111° 33' 35.75" W
Vadose zone well 2-6	33° 21' 39.20" N	111° 33' 34.56" W
Vadose zone well 2-7	33° 21' 38.05" N	111° 33' 35.20" W
Vadose zone well 2-8	33° 21' 38.48" N	111° 33' 34.52" W
Recharge Basin 3 Vadose zone wells		
Vadose zone well 3-1	33° 21' 37.99" N	111° 33' 33.31" W
Vadose zone well 3-2	33° 21' 38.46" N	111° 33' 32.64" W
Vadose zone well 3-3	33° 21' 37.30" N	111° 33' 33.28" W
Vadose zone well 3-4	33° 21' 37.87" N	111° 33' 32.09" W
Vadose zone well 3-5	33° 21' 37.24" N	111° 33' 32.44" W
Vadose zone well 3-6	33° 21' 37.92" N	111° 33' 31.20" W
Vadose zone well 3-7	33° 21' 36.75" N	111° 33' 31.85" W
Vadose zone well 3-8	33° 21' 37.17" N	111° 33' 31.17" W
Recharge Basin 4 Vadose zone wells		
Vadose zone well 4-1	33° 21' 36.76" N	111° 33' 29.94" W
Vadose zone well 4-2	33° 21' 37.16" N	111° 33' 29.30" W
Vadose zone well 4-3	33° 21' 36.00" N	111° 33' 29.94" W
Vadose zone well 4-4	33° 21' 36.68" N	111° 33' 28.69" W
Vadose zone well 4-5	33° 21' 36.02" N	111° 33' 29.05" W
Vadose zone well 4-6	33° 21' 36.61" N	111° 33' 27.86" W
Vadose zone well 4-7	33° 21' 35.45" N	111° 33' 28.50" W
Vadose zone well 4-8	33° 21' 35.93" N	111° 33' 27.79" W
Recharge Basin 5 Vadose zone wells		
Vadose zone well 5-1	33° 21' 37.41" N	111° 33' 37.22" W
Vadose zone well 5-2	33° 21' 36.88" N	111° 33' 35.84" W
Recharge Basin 6 Vadose zone wells		
Vadose zone well 6-1	33° 21' 36.16" N	111° 33' 33.97" W
Vadose zone well 6-2	33° 21' 35.59" N	111° 33' 32.49" W
Recharge Basin 7 Vadose zone wells		
Vadose zone well 7-1	33° 21' 38.84" N	111° 33' 30.58" W
Vadose zone well 7-2	33° 21' 34.29" N	111° 33' 29.14" W

Annual Registration Fee [A.R.S. § 49-242 and A.A.C. R18-14-104]

The annual registration fee for this permit is payable to ADEQ each year. The permitted flow for fee calculation is 3.0 million gallons per day (mpd).

Financial Capability [A.R.S. § 49-243(N) and A.A.C. R18-9-A203]

The permittee has demonstrated financial capability under A.R.S. § 49-243(N) and A.A.C. R18-9-A203. The estimated dollar amount for facility closure is \$1,380,000.00. The financial capability was demonstrated through A.A.C. R18-9-A203 (B)(1) for a local government entity.

**2.2 Best Available Demonstrated Control Technology (BADCT)
[A.R.S. § 49-243(B) and A.A.C. R18-9-A202(A)(5)]**

The SMCFD WWTP is an existing facility defined in A.R.S. § 49-201(16). The facility meets the BADCT requirements for existing facility as per A.A.C.R18-9-B205.

2.2.1 Engineering Design

The additional recharge basins, filtration unit and aeration modifications were designed as per the design report prepared and stamped, dated, and signed (sealed) by Teresa Valentine, P.E. (Professional Engineer) Valentine Environmental Engineers dated July 24, 2019 and subsequent sealed submittals that served as additions to the design report. The re-rate study to increase the flow at the WWTP was per the report dated April 26, 2018 and signed and sealed by William T. Moore, P.E., Tetra Tech, Inc. and updated report is dated November 22, 2019.

The design of the existing WWTP is according to plans approved by ADEQ Groundwater Section. The recharge basins shall conform to plans dated March 29, 2000, and March 30, 2004. The liners for the ponds was designed as per the design report prepared and stamped, dated, and signed (sealed) by Christopher Simko, P.E. (Professional Engineer) Stantec Consulting Services, Inc., dated September 2016 and subsequent sealed submittals that served as additions to the design report.

2.2.2 Site-specific Characteristics

Not applicable.

2.2.3 Pre-operational Requirements

The permittee shall submit an Engineer's Certificate of Completion for the new units required for the 2.6 mgd upgrades to the WWTP prior to discharge and within 90 days of completion of construction per Section 3.0, Compliance Schedule, Item 3.1 of the permit. The permittee shall submit an Engineer's Certificate of Completion for the 3.0 mgd upgrades to WWTP prior to discharge and within 90 days of completion of the construction and installation of the additional diffusers in the Biolac Basins per Section 3.0, Compliance Schedule Item 3.5 of the permit.

2.2.4 Operational Requirements

1. The permittee shall maintain a copy of the up-to-date operations and maintenance manual at the treatment facility site at all times; the manual shall be available upon request during inspections by ADEQ personnel.
2. The pollution control structures shall be inspected for the items listed in Section 4.2, Table III - Facility Inspection (Operational Monitoring).
3. If any damage of the pollution control structures are identified during inspection, proper repair procedures shall be performed. All repair procedures and materials used shall be documented in the facility log book as per Section 2.7.2 and reported to ADEQ in the event of a violation or exceedance as per Section 2.7.3.

2.2.5 Reclaimed Water Classification

[A.A.C. R18-9-703(C)(2)(a), A.A.C. R18-11-303 through 307]

The effluent is rated as producing reclaimed water meeting the Class B+ Reclaimed Water Quality Standards (A.A.C. R18-11, Article 3) which may be used for any allowable Class B, or C use under a valid reclaimed water permit (A.A.C. R18-9, Article 7).

2.2.6 Certified Area-wide Water Quality Management Plan Conformance

[A.A.C. R18-9-A201(B)(6)(a)]

Facility operations must conform to the approved Certified Area-wide Water Quality Management Plan according to the 208 consistency determination in place at the time of permit issuance.

2.3 Discharge Limitations [A.R.S. §§ 49-201(14), 49-243 and A.A.C. R18-9-A205 (B)]

1. The permittee is authorized to operate the WWTP with a maximum average monthly flow of 2.1 mgd for the existing facility, 2.6 mgd for Phase II, and 3.0 mgd for Phase III.
2. The permittee shall operate and maintain all permitted facilities to prevent unauthorized discharges pursuant to A.R.S. § 49-201(12) resulting from failure or bypassing of applicable BADCT.
3. Specific discharge limitations are listed in Section 4.2, Tables IA-1A, IA-1B, and 1A-1C.

2.4 Point of Compliance (POC) [A.R.S. § 49-244]

The non-hazardous Points of Compliance (POC) have been established at the following locations:

POC #	POC Location	Latitude	Longitude	ADWR Registration No
1	Approximately 705 ft. from the southwest edge of the recharge basins, MW-1A	33° 21' 30.5" N	111° 33' 41.3" W	55-229564
2	South of the Recharge Basins, MW-2	33° 21' 35" N	111° 33' 32" W	55-204563
3 (Conceptual)	Outfall 001 to the Weekes Wash	33° 21' 30" N	111° 33' 32" W	NA
4	Proposed for Phase II (Recharge Basins Expansion) MW-4	TBD	TBD	TBD

Groundwater monitoring is required at POC wells #1 and #2. POC well # 4 will be installed in Phase II for the additional Recharge Basins. POC well #3 is a conceptual monitoring point of compliance, no groundwater monitoring is required.

The Director may amend this permit to require installation of wells and initiation of groundwater monitoring at the POCs or to designate additional points of compliance if information on groundwater gradients or groundwater usage indicates the need.

2.5 Monitoring Requirements [A.R.S. § 49-243(K)(1), A.A.C. R18-9-A206(A)]

Unless otherwise specified in this permit, all monitoring required in this permit shall continue for the duration of the permit, regardless of the status of the facility. Unless otherwise provided, monitoring shall commence the first full monitoring period following permit issuance. All sampling, preservation and holding times shall be in accordance with currently accepted standards of professional practice. Trip blanks, equipment blanks and duplicate samples shall also be obtained, and Chain-of-Custody procedures shall be followed, in accordance with currently accepted standards of professional practice. Copies of laboratory analyses and Chain-of-Custody forms shall be maintained at the permitted facility. Upon request, these documents shall be made immediately available for review by ADEQ personnel.

2.5.1 Pre-Operational Monitoring

Not required under the terms of this permit.

2.5.2 Routine Discharge Monitoring

The permittee shall monitor the effluent according to Section 4.2, Tables IA-1A. A representative sample of the effluent shall be collected at the point of discharge downstream of the chlorination system. Effluent flows shall be measured at the flow meter upstream of chlorine contact chamber for Total Flow and on the discharge line to monitor Discharge Flow.

2.5.3 Reclaimed Water Monitoring

Not Applicable.

2.5.4 Facility / Operational Monitoring

Operational monitoring inspections shall be conducted according to Section 4.2, Table III.

If any damage of the pollution control structures is identified during inspection, proper repair procedures shall be performed. All repair procedures and materials used shall be documented in the facility log book as per Section 2.7.2 and reported to ADEQ in case of a violation or exceedance as per Section 2.7.3.

2.5.5 Groundwater Monitoring and Sampling Protocols

POC well monitoring shall be conducted under Section 4.2, Table II.

Static water levels shall be measured and recorded prior to sampling. Wells shall be purged of at least three borehole volumes (as calculated using the static water level) or until field parameters (pH, temperature, conductivity) are stable, whichever represents the greater volume. If evacuation results in the well going dry, the well shall be allowed to recover to 80 percent of the original borehole volume, or for 24 hours, whichever is shorter, prior to sampling. If after 24 hours there is not sufficient water for sampling, the well shall be recorded as "dry" for the monitoring event. An explanation for reduced pumping volumes, a record of the volume pumped, and modified sampling procedures shall be reported and submitted with the SMRF.

The permittee may conduct the sampling using the low-flow purging method as described in the Arizona Water Resources Research Center, March 1995 *Field Manual for Water Quality Sampling*. The well must be purged until indicator parameters stabilize. Indicator parameters shall include dissolved oxygen, turbidity, pH, temperature, and conductivity.

2.5.5.1 POC Well Replacement

In the event that one or more of the designated POC wells should become unusable or inaccessible due to damage, exceedance of an alert level (AL) for water level as required by Section 2.6.2.3.4(3), or any other event, a replacement POC well shall be constructed and installed upon approval by ADEQ. If the replacement well is fifty feet or less from the original well, the ALs and/or aquifer quality limits (AQLs) calculated for the designated POC well shall apply to the replacement well.

2.5.6 Surface Water Monitoring and Sampling Protocols

Routine surface water monitoring is not required under the terms of this permit.

2.5.7 Analytical Methodology

All samples collected for compliance monitoring shall be analyzed using Arizona state-approved methods. If no state-approved method exists, then any appropriate EPA-approved method shall be used. Regardless of the method used, the detection limits must be sufficient to determine compliance with the regulatory limits of the parameters specified in this permit. Analyses shall be performed by a laboratory licensed by the Arizona Department of Health Services, Office of Laboratory Licensure and Certification. For results to be considered valid, all analytical work shall meet quality control standards specified in the approved methods. A list of state-certified laboratories in Arizona can be obtained at the address below:

Arizona Department of Health Services
Office of Laboratory Licensure and Certification
250 North 17th Avenue
Phoenix, Arizona 85007
Phone: (602) 364-0720

2.5.8 Installation and Maintenance of Monitoring Equipment

Monitoring equipment required by this permit shall be installed and maintained so that representative samples required by the permit can be collected. If new groundwater wells are determined to be necessary, the construction details shall be submitted to the Groundwater Protection Value Stream for approval prior to installation and the permit shall be amended to include any new monitoring points.

2.6 Contingency Plan Requirements

[A.R.S. § 49-243(K)(3), (K)(7) and A.A.C. R18-9-A204 and R18-9-A205]

2.6.1 General Contingency Plan Requirements

At least one copy of this permit and the approved contingency and emergency response plan shall be maintained at the location where day-to-day decisions regarding the operation of the facility are made. The permittee shall be aware of and follow the contingency and emergency plans.

Any AL exceedance, or violation of an AQL, DL, or other permit condition shall be reported to ADEQ following the reporting requirements in Section 2.7.3.

Some contingency actions involve verification sampling. Verification sampling shall consist of the first follow-up sample collected from a location that previously indicated a violation or the exceedance of an AL. Collection and analysis of the verification sample shall use the same protocols and test methods to analyze for the pollutant or pollutants that exceeded an AL or violated an AQL or DL. The permittee is subject to enforcement action for the failure to comply with any contingency actions in this permit. Where verification sampling is specified in this permit, it is the option of the permittee to perform such sampling. If verification sampling is not conducted within the timeframe allotted, ADEQ and the permittee shall presume the initial sampling result to be confirmed as if verification sampling had been conducted. The permittee is responsible for compliance with contingency plans relating to the exceedance of an AL or violation of a DL, AQL or any other permit condition.

2.6.1.1 Vadose Zone Monitoring and Injection Contingencies

Vadose zone wells are monitored and cleaned on a regular basis by the operator(s).

Should the wells not perform at full capacity, discharge shall be changed to an alternate recharge basin or directly to the wash.

2.6.2 Exceeding of Alert Levels and Performance Levels

2.6.2.1 Exceeding of Performance Levels Set for Operational Conditions

1. If an operational performance level set in Section 4.2, Table III has been exceeded the permittee shall:
 - a. Notify the Groundwater Protection Value Stream (see Section 2.7.5) within five (5) days of becoming aware of the exceedance.
 - b. Submit a written report to the Groundwater Protection Value Stream within 30 days after becoming aware of the exceedance. The report shall document all of the following:
 - (1) A description of the exceedance and the cause of the exceedance;
 - (2) The period of the exceedance, including exact date(s) and time(s), if known, and the anticipated time period during which the exceedance is expected to continue;
 - (3) Any action taken or planned to mitigate the effects of the exceedance or spill, or to eliminate or prevent recurrence of the exceedance or spill;
 - (4) Any monitoring activity or other information which indicates that any pollutants would be reasonably expected to cause a violation of an AWQS; and
 - (5) Any malfunction or failure of pollution control devices or other equipment or process.
2. The facility is no longer on alert status once the operational indicator no longer indicates that a performance level is being exceeded. The permittee shall, however, complete all tasks

necessary to return the facility to its pre-alert operating condition.

2.6.2.2 Exceeding of Alert Levels (ALs) Set for Discharge Monitoring

1. If an AL set in Section 4.2, Tables IA-1A, IA-1B and 1A-1C, has been exceeded, the permittee shall immediately investigate to determine the cause of the AL exceedance. The investigation shall include the following:
 - a. Inspection, testing, and assessment of the current condition of all treatment or pollutant discharge control systems that may have contributed to the AL exceedance;
 - b. Review of recent process logs, reports, and other operational control information to identify any unusual occurrences; and
 - c. If necessary to identify the cause of the AL exceedance, sampling of individual waste streams composing the wastewater for the parameters being exceeded.
2. The permittee shall initiate actions identified in the approved contingency plan referenced in Section 5.0 and specific contingency measures identified in Section 2.6 to resolve any problems identified by the investigation, which may have led to an AL exceedance. To implement any other corrective action the permittee shall obtain prior approval from ADEQ according to Section 2.6.6.
3. Within 30 days of an AL exceedance, the permittee shall submit the laboratory results to the ADEQ Groundwater Protection Value Stream, along with a summary of the findings of the investigation, the cause of the AL exceedance, and actions taken to resolve the problem.
4. Upon review of the submitted report, the Department may amend the permit to require additional monitoring, increased frequency of monitoring, amendments to permit conditions or other actions.

2.6.2.2.1 Exceeding Permit Flow Limit

1. If the Alert Level (AL) for monthly average flow in Section 4.2, Tables IA-1A, IA-1B and IA-1C, has been exceeded, the permittee shall submit an application for an APP amendment to expand the WWTP or submit a report detailing the reasons that expansion is not necessary.
2. Acceptance of the report instead of an application for expansion requires ADEQ approval.

2.6.2.3 Exceeding of Alert Levels in Groundwater Monitoring

2.6.2.3.1 Alert Levels for Indicator Parameters

No ALs have been established for indicator parameters.

2.6.2.3.2 Alert Levels for Pollutants with Numeric Aquifer Water Quality Standards

1. In the case of an exceedance of an AL for a pollutant set in Section 4.2, Table II, the permittee may conduct verification sampling of the pollutant(s) that exceed their respective AL(s) within five (5) days of becoming aware of the exceedance. The permittee may use results of another sample taken between the date of the last sampling event and the date of receiving the result as verification.
2. If verification sampling confirms the AL exceedance or if the permittee opts not to perform verification sampling, then the permittee shall increase the frequency of monitoring of the pollutant(s) that exceed their respective AL(s) set in Section 4.2, Table II as follows:

Specified Monitoring Frequency (Section 4.2, Table II)	Monitoring Frequency for AL Exceedance
Daily	Daily
Weekly	Daily
Monthly	Weekly
Quarterly	Monthly
Semi-annually	Quarterly
Annually	Quarterly

In addition, the permittee shall immediately initiate an investigation of the cause of the AL exceedance, including inspection of all discharging units and all related pollution control devices, review of any operational and maintenance practices that might have resulted in an unexpected discharge, and hydrologic review of groundwater conditions including upgradient water quality.

3. The permittee shall initiate actions identified in the approved contingency plan referenced in Section 5.0 and specific contingency measures identified in Section 2.6 to resolve any problems identified by the investigation which may have led to an AL exceedance. To implement any other corrective action the permittee shall obtain prior approval from ADEQ according to Section 2.6.6. Alternatively, the permittee may submit a technical demonstration, subject to written approval by the Groundwater Protection Value Stream, that although an AL is exceeded, the pollutant(s) that exceed their respective AL(s) are not reasonably expected to cause a violation of an AQL. The demonstration may propose a revised AL or monitoring frequency, for those pollutant(s) that exceed their respective AL(s), for approval in writing by the Groundwater Protection Value Stream.
4. Within 30 days after confirmation of an AL exceedance for those pollutant(s), the permittee shall submit the laboratory results to the Groundwater Protection Value Stream along with a summary of the findings of the investigation, the cause of the exceedance, and actions taken to resolve the problem.
5. Upon review of the submitted report, the Department may amend the permit to require additional monitoring, increased frequency of monitoring, amendments to permit conditions or other actions.
6. The increased monitoring for those pollutant(s) required as a result of an AL exceedance may be reduced to the monitoring frequency in Section 4.2, Table II if the results of four sequential sampling events demonstrate that no parameters exceed their respective AL(s).
7. If the increased monitoring required as a result of an AL exceedance for those pollutant(s) continues for more than six (6) sequential sampling events, the permittee shall submit a second report documenting an investigation of the continued AL exceedance within 30 days of the receipt of laboratory results of the sixth sampling event.

2.6.2.3.3 Alert Levels to Protect Downgradient Users from Pollutants Without Numeric Aquifer Water Quality Standards

Not required at time of issuance.

2.6.2.3.4 Alert Level for Groundwater Level

1. If monitoring indicates the groundwater level is not within the allowable range

established by the Alert Level (AL) in Section 4.2, Table II, the permittee shall submit a written report within 30 days after becoming aware of the exceedance. The report shall document the following:

- a. the as-built configuration of the well, including the screened interval;
 - b. all groundwater level measurements available for the well;
 - c. a discussion and analysis of any trends or seasonal variations in the groundwater level measurements;
 - d. information on groundwater recharge, withdrawal, or other hydrologic conditions in the vicinity of the well, and;
 - e. any other pertinent information obtained by the permittee.
2. If monitoring indicates the groundwater level is not within the allowable range established by the Alert Level (AL) in Section 4.2, Table II, for more than three (3) sequential sampling events, the permittee shall submit a second report which evaluates the cause(s) of the exceedance and recommends whether the well should be replaced pursuant to Section 2.5.5.1. The report shall discuss and demonstrate whether samples representative of the water quality of the relevant aquifer can be practicably obtained from the well.
 3. Upon review of the submitted report, the Department may amend the permit to require replacement of the well, require additional permit conditions, or other actions.

2.6.3 Discharge Limit Violation

1. If a DL set in Section 4.2, Tables IA-1A, IA-1B and IA-1C, has been violated, the permittee shall immediately investigate to determine the cause. The investigation shall include the following:
 - a. Inspection, testing, and assessment of the current condition of all treatment or pollutant discharge control systems that may have contributed to the violation;
 - b. Review of recent process logs, reports, and other operational control information to identify any unusual occurrences;
 - c. If the investigation procedures indicated in (a) and (b) above fail to reveal the cause of the violation, the permittee shall sample individual waste streams composing the wastewater for the parameters in violation, as necessary to identify the cause of the violation.

The permittee shall submit a report to the Groundwater Protection Value Stream according to Section 2.7.3, which includes a summary of the findings of the investigation, the cause of the violation, and actions taken to resolve the problem. The permittee shall consider and ADEQ may require corrective action that may include control of the source of discharge, cleanup of affected soil, surface water or groundwater, notification of downstream or downgradient users who may be directly affected by the discharge, and mitigation of the impact of pollutants on existing uses of the aquifer. Corrective actions shall either be specifically identified in this permit, included in an ADEQ-approved contingency plan, or separately approved according to Section 2.6.6.

2. Upon review of the submitted report, the Department may amend the permit to require additional monitoring, increased frequency of monitoring, amendments to permit conditions, or other actions.

2.6.4 Aquifer Quality Limit Violation

1. If an AQL set in Section 4.2, Table II has been exceeded, the permittee may conduct verification sampling for those pollutant(s) that were above their respective AQL(s) within five (5) days of becoming aware of the exceedance. The permittee may use results of another sample taken between the date of the last sampling event and the date of receiving the result as verification.

2. If the verification sample does not confirm an AQL violation, no further action is needed under this Section.
3. If verification sampling confirms that an AQL was violated for those pollutant(s) that were above their respective AQL(s) or if the permittee opts not to perform verification sampling, then, the permittee shall increase the frequency of monitoring as follows, for those pollutant(s) that exceeded their respective AQL(s):

Specified Monitoring Frequency (Section 4.2, Table II)	Monitoring Frequency for AQL Exceedance
Daily	Daily
Weekly	Daily
Monthly	Weekly
Quarterly	Monthly
Semi-annually	Quarterly
Annually	Quarterly

In addition, the permittee shall immediately initiate an evaluation for the cause of the violation, including inspection of all discharging units and all related pollution control devices, and review of any operational and maintenance practices that might have resulted in unexpected discharge.

The permittee also shall submit a report according to Section 2.7.3, which includes a summary of the findings of the investigation, the cause of the violation, and actions taken to resolve the problem. A verified exceedance of an AQL will be considered a violation unless the permittee demonstrates within 30 days that the exceedance was not caused or contributed to by pollutants discharged from the facility. Unless the permittee has demonstrated that the exceedance was not caused or contributed to by pollutants discharged from the facility, the permittee shall consider and ADEQ may require corrective action that may include control of the source of discharge, cleanup of affected soil, surface water, or groundwater, and mitigation of the impact of pollutants on existing uses of the aquifer. Corrective actions shall either be specifically identified in this permit, included in an ADEQ approved contingency plan, or separately approved according to Section 2.6.6.

4. Upon review of the submitted report, the Department may amend the permit to require additional monitoring, increased frequency of monitoring, amendments to permit conditions or other actions.

2.6.5 Emergency Response and Contingency Requirements for Unauthorized Discharges pursuant to A.R.S. § 49-201(12) and pursuant to A.R.S. § 49-241

2.6.5.1 Duty to Respond

The permittee shall act immediately to correct any condition resulting from a discharge pursuant to A.R.S. § 49-201(12) if that condition could pose an imminent and substantial endangerment to public health or the environment.

2.6.5.2 Discharge of Hazardous Substances or Toxic Pollutants

In the event of any unauthorized discharge pursuant to A.R.S. § 49-201(12) of suspected hazardous substances (A.R.S. § 49-201(19)) or toxic pollutants (A.R.S. § 49-243(I)) on the facility site, the permittee shall promptly isolate the area and attempt to identify the discharged material. The permittee shall record information, including name, nature of exposure and follow-up medical treatment, if necessary, on persons who may have been exposed during the incident. The permittee shall notify the Groundwater Protection Value Stream within 24 hours of discovering the discharge of hazardous material which (a) has the potential to cause an AWQS or AQL exceedance, or (b) could pose an endangerment to public health or the environment.

2.6.5.3 Discharge of Non-hazardous Materials

In the event of any unauthorized discharge pursuant to A.R.S. § 49-201(12) of non-hazardous materials from the facility, the permittee shall promptly attempt to cease the discharge and isolate the discharged material. Discharged material shall be removed and the site cleaned up as soon as possible. The permittee shall notify the Groundwater Protection Value Stream within 24 hours of discovering the discharge of non-hazardous material which has the potential to cause an AQL exceedance, or could pose an endangerment to public health or the environment.

2.6.5.4 Reporting Requirements

The permittee shall submit a written report for any unauthorized discharges reported under Sections 2.6.5.2 and 2.6.5.3 to the Groundwater Protection Value Stream within 30 days of the discharge or as required by subsequent ADEQ action. The report shall summarize the event, including any human exposure, and facility response activities and include all information specified in Section 2.7.3. If a notice is issued by ADEQ subsequent to the discharge notification, any additional information requested in the notice shall also be submitted within the time frame specified in the notice. Upon review of the submitted report, ADEQ may require additional monitoring or corrective actions.

2.6.6 Corrective Actions

Specific contingency measures identified in Section 2.6 have already been approved by ADEQ and do not require written approval to implement.

With the exception of emergency response actions taken under Section 2.6.5, the permittee shall obtain written approval from the Groundwater Protection Value Stream prior to implementing a corrective action to accomplish any of the following goals in response to exceedance of an AL or violation of an AQL, DL, or other permit condition:

1. Control of the source of an unauthorized discharge;
2. Soil cleanup;
3. Cleanup of affected surface waters;
4. Cleanup of affected parts of the aquifer;
5. Mitigation to limit the impact of pollutants on existing uses of the aquifer.

Within 30 days of completion of any corrective action, the operator shall submit to the Groundwater Protection Value Stream, a written report describing the causes, impacts, and actions taken to resolve the problem.

2.7 Reporting and Recordkeeping Requirements

[A.R.S. § 49-243(K)(2) and A.A.C. R18-9-A206(B) and R18-9-A207]

2.7.1 Self-Monitoring Report Form

1. The permittee shall complete the Self-Monitoring Reporting Forms (SMRFs) provided by ADEQ, and submit the completed report through the myDEQ online reporting system.
2. The permittee shall complete the SMRF to the extent that the information reported may be entered on the form. If no information is required during a reporting period, the permittee shall enter “not required” on the form, include an explanation.
3. The tables contained in Section 4.2 list the monitoring parameters and the frequencies for reporting results on the SMRF:
 - Tables IA-1A, Discharge Monitoring (2.1 mgd)
 - Tables IA-1B, Discharge Monitoring (2.6 mgd)
 - Tables IA-1C, Discharge Monitoring (3.0 mgd)
 - Table IB- Reclaimed Water Monitoring, Class B+

- Table II, Groundwater Quality Monitoring for POC #1 (MW#1A) and POC #2 (MW-2)

The parameters listed in the above-identified tables from Section 4.2 are the only parameters for which SMRF reporting is required.

2.7.2 Operation Inspection / Log Book Recordkeeping

A signed copy of this permit shall be maintained at all times at the location where day-to-day decisions regarding the operation of the facility are made. A log book (paper copies, forms, or electronic data) of the inspections and measurements required by this permit shall be maintained at the location where day-to-day decisions are made regarding the operation of the facility. The log book shall be retained for ten years from the date of each inspection, and upon request, the permit and the log book shall be made immediately available for review by ADEQ personnel. The information in the log book shall include, but not be limited to, the following information as applicable:

1. Name of inspector;
2. Date and time inspection was conducted;
3. Condition of applicable facility components;
4. Any damage or malfunction, and the date and time any repairs were performed;
5. Documentation of sampling date and time; and
6. Any other information required by this permit to be entered in the log book.
7. Monitoring records for each measurement shall comply with A.A.C. R18-9-A206(B)

2.7.3 Permit Violation and Alert Level Status Reporting

1. The permittee shall notify the Groundwater Protection Value Stream in writing within five days (except as provided in Section 2.6.5) of becoming aware of a violation of any permit condition, discharge limitation, or of an AL exceedance.
2. The permittee shall submit a written report to the Groundwater Protection Value Stream within 30 days of becoming aware of the violation of any permit condition, AQL, or DL. The report shall document all of the following:
 - a. Identification and description of the permit condition for which there has been a violation and a description of the cause;
 - b. The period of violation including exact date(s) and time(s), if known, and the anticipated time period during which the violation is expected to continue;
 - c. Any corrective action taken or planned to mitigate the effects of the violation, or to eliminate or prevent a recurrence of the violation;
 - d. Any monitoring activity or other information which indicates that any pollutants would be reasonably expected to cause a violation of an AWQS;
 - e. Proposed changes to the monitoring which include changes in constituents or increased frequency of monitoring; and
 - f. Description of any malfunction or failure of pollution control devices or other equipment or processes.

2.7.4 Operational, Other or Miscellaneous Reporting

The permittee shall record the information as required in Section 4.2, Table III in the facility log book as per Section 2.7.2, and report to the Groundwater Protection Value Stream any violations or exceedances as per Section 2.7.3.

2.7.5 Reporting Location

All Self-Monitoring Report Forms (SMRFs) shall be submitted through the myDEQ portal accessible on the ADEQ website at: <http://www.azdeq.gov/welcome-mydeq>

All other documents required by this permit to be submitted to the Groundwater Protection Value Stream shall be directed to:

Arizona Department of Environmental Quality
Groundwater Protection Value Stream
Mail Code 5415B-3
1110 West Washington Street
Phoenix, Arizona 85007
Phone (602) 771-4999

2.7.6 Reporting Deadline

The following table lists the quarterly report due dates:

Monitoring conducted during quarter:	Quarterly Report due by:
January-March	April 30
April-June	July 30
July-September	October 30
October-December	January 30

The following table lists the semi-annual and annual report due dates:

Monitoring conducted:	Report due by:
Semi-annual: January-June	July 30
Semi-annual: July-December	January 30
Annual: January-December	January 30

2.7.7 Changes to Facility Information in Section 1.0

The Groundwater Protection Value Stream shall be notified within ten days of any change of facility information including Facility Name, Permittee Name, Mailing or Street Address, Facility Contact Person, or Emergency Telephone Number.

2.8 Temporary Cessation [A.R.S. § 49-243(K)(8) and A.A.C. R18-9-A209(A)]

The permittee shall give written notice to the Groundwater Protection Value Stream before ceasing operation of the facility for a period of 60 days or greater. The permittee shall take the following measures upon temporary cessation:

1. If applicable, direct the wastewater flows from the facility to another state-approved wastewater treatment facility;
2. Correct the problem that caused the temporary cessation of the facility; and
3. Notify the Groundwater Protection Value Stream with a monthly facility status report describing the activities conducted on the treatment facility to correct the problem.
4. Submittal of Self-Monitoring Report Forms (SMRFs) is still required; report “temporary cessation” in the comment section.

At the time of notification the permittee shall submit for ADEQ approval a plan for maintenance of discharge control systems and for monitoring during the period of temporary cessation. Immediately following ADEQ approval, the permittee shall implement the approved plan. If necessary, ADEQ shall amend permit conditions to incorporate conditions to address temporary cessation. During the period of temporary cessation, the permittee shall provide written notice to the Groundwater Protection Value Stream of the operational status of the facility every three years. If the permittee intends to permanently cease operation of any facility, the permittee shall submit closure notification, as set forth in Section 2.9 below.

2.9 Closure [A.R.S. §§ 49-243(K)(6), 49-252 and A.A.C. R18-9-A209(B)]

For a facility addressed under this permit, the permittee shall give written notice of closure to the Groundwater Protection Value Stream of the intent to cease operation without resuming activity for which the facility was designed or operated. Submittal of SMRFs is still required; report “closure in process” in the comment section.

2.9.1 Closure Plan

Within 90 days following notification of closure, the permittee shall submit for approval to the Groundwater Protection Value Stream, a closure plan which meets the requirements of A.R.S. § 49-252 and A.A.C. R18-9-A209(B)(3).

If the closure plan achieves clean-closure immediately, ADEQ shall issue a letter of approval to the permittee. If the closure plan contains a schedule for bringing the facility to a clean-closure configuration at a future date, ADEQ may incorporate any part of the schedule as an amendment to this permit.

2.9.2 Closure Completion

Upon completion of closure activities, the permittee shall give written notice to the Groundwater Protection Value Stream indicating that the approved closure plan has been implemented fully and providing supporting documentation to demonstrate that clean-closure has been achieved (soil sample results, verification sampling results, groundwater data, as applicable). If clean-closure has been achieved, ADEQ shall issue a letter of approval to the permittee at that time. If any of the following conditions apply, the permittee shall follow the terms of post-closure stated in this permit:

1. Clean-closure cannot be achieved at the time of closure notification or within one year thereafter under a diligent schedule of closure actions;
2. Further action is necessary to keep the facility in compliance with the AWQS at the applicable POC;
3. Continued action is required to verify that the closure design has eliminated discharge to the extent intended;
4. Remediation or mitigation measures are necessary to achieve compliance with Title 49, Ch. 2; and
5. Further action is necessary to meet property use restrictions.

2.10 Post-closure [A.R.S. §§ 49-243(K)(6), 49-252 and A.A.C. R18-9 A209(C)]

Post-closure requirements shall be established based on a review of facility closure actions and will be subject to review and approval by the Groundwater Protection Value Stream.

In the event clean-closure cannot be achieved pursuant to A.R.S. § 49-252, the permittee shall submit for approval to the Groundwater Protection Value Stream a post-closure plan that addresses post-closure maintenance and monitoring actions at the facility. The post-closure plan shall meet all requirements of A.R.S. §§ 49-201(30) and 49-252 and A.A.C. R18-9-A209(C). Upon approval of the post-closure plan, this permit shall be amended or a new permit shall be issued to incorporate all post-closure controls and monitoring activities of the post-closure plan.

2.10.1 Post-Closure Plan

A specific post-closure plan may be required upon the review of the closure plan.

2.10.2 Post-Closure Completion

Not required at the time of permit issuance.

3.0 COMPLIANCE SCHEDULE [A.R.S. § 49-243(K)(5) and A.A.C. R18-9-A208]

Unless otherwise indicated, for each compliance schedule item listed below, the permittee shall submit the required information to the Groundwater Protection Value Stream.

No.	Description	Due by:	Permit Amendment Required?
3.1	The permittee shall submit a signed, dated, and sealed Engineer's Certificate of Completion in a format approved by the Department that confirms that the new filter unit and blowers are constructed according to the Department-approved design report or plans and specifications, as applicable.	Prior to utilizing under new units and within 90 days of completion of construction.	No
3.2	The permittee shall submit a signed, dated, and sealed Engineer's Certificate of Completion in a format approved by the Department that confirms that the second filter unit is constructed according to the Department-approved design report or plans and specifications, as applicable.	Prior to utilizing under new filter unit and within 90 days of completion of construction.	No
3.3	The permittee shall submit a signed, dated, and sealed Engineer's Certificate of Completion in a format approved by the Department that confirms that the new recharge basins #8, #9, #10 #11 and #12 and boreholes are constructed according to the Department-approved design report or plans and specifications, as applicable.	Prior to discharge to new recharge basins and boreholes and within 90 days of completion of construction.	No
3.4	The permittee is required to submit for Department approval, detailed design information for additional diffusers for Biolac Basins to increase the design flow of the WWTP above 2.6 mgd.	At least 90 days prior to installation of the additional diffusers	No
3.5	The permittee shall submit a signed, dated, and sealed Engineer's Certificate of Completion in a format approved by the Department that confirms that the new diffusers are constructed according to the Department-approved design report or plans and specifications, as applicable.	Prior to increasing flow above 2.6 mgd and utilizing the new unit and within 90 days of completion of installation	No

4.0 TABLES OF MONITORING REQUIREMENTS

4.1 PRE-OPERATIONAL MONITORING (OR CONSTRUCTION REQUIREMENTS)

Not applicable at permit issuance

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

Table IA-1A, Discharge Monitoring (2.1 mgd)

Table IA-1B, Discharge Monitoring (2.6 mgd)

Table IA-1C, Discharge Monitoring (3.0 mgd)

Table IB, Reclaimed Water Monitoring

Table II, Groundwater Quality Monitoring for POC #1 (MW#1A) and POC #2 (MW-2)

Table III, Facility Inspection (Operational Monitoring) - Log Book

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

**TABLE IA-1A₁ (2.1 mgd)
ROUTINE DISCHARGE MONITORING**

Sampling Point Number	Sampling Point Identification			Latitude	Longitude
1	Flow meter located upstream of chlorine contact chamber for Total Flow			33° 21' 40" North	111° 33' 32" West
2	Flow meter located on the discharge line to monitor Discharge Flow			33° 21' 39" North	111° 33' 31" West
Parameter	AL ²	DL ³	Units	Sampling Frequency	Reporting Frequency
Total Flow ⁴ : Daily ⁵	Not Established ⁶	Not Established	mgd ⁷	Daily	Quarterly
Total Flow: Monthly Averages ⁸	1.9	2.1	mgd	Monthly Calculation	Quarterly
AZPDES Flow: Daily	Not Established	Not Established	mgd	Daily	Quarterly
AZPDES Flow: Monthly Average	1.9	2.1	mgd	Monthly Calculation	Quarterly
Recharge Flow: Daily	Not Established	Not Established	mgd	Daily	Quarterly
Recharge Flow: Monthly Average	1.9	2.1	mgd	Monthly Calculation	Quarterly

¹ Cease Monitoring under this Table upon commitment of Monitoring under Table IA-1B.

²AL = Alert Level

³DL = Discharge Limit

⁴Total flow for all methods of disposal (AZPDES and Recharge).

⁵Flow shall be measured using a continuous recording flow meter which totals the flow daily.

⁶ Not Established means monitoring is required but no limits are specified.

⁷ mgd= million gallons per day

⁸Monthly = Calculated value = Average of daily flow values in a month.

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

TABLE IA-1A
ROUTINE DISCHARGE MONITORING (continued)

Sampling Point Number	Sampling Point Identification		Latitude		Longitude
2	Flow meter located on the recharge line to monitor Recharge Flow		33° 21' 39" North		111° 33' 31" West
Parameter	AL ⁹	DL ¹⁰	Units	Sampling Frequency	Reporting Frequency
Fecal Coliform (single sample maximum)	Not established	23.0	MPN ¹¹	Daily ¹²	Quarterly
Fecal Coliform four (4) of seven (7) samples in a week ¹³	Not established	Non-detect ¹⁴	MPN	Weekly Evaluation	Quarterly
Total Nitrogen ¹⁵ : Five-sample rolling geometric mean ¹⁶	8.0	10.0	mg/l ¹⁷	Monthly Calculation	Quarterly
Metals (total):					
Antimony	0.0048	0.006	mg/l	Quarterly	Quarterly
Arsenic	0.04	0.05	mg/l	Quarterly	Quarterly
Barium	1.60	2.00	mg/l	Quarterly	Quarterly
Cyanide (as free cyanide)	0.16	0.2	mg/l	Quarterly	Quarterly
Fluoride	3.2	4.0	mg/l	Quarterly	Quarterly
Lead	0.04	0.05	mg/l	Quarterly	Quarterly
Mercury	0.0016	0.002	mg/l	Quarterly	Quarterly
Nickel	0.08	0.1	mg/l	Quarterly	Quarterly
Selenium	0.04	0.05	mg/l	Quarterly	Quarterly
Thallium	0.0016	0.002	mg/l	Quarterly	Quarterly

⁹ AL = Alert Level

¹⁰ DL = Discharge Limit

¹¹MPN = Most Probable Number / 100 ml sample. For MPN, a value of <2.2 shall be considered to be non-detect.

¹²For fecal coliform, “daily” sampling means every day in which a sample can practicably be obtained and delivered in sufficient time for proper analysis, provided that no less than four samples in each week are obtained and analyzed.

¹³Week means a seven-day period starting on Sunday and ending on the following Saturday. The reporting form for this parameter consists of 13 weeks per quarter.

¹⁴Fecal coliform four (4) of the last seven (7) samples requires entering “compliant” or “non-compliant” on the SMRF for each day of the reporting period. Evaluate the daily fecal coliform result for that day along with the results for the six previous days. If four (4) or more of those results are non-detect, report “compliant” for that day’s entry on the SMRF. If three (3) or fewer of those results are non-detect, report “non-compliant” for that day’s entry.

¹⁵ Total Nitrogen is equal to nitrate as N plus nitrite as N plus TKN.

¹⁶The five-sample rolling geometric mean is determined by multiplying the five (5) most recent monthly sample values together then taking the fifth root of the product. Example: $GM_5 = \sqrt[5]{(m_1)(m_2)(m_3)(m_4)(m_5)}$

¹⁷ mg/l = milligrams per liter

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

TABLE 1A-1A
ROUTINE DISCHARGE MONITORING (Continued)

Parameter	AL	AQL	Units	Sampling Frequency	Reporting Frequency
Volatile and Semi-volatile Organic Compounds (VOCs and SVOCs):					
Benzene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Carbon tetrachloride	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
o-Dichlorobenzene	0.48	0.6	mg/l	Semi-Annually	Semi-Annually
para-Dichlorobenzene	0.06	0.075	mg/l	Semi-Annually	Semi-Annually
1,2-Dichloroethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
1,1-Dichloroethylene	0.0056	0.007	mg/l	Semi-Annually	Semi-Annually
cis-1,2-Dichloroethylene	0.056	0.07	mg/l	Semi-Annually	Semi-Annually
trans-1,2-Dichloroethylene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Dichloromethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
1,2-Dichloropropane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Ethylbenzene	0.56	0.7	mg/l	Semi-Annually	Semi-Annually
Monochlorobenzene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Styrene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Tetrachloroethylene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Toluene	0.8	1.0	mg/l	Semi-Annually	Semi-Annually
Trihalomethanes (total)	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
1,1,1-Trichloroethane	0.16	0.20	mg/l	Semi-Annually	Semi-Annually
1,1,2 - Trichloroethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Trichloroethylene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Vinyl Chloride	0.0016	0.002	mg/l	Semi-Annually	Semi-Annually
Xylenes (Total)	8.0	10.0	mg/l	Semi-Annually	Semi-Annually

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

**TABLE IA-1B₁₈ (2.6 mgd)
ROUTINE DISCHARGE MONITORING**

Sampling Point Number	Sampling Point Identification			Latitude	Longitude
1	Flow meter located downstream of chlorine contact chamber for Total Flow			33° 21' 40" North	111° 33' 32" West
2	Flow meter located on the recharge line to monitor Recharge Flow			33° 21' 39" North	111° 33' 31" West
Parameter	AL ¹⁹	DL ²⁰	Units	Sampling Frequency	Reporting Frequency
Total Flow ²¹ : Daily ²²	Not Established ²³	Not Established	mgd ²⁴	Daily	Quarterly
Total Flow: Monthly Average ²⁵	2.47	2.6	mgd	Monthly Calculation	Quarterly
AZPDES Flow: Daily	Not Established	Not Established	mgd	Daily	Quarterly
AZPDES Flow: Monthly Average	2.47	2.6	mgd	Monthly Calculation	Quarterly
Recharge Flow: Daily	Not Established	Not Established	mgd	Daily	Quarterly
Recharge Flow: Monthly Average	2.47	2.6	mgd	Monthly Calculation	Quarterly

¹⁸ Monitoring under this Table shall begin upon review and approval of the Engineer's Certificate of Completion per Section 3.0, Compliance Schedule, item 3.1 for the new units for the Phase II WWTP by the Groundwater Protection Value Stream.

¹⁹AL = Alert Level

²⁰DL = Discharge Limit

²¹Total flow for all methods of disposal (AZPDES and Recharge).

²²Flow shall be measured using a continuous recording flow meter which totals the flow daily.

²³ Not Established means monitoring is required but no limits are specified.

²⁴ mgd= million gallons per day

²⁵Monthly = Calculated value = Average of daily flow values in a month.

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

TABLE IA-1B
ROUTINE DISCHARGE MONITORING (continued)

Sampling Point Number	Sampling Point Identification		Latitude		Longitude
2	Flow meter located on the recharge line to monitor Recharge Flow		33° 21' 39" North		111° 33' 31" West
Parameter	AL ²⁶	DL ²⁷	Units	Sampling Frequency	Reporting Frequency
Fecal Coliform (single sample maximum)	Not established	23.0	MPN ²⁸	Daily ²⁹	Quarterly
Fecal Coliform four (4) of seven (7) samples in a week ³⁰	Not established	Non-detect ³¹	MPN	Weekly Evaluation	Quarterly
Total Nitrogen ³² : Five-sample rolling geometric mean ³³	8.0	10.0	mg/l ³⁴	Monthly Calculation	Quarterly
Metals (total):					
Antimony	0.0048	0.006	mg/l	Quarterly	Quarterly
Arsenic	0.04	0.05	mg/l	Quarterly	Quarterly
Barium	1.60	2.00	mg/l	Quarterly	Quarterly
Cyanide (as free cyanide)	0.16	0.2	mg/l	Quarterly	Quarterly
Fluoride	3.2	4.0	mg/l	Quarterly	Quarterly
Lead	0.04	0.05	mg/l	Quarterly	Quarterly
Mercury	0.0016	0.002	mg/l	Quarterly	Quarterly
Nickel	0.08	0.1	mg/l	Quarterly	Quarterly
Selenium	0.04	0.05	mg/l	Quarterly	Quarterly
Thallium	0.0016	0.002	mg/l	Quarterly	Quarterly

²⁶ AL = Alert Level

²⁷ DL = Discharge Limit

²⁸MPN = Most Probable Number / 100 ml sample. For MPN, a value of <2.2 shall be considered to be non-detect.

²⁹For fecal coliform, “daily” sampling means every day in which a sample can practicably be obtained and delivered in sufficient time for proper analysis, provided that no less than four samples in each week are obtained and analyzed.

³⁰Week means a seven-day period starting on Sunday and ending on the following Saturday. The reporting form for this parameter consists of 13 weeks per quarter.

³¹Fecal coliform four (4) of the last seven (7) samples requires entering “compliant” or “non-compliant” on the SMRF for each day of the reporting period. Evaluate the daily fecal coliform result for that day along with the results for the six previous days. If four (4) or more of those results are non-detect, report “compliant” for that day’s entry on the SMRF. If three (3) or fewer of those results are non-detect, report “non-compliant” for that day’s entry.

³² Total Nitrogen is equal to nitrate as N plus nitrite as N plus TKN.

³³The five-sample rolling geometric mean is determined by multiplying the five (5) most recent monthly sample values together then taking the fifth root of the product. Example: $GM_5 = \sqrt[5]{(m_1)(m_2)(m_3)(m_4)(m_5)}$

³⁴ mg/l = milligrams per liter

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

TABLE 1A-1B
ROUTINE DISCHARGE MONITORING (Continued)

Parameter	AL	AQL	Units	Sampling Frequency	Reporting Frequency
Volatile and Semi-volatile Organic Compounds (VOCs and SVOCs):					
Benzene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Carbon tetrachloride	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
o-Dichlorobenzene	0.48	0.6	mg/l	Semi-Annually	Semi-Annually
para-Dichlorobenzene	0.06	0.075	mg/l	Semi-Annually	Semi-Annually
1,2-Dichloroethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
1,1-Dichloroethylene	0.0056	0.007	mg/l	Semi-Annually	Semi-Annually
cis-1,2-Dichloroethylene	0.056	0.07	mg/l	Semi-Annually	Semi-Annually
trans-1,2-Dichloroethylene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Dichloromethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
1,2-Dichloropropane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Ethylbenzene	0.56	0.7	mg/l	Semi-Annually	Semi-Annually
Monochlorobenzene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Styrene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Tetrachloroethylene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Toluene	0.8	1.0	mg/l	Semi-Annually	Semi-Annually
Trihalomethanes (total)	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
1,1,1-Trichloroethane	0.16	0.20	mg/l	Semi-Annually	Semi-Annually
1,1,2 - Trichloroethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Trichloroethylene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Vinyl Chloride	0.0016	0.002	mg/l	Semi-Annually	Semi-Annually
Xylenes (Total)	8.0	10.0	mg/l	Semi-Annually	Semi-Annually

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

**TABLE IA-1C₃₅ (3.0 mgd)
ROUTINE DISCHARGE MONITORING**

Sampling Point Number	Sampling Point Identification			Latitude	Longitude
1	Flow meter located downstream of chlorine contact chamber for Total Flow			33° 21' 40" North	111° 33' 32" West
2	Flow meter located on the recharge line to monitor Recharge Flow			33° 21' 39" North	111° 33' 31" West
Parameter	AL ₃₆	DL ₃₇	Units	Sampling Frequency	Reporting Frequency
Total Flow ₃₈ : Daily ₃₉	Not Established ₄₀	Not Established	mgd ₄₁	Daily	Quarterly
Total Flow: Monthly Average ₄₂	2.85	3.0	mgd	Monthly Calculation	Quarterly
AZPDES Flow: Daily	Not Established	Not Established	mgd	Daily	Quarterly
AZPDES Flow: Monthly Average	2.85	3.0	mgd	Monthly Calculation	Quarterly
Recharge Flow: Daily	Not Established	Not Established	mgd	Daily	Quarterly
Recharge Flow: Monthly Average	2.85	3.0	mgd	Monthly Calculation	Quarterly

³⁵ Monitoring under this table shall begin upon review and approval of the Engineer's Certificate of Completion per Section 3.0, Compliance Schedule, item 3.5 for the new units for the Phase III WWTP by the Groundwater Protection Value Stream.

³⁶AL = Alert Level

³⁷DL = Discharge Limit

³⁸Total flow for all methods of disposal (AZPDES and Recharge).

³⁹Flow shall be measured using a continuous recording flow meter which totals the flow daily.

⁴⁰ Not Established means monitoring is required but no limits are specified.

⁴¹ mgd= million gallons per day

⁴²Monthly = Calculated value = Average of daily flow values in a month.

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

TABLE IA-1C
ROUTINE DISCHARGE MONITORING (continued)

Sampling Point Number	Sampling Point Identification		Latitude		Longitude
2	Flow meter located on the recharge line to monitor Recharge Flow		33° 21' 39" North		111° 33' 31" West
Parameter	AL ⁴³	DL ⁴⁴	Units	Sampling Frequency	Reporting Frequency
Fecal Coliform (single sample maximum)	Not established	23.0	MPN ⁴⁵	Daily ⁴⁶	Quarterly
Fecal Coliform four (4) of seven (7) samples in a week ⁴⁷	Not established	Non-detect ⁴⁸	MPN	Weekly Evaluation	Quarterly
Total Nitrogen ⁴⁹ : Five-sample rolling geometric mean ⁵⁰	8.0	10.0	mg/l ⁵¹	Monthly Calculation	Quarterly
Metals (total):					
Antimony	0.0048	0.006	mg/l	Quarterly	Quarterly
Arsenic	0.04	0.05	mg/l	Quarterly	Quarterly
Barium	1.60	2.00	mg/l	Quarterly	Quarterly
Cyanide (as free cyanide)	0.16	0.2	mg/l	Quarterly	Quarterly
Fluoride	3.2	4.0	mg/l	Quarterly	Quarterly
Lead	0.04	0.05	mg/l	Quarterly	Quarterly
Mercury	0.0016	0.002	mg/l	Quarterly	Quarterly
Nickel	0.08	0.1	mg/l	Quarterly	Quarterly
Selenium	0.04	0.05	mg/l	Quarterly	Quarterly
Thallium	0.0016	0.002	mg/l	Quarterly	Quarterly

⁴³ AL = Alert Level

⁴⁴ DL = Discharge Limit

⁴⁵MPN = Most Probable Number / 100 ml sample. For MPN, a value of <2.2 shall be considered to be non-detect.

⁴⁶For fecal coliform, “daily” sampling means every day in which a sample can practicably be obtained and delivered in sufficient time for proper analysis, provided that no less than four samples in each week are obtained and analyzed.

⁴⁷Week means a seven-day period starting on Sunday and ending on the following Saturday. The reporting form for this parameter consists of 13 weeks per quarter.

⁴⁸Fecal coliform four (4) of the last seven (7) samples requires entering “compliant” or “non-compliant” on the SMRF for each day of the reporting period. Evaluate the daily fecal coliform result for that day along with the results for the six previous days. If four (4) or more of those results are non-detect, report “compliant” for that day’s entry on the SMRF. If three (3) or fewer of those results are non-detect, report “non-compliant” for that day’s entry.

⁴⁹ Total Nitrogen is equal to nitrate as N plus nitrite as N plus TKN.

⁵⁰The five-sample rolling geometric mean is determined by multiplying the five (5) most recent monthly sample values together then taking the fifth root of the product. Example: $GM_5 = \sqrt[5]{(m_1)(m_2)(m_3)(m_4)(m_5)}$

⁵¹ mg/l = milligrams per liter

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

TABLE 1A-1C
ROUTINE DISCHARGE MONITORING (Continued)

Parameter	AL	AQL	Units	Sampling Frequency	Reporting Frequency
Volatile and Semi-volatile Organic Compounds (VOCs and SVOCs):					
Benzene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Carbon tetrachloride	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
o-Dichlorobenzene	0.48	0.6	mg/l	Semi-Annually	Semi-Annually
para-Dichlorobenzene	0.06	0.075	mg/l	Semi-Annually	Semi-Annually
1,2-Dichloroethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
1,1-Dichloroethylene	0.0056	0.007	mg/l	Semi-Annually	Semi-Annually
cis-1,2-Dichloroethylene	0.056	0.07	mg/l	Semi-Annually	Semi-Annually
trans-1,2-Dichloroethylene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Dichloromethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
1,2-Dichloropropane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Ethylbenzene	0.56	0.7	mg/l	Semi-Annually	Semi-Annually
Monochlorobenzene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Styrene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Tetrachloroethylene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Toluene	0.8	1.0	mg/l	Semi-Annually	Semi-Annually
Trihalomethanes (total)	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
1,1,1-Trichloroethane	0.16	0.20	mg/l	Semi-Annually	Semi-Annually
1,1,2 - Trichloroethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Trichloroethylene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Vinyl Chloride	0.0016	0.002	mg/l	Semi-Annually	Semi-Annually
Xylenes (Total)	8.0	10.0	mg/l	Semi-Annually	Semi-Annually

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

TABLE IB
RECLAIMED WATER MONITORING TABLE - CLASS B+⁵²

Sampling Point Number	Sampling Point Identification		Latitude	Longitude
1	Flow meter located downstream of chlorine contact chamber for Total Flow		33° 21' 40" North	111° 33' 32" West
Parameter	DL ⁵³	Units	Sampling Frequency	Reporting Frequency
Total Nitrogen ⁵⁴ : Five-sample rolling geometric mean ⁵⁵	10.0	mg/l	Monthly ⁵⁶	Quarterly
Fecal Coliform: Single-sample maximum	800	MPN ⁵⁷	Daily ⁵⁸	Quarterly
Fecal Coliform: Four of last seven samples	200	MPN	Daily Evaluation ⁵⁹	Quarterly

⁵²Reclaimed water monitoring under Table IB shall be performed in addition to routine discharge monitoring required under Section 4.2, Tables IA-IA, IA-IB, and IA-IC.

⁵³DL = discharge limit

⁵⁴Nitrate N, plus Nitrite N, plus Total Kjeldahl Nitrogen (TKN)

⁵⁵The five-sample rolling geometric mean is determined by multiplying the five (5) most recent monthly sample values together then taking the fifth root of the product. *Example: $GM_5 = \sqrt[5]{(m_1)(m_2)(m_3)(m_4)(m_5)}$*

⁵⁶A five-month geometric mean of the results of the five most recent samples.

⁵⁷MPN = Most Probable Number per 100 ml. For MPN, a value of <200 shall be considered to be non-detect.

⁵⁸For fecal coliform **only**, “daily” sampling means every day in which a sample can practicably be obtained and delivered in sufficient time for proper analysis, provided that no less than four samples in each seven-day period are obtained and analyzed.

⁵⁹Requires entering “Compliance” or “Non-compliance” on the SMRF for each day of the reporting period. Evaluate the daily fecal coliform result along with the six (6) previous sample results. If four (4) or more of those results are equal to or less than 200 CFU, report “Compliance” for that day’s entry on the SMRF. If four (4) or more of those results are greater than 200 CFU, report “Non-compliance” for that day’s entry.

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

**TABLE II
GROUNDWATER MONITORING**

Sampling Point Number	Sampling Point Identification			Latitude	Longitude
39	MW #1A- Approximately 705 ft. from the southwest edge of the recharge basins			33° 21' 30.5" N	111° 33' 41.3" W
Parameter	AL ⁶⁰	AQL ⁶¹	Units	Sampling Frequency	Reporting Frequency
Water Level ⁶²	169 - 269 ⁶³	Not Established ⁶⁴	Feet bgs ⁶⁵	Quarterly	Quarterly
Nitrate-Nitrite as N	8.0	10.0	mg/l	Quarterly	Quarterly
Nitrate as N	8.0	10.0	mg/l	Quarterly	Quarterly
Nitrite as N	0.8	1.0	mg/l	Quarterly	Quarterly
Total Nitrogen ⁶⁶	8.0	10.0	mg/l ⁶⁷	Quarterly	Quarterly
Total Kjeldahl Nitrogen (TKN)	Not Established	Not Established	mg/l	Quarterly	Quarterly
Fecal Coliform	Not Established	Non-detect ⁶⁸	MPN	Quarterly	Quarterly
Metals (total):					
Antimony	0.0048	0.006	mg/l	Quarterly	Quarterly
Arsenic	0.04	0.05	mg/l	Quarterly	Quarterly
Barium	1.60	2.00	mg/l	Quarterly	Quarterly
Beryllium	0.0032	0.004	mg/l	Quarterly	Quarterly
Cadmium	0.004	0.00005	mg/l	Quarterly	Quarterly
Chromium	0.08	0.1	mg/l	Quarterly	Quarterly
Cyanide (as free)	0.16	0.2	mg/l	Quarterly	Quarterly
Fluoride	3.2	4.0	mg/l	Quarterly	Quarterly
Lead	0.04	0.05	mg/l	Quarterly	Quarterly
Mercury	0.0016	0.002	mg/l	Quarterly	Quarterly
Nickel	0.08	0.1	mg/l	Quarterly	Quarterly
Selenium	0.04	0.05	mg/l	Quarterly	Quarterly
Thallium	0.0016	0.002	mg/l	Quarterly	Quarterly

⁶⁰ AL = Alert Level

⁶¹AQL = Aquifer Quality Limit

⁶² See Section 2.6.2.3.4.

⁶³ If the water level does not fall within this range, the AL is considered to be exceeded.

⁶⁴Not Established means monitoring is required, but no limits are specified.

⁶⁵ bgs = below ground surface

⁶⁶ The calculation for Total Nitrogen is Nitrate as N plus Nitrite as N plus TKN.

⁶⁷ mg/l = milligrams per liter

⁶⁸Non-detect - For MPN, a value of <2.2 shall be considered to be non-detect

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

TABLE II
GROUNDWATER MONITORING (continued)

Parameter	AL	AQ	Units	Sampling Frequency	Reporting Frequency
Volatile and Semi-Volatile Organic Compounds (VOCs and SVOCs):					
Benzene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Carbon tetrachloride	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
o-Dichlorobenzene	0.48	0.6	mg/l	Semi-Annually	Semi-Annually
para-Dichlorobenzene	0.06	0.075	mg/l	Semi-Annually	Semi-Annually
1,2-Dichloroethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
1,1-Dichloroethylene	0.0056	0.007	mg/l	Semi-Annually	Semi-Annually
cis-1,2-Dichloroethylene	0.056	0.07	mg/l	Semi-Annually	Semi-Annually
trans-1,2-Dichloroethylene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Dichloromethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
1,2-Dichloropropane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Ethylbenzene	0.56	0.7	mg/l	Semi-Annually	Semi-Annually
Hexachlorobenzene	0.0008	0.001	mg/l	Semi-Annually	Semi-Annually
Hexachlorocyclopentadiene	0.04	0.05	mg/l	Semi-Annually	Semi-Annually
Monochlorobenzene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Styrene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Tetrachloroethylene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Toluene	0.8	1.0	mg/l	Semi-Annually	Semi-Annually
Trihalomethanes (total) ⁶⁹	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
1,1,1-Trichloroethane	0.16	0.2	mg/l	Semi-Annually	Semi-Annually
1,2,4 - Trichlorobenzene	0.056	0.07	mg/l	Semi-Annually	Semi-Annually
1,1,2 - Trichloroethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Trichloroethylene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Vinyl Chloride	0.0016	0.002	mg/l	Semi-Annually	Semi-Annually
Xylenes (Total)	8.0	10.0	mg/l	Semi-Annually	Semi-Annually

⁶⁹ Total Trihalomethanes are comprised of Bromoform, Bromodichloromethane, Chloroform, and Dibromochloromethane.

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

TABLE II
GROUNDWATER MONITORING (continued)

Sampling Point Number	Sampling Point Identification			Latitude	Longitude
40	MW#2 South of the Recharge Basins			33° 21' 35" N	111° 33' 32" W
Parameter	AL ⁷⁰	AQL ⁷¹	Units	Sampling Frequency	Reporting Frequency
Water Level ⁷²	220-290 ⁷³	Not Established ⁷⁴	Feet bgs ⁷⁵	Monthly	Quarterly
Total Nitrogen ⁷⁶	8.0	10.0	mg/l ⁷⁷	Quarterly	Quarterly
Nitrate-Nitrite as N	8.0	10.0	mg/l	Quarterly	Quarterly
Nitrate as N	8.0	10.0	mg/l	Quarterly	Quarterly
Nitrite as N	0.8	1.0	mg/l	Quarterly	Quarterly
Total Kjeldahl Nitrogen (TKN)	Not Established	Not Established	mg/l	Monthly	Quarterly
Fecal Coliform	Not Established	Non-detect ⁷⁸	MPN	Monthly	Quarterly
Metals (total):					
Antimony	0.0048	0.006	mg/l	Quarterly	Quarterly
Arsenic	0.04	0.05	mg/l	Quarterly	Quarterly
Barium	1.60	2.00	mg/l	Quarterly	Quarterly
Beryllium	0.0032	0.004	mg/l	Quarterly	Quarterly
Cadmium	0.004	0.005	mg/l	Quarterly	Quarterly
Chromium	0.08	0.1	mg/l	Quarterly	Quarterly
Cyanide (as free cyanide)	0.16	0.2	mg/l	Quarterly	Quarterly
Fluoride	3.2	4.0	mg/l	Quarterly	Quarterly
Lead	0.04	0.05	mg/l	Quarterly	Quarterly
Mercury	0.0016	0.002	mg/l	Quarterly	Quarterly
Nickel	0.08	0.1	mg/l	Quarterly	Quarterly
Selenium	0.04	0.05	mg/l	Quarterly	Quarterly
Thallium	0.0016	0.002	mg/l	Quarterly	Quarterly

⁷⁰ AL = Alert Level

⁷¹AQL = Aquifer Quality Limit

⁷² See Section 2.6.2.3.4.

⁷³ If the water level does not fall within this range, the AL is considered to be exceeded.

⁷⁴Not Established means monitoring is required, but no limits are specified.

⁷⁵ bgs = below ground surface

⁷⁶ The calculation for Total Nitrogen is Nitrate as N plus Nitrite as N plus TKN.

⁷⁷ mg/l = milligrams per liter

⁷⁸Non-detect - For MPN, a value of <2.2 shall be considered to be non-detect

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

TABLE II
GROUNDWATER MONITORING (continued)

Parameter	AL	AQ	Units	Sampling Frequency	Reporting Frequency
Volatile and Semi-Volatile Organic Compounds (VOCs and SVOCs):					
Benzene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Carbon tetrachloride	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
o-Dichlorobenzene	0.48	0.6	mg/l	Semi-Annually	Semi-Annually
para-Dichlorobenzene	0.06	0.075	mg/l	Semi-Annually	Semi-Annually
1,2-Dichloroethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
1,1-Dichloroethylene	0.0056	0.007	mg/l	Semi-Annually	Semi-Annually
cis-1,2-Dichloroethylene	0.056	0.07	mg/l	Semi-Annually	Semi-Annually
trans-1,2-Dichloroethylene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Dichloromethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
1,2-Dichloropropane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Ethylbenzene	0.56	0.7	mg/l	Semi-Annually	Semi-Annually
Hexachlorobenzene	0.0008	0.001	mg/l	Semi-Annually	Semi-Annually
Hexachlorocyclopentadiene	0.04	0.05	mg/l	Semi-Annually	Semi-Annually
Monochlorobenzene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Styrene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Tetrachloroethylene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Toluene	0.8	1.0	mg/l	Semi-Annually	Semi-Annually
Trihalomethanes (total) ⁷⁹	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
1,1,1-Trichloroethane	0.16	0.2	mg/l	Semi-Annually	Semi-Annually
1,2,4 - Trichlorobenzene	0.056	0.07	mg/l	Semi-Annually	Semi-Annually
1,1,2 - Trichloroethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Trichloroethylene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Vinyl Chloride	0.0016	0.002	mg/l	Semi-Annually	Semi-Annually
Xylenes (Total)	8.0	10.0	mg/l	Semi-Annually	Semi-Annually

⁷⁹ Total Trihalomethanes are comprised of Bromoform, Bromodichloromethane, Chloroform, and Dibromochloromethane.

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

TABLE III
FACILITY INSPECTION (OPERATIONAL MONITORING) - LOG BOOK⁸⁰

Pollution Control Structure/Parameter	Performance Level	Inspection Frequency
Pump Integrity	Good working condition	Weekly
Treatment Plant Components	Good working condition	Weekly
Freeboard for the Recharge Basins	One (1) feet	Weekly
Berm Integrity	No visible structural damage, breach, or erosion of embankments	Monthly
Liner Integrity	No cracks or leaks that would exceed a leakage rate of 550 gpd/acre	Monthly
Sludge Drying Bed / Sludge Lagoon Freeboard	One (1) Linear Foot	Weekly
Vadose zone wells	Good working condition	Monthly

⁸⁰ The permittee shall record the inspection performance levels in a log book as per Section 2.7.2, and report any violations or exceedances as per Section 2.7.3. In the case of an exceedance, identify which structure exceeds the performance level in the log book.

5.0 REFERENCES AND PERTINENT INFORMATION

The terms and conditions set forth in this permit have been developed based upon the information contained in the following, which are on file with the Department:

1. APP Application dated: July 26, 2019
2. Contingency Plan, dated: January 10, 2017
3. Final Engineering Memo dated: December 13, 2019
4. Final Hydrologist Memo dated: XXXXXXXX
5. Public Notice date: TBD

6.0 NOTIFICATION PROVISIONS

6.1 Annual Registration Fees

The permittee is notified of the obligation to pay an Annual Registration Fee to ADEQ. The Annual Registration Fee is based on the amount of daily influent or discharge of pollutants in gallons per day (gpd) as established by A.R.S. § 49-242.

6.2 Duty to Comply [A.R.S. §§ 49-221 through 263]

The permittee is notified of the obligation to comply with all conditions of this permit and all applicable provisions of Title 49, Chapter 2, Articles 1, 2 and 3 of the Arizona Revised Statutes, Title 18, Chapter 9, Articles 1 through 4, and Title 18, Chapter 11, Article 4 of the Arizona Administrative Code. Any permit non-compliance constitutes a violation and is grounds for an enforcement action pursuant to Title 49, Chapter 2, Article 4 or permit amendment, suspension, or revocation.

6.3 Duty to Provide Information [A.R.S. §§ 49-243(K)(2) and 49-243(K)(8)]

The permittee shall furnish to the Director, or an authorized representative, within a time specified, any information which the Director may request to determine whether cause exists for amending or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Director, upon request, copies of records required to be kept by this permit.

6.4 Compliance with Aquifer Water Quality Standards [A.R.S. §§ 49-243(B)(2) and 49-243(B)(3)]

The permittee shall not cause or contribute to a violation of an Aquifer Water Quality Standard (AWQS) at the applicable point of compliance (POC) for the facility. Where, at the time of issuance of the permit, an aquifer already exceeds an AWQS for a pollutant, the permittee shall not discharge that pollutant so as to further degrade, at the applicable point of compliance for the facility, the water quality of any aquifer for that pollutant.

6.5 Technical and Financial Capability [A.R.S. §§ 49-243(K)(8) and 49-243(N) and A.A.C. R18-9-A202(B) and R18-9-A203(E) and (F)]

The permittee shall have and maintain the technical and financial capability necessary to fully carry out the terms and conditions of this permit. Any bond, insurance policy, trust fund, or other financial assurance mechanism provided as a demonstration of financial capability in the permit application, pursuant to A.A.C. R18-9-A203(C), shall be in effect prior to any discharge authorized by this permit and shall remain in effect for the duration of the permit.

6.6 Reporting of Bankruptcy or Environmental Enforcement [A.A.C. R18-9-A207(C)]

The permittee shall notify the Director within five days after the occurrence of any one of the following:

1. the filing of bankruptcy by the permittee; or
2. the entry of any order or judgment not issued by the Director against the permittee for the enforcement of any environmental protection statute or rule.

6.7 Monitoring and Records [A.R.S. § 49-243(K)(8) and A.A.C. R18-9-A206]

The permittee shall conduct any monitoring activity necessary to assure compliance with this permit, with the applicable water quality standards established pursuant to A.R.S. §§ 49-221 and 49-223 and §§ 49-241 through 49-252.

6.8 Inspection and Entry [A.R.S. §§ 49-1009, 49-203(B), and 49-243(K)(8)]

In accordance with A.R.S. §§ 41-1009 and 49-203(B), the permittee shall allow the Director, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to enter and inspect the facility as reasonably necessary to ensure compliance with Title 49, Chapter 2, Article 3 of the Arizona Revised Statutes, and Title 18, Chapter 9, Articles 1 through 4 of the Arizona Administrative Code and the terms and conditions of this permit.

6.9 Duty to Modify [A.R.S. § 49-243(K)(8) and A.A.C. R18-9-A211]

The permittee shall apply for and receive a written amendment before deviating from any of the designs or operational practices authorized by this permit.

**6.10 Permit Action: Amendment, Transfer, Suspension, and Revocation
[A.R.S. §§ 49-201, 49-241 through 251, A.A.C. R18-9-A211, R18-9-A212 and R18-9-A213]**

This permit may be amended, transferred, suspended, or revoked for cause, under the rules of the Department. The permittee shall notify the Groundwater Protection Value Stream in writing within 15 days after any change in the owner or operator of the facility. The notification shall state the permit number, the name of the facility, the date of property transfer, and the name, address, and phone number where the new owner or operator can be reached. The operator shall advise the new owner or operators of the terms of this permit and the need for permit transfer in accordance with the rules.

7.0 ADDITIONAL PERMIT CONDITIONS

7.1 Other Information [A.R.S. § 49-243(K)(8)]

Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, the permittee shall promptly submit the correct facts or information.

**7.2 Severability
[A.R.S. §§ 49-201, 49-241 through 251, A.A.C. R18-9-A211, R18-9-A212 and R18-9-A213]**

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby. The filing of a request by the permittee for a permit action does not stay or suspend the effectiveness of any existing permit condition.

7.3 Permit Transfer

This permit may not be transferred to any other person except after notice to and approval of the transfer by the Department. No transfer shall be approved until the applicant complies with all transfer requirements as specified in A.A.C. R18-9-A212(B) and (C).