

**AQUIFER PROTECTION PERMIT NO. P- 100419**  
**PLACE ID 887, LTF 60706**  
**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, authorizes the City of Casa Grande is hereby authorized to operate the City of Casa Grande Water Reclamation Facility located at 1194 West Kortsen, Casa Grande, AZ 85122, in Pinal County, Arizona, over groundwater of the Pinal Active Management Area (AMA) in Township 6S, Range 5E, Section 12, SW<sup>1</sup>/<sub>4</sub>, of the Gila and Salt River Baseline and Meridian.

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

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

## 1.1 Permittee Information

**Facility Name:** City of Casa Grande Water Reclamation Facility (WRF)  
**Facility Address:** 1194 West Kortsen  
Casa Grande, AZ, 85122  
**County:** Pinal

**Permittee:** City of Casa Grande  
**Permittee Address:** 510 E. Florence Ave.  
Casa Grande, AZ 85122

**Facility Contact:** Kevin Louis, Public Works Director  
**Emergency Phone No.:** (520) 421-8625

**Permitted Flow Rate:** 12,000,000 gallons per day (gpd)

**Latitude/Longitude:** 32° 54' 35" N/111° 47' 04" W

**Legal Description:** Township 06S, Range 05E, Section 12, SW<sup>1</sup>/<sub>4</sub>, Gila and Salt River Baseline and Meridian

## 1.2 Authorizing Signature

\_\_\_\_\_  
**Trevor Baggiore, Director, Water Quality Division**  
Arizona Department of Environmental Quality

Signed this \_\_\_\_ day of \_\_\_\_\_, 2016

**THIS AMENDED PERMIT SUPERCEDES ALL PREVIOUS PERMITS**

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

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

The City of Casa Grande is authorized to operate the Casa Grande Water Reclamation Facility (WRF), a sewage treatment facility located in the City of Casa Grande, Arizona. The permittee is authorized to treat an average day maximum month flow (ADMM) of 14.52 million gallons per day (mgd) with an annual average daily flow limit of 12.0 mgd (AADF). Due to the disposal capacity limitations, the discharge limit will be set at 11.1 mgd.

WRF consists of an influent pump station, and one treatment train consisting of screens, influent pump station, grit system, aeration basins with nitrification/denitrification, clarifiers, (disk) filters, chlorine disinfection, air-stripping system with spray nozzles for TTHM control, chemical feed, sodium bisulfite de-chlorination, sludge dewatering system, an effluent pump, concrete containment basin, conveyance system, and an odor control system. The facility will retain and continue to operate the existing industrial wastewater pre-treatment system. The concrete containment basin will store the scum and sludge produced during the cleaning and regular maintenance of the collection system and the treatment plant. The dried sludge and scum is thickened, dewatered, and hauled off-site for management and disposal in accordance with state and federal regulations.

Effluent may be disposed to the three on-site ponds for the containment of reclaimed water for beneficial reuse under a valid reclaimed water permit, discharged to the North Branch of the Santa Cruz Wash, as regulated under a valid AZPDES permit (#AZ0025178), discharged to the off-site recharge basins or to on-site storage ponds for evaporation. The effluent discharged under a valid AZPDES permit may be received directly from the effluent pump station via the effluent bypass pipe, or blended with the effluent that is stored in the effluent holding pond. The disposal of effluent into the off-site recharge basins shall be under a separate APP (P #106362) for the Casa Grande Constructed Recharge Facility. The recharge basins shall be capable of recharging up to 2.1 mgd of effluent per day, until then the discharge flow limit shall remain at 9.0 mgd. Once the recharge basins will be in operation, permitted the flow limit can be increased to 11.1 mgd. The permittee may, in the future, submit an application for an APP amendment to demonstrate additional disposal capacity and increase the discharge flow limit up to an annual average daily flow (AADF) of 12.0 mgd or 14.52 mgd (ADMM).

The purpose of this amendment is to install an air-stripping system for total trihalomethane (TTHM) control and to replace the existing POC Well #2 location.

Depth to groundwater at the WRF site is approximately 20 to 30 feet below ground surface (bgs) in the upper, perched regional aquifer and approximately 150 to 200 feet bgs in the lowest, regional aquifer beneath the facility, with flow direction to the northwest.

The site includes the following permitted discharging facilities:

<b>Facility</b>	<b>Latitude</b>	<b>Longitude</b>
WRF	32° 54' 35" N	111° 47' 04" W
On-Site Effluent Storage Ponds	32° 54' 40" N	111° 47' 21" W
Scum and Grit Containment Area	32° 54' 39" N	111° 47' 09" W
AZPDES Outfall	32° 54' 56" N	111° 47' 13" W
Center of the Recharge Basins	32° 54' 43" N	111° 46' 42" W

**Annual Registration Fee [ARS § 49-242(D) and A.A.C. R18-14-104]**

The annual registration fee for this permit is payable to ADEQ each year. The permitted flow for fee calculation is 12,000,000 gpd. Send all correspondence requesting reduced fees to the Water Quality Division of ADEQ. Please reference the permit number, LTF number and why reduced fees are requested under the rule.

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

The permittee has demonstrated financial capability under A.R.S. § 49-243(N) and A.A.C. R18-9-A203. The estimated dollar amount for facility closure is \$1,066,000.00. The financial capability was demonstrated through a letter from the chief financial officer and a statement specifying the details of the financial arrangements used to meet the estimated closure and post-closure costs as per A.A.C. R18-9-A203(B)(1)and(2).

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

The WRF was designed, constructed, operates, and is 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).

**2.2.1 Engineering Design**

The air stripping system at the WRF was designed per the design report prepared and stamped, dated, and signed (sealed) by Terrence S. McKeon, P.E. (Professional Engineer) City of Casa Grande, dated January 21, 2016. The scum and grit containment area was designed as per the design report and drawing prepared and stamped, dated, and signed (sealed) by David A. Geisler, P.E. (Professional Engineer), Carollo Engineers dated December 2010, and subsequent sealed submittals that served as additions to the design report. The WRF was designed as per the design report prepared and stamped, dated, and signed (sealed) by Russell A. Wachter, Registered Professional Engineer, and Andrew C. Gilmore, Registered Professional Engineer, for Carollo Engineers, dated October 1, 2007.

**2.2.2 Site-specific Characteristics**

Site specific characteristics were not used to determine BADCT.

**2.2.3 Pre-operational Requirements**

The permittee is required to submit a signed, dated and sealed Engineer's Certificate of Completion (ECOC) for the air stripping system prior to utilizing the system and within 90 days of completion of construction per Section 3.0, item 3.1 of the permit.

**2.2.4 Operational Requirements**

1. The permittee shall maintain a copy of the up-to-date operations and maintenance manual at the WRF site at all times; the manual shall be available upon request during inspections by ADEQ personnel.
2. The pollution control structures shall be inspected for the items listed in Section 4.2, Table III Facility Inspection (Operational Monitoring).
3. If any damage of the pollution control structures 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 the event of a violation or exceedance as per 2.7.3.

**2.2.5 Reclaimed Water Classification**

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

The 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) (R-105677).

**2.2.6 Certified Area-wide Water Quality Management Plan Conformance**

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

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

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

1. The permittee is authorized to operate the WRF with a design capacity of 12.0 mgd. However, due to disposal limitations, the permitted flow is limited to 11.1 mgd.
2. The permittee shall notify all users that the materials authorized to be disposed of through the WRF 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 pollutant control technologies

including liner failure<sup>1</sup>, uncontrollable leakage, overtopping (e.g., exceeding the maximum storage capacity, defined as a fluid level exceeding the crest elevation of a permitted impoundment), of basins, lagoons, impoundments or sludge drying beds, berm breaches, accidental spills, or other unauthorized discharges.

4. Specific discharge limitations are listed in Section 4.2, Tables IA-1, IA-2 and IB.

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

The POCs are established at the following designated locations:

POC No.	POC Location	Latitude	Longitude
1 (Conceptual)	Designated POC at the northwest corner of the WRF.	32°54' 45" N	111°47'30" W
2	Approximately 700 feet southwest of the existing AZPDES point of discharge.	32° 54' 51" N	111°47'19"W

Groundwater monitoring is required at the POC well #2 as per Section 4.2, Tables IIA and IIB. POC well #2 monitors AZPDES discharge, which exceeds 250,000 gpd. POC well #1 is a conceptual well no groundwater monitoring is required. 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(B) and (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. 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 Discharge Monitoring**

The permittee shall monitor the effluent on a routine basis according to Section 4.2, Tables IA-1 and IA-2. Representative samples of the effluent shall be collected at the point of discharge from the effluent pump station.

**2.5.2 Reclaimed Water Monitoring**

On a routine basis, the permittee shall monitor the reclaimed water parameters listed under Section 4.2, Table IB in addition to the routine discharge monitoring parameters listed in Section 4.2, Tables IA-1 and IA-2. Representative samples of the reclaimed water shall be collected at the point of discharge from the effluent pump station.

**2.5.3 Facility / Operational Monitoring**

Operational monitoring inspections shall be conducted according to Section 4.2, Table III. If any damage of the pollution control structures is identified during inspection, proper repair procedures shall be performed. All repair procedures and materials used shall be documented in the facility log book as per Section 2.7.2 and reported to ADEQ in case of a violation or exceedance as per 2.7.3.

**2.5.4 Groundwater Monitoring and Sampling Protocols**

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

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,

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<sup>1</sup>Liner failure in a single-lined impoundment is any condition that would result in leakage exceeding 550 gallons per day per acre.

temperature, and conductivity) are stable, whichever represents the greater volume. If evacuation results in the well going dry, the well shall be allowed to recover to 80 percent (%) of the original borehole volume, or for 24 hours, whichever is shorter, prior to sampling. If after 24 hours there is not sufficient water for sampling, the well shall be recorded as “dry” for the monitoring event. An explanation for reduced pumping volumes, a record of the volume pumped, and modified sampling procedures shall be reported and submitted with the SMRF.

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

#### **2.5.4.1 POC Well Replacement**

In the event that the designated POC wells should become unusable or inaccessible due to damage, exceedance of an alert level (AL) for water level as required by Section 2.6.2.3.4, or any other event, a replacement POC well shall be constructed and installed upon approval by ADEQ. If the replacement well is fifty feet or less from the original well, the ALs and/or aquifer quality limits (AQLs) calculated for the designated POC well shall apply to the replacement well. Otherwise, the ALs and/or AQLs shall be set following the provisions in Section 2.5.42 and Section 3.0, item 3.2 of this permit.

#### **2.5.4.2 Ambient Groundwater Monitoring**

Initial groundwater monitoring shall be conducted at the POC #2 well in accordance with this permit and shall consist of collecting 12 monthly samples for the parameters listed in Section 4.2, Table IIA. If an exceedance of Aquifer Water Quality Standard (AWQS) in POC #2 is analyzed during the ambient monitoring period, the Groundwater Section (GWS) must be notified in writing. In response to the exceedance, the GWS may require the submittal of a hydrological report to evaluate the cause of the exceedances. Alert levels and Aquifer Quality Levels shall be submitted to ADEQ in accordance with Sections 3.0, items 3.2 and 3.4 in the Compliance Schedule.

$$AL = M + KS$$

Where M = mean, S= standard deviation, and K = one-sided normal tolerance interval with a 95% confidence level (Lieberman, G.J. (1958) Tables for One-sided Statistical Tolerance Limits: Industrial Quality Control, Vol. XIV, No. 10). Obvious outliers should be excluded from the data used in the AL calculation.

The following criteria shall be met in establishing ALs in the permit:

1. The AL shall be calculated for a parameter using the analyses from the last 12 consecutive monthly sample rounds. The permittee shall not use less than twelve (12) sample rounds in the calculation.
2. Any data where the practical quantification limit (PQL) exceeds 80% of the AWQS shall not be included in the AL calculation.
3. If a parameter is below the detection limit, the permittee must report the value as “less than” the numeric value for the PQL or detection limit for the parameter, not just as “non-detect”. For those parameters, the permittee shall use a value of one-half the reported detection limit for the AL calculation.
4. If the analytical results from more than 50% of the samples for a specific parameter are non-detect, then the AL shall be set at 80% of the AWQS.
5. If the calculated AL for a specific constituent and well is less than 80% of the AWQS, the AL shall be set at 80% of the AWQS for that constituent in that well.

The following criteria shall be met in establishing ALs in the permit for constituents without an AWQS:

1. The AL shall be calculated for a parameter using the analyses from a minimum of eight (8) consecutive sample rounds. The permittee shall not use more than twelve (12) sample rounds in the calculation.

2. If a parameter is below the detection limit, the permittee must report the value as “less than” the numeric value for the PQL or detection limit for the parameter, not just as “non-detect”. For those parameters, the permittee shall use a value of one-half the reported detection limit for the AL calculation.

For each of the monitored analytes for which a numeric AWQS has been adopted, the AQL shall be established as follows:

1. If the calculated AL is less than the AWQS, then the AQL shall be set equal to the AWQS.
2. If the calculated AL is greater than the AWQS, then the AQL shall be set equal to the calculated AL value, and no AL shall be set for that constituent at that monitoring point.

### **2.5.5 Surface Water Monitoring and Sampling Protocols**

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

### **2.5.6 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 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 Arizona state-certified laboratories can be obtained at the address below:

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

### **2.5.7 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 ADEQ Groundwater Section for approval prior to installation and the permit shall be amended to include any new 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 in the application 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 plan.

Any AL that is exceeded or any violation of an AQL discharge limit (DL), or other permit condition shall be reported to ADEQ following the reporting requirements in Section 2.7.3.

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

permittee shall presume the initial sampling result to be confirmed as if verification sampling has been conducted. The permittee is responsible for compliance with contingency plans relating to the exceedance of an AL or violation of a DL, AQL or any other permit condition.

## **2.6.2 Exceeding of Alert Levels and Performance Levels**

### **2.6.2.1 Exceeding of Performance Levels Set for Operational Conditions**

1. If an operational performance level (PL) set in Section 4.2, Table III, has been exceeded, the permittee shall:
  - a. Notify the ADEQ Water Quality Groundwater Section (by phone or fax, see Section 2.7.5) within five days of becoming aware of the exceedance.
  - b. Submit a written report to the ADEQ Water Quality Groundwater Section within 30 days after becoming aware of the exceedance. The report shall document all of the following:
    - (1) A description of the exceedance and its cause;
    - (2) The period of the exceedance, including exact date(s) and time(s), if known, and the anticipated time period during which the exceedance is expected to continue;
    - (3) Any action taken or planned to mitigate the effects of the exceedance or spill, or to eliminate or prevent recurrence of the exceedance or spill;
    - (4) Any monitoring activity or other information which indicates that any pollutants would be reasonably expected to cause a violation of an AWQS; and
    - (5) Any malfunction or failure of pollution control devices or other equipment or process.

The facility is no longer on alert status once the operational indicator no longer indicates that a PL is being exceeded. The permittee shall, however, complete all tasks necessary to return the facility to its pre-alert operating condition.

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

1. If an AL set in Section 4.2, Tables IA-1 or IA-2 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 days of an AL exceedance, the permittee shall submit the laboratory results to the ADEQ Water Quality Groundwater Section 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, Tables IA-1 or IA-2 has been exceeded, the permittee shall submit an application to ADEQ for an APP amendment to expand the WWTP or submit a report detailing the reasons an expansion is not necessary.
2. Acceptance of the report instead of an application for expansion requires ADEQ approval.

### **2.6.2.3 Exceeding of Alert Levels in Groundwater Monitoring**

#### **2.6.2.3.1 Alert Levels for Indicator Parameters**

No ALs have been established for indicator parameters.

**2.6.2.3.2 Alert Levels for Pollutants with Numeric Aquifer Water Quality Standards**

1. In the case of an exceedance of an AL for a pollutant set in Section 4.2, Table IIB, the permittee may conduct verification sampling within five 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 the pollutants set in Section 4.2, Table IIB as follows:

Specified Monitoring Frequency (Section 4.2, Table IIB)	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 Section, that although an AL has been exceeded, pollutants are not reasonably expected to cause a violation of an AQL. The demonstration may propose a revised AL or monitoring frequency for approval in writing by the Groundwater Section.
4. Within 30 days after confirmation of an AL exceedance, the permittee shall submit the laboratory results to the Water Quality Groundwater Section along with a summary of the findings of the investigation, the cause of the exceedance, and actions taken to resolve the problem.
5. Upon review of the submitted report, the Department may amend the permit to require additional monitoring, increased frequency of monitoring, amendments to permit conditions or other actions.
6. The increased monitoring required as a result of an AL exceedance may be reduced to the monitoring frequency in Section 4.2, Table IIB if the results of four sequential sampling events demonstrate that no parameters 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 a second report documenting an investigation of the continued AL exceedance within 30 days of the receipt of laboratory results of the sixth (6<sup>th</sup>) sampling event.

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

Not required at the time of permit issuance.

**2.6.2.3.4 Alert Level for Groundwater Level**

1. If an alert level for groundwater level when established in Section 4.2, Table IIB is not

within the allowable range, the permittee shall submit a written report within thirty (30) days after becoming aware of the exceedance. The report shall document the following:

- a. the as-built configuration of the well including the screened interval;
  - b. all groundwater level measurements available for the well;
  - c. a discussion and analysis of any trends or seasonal variations in the groundwater level measurements;
  - d. information on groundwater recharge, withdrawal or other hydrologic conditions in the vicinity of the well; and
  - e. and any other pertinent information obtained by the permittee.
2. If an alert level for groundwater level when established in Section 4.2, Table IIB is not within the allowable range for more than four sequential sampling events, the permittee shall submit a second report that evaluates the cause(s) of the exceedance and recommends whether the well should be replaced pursuant to Section 2.5.4.1. The report shall discuss and demonstrate whether samples representative of the water quality of the relevant aquifer can be practicably obtained from the well.
3. Upon review of the submitted report, the Department may amend the permit to require replacement of the well, require additional permit conditions or other actions.

### **2.6.3 Discharge Limit Violation**

1. If a DL set in Section 4.2, Tables IA-1, IA-2 or IB, 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, if necessary to identify the cause of the violation.

The permittee 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. 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. The permittee shall comply with the freeboard requirements as specified in Section 4.2, Table III (Facility Inspections) to prevent the overtopping of an impoundment or sludge drying bed. If an impoundment or sludge drying bed is overtopped, the permittee shall follow the requirements in Section 2.6.5.3 and the reporting requirements of Section 2.7.3.
3. 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 action.

### **2.6.4 Aquifer Quality Limit Violation**

1. If an AQL set in Section 4.2, Table IIB has been exceeded, the permittee may conduct verification sampling within five days of becoming aware of the exceedance. The permittee may use results of another sample taken between the date of the last sampling event and the date of receiving the result as verification.
2. If the verification sample does not confirm an AQL violation, no further action is needed under this Section.

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

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

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

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

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

**2.6.5 Emergency Response and Contingency Requirements for Unauthorized Discharges pursuant to A.R.S. §49-201(12) and pursuant to A.R.S. § 49-241 That Are Not Addressed Elsewhere in Section 2.6**

**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 ADEQ Water Quality Groundwater Section within 24 hours upon discovering the discharge of hazardous material which (a) has the potential to cause an AWQS or AQL to be exceeded, 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 ADEQ Water Quality Groundwater Section within 24 hours upon discovering the discharge of non-hazardous material which (a) has the potential to cause an AQL to be exceeded, or (b) 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 ADEQ Water Quality Groundwater Section within 30 days of the discharge or as required by subsequent ADEQ action. The report shall summarize the event, including any human exposure, and facility response activities and include all information specified in Section 2.7.3. If a notice is issued by ADEQ subsequent to the discharge notification, any additional information requested in the notice shall also be submitted within the time frame specified in that 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 Section prior to implementing a corrective action to accomplish any of the following goals in response to exceeding an AL or violation of an AQL, DL, or other permit condition:

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

Within 30 days of completion of any corrective action, the operator shall submit to the ADEQ Water Quality Groundwater Section, a written report describing the causes, impacts, and actions taken to resolve the problem.

### **2.7 Reporting and Recordkeeping Requirements**

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

#### **2.7.1 Self-monitoring Report Form**

1. The permittee shall complete the SMRFs provided by ADEQ including contact information for the person completing the Form. Submit the completed Form to the Water Quality Groundwater Section.
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 and include an explanation, and submit the Form to the Water Quality Groundwater Section.
3. The following tables contained in Section 4.0 list the parameters to be monitored and the frequency for reporting results on the SMRFs.
  - Table IA-1, Routine Discharge Monitoring
  - Table IA-2, Routine Discharge Monitoring
  - Table IB, Reclaimed Water Monitoring
  - Table IIB, POC Well Groundwater Monitoring
4. In addition to the SMRF, the information contained in A.A.C. R18-9-A206(B)(1) shall be included for exceeding an AL or violation of an AQL, DL, or any other permit condition being reported in the current reporting period.
  - Table III - Facility Inspection (Operational Monitoring)- Logbook

**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;
6. Any other information required by this permit to be entered in the log book; and
7. Monitoring records for each measurement shall comply with R18-9 A206(B)(2).

**2.7.3 Permit Violation and Alert Level Status Reporting**

1. The permittee shall notify the Water Quality Groundwater Section in writing within 5 days (except as provided in Section 2.6.5) of becoming aware of a violation of any permit condition, discharge limitation or of an AL exceedance.
2. The permittee shall submit a written report to the Water Quality Groundwater Section within 30 days of becoming aware of the violation of any permit condition or discharge limitation. 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 its 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**

**2.7.4.1 Ambient Groundwater Monitoring Report**

The permittee shall submit a report of the ambient groundwater monitoring required under Sections 2.5.4.2 and in accordance with the Compliance Schedule in Section 3.0, item 3.4 or 3.5. The Ambient Groundwater Monitoring Report shall include summary tables of all groundwater quality data collected during the ambient groundwater monitoring period.

The Ambient Groundwater Monitoring Report shall include: depth to groundwater measurements, groundwater elevation measurements, certified laboratory reports, and field data sheets.

The permittee shall submit a report with the calculations for each AQL and AL included in the permit for review and approval by ADEQ, or the permittee may defer calculation of the AQLs and ALs to the Groundwater Section (GWS). The AQLs and ALs shall be established and calculated by the following formula or another valid statistical method submitted to GWS in writing and approved for this permit by the GWS:

$$AL = M + KS$$

Where  $M$  = mean,  $S$  = standard deviation, and  $K$  = one-sided normal tolerance interval with a 95% confidence level (Lieberman, G.J. (1958) Tables for One-sided Statistical Tolerance Limits: Industrial Quality Control, Vol. XIV, No. 10) using a  $K$  value of 3.188 for eight samples from Table 1 of the Lieberman 1958 report. Obvious outliers should be excluded from the data used in the AL calculation.

The following criteria shall be met in establishing ALs in the permit for constituents with an AWQS:

1. The AL shall be calculated for a parameter using the analyses from a minimum of eight (8) consecutive sample rounds. The permittee shall not use more than eight (8) sample rounds in the calculation.
2. Any data where the practical quantification limit (PQL) exceeds 80% of the AWQS shall not be included in the AL calculation.
3. If a parameter is below the detection limit, the permittee must report the value as “less than” the numeric value for the PQL or detection limit for the parameter, not just as “non-detect”. For those parameters, the permittee shall use a value of one-half the reported detection limit for the AL calculation.
4. If the analytical results from more than 50% of the samples for a specific parameter are non-detect, then the AL shall be set at 80% of the AWQS.
5. If the calculated AL for a specific constituent and well is less than 80% of the AWQS, the AL shall be set at 80% of the AWQS for that constituent in that well.

The following criteria shall be met in establishing ALs in the permit for constituents without an AWQS:

1. The AL shall be calculated for a parameter using the analyses from a minimum of eight (8) consecutive sample rounds. The permittee shall not use more than eight (8) sample rounds in the calculation.
2. If a parameter is below the detection limit, the permittee must report the value as “less than” the numeric value for the PQL or detection limit for the parameter, not just as “non-detect”. For those parameters, the permittee shall use a value of one-half the reported detection limit for the AL calculation.

AQLs for the POC well will be calculated for each of the analytes for which a numeric AWQS has been adopted within 30 days of receipt of the laboratory analyses for the final sampling round of the ambient groundwater monitoring period for the POC well. For each of the monitored analytes for which a numeric AWQS has been adopted, the AQL shall be established as follows:

1. If the concentration of a pollutant in the aquifer does not exceed the AWQS, then the AQL shall be set equal to the AWQS.
2. If the calculated AL is less than the AWQS, then the AQL shall be set equal to the AWQS.
3. If the calculated AL is greater than the AWQS, then the AQL shall be set equal to the calculated AL value, and no AL shall be set for that constituent at that monitoring point.

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

The permittee shall submit the reclaimed water monitoring results and flow volumes to any of the following in accordance with A.A.C. R18-9-703(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 SMRFs shall be submitted to:

Arizona Department of Environmental Quality  
Water Quality Groundwater Section

Mail Code: 5415B-1  
1110 W. Washington Street  
Phoenix, AZ 85007  
Phone (602) 771-4681

All documents required by this permit to be submitted to the Groundwater Section shall be directed to:

Arizona Department of Environmental Quality  
Water Quality Groundwater Section  
Mail Code: 5415B-3  
1110 W. Washington Street  
Phoenix, AZ 85007  
Phone (602) 771-4428

**2.7.6 Reporting Deadline**

The following table lists the quarterly report due dates:

<b>Monitoring conducted during quarter:</b>	<b>Quarterly Report due by:</b>
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:

<b>Monitoring conducted:</b>	<b>Report due by:</b>
Semi-annual: January-June	July 30
Semi-annual: July-December	January 30
Annual: January-December	January 30

**2.7.7 Changes to Facility Information in Section 1.0**

The Water Quality Groundwater Section shall be notified within 10 days of any change of facility information including Facility Name, Permittee Name, Mailing or Street Address, Facility Contact Person or Emergency Telephone Number.

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

The permittee shall give written notice to the Water Quality Groundwater Section 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 ADEQ Water Quality Groundwater Section with a monthly facility status report describing the activities conducted on the treatment facility to correct the problem.

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's 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 Water Quality Groundwater 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 Water Quality Groundwater Section of the permittee's intent to cease operation without resuming activity for which the facility was designed or operated.

**2.9.1 Closure Plan**

Within 90 days following notification of closure, the permittee shall submit for approval to the Water Quality Groundwater Section, 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 Water Quality Groundwater Section 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 AWQS at the applicable POC;
3. Continued action is required to verify that the closure design has eliminated discharge to the extent intended;
4. Remediation or mitigation measures are necessary to achieve compliance with Title 49, Ch. 2; and/or
5. Further action is necessary to meet property use restrictions.

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

Post-closure requirements shall be established based on a review of facility closure actions and will be subject to review and approval by the Water Quality Groundwater Section.

In the event clean closure cannot be achieved pursuant to A.R.S. § 49-252, the permittee shall submit for approval to the Water Quality Groundwater 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]**

For each compliance schedule item listed below, the permittee shall submit the required information, including a cover letter that lists the compliance schedule items, to the Groundwater Section. A copy of the cover letter must also be submitted to the Water Quality Groundwater Section.

<b>CSI</b>	<b>Description</b>	<b>Due by:</b>	<b>Permit Amendment</b>
3.1	The permittee shall submit a signed, dated, and sealed Engineer's Certificate of Completion in a format approved by the Department that confirms that the recharge basins were 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
3.2	The permittee shall begin conducting 12 monthly rounds of ambient groundwater monitoring at the POC # 2 well for the parameters listed in Section 4.2, Table IIA.	Within 30 days after receiving approval of the POC Wells Installation Report from ADEQ.	No
3.3	Monitoring under Table IIA may be discontinued upon completion of 12 rounds of monthly sampling. Notify the Compliance Data Unit to receive SMRFs and begin monitoring per Section 4.2, Table IIB.	Within 30 days of completion of ambient groundwater	No
3.4	If an exceedance of Aquifer Water Quality Standard (AWQS) in POC #2 is analyzed during the ambient monitoring period, the GWS must be notified in writing. In response to the exceedance, the GWS may require the submittal of a hydrological report to evaluate the cause of the exceedances. Alert levels and Aquifer Quality Levels shall be submitted to ADEQ.	In accordance with Section 2.5.4.2 and 2.7.3	No
3.5	The permittee shall submit an APP Amendment Application (Minor Amendment) to set Alert Levels (ALs) and Aquifer Quality Limits (AQLs) at POC wells, along with copies of all laboratory analytical reports, including chain of custody and QA/QC. Submit with the lab reports a field sampling report describing the sampling procedures and sample collection QA/QC. The permittee may calculate the alert levels and aquifer quality limits for those constituents in section 4.2, Table IIA, or may request GWS to perform the calculations. The alert level for the groundwater level measurement in Table IIB shall be based on the screened interval of the POC well.	Within 30 days of receipt of laboratory report for final ambient sample.	Yes

**4.0 TABLES OF MONITORING REQUIREMENTS**

List of Monitoring Tables:

**Section 4.1 Pre-operational Monitoring (or Construction Requirements)**

Table I Pre-operational Monitoring – Not applicable at the time of permit issuance.

**Section 4.2 Compliance (or Operational) Monitoring**

Table IA-1 Routine Discharge Monitoring (9.0mgd)

Table IA-2 Routine Discharge Monitoring (12.0mgd)

Table IB Reclaimed Water Monitoring – Class A+

Table IIA Ambient Groundwater Monitoring

Table IIB Groundwater Monitoring

Table III Facility Inspection (Operational Monitoring)

**4.2 COMPLIANCE (or OPERATIONAL) MONITORING**

**TABLE IA-1<sup>2</sup>**  
**ROUTINE DISCHARGE MONITORING (9.0mgd)**

Sampling Point Number	Sampling Point Identification			Latitude	Longitude
1	Effluent Pump Station			32°54'32" N	111°47'13" W
Parameter	AL <sup>3</sup>	DL <sup>3</sup>	Units	Sampling Frequency	Reporting Frequency
Total Flow <sup>4</sup> : Daily <sup>5</sup> (AADF) <sup>6</sup>	Not Established <sup>7</sup>	Not Established	mgd <sup>8</sup>	Daily	Quarterly
Total Flow: Monthly Average <sup>9</sup> (ADMM) <sup>10</sup>	8.5	9.0	mgd	Monthly Calculation	Quarterly
Reclaimed Water Flow: Daily	Not Established	Not Established	mgd	Daily	Quarterly
Reclaimed Water Flow: Monthly Average	Reserved	Reserved	mgd	Monthly Calculation	Quarterly
AZPDES Flow: Daily	Not Established	Not Established	mgd	Daily	Quarterly
AZPDES Flow: Monthly Average	Reserved <sup>11</sup>	Reserved	mgd	Monthly Calculation	Quarterly
Fecal Coliform: Single sample maximum	Not Established	23.0	MPN <sup>12</sup>	Daily	Quarterly
Fecal Coliform: four (4) of seven (7) samples in a week <sup>13</sup>	Not Established	Non-detect <sup>14</sup>	MPN	Weekly Calculation	Quarterly
Total Nitrogen <sup>15</sup> : Five-sample rolling geometric mean	8.0	10.0	mg/l <sup>16</sup>	Monthly <sup>17</sup>	Quarterly

**4.2 COMPLIANCE (or OPERATIONAL) MONITORING**

<sup>2</sup> The facility is rated for 12mgd for treatment. However the flow is limited to 9.0 mgd due to the available disposal capacity being 9.0 mgd.

<sup>3</sup>AL = Alert Level and DL = Discharge Limit

<sup>4</sup>Total flow for all methods of disposal.

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

<sup>6</sup>Annual average daily flow (AADF) means the total volume of wastewater flowing into a wastewater facility during any consecutive 365 days, divided by 365 and expressed in units of mgd.

<sup>7</sup> Not Established = Monitoring is required but no limits are specified.

<sup>8</sup>mgd = million gallons per day

<sup>9</sup>Monthly average of daily flow values.

<sup>10</sup> Average Day Maximum Month (ADMM) - the average daily flow for the peak month of the year.

<sup>11</sup> Reserved = Discharge Limits as regulated under either a valid reclaimed water permit or a valid AZPDES permit.

<sup>12</sup>MPN = Most Probable Number / 100 ml sample. For MPN, a value of <2.2 shall be considered to be non-detect/absence.

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

<sup>14</sup>Fecal Coliform four (4) of the last seven (7) samples” requires entering a “Compliance” or “Not in Compliance” on the SMRF for each week of the reporting period; use the following procedure to determine whether to enter a “Compliance” or “Not in Compliance” for each weekly entry: For each date of the reporting period, evaluate the daily Fecal Coliform result for that date along with the daily Fecal Coliform results for the six previous days. If, of these seven days of data, four (4) or more of the daily Fecal Coliform results are Non-detect (a daily value of <2.2 MPN is considered Non-detect for that day), report “Compliance” for that date’s entry on the SMRF. If three (3) or fewer of the daily Fecal Coliform results are Non-detect, report “Not in compliance” for that date’s entry on the SMRF. For days when there is no flow, the daily Fecal Coliform result is considered “Non-detect” for the purpose of evaluating the seven days of daily data for the SMRF entry.

<sup>15</sup>Total Nitrogen = Nitrate as N + Nitrite as N + Total Kjeldahl Nitrogen

<sup>16</sup>mg/l = milligrams per liter

<sup>17</sup>A five-month geometric mean of the results of the five (5) most recent samples

**TABLE IA-1**  
**ROUTINE DISCHARGE MONITORING (continued)**

<b>Parameter</b>	<b>AL</b>	<b>DL</b>	<b>Units</b>	<b>Sampling Frequency</b>	<b>Reporting Frequency</b>
<b>Metals (total):</b>					
Antimony	0.0048	0.006	mg/l	Quarterly	Quarterly
Arsenic	0.04	0.05	mg/l	Quarterly	Quarterly
Barium	1.60	2.00	mg/l	Quarterly	Quarterly
Beryllium	0.0032	0.004	mg/l	Quarterly	Quarterly
Cadmium	0.004	0.005	mg/l	Quarterly	Quarterly
Chromium	0.08	0.1	mg/l	Quarterly	Quarterly
Cyanide (as free cyanide)	0.16	0.2	mg/l	Quarterly	Quarterly
Fluoride	3.2	4.0	mg/l	Quarterly	Quarterly
Lead	0.04	0.05	mg/l	Quarterly	Quarterly
Mercury	0.0016	0.002	mg/l	Quarterly	Quarterly
Nickel	0.08	0.1	mg/l	Quarterly	Quarterly
Selenium	0.04	0.05	mg/l	Quarterly	Quarterly
Thallium	0.0016	0.002	mg/l	Quarterly	Quarterly

**4.0 TABLES OF MONITORING REQUIREMENTS**

**4.2 COMPLIANCE (or OPERATIONAL) MONITORING**

**TABLE IA-1**  
**ROUTINE DISCHARGE MONITORING (continued)**

<b>Parameter</b>	<b>AL</b>	<b>DL</b>	<b>Units</b>	<b>Sampling Frequency</b>	<b>Reporting Frequency</b>
<b>Volatile and Semi-Volatile Organic Compounds (VOCs and SVOCs):</b>					
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
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

**4.2 COMPLIANCE (or OPERATIONAL) MONITORING**

**TABLE IA-2<sup>18</sup>**  
**ROUTINE DISCHARGE MONITORING (12.0mgd)**

Sampling Point Number	Sampling Point Identification			Latitude	Longitude
1	Effluent Pump Station			32°54'32" N	111°47'13" W
Parameter	AL <sup>19</sup>	DL <sup>20</sup>	Units	Sampling Frequency	Reporting Frequency
Total Flow <sup>21</sup> : Daily <sup>22</sup> (AADF) <sup>23</sup>	Not Established <sup>24</sup>	Not Established	mgd <sup>25</sup>	Daily	Quarterly
Total Flow: Monthly Average <sup>26</sup> (ADMM) <sup>27</sup>	10.55	11.1	mgd	Monthly Calculation	Quarterly
Reclaimed Water Flow: Daily	Not Established	Not Established	mgd	Daily	Quarterly
Reclaimed Water Flow: Monthly Average	Reserved	Reserved	mgd	Monthly Calculation	Quarterly
AZPDES Flow: Daily	Not Established	Not Established	mgd	Daily	Quarterly
AZPDES Flow: Monthly Average	Reserved <sup>28</sup>	Reserved	mgd	Monthly Calculation	Quarterly
Fecal Coliform: Single sample maximum	Not Established	23.0	MPN <sup>29</sup>	Daily	Quarterly
Fecal Coliform: four (4) of seven (7) samples in a week <sup>30</sup>	Not Established	Non-detect <sup>31</sup>	MPN	Weekly Calculation	Quarterly
Total Nitrogen <sup>32</sup> : Five-sample rolling geometric mean	8.0	10.0	mg/l <sup>33</sup>	Monthly <sup>34</sup>	Quarterly

**4.2 COMPLIANCE (or OPERATIONAL) MONITORING**

<sup>18</sup> Once the Recharge Basins (APP#106362) become operational, commence monitoring under this Table and discontinue monitoring under Table IA-1.

<sup>19</sup>AL = Alert Level

<sup>20</sup>DL = Discharge Limit

<sup>21</sup>Total flow for all methods of disposal.

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

<sup>23</sup>Annual average daily flow (AADF) means the total volume of wastewater flowing into a wastewater facility during any consecutive 365 days, divided by 365 and expressed in units of mgd.

<sup>24</sup> Not Established = Monitoring is required but no limits are specified.

<sup>25</sup>mgd = million gallons per day

<sup>26</sup>Monthly average of daily flow values.

<sup>27</sup>Average Day Maximum Month (ADMM) - the average daily flow for the peak month of the year.

<sup>28</sup> Reserved = Discharge Limits as regulated under either a valid reclaimed water permit or a valid AZPDES permit.

<sup>29</sup>MPN = Most Probable Number / 100 ml sample. For MPN, a value of <2.2 shall be considered to be non-detect/absence.

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

<sup>31</sup>Fecal Coliform four (4) of the last seven (7) samples” requires entering a “Compliance” or “Not in Compliance” on the SMRF for each week of the reporting period; use the following procedure to determine whether to enter a “Compliance” or “Not in Compliance” for each weekly entry: For each date of the reporting period, evaluate the daily Fecal Coliform result for that date along with the daily Fecal Coliform results for the six previous days. If, of these seven days of data, four (4) or more of the daily Fecal Coliform results are Non-detect (a daily value of <2.2 MPN is considered Non-detect for that day), report “Compliance” for that date’s entry on the SMRF. If three (3) or fewer of the daily Fecal Coliform results are Non-detect, report “Not in compliance” for that date’s entry on the SMRF. For days when there is no flow, the daily Fecal Coliform result is considered “Non-detect” for the purpose of evaluating the seven days of daily data for the SMRF entry.

<sup>32</sup>Total Nitrogen = Nitrate as N + Nitrite as N + Total Kjeldahl Nitrogen

<sup>33</sup>mg/l = milligrams per liter

<sup>34</sup>A five-month geometric mean of the results of the five (5) most recent samples

**TABLE IA-2**  
**ROUTINE DISCHARGE MONITORING (continued)**

<b>Parameter</b>	<b>AL</b>	<b>DL</b>	<b>Units</b>	<b>Sampling Frequency</b>	<b>Reporting Frequency</b>
<b>Metals (total):</b>					
Antimony	0.0048	0.006	mg/l	Quarterly	Quarterly
Arsenic	0.04	0.05	mg/l	Quarterly	Quarterly
Barium	1.60	2.00	mg/l	Quarterly	Quarterly
Beryllium	0.0032	0.004	mg/l	Quarterly	Quarterly
Cadmium	0.004	0.005	mg/l	Quarterly	Quarterly
Chromium	0.08	0.1	mg/l	Quarterly	Quarterly
Cyanide (as free cyanide)	0.16	0.2	mg/l	Quarterly	Quarterly
Fluoride	3.2	4.0	mg/l	Quarterly	Quarterly
Lead	0.04	0.05	mg/l	Quarterly	Quarterly
Mercury	0.0016	0.002	mg/l	Quarterly	Quarterly
Nickel	0.08	0.1	mg/l	Quarterly	Quarterly
Selenium	0.04	0.05	mg/l	Quarterly	Quarterly
Thallium	0.0016	0.002	mg/l	Quarterly	Quarterly

**4.2 COMPLIANCE (or OPERATIONAL) MONITORING**

**TABLE IA-2**  
**ROUTINE DISCHARGE MONITORING (continued)**

<b>Parameter</b>	<b>AL</b>	<b>DL</b>	<b>Units</b>	<b>Sampling Frequency</b>	<b>Reporting Frequency</b>
<b>Volatile and Semi-Volatile Organic Compounds (VOCs and SVOCs):</b>					
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
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

**4.2 COMPLIANCE (or OPERATIONAL) MONITORING**

**TABLE IB**  
**RECLAIMED WATER MONITORING TABLE - CLASS A+<sup>35</sup>**

Sampling Point Number	Sampling Point Identification		Latitude	Longitude
1	Effluent Pump Station		32° 54' 32" N	114° 47'13" W
Parameter	DL <sup>36</sup>	Units	Sampling Frequency	Reporting Frequency
Fecal Coliform: Single-sample maximum	10.0	MPN <sup>37</sup>	Daily <sup>38</sup>	Quarterly
Fecal Coliform: four (4) of seven (7) samples in a week	Non-detect <sup>39</sup>	MPN	Daily Evaluation	Quarterly
Total Nitrogen <sup>40</sup> : Five-sample rolling geometric	10.0	mg/l <sup>41</sup>	Monthly Calculation	Quarterly
Turbidity <sup>42</sup> : Single reading	5.0	NTU <sup>43</sup>	Daily <sup>44</sup>	Quarterly
Turbidity: 24-hour average	2.0	NTU	Daily	Quarterly

#### 4.2 COMPLIANCE (or OPERATIONAL) MONITORING

<sup>35</sup> Reclaimed water monitoring under Table IB shall be performed in addition to routine discharge monitoring required under Section 4.2, Table 1A-1 or 1A-2.

<sup>36</sup> DL = discharge limit

<sup>37</sup> MPN = Most Probable Number per 100 ml. MPN, a value of <2.2 shall be considered to be non-detect.

<sup>38</sup> 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 (4) samples in each seven-day period are obtained and analyzed.

<sup>39</sup> “Fecal Coliform four (4) of the last seven (7) samples” requires entering a “Compliance” or “Not in Compliance” on the SMRF for each day of the reporting period; use the following procedure to determine whether to enter a “Compliance” or “Not in Compliance” for each daily entry: For each date of the reporting period, evaluate the daily Fecal Coliform result for that date along with the daily Fecal Coliform results for the six previous days. If, of these samples results, four (4) or more of the daily Fecal Coliform results are Non-detect (a daily value of <2.2 MPN is considered Non-detect for that day), report “Compliance” for that date’s entry on the SMRF. If three (3) or fewer of the daily Fecal Coliform results are Non-detect, report “Not in compliance” for that date’s entry on the SMRF. For days when there is no flow of reclaimed water, the daily Fecal Coliform result is considered “Non-detect” for the purpose of evaluating the seven samples results of daily data for the SMRF entry.

<sup>40</sup> Nitrate N, plus Nitrite N, plus Total Kjeldahl Nitrogen (TKN)

<sup>41</sup> mg/l = milligrams per liter

<sup>42</sup> 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.

<sup>43</sup> NTU = Nephelometric Turbidity Units

<sup>44</sup> For the single turbidity reading, “Daily” means the maximum reading during the 24-hour period.

**TABLE IIA<sup>45</sup>**  
**AMBIENT GROUNDWATER MONITORING**

<b>Sampling Point Number</b>	<b>Sampling Point Identification</b>	<b>Latitude</b>	<b>Longitude</b>
2	Located approximately 700 feet southwest of the existing AZPDES point of discharge POC Well #2	32° 54' 51" N	111°47'19"W
<b>Parameter</b>	<b>Units</b>	<b>Sampling Frequency</b>	<b>Reporting Frequency</b>
Depth to Groundwater	Feet	Monthly	IGMR <sup>46</sup>
Total Nitrogen <sup>47</sup> :	mg/l	Monthly	IGMR
Nitrate-Nitrite as N	mg/l	Monthly	IGMR
Nitrate as N	mg/l	Monthly	IGMR
Nitrite as N	mg/l	Monthly	IGMR
Total Kjeldahl Nitrogen (TKN)	mg/l	Monthly	IGMR
Total Coliform	P/A <sup>48</sup>	Monthly	IGMR

#### 4.0 TABLES OF MONITORING REQUIREMENTS

##### 4.2 COMPLIANCE (or OPERATIONAL) MONITORING

<sup>45</sup> Monitoring may be discontinued after initial groundwater monitoring has been completed as per Section 3.0, item 3.3 and begin monitoring under Table IIB.

<sup>46</sup> IGMR= Initial Groundwater Monitoring Report

<sup>47</sup> Total Nitrogen is equal to nitrate as N plus nitrite as N plus TKN.

<sup>48</sup> P/A = Presence or absence of total coliforms in a 100-milliliter sample.

**TABLE IIA**  
**AMBIENT GROUNDWATER MONITORING (Continued)**

<b>Parameter</b>	<b>Unit</b>	<b>Sampling Frequency</b>	<b>Reporting Frequency</b>
<b>Metals (Total):</b>			
Antimony	mg/l	Monthly	IGMR <sup>49</sup>
Arsenic	mg/l	Monthly	IGMR
Barium	mg/l	Monthly	IGMR
Beryllium	mg/l	Monthly	IGMR
Cadmium	mg/l	Monthly	IGMR
Chromium	mg/l	Monthly	IGMR
Cyanide (as free cyanide)	mg/l	Monthly	IGMR
Fluoride	mg/l	Monthly	IGMR
Lead	mg/l	Monthly	IGMR
Mercury	mg/l	Monthly	IGMR
Nickel	mg/l	Monthly	IGMR
Selenium	mg/l	Monthly	IGMR
Thallium	mg/l	Monthly	IGMR

**4.0 TABLES OF MONITORING REQUIREMENTS**

**4.2 TABLES OF COMPLIANCE MONITORING**

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<sup>49</sup>IGMR= Initial Groundwater Monitoring Report

**TABLE IIA**  
**AMBIENT GROUNDWATER MONITORING (Continued)**

<b>Parameter</b>	<b>Units</b>	<b>Sampling Frequency</b>	<b>Reporting Frequency</b>
Benzene	mg/l	Monthly	IGMR <sup>50</sup>
Carbon tetrachloride	mg/l	Monthly	IGMR
o-Dichlorobenzene	mg/l	Monthly	IGMR
para-Dichlorobenzene	mg/l	Monthly	IGMR
1,2-Dichloroethane	mg/l	Monthly	IGMR
1,1-Dichloroethylene	mg/l	Monthly	IGMR
cis-1,2-Dichloroethylene	mg/l	Monthly	IGMR
trans-1,2-Dichloroethylene	mg/l	Monthly	IGMR
Dichloromethane	mg/l	Monthly	IGMR
1,2-Dichloropropane	mg/l	Monthly	IGMR
Ethylbenzene	mg/l	Monthly	IGMR
Hexachlorobenzene	mg/l	Monthly	IGMR
Hexachlorocyclopentadiene	mg/l	Monthly	IGMR
Monochlorobenzene	mg/l	Monthly	IGMR
Styrene	mg/l	Monthly	IGMR
Tetrachloroethylene	mg/l	Monthly	IGMR
Toluene	mg/l	Monthly	IGMR
Trihalomethanes (total) <sup>51</sup>	mg/l	Monthly	IGMR
1,1,1-Trichloroethane	mg/l	Monthly	IGMR
1,2,4 - Trichlorobenzene	mg/l	Monthly	IGMR
1,1,2 - Trichloroethane	mg/l	Monthly	IGMR
Trichloroethylene	mg/l	Monthly	IGMR
Vinyl Chloride	mg/l	Monthly	IGMR
Xylenes (Total)	mg/l	Monthly	IGMR

<sup>50</sup>IGMR= Initial Groundwater Monitoring Report

<sup>51</sup>Total Trihalomethanes are comprised of Bromoform, Bromodichloromethane, Chloroform, and Dibromochloromethane.

4.0 TABLES OF MONITORING REQUIREMENTS

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

TABLE IIB<sup>52</sup>  
GROUNDWATER MONITORING

Sampling Point Number	Sampling Point Identification			Latitude	Longitude
2	Located approximately 700 feet southwest of the existing AZPDES point of discharge POC Well #2			32° 54' 51" N	111°47'19"W
Parameter	AL <sup>53</sup>	AQL <sup>54</sup>	Units	Sampling Frequency	Reporting Frequency
Depth to Groundwater	Reserved	Reserved	Feet	Monthly <sup>55</sup>	Quarterly
Total Nitrogen <sup>56</sup> :	Reserved	Reserved	mg/l <sup>57</sup>	Monthly Calculation	Quarterly
Nitrate-Nitrite as N	Reserved	Reserved	mg/l	Quarterly Calculation	Quarterly
Total Kjeldahl Nitrogen (TKN)	Not Established <sup>58</sup>	Not Established	mg/l	Monthly	Quarterly
Total Coliform	Absence	Absence	P/A <sup>59</sup>	Monthly	Quarterly

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

<sup>52</sup> Commence Monitoring under this Table per Section 3.0, item 3.3.

<sup>53</sup> AL = Alert Level

<sup>54</sup> AQL = Aquifer Quality Limit

<sup>55</sup> A five-Month Geometric Mean of the results of the five (5) most recent samples

<sup>56</sup> Total Nitrogen is equal to Nitrate as N plus Nitrite as N plus TKN.

<sup>57</sup> mg/l = milligrams per liter

<sup>58</sup> Not Established means monitoring is required, but no limits are specified.

<sup>59</sup> P/A = Presence (Not in compliance) or absence (Compliance) of total coliforms in a 100-milliliter sample.

**TABLE IIB**  
**GROUNDWATER MONITORING (Continued)**

<b>Parameter</b>	<b>AL<sup>60</sup></b>	<b>AQL<sup>61</sup></b>	<b>Units</b>	<b>Sampling Frequency</b>	<b>Reporting Frequency</b>
<b>Metals (total):</b>					
Antimony	0.0048	0.006	mg/l	Quarterly	Quarterly
Arsenic	0.04	0.05	mg/l	Quarterly	Quarterly
Barium	1.60	2.00	mg/l	Quarterly	Quarterly
Beryllium	0.0032	0.004	mg/l	Quarterly	Quarterly
Cadmium	0.004	0.005	mg/l	Quarterly	Quarterly
Chromium	0.08	0.1	mg/l	Quarterly	Quarterly
Cyanide (as free cyanide)	0.16	0.2	mg/l	Quarterly	Quarterly
Fluoride	8.0	10.0	mg/l	Quarterly	Quarterly
Lead	0.04	0.05	mg/l	Quarterly	Quarterly
Mercury	0.0016	0.002	mg/l	Quarterly	Quarterly
Nickel	0.08	0.1	mg/l	Quarterly	Quarterly
Selenium	0.04	0.05	mg/l	Quarterly	Quarterly
Thallium	0.0016	0.002	mg/l	Quarterly	Quarterly

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<sup>60</sup> AL = Alert Level

<sup>61</sup> AQL = Aquifer Quality Limit

**44.2 COMPLIANCE (or OPERATIONAL) MONITORING**

**TABLE II-B**  
**GROUNDWATER MONITORING (Continued)**

<b>Parameter</b>	<b>AL</b>	<b>DL</b>	<b>Units</b>	<b>Sampling Frequency</b>	<b>Reporting Frequency</b>
<b>Volatile and Semi-Volatile Organic Compounds (VOCs and SVOCs):</b>					
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
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

**4.2 COMPLIANCE (or OPERATIONAL) MONITORING**

**TABLE III**  
**FACILITY INSPECTION (OPERATIONAL MONITORING) - LOG BOOK<sup>62</sup>**

<b>Pollution Control Structure/Parameter</b>	<b>Performance Level</b>	<b>Inspection Frequency</b>	<b>Reporting Frequency</b>
Pump Integrity	Good working condition	Weekly	See Section 2.7.3
Treatment Plant Components	Good working condition	Weekly	See Section 2.7.3
Holding Ponds Integrity	No visible structural damage, breach, or erosion	Weekly	See Section 2.7.3
Scum and Grit Containment area freeboard	1 foot	Monthly	See Section 2.7.3
Earth Fissures Effects of land subsidence and earth fissures on treatment plant components, sludge drying beds, effluent holding ponds and disposal sites	No Visible Signs of Fissures	After storm events with a return frequency of 5 years or greater	See Section 2.7.3

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<sup>62</sup> The permittee shall record the inspection performance levels in a log book as per Section 2.7.2, and report any violations or exceedances as per Section 2.7.3. In the case of an exceedance, identify which structure exceeds the performance level in the log book.

## **5.0 REFERENCES AND PERTINENT INFORMATION**

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

1. APP Application, dated: January 22, 2016
2. Final (ADEQ) Hydrology Report date: March 17, 2016
2. Final (ADEQ) Engineering Report, dated: February 18, 2016
3. Public Notice, dated: Thursday July 21, 2016
4. Public Hearing, dated: Not applicable.
5. Responsiveness Summary, dated: Not applicable.

## **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 upon the amount of daily influent or discharge of pollutants in gallons per day as established by A.R.S. § 49-242.

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

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 at the applicable point of compliance for the facility. Where, at the time of issuance of the permit, an aquifer already exceeds an aquifer water quality standard 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(D), 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.
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. §§ 41-1009, 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 specified by this permit.

**6.10 Permit Action: Amendment, Transfer, Suspension & 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, renewed, or revoked for cause, under the rules of the Department.

The permittee shall notify the Groundwater 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 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).

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