STATE OF ARIZONA
AQUIFER PROTECTION PERMIT NO. P-105202
PLACE ID 16908, LTF 98526
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 EPCOR Water Arizona, Inc. to operate the Verrado Water Reclamation Facility (WRF) located at 1871 N. Lancaster Street, Buckeye, Arizona, Maricopa County, over groundwater of the Phoenix Active Management Area.

This permit becomes effective on the date of the Water Quality Division Deputy 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:	Verrado Water Reclamation Facility (WRF)
Facility Address:	1871 N. Lancaster Street Buckeye, Arizona 85326
County:	Maricopa
Permitted Flow Rate:	3,120,000 gallons per day (gpd)
Permittee:	EPCOR Water Arizona, Inc.
Permittee Address:	2355 West Pinnacle Peak Road, Suite #300 Phoenix, Arizona 85027
Facility Contact:	Tom Di Domizio; Water Quality & Environment Manager
Emergency Phone No.:	**Land:** (623) 445-2431 **Mobile:** (602) 930-5623 **SCADA:** (602) 206-7629
Latitude/Longitude:	33° 28' 04.6" N / 112° 29' 52.1" W
Legal Description:	Township 2N, Range 2W, Section 31, NE ¼ SE ¼ SE ¼ of the Gila and Salt River Baseline and Meridian

1.2. AUTHORIZING SIGNATURE

_____

Randall Matas, Deputy Director
Water Quality Division
Arizona Department of Environmental Quality

Signed this _____ day of _____, 2024

THIS AMENDED PERMIT SUPERSEDES ALL PREVIOUS PERMITS

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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), and A.A.C. R18-5-114]

The permittee is authorized to operate the Verrado Water Reclamation Facility, with a maximum average monthly flow of 1.46 mgd for Phase 4A, 1.85 mgd for Phase 4B, 2.6 mgd for Phase 5, and 3.12 mgd for Phase 6. The ADEQ has graded this facility as a Grade 4 wastewater treatment plant. The facility shall have an operator in direct responsible charge who is certified for the grade of the facility and visits the facility daily[1].

Phase 4A (1.46 mgd ADMM) Migrating Biofilm Carrier (MBC) Activated Sludge Process

The Verrado WRF headworks consists of two influent pump stations (IPS) wet wells, each with two 810 gpm pumps (3-duty, 1-standby) and a 3rd pump base in IPS #2, a mechanical step screen (5.5 mgd) with screenings washer and compactor, a bypass manual bar screen, and a vortex grit chamber (5.5 mgd) system with a grit washer and concentrator that dumps into a roll off bin for disposal. One of the IPSs is at a lower elevation to provide extra storage and minimize pump cycling. IPS #1 overflows a weir and enters IPS #2. Flows over a predetermined setpoint of 1.83 mgd (1,271 gpm) overflow into two 0.73-million-gallon equalization basins with a 50-hp blower, and 25-hp blower (1-duty, 1-standby) that has a pump station with two 700-gpm VFD controlled pumps, with a spare on the shelf.

From the headworks, preliminary treated influent is delivered to an anoxic zone junction box that splits flows between two bio-nutrient reactor (BNR) treatment trains that have been modified with a migrating biofilm carrier (MBC) process. Each BNR have three anoxic zones (A, B, and C) and an aerated zone with three aerated swing zones (1,2, and 3) to achieve nitrification/denitrification. The anoxic zones utilize jet motive pumps to keep the mixed liquors in suspension. Three 100-hp blowers (2-duty, 1-standby) deliver oxygen to both BNR aerobic zones, and mixing is provided with jet motive pumps to keep the mixed liquors in suspension and distribute the air through a single jet aeration header fitted with dispersion nozzles with three aeration drop legs/swing zones. An IMLR pump transfers mixed liquors from the end of the aerated zone back to the head of the anoxic zone. Two new activated sludge intensification process media screens (1-duty; 1-standby) will be installed at the top of the beginning of the aeration zones. The media will recycle through the IMLR pumps back through the anoxic zones. A carbon feed system is available with a 750-gallon storage tank and a 5-gph feed pump to deliver an additional food source to assist with denitrification at all three oxic swing zone locations.

MLSS is split between two clarifiers (1-duty; 1-standby) which can support Phase 4A and Phase 4B, because the intensification process is expected to achieve higher loadings due to the enhanced settling of the ballasted media. These clarifiers share a RAS pump station, with existing 305-gpm (3.7-hp VFD controlled) RAS pumps dedicated to each and a third redundant pump when the dedicated pump is out of service. Two new 100-gpm (3-hp VFD controlled) RAS pumps deliver the activated sludge to the top of the aeration basins sludge intensification screens. From these sludge intensification screens, ballasted media will be separated from the WAS and returned to the oxic basins. The screened WAS flow is conveyed by gravity to the sludge holding tanks according to influent flow and have been sized for all phases covered by this permit. The sludge will be stored and manually decanted from the existing 151,000 gallon sludge holding tank with two rotary lobe blowers (1-duty; 1-standby) with 9-inch EPDM fine bubble diffusers. Two dry-pit 7.5-hp rotary lobe pumps then pump the sludge to a 1.0-meter belt filter press, or back-up 0.5-meter belt filter press for dewatering. The dewatered sludge is disposed off-site at an approved landfill.

[1] Daily = seven days a week. In the absence of the operator in direct responsible charge, the operator in charge of the facility is certified for the applicable class of facility and at a grade no lower than one grade below the grade of the facility.

Effluent from the clarifiers is delivered to a 10,000-gallon filter influent pump station with two 2,200-gpm pumps (1-duty, 1-standby), which raises the hydraulic grade line so that effluent flows by gravity through one of two (Filter 3 and Filter 4) 2.2-meter tertiary disc-filters (each with a 2.31 mgd capacity through 8 disks to support Phase 4A and 4B) and two chlorine contact tanks (each with three passes) to the effluent pump station. Sodium hypochlorite (NaOCl) solution, stored in a 2,000 gallon tank, is injected upstream of the contact tank in the 18-inch filter effluent header. An 18-inch static mixer provides instantaneous mixing of the chlorine and filtered effluent. The facility uses sodium bisulfite for effluent dechlorination. The 18,000-gallon effluent pump station with two 1,900-gpm (4-stage 200-hp VFD controlled) vertical turbine pumps (1-duty, 1-standby), delivers reclaimed water meeting the Class A+ Reclaimed Water Standards as per Title 18, Chapter 11, Article 3. The effluent may be delivered for beneficial purposes (reuse) under a required valid Class A+ reclaimed water permit or to the two (2) vadose zone wells at the aquifer recharge facility (ARF), located approximately one mile north-northwest of the facility, or to the outfall within the Lost Creek Wash. When discharged only for reuse, the effluent is delivered directly from the chlorine contact chamber and does not require dechlorination. However, during times in which the effluent is discharged to the ARF, the effluent should be dechlorinated to reduce TTHMs, so dechlorination storage and dosing equipment is required at this facility for all phases included in this permit.

A single 12,700 cfm multi-stage wet scrubber odor control system uses sodium hydroxide and sodium hypochlorite to treat foul air ventilated from all odor producing processes. Electrical service is brought in through a main switchboard sized at 1,600-amps, supporting Switchboard 1 and service entrance switchboard sized at 3,000 amps, supporting Switchboard 2. Backup power is provided by a 1,000-kW standby diesel generator on Switchboard 1 and a 2,000-kW standby diesel generator on Switchboard 2. Both the odor control system and generators will be sufficient for Phase 4A and 4B.

Phase 4B (1.85 mgd ADMM) MBC Activated Sludge Process

For Phase 4B, the Verrado WRF will be adding a third influent pump to the existing pump base in IPS #2 Wetwell. No changes will occur to the preliminary treatment, the predetermined set-point for flows to the EQ basins will be changed to 2.30-mgd (1,604-gpm). The equalized influent pumps will be upsized to 1,150 gpm (20 hp; VFD controlled). The anoxic basin jet mixing system will be upgraded to a jet aeration system to allow the three anoxic zones to serve as additional aerated swing zones doubling the number of nozzles in each basin (Zone A will now have four nozzles, Zone B-four nozzles, and Zone C-eight nozzles), the IMLR pumps will be upgraded from 5 hp to 5.5 hp pumps, the process air blowers will be upgraded with three (2-duty; 1-standby) 1,750 scfm (125 hp) variable speed hybrid rotary lobe blowers, The RAS pumps will be upgraded to 3 new (2-duty; 1-standby) 650 gpm (7.5 hp VFD operated) horizontal dry-pit RAS pumps.

Phase 5 (2.60 mgd ADMM) MBC Activated Sludge Process

For Phase 5, the Verrado WRF will be adding a third permanent pump to Wetwell 2 (4-duty; 1-standby), a 3mm mechanical stair screen with wash compactor and 2nd bypass barscreen will be added to the 6mm stair screen with washer compactor and bypass barscreen already in service. The predetermined set-point for flows to the EQ basins will be changed to 3.25-mgd (2,257-gpm). The equalized influent return pumps will be upgraded from two dry pit to two submersible 1,500 gpm (20 hp; VFD controlled) pumps and the 50-hp standby equalization blower will be replaced by a 25-hp swing blower, so that 2-blowers (25-hp each 1-duty; 1-swing) can provide air to the equalization basin. A third oxic basin utilizing the migrating media treatment process will be added in order to increase the capacity of the WRF, which will then have two anoxic basins with three zones and three oxic basins, each with two aeration zones and one anoxic swing zone. A 5-hp submersible IMLR pump will be installed and a new process media retention screen will be added to new Oxic Basin 3. The bioreactor glycerin feed storage will be doubled to 1,500 gallons of storage and a 10 gph feed pump that can deliver up to a 12 gph design point to support Phase 5 and Phase 6.For the process air blowers, a 75hp jockey blower (duty) will be added to the three 125-hp blowers. A third clarifier (2-duty; 1-standby) will be added to support Phase 5 and 6. A new 650 gpm (7.5 hp VFD operated) horizontal dry-pit centrifugal RAS pump (3-duty; 1-standby) will be added to serve the new Phase 5 oxic basin. The pumps for the filter influent pump station will be increased from 2,200 gpm to 2,300 gpm. An additional 2.2-meter tertiary disc-filter with 6 disks for an additional capacity of 1.83 mgd (Filter 5) will be added to support Phase 5 and 6. A third chlorine contact tank will be added to support Phase 5 and 6. The standby sodium hypochlorite pump will become duty, and a third pump will be ready on the shelf for use. In the

reclaimed water pump station, a 500 gpm (4-stage 60-hp VFD controlled) vertical turbine jockey pump will be installed to help support the 1,900 gpm duty/standby reclaimed pumps.

For Phase 5, the existing equipment gallery will be converted to a new sludge holding tank and new pumped floating decanters will be installed in this tank and the existing tanks. The two outdoor blowers will be replaced with two larger 975-scfm; 50-hp blowers (1-duty; 1-swing) located indoors at the existing repurposed maintenance building and stainless steel coarse bubble diffusers will be installed in both tanks, replacing the EPDM fine bubble diffusers. Two new 7.5 hp submersible rotary lobe pumps (1-duty; 1-standby) will be installed in the new tank, while the existing tank continues to use the existing 7.5 hp dry-pit rotary lobe pumps to deliver thickened sludge to the belt filter presses.

For Phase 5 and 6, new (second sized identically) 12,700 cfm multi-stage wet scrubber odor control system will be installed and the acid storage tank and feed will be relocated closer to road access. Additional generator capacity (diesel generator) will be added for Phase 5 and 6.

Phase 6 (3.12 mgd ADMM) MBC Activated Sludge Process

For Phase 6, the Verrado WRF will be adding a third pump to wetwell 1, for a total of 3 pumps in each wetwell (5-duty; 1-standby). The predetermined set-point for flows to the EQ basins will be changed to 3.90-mgd (2,708-gpm). a third submersible 1,500 gpm (20 hp; VFD controlled) equalization influent return submersible pump will be added to the equalization wetwell. A fourth oxic basin utilizing the migrating media treatment process will be added in order to increase the capacity of the WRF, which will then have two anoxic basins with three zones and four oxic basins, each with two aeration and one anoxic swing zone. A 5-hp submersible IMLR pump will be installed and a new process media retention screen will be added to new Oxic Basin 4. For process air, the 75-hp duty blower will be replaced with another 125-hp blower so that there are 4 125-hp hybrid rotary lobe blowers (3-duty, 1-standby). A new 650 gpm (7.5 hp VFD operated) horizontal dry-pit RAS pump (4-duty; 1-standby) will be added to serve the new Phase 5 oxic basin. In the filter influent pump station, a third 500 gpm (5-hp VFD controlled) jockey pump will be installed as a secondary duty pump to support the existing 2,300 gpm duty/standby pumps. In the reclaimed water pump station, a second 500 gpm (4-stage 60-hp VFD controlled) vertical turbine jockey pump will be installed to help support the 1,900 gpm duty/standby reclaimed pumps, for a total of 4 reclaimed water turbine pumps.

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 site includes the following permitted discharging facilities:

Table 1: DISCHARGING FACILITIES		
Facility	**Latitude (North)**	**Longitude (West)**
Verrado WRF	33° 28' 04.6"	112° 29' 52.1"
Vadose Zone Well #1	33° 28' 45.6"	111° 30' 27.4"
Vadose Zone Well #2	33° 28' 45.3"	111° 30' 27.2"
Lost Creek Wash Outfall	33° 29' 23.4"	111° 30' 38.7"

2.1.1. 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 annual registration fee flow rate is established by the permitted flow rate identified in Section 1.1. If the facility is not constructed or is incapable of discharge, the permittee may be eligible for reduced fees pursuant to A.A.C. R18-14-104(A), Table 2. Send all correspondence requesting reduced fees to the Groundwater Protection & Reuse Section. Please reference the permit number, LTF number, and the reason for requesting reduced fees under this rule.

2.1.2. 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 $312,400 for Phase 4, $365,600 for Phase 5, and $377,100 for Phase 6, per the Closure Plan and Closure cost estimate signed, dated, and sealed by an Arizona Registrant, John Matta, P.E. (Civil #30012) with Water Works Engineers on June 20, 2024. The financial capability for Phase 4 of $312,400 was demonstrated through Performance Surety Bond per A.A.C. R18-9-A203(C)(2), and will be updated for future phases, or every 6 years, whichever occurs first.

2.2. BEST AVAILABLE DEMONSTRATED CONTROL TECHNOLOGY (BADCT)

[A.R.S. § 49-243(B) and A.A.C. R18-9-A202(A)(5)]

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.

2.2.1. Engineering Design

The re-rating of the Verrado WRF, for Phase 4, 5, and 6, was designed as per the Verrado WRF APP Amendment application received on June 14, 2023 and design report signed, dated and sealed by John H. Matta (Civil #30012) of Water Works Engineers, L.L.C. dated June 21, 2024 and subsequent RAIS submittals.

The re-rating of the Verrado WRF was designed as per the Verrado WRF APP Amendment design report signed, dated and sealed by John H. Matta (Civil #30012) of Water Works Engineers, L.L.C. dated May 7, 2022 and subsequent RAIS submittals dated December 9, 2022.

The Verrado WRF Aeration Basin Improvements were designed as per the record drawings signed, dated and sealed by John H. Matta (Civil #30012) of Water Works Engineers, L.L.C. dated November 20, 2019.

The Verrado WRF Solids Handing Upgrades were designed as per the basis of design report and design drawings signed, dated and sealed by Jerry C. Bish (Civil #44307) of Greeley and Hansen dated September 1, 2020 and August 19, 2020, respectively.

The Verrado WRF Phase 2 Expansion was designed according to the Design Report, and record drawings signed dated and sealed by Glen Roth, P.E (Civil #20329) and Sheba Haviz (Civil #41933) with Damon S. Williams Associates, L.L.C. dated June 26, 2006, and April 9, 2008.

2.2.2. Site-Specific Characteristics

Site specific characteristics were not used to determine BADCT.

2.2.3. Pre-Operational Requirements

Not Applicable.

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 15: FACILITY INSPECTION AND OPERATIONAL MONITORING

3. If any damage of the pollution control structures is identified during inspection, proper repair procedures shall be performed. All repair procedures and material(s) 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 per Section 2.7.3

2.2.5. Reclaimed Water Classification

[A.A.C. R18-9-B701(C)(2)(a), A.A.C. R18-11-303 through 307]

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

2.2.6. Certified Areawide Water Quality Management Plan Conformance

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

Facility operations must conform to the approved Certified Areawide 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 treatment facility with a maximum average monthly flow of 3.12 million gallons per day (mgd).
2. The permittee shall notify all users that the materials authorized to be disposed of through the treatment facility are typical household sewage and pre-treated commercial wastewater and shall not include motor oil, gasoline, paints, varnishes, hazardous wastes, solvents, pesticides, fertilizers or other materials not generally associated with toilet flushing, food preparation, laundry facilities and personal hygiene.
3. 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.
4. Specific discharge limitations are listed in Section 4.2, Table 12: ROUTINE DISCHARGE MONITORING.

2.4. POINT OF COMPLIANCE (POC)

[A.R.S. § 49-244]

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

Table 2: POINT(S) OF COMPLIANCE

POC #	POC Location	Latitude (North)	Longitude (West)
1 (Conceptual)	Southeast Corner of the WRF	33° 28' 02"	112° 29' 52"
2	MW #1, within 300 feet east of the Aquifer Recharge Facility vadose zone recharge wells	33° 28' 46"	112° 30' 28"
3 (Conceptual)	Approximately 650 feet southeast of the Lost Creek Wash Outfall	33° 29' 19"	112° 30' 17"

The depth to groundwater is approximately 230 feet below ground surface (bgs) at the WRF and 330 feet bgs at the ARF. Groundwater at the WRF appears to flow south-southeastward, and at the ARF appears to flow north-northeastward toward a hydraulic sink.

Groundwater monitoring is required at POC # 2 per Section 4.2; Table 14: GROUNDWATER MONITORING. Groundwater monitoring is not required at POC#1 and POC #3 unless an additional point of compliance is required. POC#1 is used to monitor reuse flows. The director may require an amendment of this permit to install a monitoring well if there is cause or concern that groundwater quality may be impacted at the POC. The Director may amend this permit to require installation of a monitoring well POC#1 and POC #3, 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 Applicable.

2.5.2. Routine Discharge Monitoring

The permittee shall monitor the effluent according to Section 4.2, Table 12: ROUTINE DISCHARGE MONITORING. Representative samples of the effluent shall be collected at the point of discharge from the effluent pump station.

2.5.3. Reclaimed Water Monitoring

The permittee shall monitor the reclaimed water according to the Class A+ Reclaimed Water Monitoring Table in Section 4.2, Table 13: RECLAIMED WATER MONITORING in addition to the routine discharge monitoring parameters listed in Table 12: ROUTINE DISCHARGE MONITORING. Representative samples of the reclaimed water shall be collected at the point of discharge from the effluent pump station.

2.5.4. Facility / Operational Monitoring

Operational monitoring inspections shall be conducted according to Section 4.2, Table 15: FACILITY INSPECTION AND OPERATIONAL MONITORING.

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

Whenever there is discharge to the Aquifer Recharge Facility (ARF), the facility shall conduct groundwater monitoring in that month, and for two additional quarters as per Section 4.2; Table 14: GROUNDWATER MONITORING. Report “No flow” on the SMRF when there is no discharge to the ARF, or after two consecutive quarters of monitoring following a discharge to the ARF.

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 SMR F.

The permittee may conduct the sampling using low-flow purging methods in accordance with EPA, USGS, or DOD protocols. The well must be purged until indicator parameters stabilize. Indicator parameters shall include dissolved oxygen, turbidity, pH, temperature, and conductivity.

As a third alternative method for sampling within POC wells with very low recharge rates, the permittee may conduct the sampling using no-purge sampling techniques using HydraSleeve™ or similar type methodology. The use of HydraSleeve™ or similar type samplers shall follow accepted EPA, USGS, or DOD protocols. In addition, the HydroSleeve™ or similar type sampler shall be placed just below the water table.

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, 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 may 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. If all methods have detection limits higher than the applicable limit, the permittee shall follow the applicable contingency requirements of Section 2.6 and may propose "other actions" including amending the permit to set higher limits. Analyses shall be performed by a laboratory licensed by the Arizona Department of Health Services, Office of Laboratory Licensure and Certification unless exempted under A.R.S. 36-495.02. 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 & Reuse Section 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, R18-9-A205 and R18-9-C305(A)(1)]

2.6.1. General Contingency Plan Requirements

At least one copy of this permit and the approved contingency and emergency response plan submitted in July of 2024 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, unless more specific reporting requirements are set forth in Section 2.6.2 through 2.6.5.

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. 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. The permittee is subject to enforcement action for the failure to comply with any contingency actions in this permit.

2.6.2. Exceeding of Alert Levels and Performance Levels

2.6.2.1. Exceeding of Performance Levels Set for Operational Conditions

For performance levels, the permittee shall comply with the requirements as specified in Section 4.2, Table 15: FACILITY INSPECTION AND OPERATIONAL MONITORING to prevent the overtopping of a tank. If a tank is overtopped, the permittee shall follow the requirements in Section 2.6.5.3 and the reporting requirements of Section 2.7.3. This includes releases of more than 2,000 gallons of raw influent from the collection system or a treatment process prior to biological treatment that are contained onsite.

If a performance level set in Section 4.2, Table 15: FACILITY INSPECTION AND OPERATIONAL MONITORING has been exceeded the permittee shall:

1. Notify the Groundwater Protection & Reuse Section within five (5) days of becoming aware of the exceedance per Section 2.7.5.
2. Submit a written report to the Groundwater Protection & Reuse Section within thirty (30) days after becoming aware of the exceedance per Section 2.7.5. The report shall document all of the following:
    a. A description of the exceedance and the cause of the exceedance;
    b. 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;
    c. 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;
    d. Any monitoring activity or other information which indicates that any pollutants would be reasonably expected to cause a violation of an AWQS; and
    e. Any malfunction or failure of pollution control devices or other equipment or process.
3. 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, Table 12: ROUTINE DISCHARGE MONITORING has been exceeded, 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 exceedance;
    b. Review of recent process logs, reports, and other operational control information to identify any unusual occurrences; and

c. If the investigation procedures indicated in (a) and (b) above fail to reveal the cause of the exceedance, the permittee shall sample individual waste streams composing the wastewater for the parameter(s) in question, if necessary to identify the cause of the exceedance.

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 the AL exceedance. To implement any other corrective action the permittee shall obtain prior approval from ADEQ according to Section 2.6.6.

3. Within thirty (30) days of an AL exceedance, the permittee shall submit the laboratory results to the Groundwater Protection & Reuse Section per Section 2.7.5 along with a summary of the findings of the investigation, the cause of the 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 AL for average monthly flow in Section 4.2, Table 8: ROUTINE FLOW MONITORING: Phase 4A – 1.46 mgd has been exceeded, the permittee shall begin construction of the next phase, or submit a report to the ADEQ Groundwater Protection & Reuse Section detailing the reasons it is not necessary to begin the next phase of construction. Acceptance of the report instead of beginning the next phase of construction requires ADEQ approval.

2. If the AL for average monthly flow in Section 4.2, Table 9: ROUTINE FLOW MONITORING: Phase 4B – 1.85 mgd has been exceeded, the permittee shall begin construction of the next phase, or submit a report to the ADEQ Groundwater Protection & Reuse Section detailing the reasons it is not necessary to begin the next phase of construction. Acceptance of the report instead of beginning the next phase of construction requires ADEQ approval.

3. If the AL for average monthly flow in Section 4.2, Table 10: ROUTINE FLOW MONITORING: Phase 5 – 2.6 mgd has been exceeded, the permittee shall begin construction of the next phase, or submit a report to the ADEQ Groundwater Protection & Reuse Section detailing the reasons it is not necessary to begin the next phase of construction. Acceptance of the report instead of beginning the next phase of construction requires ADEQ approval.

4. If the AL for average monthly flow in Section 4.2, Table 11: ROUTINE FLOW MONITORING: Phase 6 – 3.12 mgd has been exceeded, the permittee shall submit an application to the Groundwater Protection & Reuse Section for an APP amendment to expand the WRF, or submit a report detailing the reasons an expansion is not necessary. 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 14: GROUNDWATER MONITORING, the permittee may conduct verification sampling for those pollutant(s) that exceeded 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 for each pollutant exceeding its' respective AL(s) as follows:

Table 3: ACCELERATED MONITORING - ALERT LEVEL EXCEEDANCE	
Specified Monitoring Frequency	**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 & Reuse Section, that although an AL has been exceeded, the pollutant(s) that exceeded their respective AL(s) are not reasonably expected to cause a violation of an AQL or AWQS. The demonstration may propose a revised AL or monitoring frequency, for those pollutant(s) that exceeded their respective AL(s), for approval in writing by the Groundwater Protection & Reuse Section.

4. Within thirty (30) days after confirmation of an AL exceedance, for each pollutant that exceeded an AL, the permittee shall submit the laboratory results to the Groundwater Protection & Reuse Section per Section 2.7.5 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. For each pollutant that exceeded an AL, the increased monitoring required as a result of an AL exceedance may be reduced to the monitoring frequency in Section 4.2, Table 14: GROUNDWATER MONITORING if the results of four sequential sampling events of those pollutants demonstrate that they did not exceed the AL.

7. If the increased monitoring required as a result of an AL exceedance continues for more than six (6) sequential sampling events, the permittee shall submit to Groundwater Protection & Reuse Section per Section 2.7.5 a second report documenting an investigation of each pollutant which continued to exceed an AL. This report is due within thirty (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

Not Applicable.

2.6.3. Discharge Limit Violation

1. If a DL set in Section 4.2, Table 12: ROUTINE DISCHARGE MONITORING or Table 13: RECLAIMED WATER MONITORING 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 & Reuse Section 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 14: GROUNDWATER MONITORING 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 verification sampling does not confirm an AQL exceedance, no further action is needed under this Section.

3. If verification sampling confirms that an AQL was exceeded for any parameter or if the permittee opts not to perform verification sampling, then, the permittee shall increase the frequency of monitoring for those parameters as follows:

Table 4: ACCELERATED MONITORING - AQUIFER QUALITY LIMIT VIOLATION

Specified Monitoring Frequency	Monitoring Frequency for AQL Violation
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 thirty (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.

5. The increased monitoring for those pollutant(s) required as a result of an AQL exceedance may be reduced to the original sampling frequency for each respective pollutant, if the results of three (3) sequential sampling events demonstrate that the parameter(s) does not exceed their respective AQL(s), and upon ADEQ approval.

2.6.5. Emergency Response and Contingency Requirements for Unauthorized Discharges

[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 & Reuse Section 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 & Reuse Section within 24 hours of discovering the discharge of non-hazardous material which has the potential to cause an AQL or AWQS 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 & Reuse Section per Section 2.7.5 within thirty (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 and actions identified in the approved contingency plan referenced in Section 5.0 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 & Reuse Section prior to implementing a corrective action to accomplish any of the following goals in response to exceedance of an AL, AQL, DL, or another 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 thirty (30) days of completion of any corrective action, the operator shall submit to the Groundwater Protection & Reuse Section per Section 2.7.5, 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), A.A.C. R18-5-104, 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 per Section 2.7.5. The permittee shall use the format devised by ADEQ.
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, and submit the form to the Groundwater Protection & Reuse Section.
3. The tables contained in Section 4.0 list the monitoring parameters and the frequencies for reporting results on the SMRF:

   One of the following tables in accordance with the current permitted phase

   a. Table 8: ROUTINE FLOW MONITORING: Phase 4A – 1.46 mgd

      Table 9: ROUTINE FLOW MONITORING: Phase 4B – 1.85 mgd

      Table 10: ROUTINE FLOW MONITORING: Phase 5 – 2.6 mgd

      Table 11: ROUTINE FLOW MONITORING: Phase 6 – 3.12 mgd

And the following tables during all phases covered by this permit

b. Table 12: ROUTINE DISCHARGE MONITORING

c. Table 13: RECLAIMED WATER MONITORING

d. Table 14: GROUNDWATER MONITORING

The parameters listed in the above-identified tables from Section 4.0 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 shift 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).
8. Daily operator in direct responsible charge site visit sign-in to comply with R18-5-104.

2.7.3. Permit Violation and Alert Level Status Reporting

1. The permittee shall notify the Groundwater Protection & Reuse Section per Section 2.7.5 within five (5) days (except as provided in Section 2.6.5) of becoming aware of an AL exceedance, or violation of any permit condition, AQL, or DL for which notification requirements are not specified in Sections 2.6.2 through 2.6.5.
2. The permittee shall submit a written report to the Groundwater Protection & Reuse Section per Section 2.7.5 within thirty (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 15: FACILITY INSPECTION AND OPERATIONAL MONITORING in the facility log book as per Section 2.7.2, and report to the Groundwater Protection & Reuse Section any violations or exceedances as per Section 2.7.3.

If the treatment facility is classified for reclaimed water under this permit, the permittee shall submit the reclaimed water monitoring results and flow volumes to any of the following in accordance with A.A.C. R18-9-B701(C)(2)(c):

1. Any reclaimed water agent who has contracted for delivery of reclaimed water from the permittee; and
2. Any end user who has not waived interest in receiving this information.

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. Contact at 602-771-4571 for any inquiry related to the SMRFs.

5-day and 30-day contingency notification and reports, laboratory reports, and verification sampling results required by this permit should be submitted through the myDEQ portal accessible on the ADEQ website at: http://www.azdeq.gov/welcome-mydeq.

If the required reports cannot be submitted, or require further documentation that cannot be submitted on the myDEQ portal, then submit items to APPContingencyreports@azdeq.gov or the address listed below:

The Arizona Department of Environmental Quality
Groundwater Protection & Reuse Section
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:

Table 5: QUARTERLY REPORTING DEADLINES	
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 if applicable:

Table 6: (SEMI-)ANNUAL REPORTING DEADLINES	
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 and Section 2.0

The Groundwater Protection & Reuse Section shall be notified per Section 2.7.5 within ten days of any change of facility information including Facility Name, Permittee Name, Mailing or Street Address, Facility Contact Person, Certified Operator in Direct Responsible Charge 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 & Reuse Section per Section 2.7.5 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 & Reuse Section 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 & Reuse Section 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 & Reuse Section per Section 2.7.5 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 & Reuse Section per Section 2.7.5, 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 & Reuse Section per Section 2.7.5 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 or, for any pollutant for which the AWQS was exceeded at the time this permit was issued, further action is necessary to prevent the facility from further degrading the aquifer at the applicable POC with respect to that pollutant;
3. Remedial, mitigative or corrective actions or controls are necessary to comply with A.R.S. § 49-201(36) and Title 49, Chapter 2, Article 3;
4. Further action is necessary to meet property use restrictions.
5. SMRF submittals are required until Clean Closure is issued.

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 & Reuse Section.

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 & Reuse Section 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 & Reuse Section per Section 2.7.5.

Table 7: COMPLIANCE SCHEDULE ITEMS

No.	Description	Due By:	Permit Amendment Required?
Construction Completion of Phases 4 and 5			
1.	The permittee shall submit the biofilm carrier process performance verification summary report memorandum discussing data listed in Section 4, "Process Monitoring" of the March 18, 2024 "Verrado Water Reclamation Plant Biofilm Carrier Process Performance Verification Plan"	Within six months of issuance of this permit.	No
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 Phase 4A is constructed according to the Department-approved design report or plans and specifications, as applicable.	Prior to discharging under this permit and within 90 days of completion of construction.	No
3.	Phase 4A performance testing, as-built plans, and confirmation that the facility has received a hard copy of the O&M Manual.	Within six months of issuance of this permit.	No
4.	The permittee shall submit a signed, dated, and sealed Engineer's Certificate of Completion in a format approved by the Department that confirms that Phase 4B is constructed according to the Department-approved design report or plans and specifications, as applicable.	Prior to discharging under Table 9: ROUTINE FLOW MONITORING: Phase 4B – 1.85 mgd and within 90 days of completion of construction.	No
5.	Phase 4B performance testing, as-built plans, and confirmation that the facility has received a hard copy of the O&M Manual.	Submitted within 90 days of the approval to discharge under Table 9: ROUTINE FLOW MONITORING: Phase 4B – 1.85 mgd.	No
6.	The permittee shall submit a signed, dated, and sealed Engineer's Certificate of Completion in a format approved by the Department that confirms that Phase 5 is constructed according to the Department-approved design report or plans and specifications, as applicable.	Prior to discharging under Table 10: ROUTINE FLOW MONITORING: Phase 5 – 2.6 mgd and within 90 days of completion of construction.	No
7.	Phase 5 performance testing, as-built plans, and confirmation that the facility has received a hard copy of the O&M Manual.	Submitted within 90 days of the approval to discharge under Table 10: ROUTINE FLOW MONITORING: Phase 5 – 2.6 mgd.	No

Table 7: COMPLIANCE SCHEDULE ITEMS (Continued)			
No.	**Description**	**Due By:**	**Permit Amendment Required?**
Construction Completion of Phases 6			
8.	The permittee shall submit a signed, dated, and sealed Engineer's Certificate of Completion in a format approved by the Department that confirms that Phase 6 is constructed according to the Department-approved design report or plans and specifications, as applicable.	Prior to discharging under Table 11: ROUTINE FLOW MONITORING: Phase 6 – 3.12 mgd and within 90 days of completion of construction.	No
9.	Phase 6 performance testing, as-built plans, and confirmation that the facility has received a hard copy of the O&M Manual.	Submitted within 90 days of the approval to discharge under Table 11: ROUTINE FLOW MONITORING: Phase 6 – 3.12 mgd.	No
Financial Assurance Mechanism			
10.	The permittee shall submit a demonstration that the financial assurance mechanism listed in Section 2.1, Financial Capability, is being maintained as per A.R.S. 49-243.N.4 and A.A.C. R18-9-A203(H) for all estimated closure and post-closure costs including updated costs submitted under Section 3.0, No. 6 below. The demonstration shall include a statement that the closure and post-closure strategy has not changed, the discharging facilities listed in the permit have not been altered in a manner that would affect the closure and post-closure costs, and discharging facilities have not been added. The demonstration shall also include information in support of a performance surety bond as required in A.A.C. R18-9-A203(C)(2).	By July 1, 2030 and every 6 years thereafter, and at the completion of Phase 5 and Phase 6 construction (submitted with approval of the ECOC), whichever comes first for the duration of the permit.	Yes
11.	The permittee shall submit updated cost estimates for facility closure and post-closure, as per A.A.C. R18-9-A201(B)(5) and A.R.S. 49-243.N.2.a.	By July 1, 2030 and every 6 years thereafter, for the duration of the permit.	Yes

4.0 TABLES OF MONITORING REQUIREMENTS

4.1. PRE-OPERATIONAL MONITORING (OR CONSTRUCTION REQUIREMENTS)

Not applicable.

4.2. COMPLIANCE OR OPERATIONAL MONITORING

Table 8: ROUTINE FLOW MONITORING: Phase 4A – 1.46 mgd[2]					
Sampling Point Number	**Sampling Point Identification**			**Latitude (North)**	**Longitude (West)**
1 – Effluent Flow Meter [3]	Effluent Flow Meter			33° 28' 02.2"	112° 29' 52.2"
2 – ARF[4] Flow Meter	Prior to Vadose Zone Wells			33° 28' 45.3"	112° 30' 27.2"
3 – LCW[4] Flow Meter	Discharge to Lost Creek Wash			33° 29' 23.4"	112° 30' 38.7"
Parameter	**Alert Level**	**Discharge Limit**	**Units**	**Sampling Frequency**	**Reporting Frequency**
Total Effluent Flow[5]: Daily[6]	Not Applicable[7]	Not Applicable	mgd[8]	Daily	Quarterly
Total Effluent Flow: Monthly Average[9]	1.31	1.46	mgd	Monthly Calculation	Quarterly
Reuse Flow: Daily	Not Applicable	Not Applicable	mgd	Daily	Quarterly
Reuse Flow: Monthly Average	Not Applicable	Not Applicable	mgd	Monthly Calculation	Quarterly
ARF Flow: Daily	Not Applicable	Not Applicable	mgd	Daily	Quarterly
ARF Flow: Monthly Average	Not Applicable	Not Applicable	mgd	Monthly Calculation	Quarterly
LCW Flow: Daily	Not Applicable	Not Applicable	mgd	Daily	Quarterly
LCW Flow: Monthly Average	Not Applicable	Not Applicable	mgd	Monthly Calculation	Quarterly

[2] The monitoring under this table shall be continued until CSI No. #4 for Phase 4B has been accepted by the Department and shall be discontinued and the monitoring under Table 9 shall commence upon operation of Phase 4B.
[3] All wastewater flow measurement devices must be calibrated prior to the first year of reporting and recalibrated either biennially (every 2 years) or at the minimum frequency specified by the manufacturer. Wastewater flow measurement devices must be calibrated using the procedures specified by the device manufacturer.
[4] ARF is the discharge to the Aquifer Recharge Facility and LCW is the discharge to Lost Creek Wash
[5] Total flow for all methods of disposal (Reuse, ARF, Lost Creek Wash, and any other disposal methods)
[6] Total Daily Flow shall be measured using a continuous recording flow meter that totals the flows daily.
[7] Not Applicable means that monitoring is required, but no limits have been specified at the time of permit issuance
[8] mgd = million gallons per day
[9] Monthly Average means the calculated average of daily flow values in a month

Table 9: ROUTINE FLOW MONITORING: Phase 4B – 1.85 mgd[10]					
Sampling Point Number	**Sampling Point Identification**			**Latitude (North)**	**Longitude (West)**
1 – Effluent Flow Meter[3]	Effluent Flow Meter			33° 28' 02.2"	112° 29' 52.2"
2 – ARF[4] Flow Meter	Prior to Vadose Zone Wells			33° 28' 45.3"	112° 30' 27.2"
3 – LCW[4] Flow Meter	Discharge to Lost Creek Wash			33° 29' 23.4"	112° 30' 38.7"
Parameter	**Alert Level**	**Discharge Limit**	**Units**	**Parameter**	**Alert Level**
Total Effluent Flow[5]: Daily[6]	Not Applicable[7]	Not Applicable	mgd[8]	Daily	Quarterly
Total Effluent Flow: Monthly Average[9]	1.67	1.85	mgd	Monthly Calculation	Quarterly
Reuse Flow: Daily	Not Applicable	Not Applicable	mgd	Daily	Quarterly
Reuse Flow: Monthly Average	Not Applicable	Not Applicable	mgd	Monthly Calculation	Quarterly
ARF Flow: Daily	Not Applicable	Not Applicable	mgd	Daily	Quarterly
ARF Flow: Monthly Average	Not Applicable	Not Applicable	mgd	Monthly Calculation	Quarterly
LCW Flow: Daily	Not Applicable	Not Applicable	mgd	Daily	Quarterly
LCW Flow: Monthly Average	Not Applicable	Not Applicable	mgd	Monthly Calculation	Quarterly

Table 10: ROUTINE FLOW MONITORING: Phase 5 – 2.6 mgd[11]					
Sampling Point Number	**Sampling Point Identification**			**Latitude (North)**	**Longitude (West)**
1 – Effluent Flow Meter[3]	Effluent Flow Meter			33° 28' 02.2"	112° 29' 52.2"
2 – ARF[4] Flow Meter	Prior to Vadose Zone Wells			33° 28' 45.3"	112° 30' 27.2"
3 – LCW[4] Flow Meter	Discharge to Lost Creek Wash			33° 29' 23.4"	112° 30' 38.7"
Parameter	**Alert Level**	**Discharge Limit**	**Units**	**Sampling Frequency**	**Reporting Frequency**
Total Effluent Flow[5]: Daily[6]	Not Applicable[7]	Not Applicable	mgd[8]	Daily	Quarterly
Total Effluent Flow: Monthly Average[9]	2.34	2.60	mgd	Monthly Calculation	Quarterly
Reuse Flow: Daily	Not Applicable	Not Applicable	mgd	Daily	Quarterly
Reuse Flow: Monthly Average	Not Applicable	Not Applicable	mgd	Monthly Calculation	Quarterly
ARF Flow: Daily	Not Applicable	Not Applicable	mgd	Daily	Quarterly
ARF Flow: Monthly Average	Not Applicable	Not Applicable	mgd	Monthly Calculation	Quarterly
LCW Flow: Daily	Not Applicable	Not Applicable	mgd	Daily	Quarterly
LCW Flow: Monthly Average	Not Applicable	Not Applicable	mgd	Monthly Calculation	Quarterly

[10] The monitoring under this table shall be continued until CSI No. #6 for Phase 5 has been accepted by the Department and shall be discontinued and the monitoring under Table 10 shall commence upon operation of Phase 5.
[11] The monitoring under this table shall be continued until CSI No. #8 for Phase 6 has been accepted by the Department and shall be discontinued and the monitoring under Table 11 shall commence upon operation of Phase 6.

Table 11: ROUTINE FLOW MONITORING: Phase 6 – 3.12 mgd[12]					
Sampling Point Number	**Sampling Point Identification**			**Latitude (North)**	**Longitude (West)**
1 – Effluent Flow Meter[3]	Effluent Flow Meter			33° 28' 02.2"	112° 29' 52.2"
2 – ARF[4] Flow Meter	Prior to Vadose Zone Wells			33° 28' 45.3"	112° 30' 27.2"
3 – LCW[4] Flow Meter	Discharge to Lost Creek Wash			33° 29' 23.4"	112° 30' 38.7"
Parameter	**Alert Level**	**Discharge Limit**	**Units**	**Sampling Frequency**	**Reporting Frequency**
Total Effluent Flow[5]: Daily[6]	Not Applicable[7]	Not Applicable	mgd[8]	Daily	Quarterly
Total Effluent Flow: Monthly Average[9]	2.80	3.12	mgd	Monthly Calculation	Quarterly
Reuse Flow: Daily	Not Applicable	Not Applicable	mgd	Daily	Quarterly
Reuse Flow: Monthly Average	Not Applicable	Not Applicable	mgd	Monthly Calculation	Quarterly
ARF Flow: Daily	Not Applicable	Not Applicable	mgd	Daily	Quarterly
ARF Flow: Monthly Average	Not Applicable	Not Applicable	mgd	Monthly Calculation	Quarterly
LCW Flow: Daily	Not Applicable	Not Applicable	mgd	Daily	Quarterly
LCW Flow: Monthly Average	Not Applicable	Not Applicable	mgd	Monthly Calculation	Quarterly

[12] The Permittee shall start designing at 80% of the Total Effluent Flow Discharge Limit in this table. Once the Alert Level in this table has been reached, the Permittee shall have obtained a permit amendment and begun construction of their next expansion as a result of this permitted design.

Table 12: ROUTINE DISCHARGE MONITORING[13]					
Sampling Point Number	**Sampling Point Identification**			**Latitude (North)**	**Longitude (West)**
4 – Treated Effluent	CCB Discharge			33° 28' 02.2"	112° 29' 52.2"
Parameter	**Alert Level**	**Discharge Limit**	**Units**	**Sampling Frequency**	**Reporting Frequency**
Fecal Coliform: Single sample maximum	Not Applicable	23.0	MPN[14]	Daily[15]	Quarterly
Fecal Coliform: four (4) of seven (7) samples in a week[16]	Not Applicable	Non-detect[17]	MPN	Weekly Evaluation	Quarterly
Total Nitrogen[18] :Five-sample rolling geometric mean[19]	8	10	mg/l[20]	Monthly Calculation	Quarterly
Cyanide (as free cyanide)	0.16	0.2	mg/l	Quarterly	Quarterly
Fluoride	3.2	4.0	mg/l	Quarterly	Quarterly
Metals (Total)					
Antimony	0.0048	0.006	mg/l	Quarterly	Quarterly
Arsenic	0.04	0.05	mg/l	Quarterly	Quarterly
Barium	1.6	2	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
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

[13] All wastewater flow measurement devices must be calibrated prior to the first year of reporting and recalibrated either biennially (every 2 years) or at the minimum frequency specified by the manufacturer. Wastewater flow measurement devices must be calibrated using the procedures specified by the device manufacturer (40 CFR § 98.354.e).

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

[15] For 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

[16] Week 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

[17] Fecal coliform 4 of 7 samples requires entering "Compliance" or "Non-compliance" on the SMRF for each week of the reporting period. Evaluate the daily fecal coliform results for that week (Sunday through Saturday). If, of these seven days, four or more of the daily fecal coliform results are non-detect, report "Compliance" for that week's entry on the SMRF. If three or fewer of the daily fecal coliform results are non-detect, report "Non-compliance" for that week's entry on the SMRF

[18] Total Nitrogen = Nitrate as N + Nitrite as N + Total Kjeldahl Nitrogen

[19] The 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:* $GM_5 = \sqrt[5]{(m_1)(m_2)(m_3)(m_4)(m_5)}$

[20] mg/l = milligrams per liter

Table 12: ROUTINE DISCHARGE MONITORING (Continued)					
Sampling Point Number	**Sampling Point Identification**			**Latitude (North)**	**Longitude (West)**
4 – Treated Effluent	CCB Discharge			33° 28' 02.2"	112° 29' 52.2"
Parameter	**Alert Level**	**Discharge Limit**	**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	mg/l	Semi-Annually	Semi-Annually
Trihalomethanes (total)[21]	0.08	0.10	mg/l	Semi-Annually	Semi-Annually
1,1,1-Trichloroethane	0.16	0.20	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	10	mg/l	Semi-Annually	Semi-Annually

[21] Total Trihalomethanes (TTHMs) are comprised of Bromoform, Bromodichloromethane, Chloroform, and Dibromochloromethane

Table 13: RECLAIMED WATER MONITORING				
Reclaimed water monitoring under Table 13: RECLAIMED WATER MONITORING shall be performed in addition to routine discharge monitoring required under Section 4.2, Table 12: ROUTINE DISCHARGE MONITORING				
Sampling Point Number	**Sampling Point Identification**		**Latitude (North)**	**Longitude (West)**
5 – Reclaimed Water	Point of discharge from the effluent pump station		33° 28' 03.7"	112° 29' 53.2"
Parameter	**Discharge Limit**	**Units**	**Sampling Frequency**	**Reporting Frequency**
Fecal Coliform Single-sample maximum:	23.0	MPN[14]	Daily[15]	Quarterly
Fecal Coliform: Four (4) of last seven (7) samples	Non-detect[22]	MPN	Daily Evaluation	Quarterly
Total Nitrogen[18]: Five-sample rolling geometric mean[19]	10	mg/l[20]	Monthly Calculation	Quarterly
Turbidity[23]: Single reading	5.0	NTU[24]	Daily[25]	Quarterly
Turbidity: 24-hour average	2.0	NTU	Daily Calculation	Quarterly
Enteric Virus: Four (4) of last seven (7) samples	Non-detect	MPN[14]	Monthly / Suspended[26]	Quarterly

[22] Non detect requires 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 non-detect, report "Compliance" for that day's entry on the SMRF. If four (4) or more of those results have detections of fecal coliform, report "Non-compliance" for that day's entry

[23] Turbidimeter shall be placed at a point in the wastewater treatment process after filtration and immediately before disinfection and shall have a signal averaging time not exceeding 120 seconds. All exceedances must be explained and submitted to the Department with the corresponding quarterly SMRF; occasional spikes due to back-flushing or instrument malfunction shall not be considered an exceedance

[24] NTU = Nephelometric Turbidity Units

[25] For the single turbidity reading, daily means the maximum reading during the 24-hour period.

[26] Enteric virus sampling shall resume only when the discharge limit for the 24-hour average for turbidity is exceeded for two (2) consecutive 24-hour monitoring periods. Monthly enteric virus monitoring shall continue until four (4) out of seven (7) consecutive sample results show no detection. During times when enteric virus sampling is suspended, enter "suspended" in the appropriate space on the SMRF

Table 14: GROUNDWATER MONITORING					
Sampling Point Number	**Sampling Point Identification**			**Latitude (North)**	**Longitude (West)**
6[27] – (POC #2)	MW #1, within 300 feet east of the ARF[4] vadose zone recharge wells			33° 28' 46"	112° 30' 28"
Parameter	**Alert Level**	**Aquifer Quality Limit**	**Units**	**Sampling Frequency**	**Reporting Frequency**
Total Nitrogen[18]:	8	10	mg/l[20]	Monthly Calculation	Quarterly
Nitrate-Nitrite as N	8	10	mg/l	Monthly Calculation	Quarterly
Nitrate as N	8	10	mg/l	Monthly	Quarterly
Nitrite as N	0.8	1	mg/l	Monthly	Quarterly
Total Kjeldahl Nitrogen (TKN)	Not Applicable[7]	Not Applicable	mg/l	Monthly	Quarterly
Total Coliform	Not Applicable	Non-detect[28]	MPN[14]	Monthly	Quarterly
Cyanide (as free cyanide)	0.16	0.2	mg/l	Quarterly	Quarterly
Fluoride	3.2	4.0	mg/l	Quarterly	Quarterly
Water Level[29]	170-220[30]	Not Applicable	Feet amsl[31]	Monthly	Quarterly
Metals (Dissolved)					
Antimony	0.0048	0.006	mg/l	Quarterly	Quarterly
Arsenic	0.04	0.05	mg/l	Quarterly	Quarterly
Barium	1.6	2	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
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

[27] Whenever there is discharge to the Aquifer Recharge Facility (ARF), the facility shall conduct groundwater monitoring in that month, and for two additional quarters. Report "No flow" on the SMRF when there is no discharge to the ARF, or after two consecutive quarters of monitoring following a discharge to the ARF.
[28] For MPN, a value of <2.2 shall be considered to be non-detect
[29] See Section 2.6.2.3.4.
[30] If the water level does not fall within this range, the Alert Level is considered to be exceeded.
[31] Amsl = above mean sea level

Table 14: GROUNDWATER MONITORING (Continued)					
Sampling Point Number	**Sampling Point Identification**			**Latitude (North)**	**Longitude (West)**
6 – (POC #2)	MW #1, within 300 feet east of the Aquifer Recharge Facility vadose zone recharge wells			33° 28' 46"	112° 30' 28"
Parameter	**Alert Level**	**Aquifer Quality Limit**	**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	mg/l	Semi-Annually	Semi-Annually
Trihalomethanes (total)[21]	0.08	0.10	mg/l	Semi-Annually	Semi-Annually
1,1,1-Trichloroethane	0.16	0.20	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	10	mg/l	Semi-Annually	Semi-Annually

Table 15: FACILITY INSPECTION AND OPERATIONAL MONITORING			
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.			
Pollution Control Structure/Parameter	**Performance Level**	**Inspection Frequency**	**Reporting Frequency**
Bioreactor Tank Freeboard	One (1) Linear Foot	Daily	See Section 2.7.3
Sludge Holding Tanks Freeboard	One (1) Linear Foot	Daily	
Pump Integrity	Good working condition	Weekly	
Treatment Plant Components	Good working condition	Weekly	
ARF44 Vadose-Zone Wells	Good working condition No biofouling No clogging No daylighting of effluent	Monthly	
Odor Control System	Good working condition H_2S and flow	Monthly	
POC Wells	Well cap and seals are intact. No discernable corrosion or deterioration of the well(s). No discernable materials accumulating in the well. Any dedicated well equipment are functional and intact.	Monthly	See Section 2.7.3 and 2.5.5.1

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:

APP Application, dated:	06/14/2023
Contingency Plan, dated:	July 2024 and updated annually

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 & Reuse Section 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. Prohibited Agency Actions

[A.R.S. § 49-243(K)(8)]

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).