STATE OF ARIZONA
AQUIFER PROTECTION PERMIT NO. P-105021
PLACE ID 16639 LTF 76868
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 City of Peoria to operate the Jomax Water Reclamation Facility (WRF) located at 12483 West Jomax Road in Peoria, AZ, Maricopa County, over the 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:	Jomax Water Reclamation Facility (WRF)
Facility Address:	12483 West Jomax Road, Peoria, AZ 85383
County:	Maricopa County
Permitted Flow Rate:	4.50 million gallons per day
Permittee:	City of Peoria
Permittee Address:	9875 North 85th Avenue, Peoria, AZ 85345
Facility Contact:	Chris Sterne, P.E.; Civil Engineer, Water Services Department
Emergency Phone No.:	(623) 773 – 7211 or City SCADA (623) 773 - 8372
Latitude/Longitude:	33° 43' 32" N / 112° 19' 48" W
Legal Description:	Township 5N, Range 1W, Section 35, SW ¼ of the 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 _____, 20_____

THIS AMENDED PERMIT SUPERSEDES ALL PREVIOUS PERMITS

TABLE OF CONTENTS

TABLE OF TABLES

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 Jomax Water Reclamation Facility, with a maximum average monthly flow of 2.25 million gallons per day (mgd) for the existing Phase 2A; 3.0 mgd for Phase 2B and Phase 2 Interim Improvements; and 4.5 mgd for Phase 3. ADEQ has graded this facility as a Grade 4 wastewater treatment plant for all phases covered by this permit. The facility shall have an operator in direct responsible charge who is certified for the grade of the facility and inspects the facility daily[1].

Existing Facility Phase 2A: The existing Phase 2 WRF has a treatment capacity of 2.25 mgd. The Phase 2 treatment plants do not contain influent equalization. An influent pump station (IPS) is equipped with two 2,800 gpm pumps, one 1,000 gpm pump, and a mixer in the Pump #1 slot and lifts influent to a headworks with a 6mm mechanical bar screen, and vortex grit removal system. The screening area has three channels, of which the main channel has a 6mm fine screen, second a manual bar screen and third is an empty overflow channel. Grit removal consists of a Vortex grit removal system with a classifier and grit pump (no redundancy). From the headworks, influent flows through a flow control structure, where it is joined with return activated sludge (RAS) and then to three bioreactors (1A, 1B, and 2A) that each contain an anoxic zone (with two mixers) where mixed liquors mix with the influent for denitrification. From the anoxic zone, the mixed liquors travel through three aeration zones (Zone 2, 3, and 4). One turbo blower provides air to the three aeration zones in all three bioreactors, and an IMLR pump in each reactor returns flow back to the anoxic zone. From the aeration basins, mixed liquors flow to a splitter box that split the flow to two clarifiers. The two clarifiers share three separate pump stations for RAS/WAS (4 RAS and 2 WAS pumps), scum removal (2 pumps), and tank drain (wet well with no pumps). If necessary, covers and odor control can be removed from the clarifiers. Only periodic spraying of service water is allowed outside of the scum ring. From the clarifiers, effluent flows to two rapid mix basins (RMBs) and two flocculation basins (FBs) equipped with a chemical feed system for polymer or sodium hypochlorite. The RMBs, FBs, and polymer feed system are only utilized during high turbidity events as required by A.A.C. R18-11-303. Sodium hypochlorite is periodically added to prevent growth in the three traveling bridge filters. From the traveling bridge filters effluent is disinfected by a Trojan 3000+ system with three banks, and eight modules with 8 lamps each for a total of 192 lamps. After disinfection, the effluent pump station (with four vertical turbine pumps 2 - 2,675 gpm and 2 - 500 gpm) delivers Class A+ water to a non-potable water reservoir (tank) which delivers Class A+ reuse water or discharged to McMicken Wash.

Waste activated sludge and scum are pumped to Sludge Holding Tank (SHT) #1. Two 745 SCFM blowers (one duty and one standby) supply air to the coarse air system in SHT #1. From SHT #1, two 250 gpm sludge feed pumps (primary and standby) and a polymer feed system, mix sludge before being dried by a 175 gpm Centrifuge. A conveyor delivers dried sludge to a roll-off.

Three chemical odor control units (No. 1 = 14,712 CFM; No. 3 = 13,600CFM, and No. 5 = 7,600 CFM) treat odors from the different wastewater treatment odor producing areas. OCU #5 has a carbon absorption polishing vessel attached to it.

Manual de-chlorination is performed after the NPW reservoir prior to discharge to McMicken Wash. A 1.75-megawatt diesel generator provides back-up power to the site should there be a power failure.

Phase 2B: The existing Phase 2B WRF has a treatment capacity of 3.00 mgd. The IPS mixer in Pump #1 slot will be relocated and a 3rd large pump will be installed (three 2,800 gpm pumps, one 1,000 gpm pump, and a mixer). The current 6mm fine screen will be replaced with a rake type fine screen, and a new additional rake fine screen in the empty channel. The manual bar rack will remain in the 3rd overflow channel. Two new washer compactors will accompany the new rake screens. A redundant grit pump and grit classifier will be added to serve the vortex grit removal system. The flow control structure will be extended to send flow to a new Bioreactor 2B, which will

[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.

be identical to the other three basins, with the exception for better aeration control, Zone 2 will be further divided into Zone 2A and 2B, with an electrically actuated valve on the drop-leg for Zone 2A for operational flexibility. Three existing centrifugal blowers (two 5,400 cfm and one 2,700 cfm) will be recommissioned and added to the turbo blower manifold to provide enough air for all four bioreactors. For the clarifiers, there will be an addition of sludge blanket level meters, and installation of one submersible pump in the clarifier tank drain pump station. A Trojan Signa system with six banks, each with 10 lamps for a total of 60 lamps will be installed parallel to the current Trojan 3000+ system. The 3000+ system will remain in place for redundancy. The effluent pump station will replace one of the small 500 gpm pumps with another 2,675 gpm pump (for 3 - 2,675 gpm and 1 - 500 gpm) and a control valve will be added. A new Sludge Holding Tank #2 will be added, but will be connected to SHT #1 to form one large tank. A new 745 SCFM capacity positive displacement blower will be added to the two existing blowers. Coarse air from the blowers, service water for foam control, and odor control will be connected to SHT #2. Decanting valves no. 2 to no. 5 will be actuated. A new polymer feed system will be added to the existing system. A new 350 gpm Feed Pump #3 will supply a new larger 350 gpm Centrifuge #2 and Feed Pump #2 will be replaced with a larger 350 gpm feed pump while acting as a backup to Feed Pump #1 and #3. Feed Pump #1 will continue to deliver sludge to the smaller 175 gpm centrifuge. The dried sludge conveyance system will also be upgraded.

Phase 2 Interim improvements: These interim improvements will not affect the capacity, but will instead help improve processes around the facility. Bioreactors 1A, 1B, and 2A will be equipped with better aeration control to match the Phase 2B bioreactor. Actuated slide gates in the clarifier splitter-box, and sludge flowmeters between clarifiers and RAS/WAS pump station will be installed to help operators better control flow. A VFD will be added to the secondary WAS pump. Influent slide gates will be installed between traveling bridge filter #2 and #3, and the weir will be raised by three inches, add three scum slide gates near the filter effluent channels and add drain piping to the RMBs and FBs. The ladder will be replaced by stairs to SHT #1, a manhole pump station at the sludge feed pump station, and gas (CH_4 and H_2S) meters in the solids handling building will complete these improvements. A new dechlorination sump, dechlorination chemical feed system, and flow meter will be installed after the effluent pump station for AZPDES discharges to McMicken Wash.

Phase 3: The existing Phase 3 WRF has a treatment capacity of 4.50 mgd. A new 540,000-gallon influent EQ Basin and pump station, with three submersible pumps (400 gpm each), two submersible mixers, and overflow to the headworks IPS will be constructed. The IPS will have the final small pump in the Pump #3 slot replaced with a new large pump (4-2,800 gpm pumps). The IPS will be modified to have baffle walls, isolation gates and recirculation lines with actuated valves. The flow control structure will be modified to send flow to new Bioreactor 3A and Bioreactor 3B, for a total of six bioreactors. These bioreactors will be identical to the existing basins, however will be separated by a road. An additional existing small centrifugal blower will be recommissioned so that four centrifugal blowers supply air to the bioreactors. A second clarifier splitter box that will receive flows from Bioreactors 3A and 3B, and send flow to two new secondary clarifiers, with three new pump stations for RAS/WAS (3 RAS and 2 WAS pumps, with space for a future 4th RAS pump), scum removal (2 pumps), and tank drain (wet well with one pump). Clarifiers will be constructed identical to the other clarifier improvements performed prior to this phase. If necessary, covers and odor control can be removed from the clarifiers. A disk filter and a new 36-inch gate valve will be installed. A second Trojan Signa UV system with five banks (4 new banks, and a bank removed from the first system and reinstalled in the new system) will be installed in a second channel. The two UV systems, operating in parallel, will both have a total of 5 banks/50 lamps in each system, with a weir to split flows evenly into the two systems. The Trojan 3000+ system will no longer be utilized and can be decommissioned, but may remain in place and periodically tested for added redundancy. For the effluent Pump station, the last 500 gpm pump will be replaced by a 2,675 gpm pump. (4-2,675 gpm pumps). For sludge storage and processing, a new SHT #3 will be installed and centrifuge #1 will be replaced by a new 350 gpm centrifuge. Sludge feed Pump #1 will be replaced by a new 350 gpm feed pump, so that all three feed pumps are the same size. The dried sludge conveyance system will be modified for the new centrifuge. A new 745 SCFM positive displacement Blower #4 will be installed to supply air to SHT #3 coarse air system. Three biofilters will be added to the odor control units (No. 2 = 23,000 CFM, No. 4 = 12,500 CFM, and No. 6 = 19,000 CFM). Each biofilter will have two blowers (one duty and one standby with upstream grease-traps) to extract foul air. As necessary, existing chemical odor control scrubbers could be decommissioned. An additional 1.75-megawatt

diesel generator will be installed for back-up power to operate in parallel with the existing generator. Effluent will be disposed of in the same manner as Phase 2 Interim Improvements.

Effluent Disposal: The WRF is rated as producing Class A+ reclaimed water according to A.A.C. R18-11, Article 3 in all phases. The effluent is continuously reused within the Vistancia, LLC development for golf course and park irrigation under a valid Reuse permit. In the event that irrigation demand is less than the effluent produced by the WRF, effluent is discharged to McMicken Wash under ADEQ's AZPDES regulations (a modification to the AZPDES permit has been submitted to ADEQ as well). During summer months reclaimed water is blended with screened Maricopa Water District canal water and chlorinated prior to entering the reclaimed water distribution system.

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	Longitude
Jomax WRF	33° 43' 32.0" N	112° 19' 48.0" W
McMicken Wash Discharge Point (Phase 2A and Phase 2B)	33° 43' 29.6" N	112° 19' 43.8" W
McMicken Wash Discharge Point (Phase 2 Interim and Phase 3)	33° 43' 29.5" N	112° 19' 43.9" W

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 Value Stream. 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 $3,645,000. The financial capability was demonstrated through A.A.C. R18-9-A203(B)(1) and (2).

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 Jomax Water Reclamation Facility "Phase 2B, Phase 2 Interim improvements, and Phase 3 Expansion" were designed per the Design Report and 60% drawing sets signed, dated, and sealed by Arizona Registrants, Alan Edward Palmquist, P.E. (Civil #39157) and Srikanth Yamani, P.E. (Civil #45669) with Wilson Engineers on August 3, 2022. These improvements are described in Section 2.1 above.

The original WRF was designed as per the design report prepared by Alan Palmquist, P.E., (Professional Engineer), and Michael Johnson, P.E., of Wilson and Co. Engineers dated October 28, 2005 and subsequent sealed submittals that served as additions to the design report.

2.2.2. Site-Specific Characteristics

Site specific characteristics were not used to determine BADCT.

2.2.3. Pre-Operational Requirements

Prior to initiating use of the Phase 2B, Phase 2 Interim improvements, and Phase 3 Expansion, the permittee shall submit a signed, dated, and sealed Engineer's Certificate of Completion in a format approved by the Department per the compliance schedule in Section 3.0. The certificate shall be submitted to the Groundwater Protection Value Stream in accordance with Section 2.7.5.

Prior to initiating use of the Phase 2B, Phase 2 Interim improvements, and Phase 3 Expansion, the City of Peoria shall ensure that a complete updated copy of the Operations and Maintenance manual has been delivered to the Jomax WRF to comply with Item #1 of Section 2.2.4.

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 11: FACILITY INSPECTION AND OPERATIONAL MONITORING

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 2.25 for Phase 2A, 3.0 mgd for Phase 2, and the Interim Improvements, and 4.5 mgd for Phase 3.
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 6, Table 7, Table 8, Table 9, and Table 10.

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**	**Longitude**
1 (Conceptual)	Southeast corner of WRF	33°43'30" N	112°19'43" W
2 (Conceptual)	Down gradient of AZPDES discharge (in McMicken wash)	33°41'48" N	112°19'31" W

The depth to groundwater beneath the facility is approximately 368 feet below ground surface (bgs). The aquifer is unconfined to partially confined in the vicinity of the facility. The direction of flow is to the south-southwest.

Groundwater monitoring is not required at the point of compliance wells. POC #1 and POC #2 are conceptual wells, monitoring is not required except as a contingency action. 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 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 9: ROUTINE DISCHARGE MONITORING: All Phases. Representative samples of the effluent shall be collected at the point of discharge after the UV disinfection unit.

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 10: RECLAIMED WATER MONITORING – Class A+ in addition to the routine discharge monitoring parameters listed in Table 9: ROUTINE DISCHARGE MONITORING: All Phases. Representative samples of the reclaimed water shall be collected at the point of discharge from the NPW Pump Station.

2.5.4. Facility / Operational Monitoring

Operational monitoring inspections shall be conducted according to Section 4.2, Table 11: 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

Not required at time of issuance.

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 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 submitted per Section 3.0 Table 5: COMPLIANCE SCHEDULE ITEMS 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 a 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 a 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, 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 freeboard performance levels, the permittee shall comply with the requirements as specified in Section 4.2, Table 11: FACILITY INSPECTION AND OPERATIONAL MONITORING to prevent the overtopping of a tank. If an tank is overtopped, the permittee shall follow the requirements in Section 2.6.5.3 and the reporting requirements of Section 2.7.3.

If a performance level set in Section 4.2, Table 11: FACILITY INSPECTION AND OPERATIONAL MONITORING has been exceeded the permittee shall:

1. Notify the Groundwater Protection Value Stream within five (5) days of becoming aware of the exceedance per Section 2.7.5.
2. Submit a written report to the Groundwater Protection Value Stream 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 9: ROUTINE DISCHARGE MONITORING: All Phases or Table 10: RECLAIMED WATER MONITORING – Class A+ 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 Value Stream 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 6: FLOW MONITORING: Existing Phase 2A – 2.25 mgd or Table 7: FLOW MONITORING: Phase 2B and Phase 2 Interim Improvements – 3.00 mgd has been exceeded, the permittee shall begin construction of the next phase, or submit a report to the ADEQ Groundwater Protection Value Stream 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 8: FLOW MONITORING: Phase 3 – 4.5 mgd has been exceeded, the permittee shall submit an application to the Groundwater Protection Value Stream 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

No ALs have been established for pollutants with numeric aquifer water quality standards.

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 6, Table 7, Table 8, Table 9, or Table 10 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

Not applicable.

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 Value Stream within 24 hours of discovering the discharge of hazardous material which (a) has the potential to cause an AWQS 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 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 Value Stream 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 the contingency plan approved as part of Section 3.0 Table 5: COMPLIANCE SCHEDULE ITEMS No. 1 are considered 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, 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 Value Stream 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 Value Stream.
3. The tables contained in Section 4.0 list the monitoring parameters and the frequencies for reporting results on the SMRF:

a. Table 6: FLOW MONITORING: Existing Phase 2A – 2.25 mgd

b. Table 7: FLOW MONITORING: Phase 2B and Phase 2 Interim Improvements – 3.00 mgd

c. Table 8: FLOW MONITORING: Phase 3 – 4.5 mgd

d. Table 9: ROUTINE DISCHARGE MONITORING: All Phases

e. Table 10: RECLAIMED WATER MONITORING – Class A+

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 Value Stream 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, 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 Value Stream per Section 2.7.5 within thirty (30) days of becoming aware of the violation of any permit condition, 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 11: FACILITY INSPECTION AND OPERATIONAL MONITORING 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.

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 groundwaterpermits@azdeq.gov or the address listed below:

The 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:

Table 3: 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 4: (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 Value Stream 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 Value Stream 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 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 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 Value Stream 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 Value Stream 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 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 per Section 2.7.5.

Table 5: COMPLIANCE SCHEDULE ITEMS

No.	Description	Due By:	Permit Amendment Required?
1	Submit a complete and up to date Emergency Operation/Contingency Plan (EOP). The EOP should have an appendix of Emergency contact numbers and cover emergency situations (e.g. FEMA).	Within 6 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 the Phase 2B – 3.00 mgd facility 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	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 Phase 2 Interim Improvements to the facility are 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
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 the Phase 3 – 4.50 mgd facility 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

4.0 TABLES OF MONITORING REQUIREMENTS

4.1. PRE-OPERATIONAL MONITORING (OR CONSTRUCTION REQUIREMENTS)

Not applicable.

4.2. COMPLIANCE OR OPERATIONAL MONITORING

Table 6: FLOW MONITORING: Existing Phase 2A – 2.25 mgd[2]					
Sampling Point Number	**Sampling Point Identification**			**Latitude**	**Longitude**
1 – Influent Flow Meter[3]	Influent Flow Meter			33° 43' 32.5" N	112° 19' 52.0" W
2 – Effluent Flow Meter[4]	Effluent Pump Station			33° 43' 30.1" N	112° 19' 46.2" W
Parameter	**Alert Level**	**Discharge Limit**	**Units**	**Sampling Frequency**	**Reporting Frequency**
Influent Total Flow[5]: Daily[6]	Not Applicable[7]	Not Applicable	mgd	Daily	Quarterly
Influent Total Flow: Monthly Average[8]	2.03	2.25	mgd	Monthly Calculation	Quarterly
McMicken Wash Flow: Daily	Not Applicable	Not Applicable	mgd	Daily	Quarterly
McMicken Wash Flow: Monthly Average	2.03	2.25	mgd	Monthly Calculation	Quarterly
Reuse Flow[9]: Daily	Not Applicable	Not Applicable	mgd	Daily	Quarterly
Reuse Flow: Monthly Average	2.03	2.25	mgd	Monthly Calculation	Quarterly

[2] The monitoring under this table shall be continued until CSI No. 2 for Phase 2B has been accepted by the Department and shall be discontinued and the monitoring under Table 7 shall commence upon operation of Phase 2B.
[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] Flows from the Effluent Pump Station for both the reuse discharges and McMicken Wash discharges share the same flow meter for Phase 2A and Phase 2B. Administrative controls and recordkeeping track and monitor the flows to each.
[5] Influent Total Flow includes flows received from the conveyance system and sidestream/recycled flows from the Jomax WRF.
[6] Total Daily Flow shall be measured using a continuous recording influent flow meter that totals all of the incoming flows daily.
[7] Not Applicable means that monitoring is required, but no limits have been specified at the time of permit issuance.
[8] Monthly Average = The calculated average of daily flow values in a month
[9] Reuse flow = Flow from effluent pump station minus flows to McMicken Wash (tracked separately).

Table 7: FLOW MONITORING: Phase 2B and Phase 2 Interim Improvements – 3.00 mgd[10]					
Sampling Point Number	**Sampling Point Identification**			**Latitude**	**Longitude**
1 – Influent Flow Meter[3]	Influent Flow Meter			33° 43' 32.5" N	112° 19' 52.0" W
2 – Effluent Flow Meter[4]	Effluent Pump Station			33° 43' 30.1" N	112° 19' 46.2" W
3 – McMicken Wash Flow Meter[11]	Effluent Pump Station (NPW Bypass)			33° 43' 32.5" N	112° 19' 45.0" W
Parameter	**Alert Level**	**Discharge Limit**	**Units**	**Sampling Frequency**	**Reporting Frequency**
Influent Total Flow[5]: Daily[6]	Not Applicable[7]	Not Applicable	mgd	Daily	Quarterly
Influent Total Flow: Monthly Average[8]	2.70	3.00	mgd	Monthly Calculation	Quarterly
McMicken Wash Flow: Daily	Not Applicable	Not Applicable	mgd	Daily	Quarterly
McMicken Wash Flow: Monthly Average	2.70	3.00	mgd	Monthly Calculation	Quarterly
Reuse Flow[9]: Daily	Not Applicable	Not Applicable	mgd	Daily	Quarterly
Reuse Flow: Monthly Average	2.70	3.00	mgd	Monthly Calculation	Quarterly

[10] The monitoring under this table shall be continued until CSI No. 4 for Phase 3 has been accepted by the Department and shall be discontinued and the monitoring under Table 8 shall commence upon operation of Phase 3 (4.50 mgd)

[11] This meter will be installed as part of the "Phase 2 interim Improvements". Until installed, the City of Peoria will utilize administrative controls and recordkeeping to keep track and monitor the flow to either the Reuse discharge or the McMicken Wash discharge.

Table 8: FLOW MONITORING: Phase 3 – 4.5 mgd[12]					
Sampling Point Number	**Sampling Point Identification**			**Latitude**	**Longitude**
1 – Influent Flow Meter[3]	Influent Flow Meter			33° 43' 32.5" N	112° 19' 52.0" W
2 – Effluent Flow Meter	Effluent Pump Station			33° 43' 30.1" N	112° 19' 46.2" W
3 – McMicken Wash Flow Meter	Discharge to McMicken Wash			33° 43' 29.8" N	112° 19' 43.7" W
Parameter	**Alert Level**	**Discharge Limit**	**Units**	**Sampling Frequency**	**Reporting Frequency**
Influent Total Flow[5]: Daily[6]	Not Applicable[7]	Not Applicable	mgd	Daily	Quarterly
Influent Total Flow: Monthly Average[8]	4.05	4.50	mgd	Monthly Calculation	Quarterly
McMicken Wash Flow: Daily	Not Applicable	Not Applicable	mgd	Daily	Quarterly
McMicken Wash Flow: Monthly Average	4.05	4.50	mgd	Monthly Calculation	Quarterly
Reuse Flow[9]: Daily	Not Applicable	Not Applicable	mgd	Daily	Quarterly
Reuse Flow: Monthly Average	4.05	4.50	mgd	Monthly Calculation	Quarterly

[12] The monitoring under this table shall not be commenced until CSI No. 4 has been accepted by the Department and shall be continued thereafter for the life of this permit.

Table 9: ROUTINE DISCHARGE MONITORING: All Phases[13]					
Sampling Point Number	**Sampling Point Identification**			**Latitude (North)**	**Longitude (West)**
4 – Treated Effluent	UV Discharge			33° 43' 33.5" N	112° 19' 45.1" W
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]	8.0	10.0	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	1.60	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
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] Existing Phase 2A, Phase 2B, Phase 2 Interim Improvements, and Phase 3 shall all monitor under Table 9: ROUTINE DISCHARGE MONITORING: All Phases

[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 9: ROUTINE DISCHARGE MONITORING: All Phases[13] (Continued)					
Sampling Point Number	**Sampling Point Identification**			**Latitude (North)**	**Longitude (West)**
4 – Treated Effluent	UV Discharge			33° 43' 33.5" N	112° 19' 45.1" W
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	1.0	mg/l	Semi-Annually	Semi-Annually
Trihalomethanes (total)[21]	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

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

Table 10: RECLAIMED WATER MONITORING – Class A+				
Reclaimed water monitoring under Table 10: RECLAIMED WATER MONITORING – Class A+ shall be performed in addition to routine discharge monitoring required under Section 4.2, Table 9: ROUTINE DISCHARGE MONITORING: All Phases				
Sampling Point Number	**Sampling Point Identification**		**Latitude (North)**	**Longitude (West)**
4 – Treated Effluent	UV Discharge		33° 43' 33.5" N	112° 19' 45.1" W
5 – Class A+ Reuse	NPW Pump Station		33° 43' 30.1"	112° 19' 46.2"
Parameter	**Discharge Limit**	**Units**	**Sampling Frequency**	**Reporting Frequency**
Fecal Coliform[22] Single-sample maximum:	23.0	MPN[14]	Daily[15]	Quarterly
Fecal Coliform[22]: Four (4) of last seven (7) samples	Non-detect[23]	MPN	Daily Evaluation	Quarterly
Total Nitrogen[18]: Five-sample rolling geometric mean[19]	10.0	mg/l[20]	Monthly Calculation	Quarterly
Turbidity[24]: Single reading	5.0	NTU[25]	Daily[26]	Quarterly
Turbidity: 24-hour average	2.0	NTU	Daily Calculation	Quarterly
Enteric Virus[27]: Four (4) of last seven (7) samples	Non-detect	MPN[14]	Monthly / Suspended[28]	Quarterly

[22] Fecal Coliform will be sampled after the NPW tank and chlorination (Sample Point #5). Total Nitrogen, Turbidity, and Enteric Virus are sampled after the UV discharge (Sample Point #4).

[23] 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.

[24] 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

[25] NTU = Nephelometric Turbidity Units

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

[27] Initial monthly enteric virus sampling shall be performed to indicate four (4) out of seven (7) sample results of non-detect.

[28] 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 11: 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**
Sludge Holding Tanks Freeboard	One (1) Linear Foot	Daily	See Section 2.7.3
NPW Tank Freeboard	One (1) Linear Foot	Daily	
Bioreactor Freeboard	One (1) Linear Foot	Daily	
Pump Integrity	Good working condition	Weekly	
Treatment Plant Components	Good working condition	Weekly	
WRF Chemical Odor Control Units (OCU #1, #3, and #5)	Good working condition H_2S and flow	Monthly	
WRF Phase 3 Biofilters (OCU #2, #4, and #6)	Good working condition H_2S and flow	Monthly	
Vegetation Removal around bioreactors/tanks	No vegetation present in the bioreactors/tanks or within five feet of the bioreactors/tanks	Monthly	See Section 2.7.3

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: August 8, 2022

Contingency Plan, dated: To be submitted as part of: Section 3.0 COMPLIANCE SCHEDULE

Table 5: COMPLIANCE SCHEDULE ITEMS; Item #1

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).