

**STATE OF ARIZONA  
AQUIFER PROTECTION PERMIT NO. P-102298  
PLACE ID 1824, LTF 60474  
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 Sedona to operate the Wastewater Reclamation Plant located at 7500 West State Route 89A, Sedona, Arizona, in Yavapai County, over groundwater of the Verde River Basin in Township 17 North, Range 4 East, Section 25, NW ¼, NW ¼, SW ¼ of the Gila and Salt River Base Line 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 Sedona Wastewater Reclamation Plant (WWRP)

**Facility Address:** 7500 West State Route 89A  
Sedona, Arizona, 86336

**County:** Yavapai

**Permitted Flow Rate:** 2,000,000 gallons per day (gpd)

**Permittee:** City of Sedona  
**Permittee Address:** 102 Roadrunner Drive  
Sedona, Arizona 86336

**Facility Contact:** Charles Mosley, P.E., Director of Wastewater  
**Emergency Phone No.:** (928) 204-2234

**Latitude/Longitude:** 34° 49' 49" N / 111° 53' 44" W  
**Legal Description:** Township 17 N, Range 4 E, Section 25, NW ¼, NW ¼, SW ¼ of the Gila and Salt River Baseline and Meridian

**1.2 AUTHORIZING SIGNATURE**

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

Signed this \_\_\_\_\_ day of \_\_\_\_\_, 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 permittee is authorized to operate the City of Sedona Wastewater Reclamation Plant (WWRP) with a maximum monthly average flow of 2.0 million gallon per day (mgd). The WWRP treatment process consists of headworks with two (2) mechanical bar screens and grit removal system, four (4) activated sludge treatment basins with anoxic and aeration zones for nitrification-de-nitrification, new aeration blowers, clarifiers (two existing clarifiers and one new clarifier), four (4) travelling bridge sand filters, chemical feed, two ultraviolet (UV) disinfection units, two (2) effluent pump stations for irrigation, a new injection well pump station and two (2) emergency storage basins.

Sludge generated from the treatment process will be digested in one existing and one new aerobic digester and is dried using ten sludge drying beds and two (2) centrifuges. The sludge is hauled off site and disposed of at an approved landfill.

The permittee may dispose of the effluent through land disposal over 318 acres of natural vegetation, recharge through rapid infiltration basins (RIBs) and injection wells or reuse under a valid reclaimed water permit. Excess effluent shall be stored in two riparian basins (Riparian Basin No. 1 and Riparian Basin No. 2) and in an on-site storage reservoir (Reservoir No. 3).

The facility has five (5) effluent disposal areas identified as Area 1, Area 2, Area 2B, Area 3, and Area 4. Disposal Areas 1, 3, and 4, are restricted access parcels of land that are bermed so that no run off occurs. Effluent disposal at Area 2 consists of three rapid infiltration basins, a marsh basin 4, two fields (Fields 1 and 2), six reconfigured wetland basins, an existing wetland basin No. 7, an existing overflow pond basin No. 8, two riparian basins (Reservoir Nos. 1 and 2), and a storage reservoir (Reservoir No. 3).

Depth to groundwater at the WWRP site is approximately 450 feet below ground surface (bgs) and the direction of groundwater flow is generally to the southwest.

ADEQ reviewed and approved the following changes to the permit:

- the recharge of effluent through six injections wells (two proposed and four future injection wells)
- removal of alternate pathogen monitoring requirement from Table IA and changing the pathogen monitoring frequency from weekly to daily and removal of contingency monitoring requirements for alternate pathogen monitoring
- installation of spray irrigation facilities and construction of berms in Area 2B
- the discharge of effluent from Riparian Basin Nos. 1 and 2, and/or Reservoir No. 3 to the Wetland Basins

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:

<b>Facility</b>	<b>Description</b>	<b>Latitude (N)</b>	<b>Longitude (W)</b>
City of Sedona WWRP	Wastewater Reclamation Plant	34° 49' 49"	111° 53' 44"
Sludge drying beds nos. 1-4	Existing sludge drying beds	34° 49' 53"	111° 53' 48"
Sludge drying beds nos. 5-10	Existing sludge drying beds replaced with new sludge drying beds in 2011	34° 49' 55.03"	111° 53' 53.4"
Emergency Storage Basin No. 1	4 million gallon capacity basin – used to store treated effluent	34° 49' 53.5"	111° 53' 43.7"

Facility	Description	Latitude (N)	Longitude (W)
Emergency Storage Basin No. 2	200,000 gallons capacity basin – used as emergency equalization basin	34° 49' 54"	111° 53' 48.4"
<b>Effluent Disposal Area 1:</b>			
Effluent Disposal Area	Natural vegetation	34° 50' 01"	111° 53' 45.2"
<b>Effluent Disposal Area 2:</b>			
Rapid Infiltration basins (RIBs)	Rapid Infiltration basins #1	34° 49' 53.9"	111° 53' 37.5"
	Rapid Infiltration basins #2	34° 49' 51.9"	111° 53' 39.3"
	Rapid Infiltration basins #3	34° 49' 50.6"	111° 53' 42.6"
	Marsh Basin 4	34° 49' 49.4"	111° 53' 45.6"
Natural Vegetation Fields	Field 1	34° 49' 51.7"	111° 53' 39.5"
	Field 2	34° 49' 49.8"	111° 53' 45.1"
Reconfigured Wetland Basins	Wetland Basin 1	34° 49' 48.16"	111° 53' 46.17"
	Wetland Basin 2	34° 49' 45.69"	111° 53' 46.4"
	Wetland Basin 3	34° 49' 43.5"	111° 53' 47.3"
	Wetland Basin 4	34° 49' 41.25"	111° 53' 48.34"
	Wetland Basin 5	34° 49' 39.15"	111° 53' 49.6"
	Wetland Basin 6	34° 49' 36.79"	111° 53' 51.04"
Existing Wetland Basin No. 7	Wetland basin 7	34° 49' 34.05"	111° 53' 52.97"
Existing overflow Pond Basin No. 8	Unlined pond for overflow from the wetlands and Area 4 pump station (Basin 8)	34° 49' 32.8"	111° 53' 57.0"
Riparian Basin No. 1 (Reservoir No.1)	Unlined wetland for emergency storage of effluent for fire suppression	34° 49' 40.0"	111° 53' 59.0"
Riparian Basin No. 2 (Reservoir No.2)	Unlined wetland for emergency storage of effluent	34° 49' 43.8"	111° 53' 58.0"
Reservoir No. 3	Primary storage basin for effluent	34° 49' 51.0"	111° 53' 57.6"
<b>Effluent Disposal Area 2B:</b>			
Future Effluent Disposal Area	Natural vegetation	34° 49' 25.3"	111° 53' 59.4"
<b>Effluent Disposal Area 3:</b>			
Effluent Disposal Area	Natural vegetation	34° 49' 36.6"	111° 53' 35.7"
<b>Effluent Disposal Area 4:</b>			
Effluent Disposal Area	Natural vegetation	34° 49' 13.7"	111° 53' 45.86"

Facility	Description	Latitude (N)	Longitude (W)
<b>Injection Wells</b>			
Injection well #1	Installed injection well ADWR No. 55-222289	34° 49' 49"	111° 53' 44"
Injection well #2	Installed injection well ADWR No. 55-224870	34° 49' 33.7"	111° 53' 40.3"
Injection well #3	Future injection well	34° 49' 36.3"	111° 53' 57.5"
Injection well #4	Future injection well	34° 49' 31.4"	111° 53' 43.2"
Injection well #5	Future injection well	34° 49' 10.31"	111° 44' 6.75"
Injection well #6	Future injection well	34° 49' 24.3"	111° 53' 56.8"

**Discharging Facilities:**

The effluent disposal areas include Area 1, Area 2, Area 2B, Area 3, and Area 4 on approximately 318 acres of land. Effluent disposal is accomplished through the use of a system of laterals and sprinklers at an application rate that shall not cause any runoff. Disposal of effluent to the land is seasonal and is impacted by precipitation. Disposal of effluent on the land does not typically occur during significant rainfall events or during the winter months. Berms and diversion channels are used to control runoff in these areas. Area 2B is not currently being used for effluent disposal, but shall remain in its current natural state until a spray irrigation facility is installed for effluent disposal. Effluent may also be injected via Injection Wells #1 and #2, and future Injection Wells #3 - #6 (to be constructed).

**2.1.1 Wastewater Reclamation Plant**

The WWRP treatment process consists of headworks with two (2) mechanical bar screens and grit removal system, four (4) activated sludge treatment basins with anoxic and aeration zones for nitrification-de-nitrification, new aeration blowers, clarifiers (two existing clarifiers and one new clarifier), four (4) travelling bridge sand filters, chemical feed, two ultraviolet (UV) disinfection units, two (2) effluent pump stations for irrigation, and a new injection well pump station.

**2.1.2 Sludge drying beds**

The facility consists ten sludge drying beds to dewater the sludge. Sludge drying bed nos. 1-4 are existing beds. Sludge drying bed nos. 5-10 were replaced with new drying beds in year 2011.

**2.1.3 Emergency Storage Basin #1**

Emergency storage basin #1 has a volume of 4 million gallons and is utilized to store treated effluent during emergencies.

**2.1.4 Emergency Storage Basin #2**

Emergency storage basin #2 is a concrete basin with a volume of 200,000 gallons. This basin is used as an emergency equalization basin to divert the secondary treated effluent from clarifiers during filter maintenance. The effluent is either diverted to the headworks of the plant or back to the sand filters.

**2.1.5 Area 1 – Effluent Disposal Area**

Area 1 is located directly north of the wastewater reclamation plant and consists of approximately 40 acres of native high desert vegetation. The vegetation consists of native grass, shrubs, and trees with surface slopes of 10 to 15%. A small wash flows from northeast to southwest across the site and exits near the southwest corner.

**2.1.6 Area 2 – Rapid infiltration Basins (RIB) 1-3 & Marsh Basin 4**

RIBs 1-3 are located over approximately 4 acres of area and separated by Fields 1 and 2. Effluent to RIBs 1 through 3 is delivered by a pressure-feed system or effluent pump station. RIBs 1-3 shall be maintained in accordance with Section 4.2, Table III (Facility Inspections).

- 2.1.7 Area 2 – Natural Vegetation Field**  
Area 2 includes Fields 1 and 2 on approximately 18.5 acres of natural desert. Effluent is delivered to these fields by a pressure-feed system or the effluent pump station.
- 2.1.8 Area 2 – Reconfigured Wetland Basins 1 - 6**  
In Area 2, the former wetlands and marsh system has been reconfigured in to six (6) wetland basins identified as Wetland Basins 1 through 6. The Wetland Basins receive effluent from the UV disinfection system and/or Riparian Basin Nos. 1 and 2, and Reservoir No.3. The Wetland Basins are connected via gravity fed spillways to downstream Wetland Basins 2, 3, 4, 5 and 6. Once the effluent reaches the end of Wetland Basin 6, it is conveyed via a recirculation pump station back to either Wetland Basins 1 or 2.
- 2.1.9 Area 2 – Existing Wetland Basin No. 7**  
The Existing Wetland Basin No. 7 in Area 2 is a 2.96 million gallons basin which is used as an overflow pond on a regular basis.
- 2.1.10 Area 2 – Existing Overflow Pond Basin No. 8**  
The Overflow Pond Basin No. 8 in Area 2 is a 0.9 million gallon unlined basin that provides emergency storage for effluent from the Area 4 Pump Station and the wetlands.
- 2.1.11 Area 2 – Riparian Basin No. 1 (Reservoir No. 1)**  
Riparian Basin No. 1 is a lined (clay liner) wetland for emergency storage of treated effluent. This basin is mainly used for fire suppression water and must be maintained with at least eight feet of effluent to adequately serve this purpose.
- 2.1.12 Area 2 – Riparian Basin No. 2 (Reservoir No. 2)**  
Riparian Basin No. 2 is an unlined wetland for emergency storage of treated effluent from Reservoir No. 3 and is typically dry.
- 2.1.13 Area 2 – Reservoir No. 3**  
Reservoir No. 3 provides primary storage for treated effluent when the plant flow exceeds the available application rate to the effluent application areas. Reservoir No. 3 has a total storage capacity of approximately 70 million gallons. This reservoir feeds the existing Area 4 Pump Station for delivery of stored effluent to Area 4 for irrigation.
- 2.1.14 Area 2B – Future Effluent Disposal Area**  
Area 2B is a 25-acre parcel located south of Area 2. This area is not in use at the time of permit issuance. However, this area is included in the total available effluent disposal acreage. If this area is needed for effluent disposal in the future, the required berms for this area shall adhere to the same approved design criteria used for these structures provided on Area 1. Additionally, all operational conditions as prescribed in this permit for the effluent disposal areas shall apply to Area 2B once in use. The permittee has proposed to install flood/spray irrigation facilities in Area 2B. Once the spray irrigation system is installed, the facility shall submit the as-built drawings as described in Section 3.0, Compliance Schedule. If Area 2B is developed for use other than effluent disposal to the land, the permittee shall submit a request to amend the permit to reflect this change.
- 2.1.15 Area 3 – Effluent Disposal Area**  
Area 3 consists of approximately 26 acres located directly east of the plant and east of SR 89A. This area is moderately sloping and is covered with alfalfa.
- 2.1.16 Area 4 – Effluent Disposal Area**  
Area 4 is approximately 200 acres of natural high desert located directly south of Area 3 and east of SR 89A.
- 2.1.17 Injection Wells #1 and #2**

Injection Well #1 was previously constructed and tested under Temporary APP #511189. Injection Well #2 was installed and tested with groundwater so an APP for testing was not required. The facility will be equipping Injection Wells #1 and #2 along with a new supply pump station and supporting facilities. These two injection wells are capable of recharging approximately 596,160 gpd.

**2.1.17 Future Injection Wells #3 through #6**

Injection Wells #3 through #6 will be constructed in the future as needed to provide additional disposal capacity. Upon installation of all six injection wells, the facility will be able to recharge up to 1.79 mgd or about 2,006 acre feet per year. The permittee is required to submit injection well construction logs and as-built for each well as per Section 3.0, Compliance Schedule.

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

The annual registration fee for this permit is payable to ADEQ each year. The permitted flow for fee calculation is 2,000,000 gallons per day (gpd). If the facility is not constructed or is incapable of discharge, the permittee may be eligible for reduced fees under the rule. Send all correspondence requesting reduced fees to the Groundwater Section. Please reference the permit number, LTF number, and the reason for requesting reduced fees 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 \$2,868,373. 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 is 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 modifications to upgrade the UV system and to reconfigure the existing wetlands at City of Sedona WWRP is designed as per the design report signed and sealed by Anh Quach, P.E. (Civil #51350), and dated July 26, 2011.

The amendment to replace the aeration basin blowers, to add one new secondary clarifier for redundancy, to add aerobic digester for redundancy is designed as per design report prepared and stamped, dated, and signed (sealed) by Brad D. Jeppson, P.E. of Carollo Engineers, Inc., dated January 31, 2014.

Injection wells were designed as per the design report prepared, signed and dated (sealed) by Steven J Skotnicki, PhD, RG, of HydroSystems, Inc., dated January 31, 2013. The design memorandum for injection wells pump station and injection well operations and infrastructure evaluation is stamped, dated, and signed (sealed) by Brad D. Jeppson, P.E. of Carollo Engineers, Inc., dated November, 2014.

**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 a new secondary clarifier (for redundancy), new aeration blowers, a new aerobic sludge digester (for redundancy) and its blower facility, the proposed injection well pump station and the proposed spray irrigation system in Area 2B, 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 Section.

Prior to initiating the discharge through the injection wells #3, #4, #5 and #6, the permittee shall submit well construction log per Section 3.0, Compliance Schedule Item #6.

#### **2.2.4 Operational Requirements**

1. The permittee shall maintain a copy of the up-to-date operations and maintenance manual at the treatment facility site at all times; the manual shall be available upon request during inspections by ADEQ personnel.
2. The pollution control structures shall be inspected for the items listed in Section 4.2, Table III - Facility Inspection (Operational Monitoring).
3. If any damage of the pollution control structures 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 Section 2.7.3.
4. If the effluent from Riparian Basin No.1 is used in an emergency, such as a forest fire, the permittee shall notify the Water Quality compliance Section of this use within 24 hours at 800-234-5677, ext. 771-4999.
5. Operation of Injection Wells #1 and #2 may continue during the evaluation of POC well #1 and/or installation of POC #4 per Sections 2.4 and 2.7.4.5.

#### **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).

#### **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 annual flow of 2.0 mgd.
2. The permittee shall notify all users that the materials authorized to be disposed of through the treatment facility are typical household sewage and pre-treated commercial wastewater and shall not include motor oil, gasoline, paints, varnishes, hazardous wastes, solvents, pesticides, fertilizers or other materials not generally associated with toilet flushing, food preparation, laundry facilities and personal hygiene.
3. The permittee shall operate and maintain all permitted facilities to prevent unauthorized discharges pursuant to A.R.S. § 49-201(12) resulting from failure or bypassing of applicable BADCT.
4. Specific discharge limitations are listed in Section 4.2, Tables IA and IB.

#### **2.3.1 Discharge Limitations for Reservoirs, Riparian Basins, Wetland Basins, Rapid Infiltration Basins, and Effluent Application Areas**

1. The permittee shall operate and maintain the reservoir, and the effluent disposal areas (Areas 1 – 4) to the maximum extent practicable to prevent liner failure (where applicable), uncontrollable leakage, day-lighting from the riparian basins, overtopping, berm breaches, accidental spills, or other unauthorized discharges.
2. The permittee shall maintain a minimum of three feet of freeboard from the top of the berm in Riparian Basin Nos. 1 and 2 and in Reservoir No. 3 at all times during operation.
3. The permittee shall comply with the notification requirement specified in Section 2.2.4 whenever effluent from Riparian Basin No. 1 is used for emergency purposes, such as fire suppression for forest fires.
4. The permittee shall comply with the monitoring requirements specified in Section 2.5 (Monitoring Requirements) and Section 4.2, Table III (Facility Inspections).

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

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

<b>POC #</b>	<b>Permittee Identifier</b>	<b>POC Location</b>	<b>Latitude</b>	<b>Longitude</b>
1	POC #1 (MW-4A)	Hazardous and non-hazardous groundwater monitor well in Area 4 ADWR Well Registration#55-587580	34° 48' 53" N	111° 54' 03" W
2	POC #2 (Conceptual Well)	Theoretical Hazardous and non-hazardous POC location in Area 2	34° 49' 55" N	111° 53' 33.9" W
3	POC #3	Located down-gradient of wetland basins ADWR Well Registration #55-913884	34° 49' 33" N	111° 53' 58" W
4	POC #4	To be determined (TBD)	TBD	TBD

Groundwater monitoring is required at the point of compliance (POC) monitor wells identified as POC #1 (MW-4A), and at POC #3 according to Section 4.2, Tables IIA and IIB. The theoretical hazardous and non-hazardous point of compliance (POC #2) is located just southwest of an on-site potable well. Groundwater monitoring is not required at POC #2 at the time of permit issuance. However, depending on groundwater quality monitoring from the nearby potable well (GMP-1) and the groundwater quality monitoring at POC #1, a monitor well at POC #2 may be required in the future pursuant to the contingency requirements in the permit. A POC well #4 will be installed if required by Compliance Schedule Item #8.

**2.4.1 Other Monitoring Well**

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

<b>Well #</b>	<b>Permittee Identifier</b>	<b>Well Location</b>	<b>Latitude</b>	<b>Longitude</b>
4	GMP-1	On-site potable water well in Area 2 (up-gradient well) ADWR Well Registration #55-910254	34° 49' 55.7" N	111° 53' 32.1" W

Groundwater monitoring is required at the on-site potable well identified as GMP-1 according to Section 4.2, Table IIC. This potable well, GMP-1, exists in Area 2 just northeast of the administrative building. This well is used to supply potable water to meet the needs for the plant employees and is not used off site. It is located in the deeper regional aquifer.

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

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

### **2.5.1 Pre-Operational Monitoring**

Not required at time of issuance.

### **2.5.2 Discharge Monitoring**

The permittee shall monitor the wastewater according to Section 4.2, Tables IA and IB as applicable. A representative sample of the wastewater shall be collected at the point of discharge downstream of UV

Disinfection Channel.

### **2.5.3 Reclaimed Water Monitoring**

The permittee shall monitor the parameters listed under Table IB in addition to the routine discharge monitoring parameters listed in Table IA. Representative samples of the reclaimed water shall be collected at the point of discharge downstream of UV Disinfection Channel.

### **2.5.4 Groundwater Monitoring and Sampling Protocols**

The permittee shall monitor the groundwater at POC #1(MW-4A), POC #3, POC #4 according to Section 4.2, Table IIA, IIB and IIE. Groundwater Monitoring will also be conducted at a potable water well-GMP-1 according to Section 4.2, Table IIC.

Static water levels shall be measured and recorded prior to sampling. Wells shall be purged of at least three borehole volumes (as calculated using the static water level) or until field parameters (pH, temperature, 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 one or more of the designated POC wells should become unusable or inaccessible due to damage, exceedance of an alert level (AL) for water level as required by Section 2.6.2.3.4(3), or any other event, a replacement POC well shall be constructed and installed upon approval by ADEQ. If the replacement well is fifty feet or less from the original well, the ALs

and/or aquifer quality limits (AQLs) calculated for the designated POC well shall apply to the replacement well.

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

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

### **2.5.6 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 the Groundwater Section in case of a violation or exceedance as per Section 2.7.3.

### **2.5.7 Analytical Methodology**

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

Arizona Department of Health Services  
Office of Laboratory Licensure and Certification  
250 North 17<sup>th</sup> 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 Section for approval prior to installation and the permit shall be amended to include any new monitoring points.

## **2.6 Contingency Plan Requirements**

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

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

Some contingency actions involve verification sampling. Verification sampling shall consist of the first follow-up sample collected from a location that previously indicated a violation or the exceedance of an AL. Collection and analysis of the verification sample shall use the same protocols and test methods to analyze for the pollutant or pollutants that exceeded an AL or violated an AQL or DL. The permittee is subject to enforcement action for the failure to comply with any contingency actions in this permit.

Where verification sampling is specified in this permit, it is the option of the permittee to perform such sampling. If verification sampling is not conducted within the timeframe allotted, ADEQ and the permittee shall presume the initial sampling result to be confirmed as if verification sampling had been conducted. The permittee is responsible for compliance with contingency plans relating to the exceedance of an AL or violation of a DL, AQL or any other permit condition.

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

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

1. For freeboard operational performance levels, the permittee shall comply with the 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.
2. If an operational performance level (PL) for freeboard set in Section 4.2, Table III has been exceeded the permittee shall:
  - a. Immediately cease or reduce discharging to the reservoir to prevent overtopping. Remove and properly dispose of the excess wastewater in the reservoir until the water level is restored at or below three feet.
  - b. Within 5 days of discovery, evaluate the cause of the incident and adjust operational conditions as necessary to avoid future occurrences.
  - c. Record in the facility log, the amount of wastewater removed a description of the removal method, and the disposal arrangements. The facility log shall be maintained according to Section 2.7.2 (Operational Inspection / Log Book Recordkeeping) and 2.5.6, Facility/Operational Monitoring. Records documenting each freeboard incident and actions taken to correct the problem shall be included in the Quarterly Report as required in Section 2.7.1 (Self-Monitoring Report Forms).
3. If an operational PL set in Section 4.2, Table III (RIB Monitoring, – Piezometer Method) has been exceeded, the permittee shall:
  - a. Immediately cease discharge to the RIB that exceeded the PL.
  - b. Notify the ADEQ Groundwater Section (see section 2.7.5) within five (5) days of becoming aware of an exceedance of any permit condition in Section 4.2, Tables III.
  - c. Submit a written report as specified in section 2.7.3 (Permit Violation and Alert Level Status) to the Groundwater Section (see section 2.7.5) within thirty (30) days after becoming aware of an exceedance of a permit condition. The report shall document all of the following:
    - i. a description of the exceedance and its cause;
    - ii. the period of exceedance, including exact date(s) and time(s), if known, and the anticipated time period during which the exceedance is expected to continue;
    - iii. any action taken or planned to mitigate the effects or the exceedance, or the spill, or to eliminate or prevent recurrence of the exceedance;
    - iv. any monitoring activity or other information which indicates that any pollutants would be reasonably expected to cause a violation of an Aquifer Water Quality Standard; and
    - v. any malfunction or failure of pollution control devices or other equipment or

process.

4. If day-lighting is observed outside of the disposal areas as described in Section 4.2, Table III (for items Riparian Basin Nos. 1 and 2, Reservoir No. 3, Effluent Disposal Areas, RIBs 1-3, Wetland Basins 1-6, Existing Wetland Basin No.7 and Existing Overflow Pond Basin) the permittee shall:
  - a. Immediately cease or reduce discharging to these areas to prevent day-lighting.
  - b. Within 5 days of discovery, evaluate the cause of the incident and adjust operational conditions as necessary to avoid future occurrences.
  - c. Within 10 days of discovery, remove and properly dispose of the excess effluent in the basin so that the pressure head is reduced enough to cease day-lighting. Record in the facility log, the amount of effluent removed a description of the removal method, and the disposal arrangements. The facility log shall be maintained according to Section 2.7.2 (Operation Inspection / Log Book Recordkeeping).
  - d. Within 30 days of discovery, submit a plan to ADEQ's Groundwater Section to evaluate the cause of the unauthorized discharge, identify the circumstances that resulted in the incident, and prevent future occurrences by proposing a plan to install a liner for the basin(s) and repairing any systems necessary, discontinue use, or other corrective method. Implement corrective actions and adjust operational conditions as necessary to resolve the problems identified in the evaluation.
  - e. Within 180 days of discovery, submit a report to ADEQ's Groundwater Section as specified in Section 2.7.3 (Permit Violation and AL Status Reporting). Include a description of the actions performed in (a) through (d) listed above. This report shall also include, for ADEQ's Groundwater Section's review and approval, design drawings to line the basin(s) with a geosynthetic liner, if necessary. These design drawings shall be certified by a professional engineer registered in the State of Arizona. Upon review of the report, ADEQ may request additional monitoring or remedial actions. The permittee shall not resume normal discharging flows to the affected basin until the permittee receives written approval from ADEQ.
5. The facility is no longer on alert status once the operational indicator no longer indicates that the 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 IA 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 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**

If the AL for average monthly flow in Section 4.2, Table IA has been exceeded, the permittee shall submit an application to the Groundwater Section for an APP amendment to expand the treatment facility, or submit a report detailing the reasons an expansion is not necessary. Acceptance of the report instead of an application for expansion requires ADEQ approval.

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

**2.6.2.3.1 Alert Levels for Indicator Parameters**

No ALs have been established for indicator parameters.

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

1. In the case of an exceedance of an AL for a pollutant set in Section 4.2, Tables IIA, IIB, IIC and IIE, 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 II as follows:

Specified Monitoring Frequency (Section 4.2, Tables IIA, IIB IIC and IIE)	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 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. If the demonstration in item #3 above is not approved, the permittee shall initiate the installation of a point of compliance monitor well at POC #2 in order to protect the on-site potable water well by completing the following actions:
  - a. Within 90 days after confirmation of an AL being exceeded, submit to the Groundwater Section a Proposed POC Monitor Well Design Report in accordance with Section 2.7.4.1 for approval.
  - b. Within 120 days after approval of the Proposed POC Monitor Well Design Report, install the POC Monitor Well.
  - c. Within 2 weeks prior to start of well installation, notify ADEQ's Groundwater Section of start of well installation.
  - d. Within 30 days of well installation, submit a POC Monitor Well Installation Report to the Groundwater Section according to Section 2.7.4.2.
  - e. Within 30 days of well installation, initiate monthly ambient groundwater monitoring using the parameters in Section 4.2, Table IIA. Collect at least eight consecutive monthly samples to determine ambient water quality for the new monitor well.
7. The increased monitoring required as a result of an AL exceedance may be reduced to the monitoring frequency in Section 4.2, Table IIA, IIB and IIC if the results of four sequential sampling events demonstrate that no parameters exceed the AL.
8. If the increased monitoring required as a result of an AL exceedance continues for more than six sequential sampling events, the permittee shall submit a second report documenting an investigation of the continued AL exceedance within 30 days of the receipt of laboratory results of the sixth sampling event.

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

Not required at time of issuance.

**2.6.2.3.4 Alert Level for Groundwater Level**

1. If monitoring indicates the groundwater level is not within the allowable range established by the Alert Level (AL) in Section 4.2, Table IIA, IIB and IIE, the permittee shall submit a written report within 30 days after becoming aware of the exceedance. The report shall document the following:

- a. the as-built configuration of the well including the screened interval;
  - b. all groundwater level measurements available for the well;
  - c. a discussion and analysis of any trends or seasonal variations in the groundwater level measurements;
  - d. information on groundwater recharge, withdrawal, or other hydrologic conditions in the vicinity of the well, and;
  - e. any other pertinent information obtained by the permittee.
2. If monitoring indicates the groundwater level is not within the allowable range established by the Alert Level (AL) in Section 4.2, Table IIA, IIB and IIE for more than six sequential sampling events, the permittee shall submit a second report which evaluates the cause(s) of the exceedance and recommends whether the well should be replaced pursuant to Section 2.5.4.1. 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 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, as necessary to identify the cause of the violation.

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

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

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

1. If an AQL set in Section 4.2, Tables IIA, IIB and IIE have 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, Tables IIA, IIB and IIE)	Monitoring Frequency for AQL Exceedance
Daily	Daily
Weekly	Daily
Monthly	Weekly
Quarterly	Monthly
Semi-annually	Quarterly
Annually	Quarterly

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

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

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

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

**2.6.5.1 Duty to Respond**

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

**2.6.5.2 Discharge of Hazardous Substances or Toxic Pollutants**

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

**2.6.5.3 Discharge of Non-hazardous Materials**

In the event of any unauthorized discharge pursuant to A.R.S. § 49-201(12) of non-hazardous materials from the facility, the permittee shall promptly attempt to cease the discharge and isolate

the discharged material. Discharged material shall be removed and the site cleaned up as soon as possible. The permittee shall notify the Groundwater Section within 24 hours of discovering the discharge of non-hazardous material which has the potential to cause an AQL exceedance, or could pose an endangerment to public health or the environment.

#### **2.6.5.4 Reporting Requirements**

The permittee shall submit a written report for any unauthorized discharges reported under Sections 2.6.5.2 and 2.6.5.3 to the Groundwater 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 the notice. Upon review of the submitted report, ADEQ may require additional monitoring or corrective actions.

#### **2.6.6 Corrective Actions**

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

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

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

Within 30 days of completion of any corrective action, the operator shall submit to the Groundwater 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 Self-Monitoring Report Form (SMRF) provided by ADEQ, and submit the completed report to the 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 SMRF and submit the report to ADEQ. The permittee shall use the format devised by ADEQ.
3. The tables contained in Section 4.0 list the monitoring parameters and the frequencies for reporting results on the SMRF:
  - Table IA, Discharge Monitoring
  - Table IB, Reclaimed Water Monitoring
  - Table IIA, Groundwater Quality Monitoring at POC #1
  - Table IIB, Groundwater Quality Monitoring at POC #3
  - Table IIC, Groundwater Quality Monitoring for Potable Water Well (GMP-1)
  - Table IIE, Groundwater Quality Monitoring at POC #4

The parameters listed in the above-identified tables from Section 4.0 are the only parameters for which SMRF reporting is required.

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.

### **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.

Monitoring records for each measurement shall comply with A.A.C. R18-9-A206(B)(2).

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

1. The permittee shall notify the Groundwater Section in writing (by mail or by fax - see Section 2.7.5) within five days (except as provided in Section 2.6.5) of becoming aware of an AL exceedance, or violation of any permit condition, AQL, or DL.
2. The permittee shall submit a written report to the Groundwater Section within 30 days of becoming aware of the violation of any permit condition, AQL, or DL. The report shall document all of the following:
  - a. Identification and description of the permit condition for which there has been a violation and a description of the cause;
  - b. The period of violation including exact date(s) and time(s), if known, and the anticipated time period during which the violation is expected to continue;
  - c. Any corrective action taken or planned to mitigate the effects of the violation, or to eliminate or prevent a recurrence of the violation;
  - d. Any monitoring activity or other information which indicates that any pollutants would be reasonably expected to cause a violation of an AWQS;
  - e. Proposed changes to the monitoring which include changes in constituents or increased frequency of monitoring; and
  - f. Description of any malfunction or failure of pollution control devices or other equipment or processes.

### **2.7.4 Operational, Other or Miscellaneous Reporting**

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

The permittee shall submit the reclaimed water monitoring results as required in Section 4.2, Table IB 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.

#### **2.7.4.1 Proposed POC Monitor Well (POC #2) Design Report**

If a monitoring well is deemed necessary upon review of the AL data per Section 2.6.2.3.2 by ADEQ, the permittee upon receiving a written notice to install a well shall submit the following within 90 days of the notice:

- Proposed well design drawing(s).
- Description of well drilling method.
- Name/identification of the well.
- Expected water level in well.
- A map showing the location and name of the proposed well.
- Latitude and longitude coordinates of the proposed well.

The monitor well shall be installed in the regional aquifer and screened in the upper portion of the aquifer after ADEQ's approval of the well design.

#### **2.7.4.2 POC Monitor Well (POC #2) Installation Report**

A well installation report shall be submitted to ADEQ's Groundwater Section within ninety (90) days after the completion of POC well #2 installations. The well installation report shall be completed in accordance with A.A.C. R12-15-801 et seq. and consist of the following:

- Copies of ADWR Notice of Intent and all related submittals to ADWR;
- Boring log and well as-built diagram;
- Total depth of well measured after installation;
- Top of well casing or sounding tube (whichever is used as the fixed reference measuring point) and ground surface elevation;
- Depth to groundwater;
- Geophysical logging reports and subsurface sampling results, if any;
- Description of well drilling method;
- Description of well development method;
- If dedicated sampling equipment installed, details on the equipment and at what depth the equipment was installed;
- Summary of analytical results for initial groundwater sample collected after installation;
- Corresponding analytical data sheets; and
- GPS coordinates for each new well.

#### **2.7.4.3 Ambient Groundwater Monitoring Report for POC #2**

Within 1 year of completion of POC well #2 installation, (which shall include eight monthly rounds of ambient groundwater samples for the parameters listed in Section 4.2, Table IIA), the permittee shall submit an Ambient Groundwater Monitoring Report to the Groundwater Section. The Ambient Groundwater Monitoring Report shall be submitted for a new well installed that is incorporated into the monitoring program of this permit. The report shall include summary tables of all groundwater quality data collected during the ambient groundwater monitoring period.

The Ambient Groundwater Monitoring Report shall be accompanied with an APP amendment application. Ambient Groundwater Monitoring Report shall include the following:

- depth to groundwater measurements,
- groundwater elevation measurements,
- groundwater flow calculations,
- groundwater contour maps,
- certified laboratory reports,

- field data sheets and an assessment of groundwater flow

#### **2.7.4.4 Injection Well Installation Report(s)**

An injection well installation report shall be submitted to ADEQ within ninety (90) days after the installation and completion of Injection Well # 3 to #6 per the Compliance Schedule Item #6 in Section 3.0. Each well installation report shall be completed in accordance with A.A.C. R12-15-801 et seq. and consist of the following:

- Copies of Arizona Dept. of Water Resources (ADWR) Notice of Intent and all related submittals to ADWR;
- Boring log and well as-built diagram;
- Total depth of well measured after installation;
- Top of well casing or sounding tube (whichever is used as the fixed reference measuring point) and ground surface elevation;
- Depth to groundwater;
- Geophysical logging reports and subsurface sampling results, if any;
- Description of well drilling method;
- Description of well development method;
- If dedicated sampling equipment installed, details on the equipment and at what depth the equipment was installed;
- Summary of analytical results for initial groundwater sample collected after installation;
- Corresponding analytical data sheets; and
- GPS coordinates for each new well.

#### **2.7.4.5 Evaluation Report for POC well #1**

Evaluate the construction of POC #1 to determine if it meets the following purposes:

- The well is screened across the water table to adequately monitor potential impacts to the water table by land disposal
- The well is additionally screened in the same portion of the aquifer as the deep injection wells

Operation of Injection Wells #1 and #2 may continue during the evaluation of POC well #1 and/or installation of POC #4 per Sections 2.2.4 and 2.4.

The permittee shall submit an evaluation report per Section 3.0, Compliance Schedule Item #7. The evaluation report shall consist of the following:

- Screen interval of the POC well reported
  - As depth in feet below land surface (ft bls) and
  - As elevation in feet above mean sea level (ft amsl)
- Screen interval of all six injection wells reported
  - As depths in ft bls and
  - As elevation in ft amsl
- Recent depth to groundwater in the well
- Hydrograph of POC #1 showing depth to water trends
- Evaluation on appropriateness of current well
- Proposed course of action – the existing POC #1 is appropriate or POC #1 to be replaced or reconstructed or an additional POC #4 well needs to be reconstructed.

#### **2.7.4.6 Well Installation Report for POC #4**

A well installation report shall be submitted to ADEQ within ninety (90) days after the completion of new well installations in accordance with the Compliance Schedule Item # 9 in Section 3.0. The well installation report shall be completed in accordance with A.A.C. R12-15-801 et seq. and consist of the following

- Copies of ADWR Notice of Intent and all related submittals to ADWR;

- Boring log and well as-built diagram;
- Total depth of well measured after installation;
- Top of well casing or sounding tube (whichever is used as the fixed reference measuring point) and ground surface elevation;
- Depth to groundwater;
- Geophysical logging reports and subsurface sampling results, if any;
- Description of well drilling method;
- Description of well development method;
- If dedicated sampling equipment installed, details on the equipment and at what depth the equipment was installed;
- Summary of analytical results for initial groundwater sample collected after installation;
- Corresponding analytical data sheets; and
- GPS coordinates for each new well.

#### **2.7.4.7 Ambient Groundwater Monitoring Report for POC #4**

The permittee shall submit a report of the ambient groundwater monitoring as required in accordance with the Section 3.0, Compliance Schedule Item #11. The Ambient Groundwater Monitoring Report shall be submitted for a new well installed that is incorporated into the monitoring program of this permit. The report shall include summary tables of all groundwater quality data collected during the ambient groundwater monitoring period.

Ambient Groundwater Monitoring Report shall include the following:

- depth to groundwater measurements,
- groundwater elevation measurements,
- groundwater flow calculations,
- groundwater contour maps,
- certified laboratory reports,
- field data sheets and an assessment of groundwater flow

#### **2.7.5 Reporting Location**

All SMRFs shall be submitted to:

Arizona Department of Environmental Quality  
Groundwater Section  
Mail Code 5415B-3  
1110 West Washington Street  
Phoenix, Arizona 85007  
Phone (602) 771-4571

Or

Through the myDEQ portal accessible on the ADEQ website at:  
<http://www.azdeq.gov/welcome-mydeq>

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

Arizona Department of Environmental Quality  
Groundwater Section  
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:

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

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

The permittee shall give written notice to the Groundwater 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 the Groundwater Section with a monthly facility status report describing the activities conducted on the treatment facility to correct the problem.
4. Submittal of Self-Monitoring Report Forms (SMRFs) is still required; report “temporary cessation” in the comment section.

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

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

For a facility addressed under this permit, the permittee shall give written notice of closure to the Groundwater Section 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 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 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 the AWQS at the applicable POC;
3. Continued action is required to verify that the closure design has eliminated discharge to the extent intended;
4. Remediation or mitigation measures are necessary to achieve compliance with Title 49, Ch. 2; and
5. Further action is necessary to meet property use restrictions.

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

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

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

### **2.10.1 Post-Closure Plan**

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

### **2.10.2 Post-Closure Completion**

Not required at the time of permit issuance.

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

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

No.	Description	Due by:	Permit Amendment Required?
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 a new clarifier is constructed according to the Department-approved design report or plans and specifications, as applicable.	Prior to utilizing a new clarifier and within 90 days of completion of construction.	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 new aeration blowers are constructed according to the Department-approved design report or plans and specifications, as applicable.	Prior to utilizing a new aeration blowers 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 a new aerobic digester and its blower facility are constructed according to the Department-approved design report or plans and specifications, as applicable.	Prior to utilizing a new aerobic digester and its blower facility 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 injection well pump station is constructed according to the Department-approved design report or plans and specifications, as applicable.	Prior to utilizing a pump station for injection well and within 90 days of completion of construction.	No
5	The permittee shall submit a signed, dated, and sealed Engineer's Certificate of Completion in a format approved by the Department that confirms that the berms around Area 2B and spray irrigation system are constructed according to the Department-approved design report or plans and specifications, as applicable.	Prior to discharge to Area 2B and within 90 days of completion of construction of berms and spray irrigation system.	No
6	The permittee shall submit installation report for Injection Well #3 to #6 per Section 2.7.4.4.	Within 90 days of installation of each well	No
7	The permittee shall evaluate the POC #1 and submit an evaluation report per Section 2.7.4.5.	Within 90 days of permit issuance	No
8	If an evaluation of POC #1 determines that a new well, POC #4 is required, the permittee shall install a new POC well #4.	Within 180 days of submittal of an evaluation report	No
9	The permittee shall submit a well installation report for the new POC #4 per Section 2.7.4.6.	Within 90 days of installation of a new well #4	No
10	The permittee shall initiate eight rounds of ambient groundwater monitoring events for the new POC well #4 per Section 4.2, Table IID.	Within 30 days of installation of a new POC well #4	No

<b>No.</b>	<b>Description</b>	<b>Due by:</b>	<b>Permit Amendment Required?</b>
11	The permittee shall submit an APP amendment application along with Ambient Groundwater Monitoring Report to establish ALs and AQLs for a new POC well #4. The Ambient Groundwater Monitoring Report shall include information described in Section 2.7.4.7.	Within 60 days of completion of ambient groundwater monitoring under Section 4.2, Table IID.	Yes
12	The permittee shall begin routine groundwater sampling for POC well #4 under Section 4.2, Table IIE.	The first routine groundwater sample shall be collected within 30 days after the eighth ambient groundwater sample.	No
13	The permittee shall submit as-built drawings for sludge drying bed nos. 1-4. In addition, the permittee shall submit an operation plan for sludge drying bed nos. 1-4 which addresses typical operation including freeboard, methods to prevent overtopping during rain events and contingency actions to prevent overtopping.	Within 90 days of permit issuance	No

**4.0 TABLES OF MONITORING REQUIREMENTS**

**4.1 PRE-OPERATIONAL MONITORING (OR CONSTRUCTION REQUIREMENTS)**

Not applicable at permit issuance.

**4.2 COMPLIANCE (or OPERATIONAL) MONITORING**

**TABLE IA  
ROUTINE DISCHARGE MONITORING**

Sampling Point Number	Sampling Point Identification		Latitude		Longitude
	1	Flow meter located downstream of UV disinfection channel		34° 49' 52" N	
Parameter	AL <sup>1</sup>	DL <sup>2</sup>	Units	Sampling Frequency	Reporting Frequency
Total Flow <sup>3</sup> : Daily <sup>4</sup>	Not Established <sup>5</sup>	Not Established	mgd <sup>6</sup>	Daily	Quarterly
Total Flow: Monthly Average <sup>7</sup>	1.9	2.0	mgd	Monthly Calculation	Quarterly
Reuse Flow: Daily	Not Established	Not Established	mgd	Daily	Quarterly
Reuse Flow: Monthly Average	1.9	2.0	mgd	Monthly Calculation	Quarterly
Disposal Areas 1 through 4 Flow: Daily	Not Established	Not Established	mgd	Daily	Quarterly
Disposal Areas 1 through 4 Flow: Monthly Average	1.9	2.0	mgd	Monthly Calculation	Quarterly
Injection Wells Recharge Flow: Daily	Not Established	Not Established	mgd	Daily	Quarterly
Injection Wells Recharge Flow : Monthly Average	1.7	1.79	mgd	Monthly Calculation	Quarterly

<sup>1</sup>AL = Alert Level

<sup>2</sup>DL = Discharge Limit

<sup>3</sup>Total flow for all methods of disposal (Reuse, Recharge and Land Disposal)

<sup>4</sup>Flow shall be measured using a continuous recording flow meter which totals the flow daily.

<sup>5</sup>Not Established means monitoring is required but no limits are specified.

<sup>6</sup>mgd = million gallons per day

<sup>7</sup>Monthly = Calculated value = Average of daily flow values in a month.

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

Sampling Point Number	Sampling Point Identification		Latitude		Longitude
2	Downstream of UV disinfection channel		34° 49' 41" N		111° 53' 46" W
Parameter	AL <sup>8</sup>	DL <sup>9</sup>	Units	Sampling Frequency	Reporting Frequency
Fecal Coliform: Single Sample Maximum	Not established	23	CFU <sup>10</sup>	Daily <sup>11</sup>	Quarterly
Fecal Coliform: four (4) of seven (7) samples	Not established	Non-detect <sup>12</sup>	CFU	Weekly Evaluation	Quarterly
Total Nitrogen <sup>13</sup> : Five-sample rolling geometric mean <sup>14</sup>	8.0	10.0	mg/l <sup>15</sup>	Monthly Calculation	Quarterly

<sup>8</sup> AL = Alert Level

<sup>9</sup> DL = Discharge Limit

<sup>10</sup> CFU = Colony Forming Units / 100 ml sample. For CFU, a value of <1.0 shall be considered to be non-detect.

<sup>11</sup> For fecal coliform **only**, “daily” sampling means every day in which a sample can practicably be obtained and delivered in sufficient time for proper analysis, provided that no less than four (4) samples in each week are obtained and analyzed.

<sup>12</sup> Fecal coliform four (4) of seven (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 (7) days, four (4) or more of the daily fecal coliform results are non-detect, report “Compliance” for that week’s entry on the SMRF. If three (3) or fewer of the daily fecal coliform results are non-detect, report “Non-compliance” for that week’s entry on the SMRF.

<sup>13</sup> Total Nitrogen = Nitrate as N + Nitrite as N + Total Kjeldahl Nitrogen

<sup>14</sup> The 5-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:  $GM_5 = \sqrt[5]{(m_1)(m_2)(m_3)(m_4)(m_5)}$*

<sup>15</sup> mg/l = milligrams per liter

**TABLE IA**  
**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

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

Parameter	AL	DL	Units	Sampling Frequency	Reporting Frequency
<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
Trihalomethanes (total) <sup>16</sup>	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

<sup>16</sup> Total Trihalomethanes (TTHMs) are comprised of Bromoform, Bromodichloromethane, Chloroform, and Dibromochloromethane.

**TABLE IB**  
**RECLAIMED WATER MONITORING TABLE - CLASS A+<sup>17</sup>**

Sampling Point Number	Sampling Point Identification		Latitude	Longitude
2	Downstream of UV disinfection channel		34° 49' 41" N	111° 53' 46" W
Parameter	DL <sup>18</sup>	Units	Sampling Frequency	Reporting Frequency
Fecal Coliform: Single-sample maximum	23.0	CFU <sup>19</sup>	Daily <sup>20</sup>	Quarterly
Fecal Coliform: Four (4) of last seven (7) samples	Non-detect <sup>21</sup>	CFU	Daily Evaluation	Quarterly
Total Nitrogen <sup>22</sup> : Five-sample rolling geometric mean <sup>23</sup>	10.0	mg/l <sup>24</sup>	Monthly Calculation	Quarterly
Turbidity <sup>25</sup> : Single reading	5.0	NTU <sup>26</sup>	Daily <sup>27</sup>	Quarterly
Turbidity: 24-hour average	2.0	NTU	Daily Calculation	Quarterly

<sup>17</sup> Reclaimed water monitoring under Table 1B shall be performed in addition to routine discharge monitoring required under Section 4.2, Table IA.

<sup>18</sup> DL = discharge limit

<sup>19</sup> CFU = Colony Forming Units per 100 ml. For CFU, a value of <1.0 shall be considered to be non-detect.

<sup>20</sup> For fecal coliform **only**, “daily” sampling means every day in which a sample can practicably be obtained and delivered in sufficient time for proper analysis, provided that no less than four (4) samples in each seven-day period are obtained and analyzed.

<sup>21</sup> Fecal coliform four (4) of the last seven (7) samples requires entering “Compliance” or “Non-compliance” on the SMRF for each day of the reporting period. Evaluate the daily fecal coliform result for that date along with the results from the six (6) previous days. If, of these seven (7) days, four (4) or more of the results are non-detect, report “Compliance” for that date’s entry on the SMRF. If three (3) or fewer of the results are non-detect, report “Non-compliance” for that date’s entry on the SMRF. For days when there is no flow of reclaimed water (as monitored under Table IA), the daily fecal coliform result is considered “Compliance” for the purpose of evaluating the seven (7) sample results of daily data for the SMRF entry.

<sup>22</sup> Nitrate N, plus Nitrite N, plus Total Kjeldahl Nitrogen (TKN)

<sup>23</sup> The 5-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:  $GM_5 = \sqrt[5]{(m_1)(m_2)(m_3)(m_4)(m_5)}$*

<sup>24</sup> mg/l = milligrams per liter

<sup>25</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>26</sup> NTU = Nephelometric Turbidity Units

<sup>27</sup> For the single turbidity reading, “daily” means the maximum reading during the 24-hour period.

**TABLE IIA**  
**GROUNDWATER MONITORING – POC #1**

Sampling Point Number	Sampling Point Identification			Latitude	Longitude
3	POC # 1 well Hazardous and non-hazardous groundwater monitor well (MW-4A)			34° 48' 53" N	111° 54' 03" W
Parameter	AL <sup>28</sup>	AQL <sup>29</sup>	Units	Sampling Frequency	Reporting Frequency
Total Nitrogen <sup>30</sup> :	8.0	10.0	mg/l <sup>31</sup>	Monthly Calculation	Quarterly
Nitrate-Nitrite as N	8.0	10.0	mg/l	Monthly Calculation	Quarterly
Nitrate as N	8.0	10.0	mg/l	Monthly	Quarterly
Nitrite as N	0.8	1.0	mg/l	Monthly	Quarterly
Total Kjeldahl Nitrogen (TKN)	Not Established <sup>32</sup>	Not Established	mg/l	Monthly	Quarterly
Total Coliform at POC #1	Absence	Absence	P/A <sup>33</sup>	Monthly	Quarterly
Depth to water	Reserved <sup>34</sup>	Not Established	ft. bgs <sup>35</sup>	Monthly	Quarterly
Total Dissolved Solids (TDS)	Monitor <sup>36</sup>	Monitor	mg/l	Monthly	Quarterly
<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

<sup>28</sup> AL = Alert Level

<sup>29</sup> AQL = Aquifer Quality Limit

<sup>30</sup> Total Nitrogen is equal to Nitrate as N plus Nitrite as N plus TKN.

<sup>31</sup> mg/l = milligrams per liter

<sup>32</sup> Not Established means monitoring is required, but no limits are specified.

<sup>33</sup> P/A = Presence or absence of total coliforms in a 100-milliliter sample. If total coliforms are present, enter “Non-compliance on the SMRF. If total coliforms are absent, enter “Compliance” on the SMRF.

<sup>34</sup> Reserved – Monitoring is required, the limits will be set upon submittal of evaluation report per Section 3.0, Compliance Schedule Item #7

<sup>35</sup> ft. bgs – feet below ground surface

<sup>36</sup> Monitor = monitoring required, but no limits have been set at this time.

**TABLE IIA**  
**GROUNDWATER MONITORING – POC #1 (continued)**

<b>Parameter</b>	<b>AL</b>	<b>AQL</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	Annually	Annually
Carbon tetrachloride	0.004	0.005	mg/l	Annually	Annually
o-Dichlorobenzene	0.48	0.6	mg/l	Annually	Annually
para-Dichlorobenzene	0.06	0.075	mg/l	Annually	Annually
1,2-Dichloroethane	0.004	0.005	mg/l	Annually	Annually
1,1-Dichloroethylene	0.0056	0.007	mg/l	Annually	Annually
cis-1,2-Dichloroethylene	0.056	0.07	mg/l	Annually	Annually
trans-1,2-Dichloroethylene	0.08	0.1	mg/l	Annually	Annually
Dichloromethane	0.004	0.005	mg/l	Annually	Annually
1,2-Dichloropropane	0.004	0.005	mg/l	Annually	Annually
Ethylbenzene	0.56	0.7	mg/l	Annually	Annually
Hexachlorobenzene	0.0008	0.001	mg/l	Annually	Annually
Hexachlorocyclopentadiene	0.04	0.05	mg/l	Annually	Annually
Monochlorobenzene	0.08	0.1	mg/l	Annually	Annually
Styrene	0.08	0.1	mg/l	Annually	Annually
Tetrachloroethylene	0.004	0.005	mg/l	Annually	Annually
Toluene	0.8	1.0	mg/l	Annually	Annually
Trihalomethanes (total) <sup>37</sup>	0.08	0.1	mg/l	Annually	Annually
1,1,1-Trichloroethane	0.16	0.2	mg/l	Annually	Annually
1,2,4 - Trichlorobenzene	0.056	0.07	mg/l	Annually	Annually
1,1,2 - Trichloroethane	0.004	0.005	mg/l	Annually	Annually
Trichloroethylene	0.004	0.005	mg/l	Annually	Annually
Vinyl Chloride	0.0016	0.002	mg/l	Annually	Annually
Xylenes (Total)	8.0	10.0	mg/l	Annually	Annually

<sup>37</sup>Total Trihalomethanes are comprised of Bromoform, Bromodichloromethane, Chloroform, and Dibromochloromethane.

**TABLE IIB**  
**GROUNDWATER MONITORING – POC #3**

Sampling Point Number	Sampling Point Identification			Latitude	Longitude
4	POC # 3 well is located down gradient of wetland Basins			34° 49' 33" N	111° 53' 58" W
Parameter	AL <sup>38</sup>	AQL <sup>39</sup>	Units	Sampling Frequency	Reporting Frequency
Total Nitrogen <sup>40</sup> :	8.0	10.0	mg/l <sup>41</sup>	Monthly Calculation	Quarterly
Nitrate-Nitrite as N	8.0	10.0	mg/l	Monthly Calculation	Quarterly
Nitrate as N	8.0	10.0	mg/l	Monthly	Quarterly
Nitrite as N	0.8	1.0	mg/l	Monthly	Quarterly
Total Kjeldahl Nitrogen (TKN)	Not Established <sup>42</sup>	Not Established	mg/l	Monthly	Quarterly
Fecal Coliform at POC #3	Non-detect <sup>43</sup>	Not Established	CFU <sup>44</sup>	Monthly	Quarterly
Total Coliform at POC #3	Absence	Absence	P/A <sup>45</sup>	Monthly	Quarterly
Depth to Water (upper Limit)	15	Not Established	ft. bgs <sup>46</sup>	Monthly	Quarterly
Depth to Water (Lower Limit)	50	Not Established	ft. bgs	Monthly	Quarterly

<sup>38</sup>AL = Alert Level

<sup>39</sup>AQL = Aquifer Quality Limit

<sup>40</sup>Total Nitrogen is equal to Nitrate as N plus Nitrite as N plus TKN.

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

<sup>42</sup>Not Established means monitoring is required, but no limits are specified.

<sup>43</sup>For CFU, a value of <1.0 shall be considered to be non-detect.

<sup>44</sup>CFU = Colony Forming Units / 100ml sample.

<sup>45</sup>P/A = Presence or absence of total coliforms in a 100-milliliter sample. If total coliforms are present, enter "Non-compliance on the SMRF. If total coliforms are absent, enter "Compliance" on the SMRF.

<sup>46</sup>ft. bgs – feet below ground surface

**TABLE IIB**  
**GROUNDWATER MONITORING – POC #3 (continued)**

<b>Parameter</b>	<b>AL</b>	<b>AQL</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

**TABLE IIB**  
**GROUNDWATER MONITORING – POC #3 (continued)**

Parameter	AL	AQL	Units	Sampling Frequency	Reporting Frequency
<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
Trihalomethanes (total) <sup>47</sup>	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

<sup>47</sup>Total Trihalomethanes are comprised of Bromoform, Bromodichloromethane, Chloroform, and Dibromochloromethane.

**TABLE IIC**  
**GROUNDWATER MONITORING FOR POTABLE WATER WELL GMP-1**

<b>Sampling Point Number</b>	<b>Sampling Point Identification</b>		<b>Latitude</b>	<b>Longitude</b>
5	On-site Potable Water Well in Area 2 (up-gradient well) ADWR Well No 55-910254)		34° 49' 55.7" N	111° 53' 32.1" W
<b>Parameter</b>	<b>AL<sup>48</sup></b>	<b>Units</b>	<b>Sampling Frequency</b>	<b>Reporting Frequency</b>
Total Nitrogen <sup>49</sup>	6.0	mg/l <sup>50</sup>	Quarterly	Quarterly
Nitrate - Nitrite as N	6.0	mg/l	Quarterly	Quarterly
Total Kjeldahl Nitrogen (TKN)	Monitor <sup>51</sup>	mg/l	Quarterly	Quarterly
Total Coliform (single sample)	Absence <sup>52</sup>	P/A <sup>53</sup>	Monthly	Quarterly
Depth to Water	Monitor	ft. bgs <sup>54</sup>	Monthly	Quarterly
Total Dissolved Solids (TDS)	Monitor	mg/l	Monthly	Quarterly

<sup>48</sup>AL = Alert Level. An exceedance of an AL may trigger the installation of a new point of compliance monitor well in accordance with Section 2.6.2.3.2.

<sup>49</sup>Total Nitrogen is equal to the sum of Nitrate as N, Nitrite as N, and TKN.

<sup>50</sup>mg/l = milligrams per liter

<sup>51</sup>Monitor = monitoring required, but no limits have been set at this time.

<sup>52</sup>Absence means no colony forming units (CFU) present for a 100 ml sample. If a CFU is present, a repeat 100 ml sample shall be taken within two weeks of the time the first sample results were reported. Any positive repeat sample shall constitute a violation of an Aquifer Quality Limit in this permit.

<sup>53</sup>P/A = Presence or absence of total coliforms in a 100-milliliter sample. If total coliforms are present, enter "Non-compliance on the SMRF. If total coliforms are absent, enter "Compliance" on the SMRF.

<sup>54</sup>ft. bgs – feet below ground surface

**TABLE IID<sup>55</sup>**  
**AMBIENT GROUNDWATER MONITORING**

Sampling Point Number	Sampling Point Identification	Latitude	Longitude
6	POC #4	TBD	TBD
Parameter	Units	Sampling Frequency	Reporting Frequency
Depth to Groundwater	Feet	Monthly	AGMR <sup>56</sup>
Total Nitrogen <sup>57</sup> :	mg/l	Monthly	AGMR
Nitrate-Nitrite as N	mg/l	Monthly	AGMR
Nitrate as N	mg/l	Monthly	AGMR
Nitrite as N	mg/l	Monthly	AGMR
Total Kjeldahl Nitrogen (TKN)	mg/l	Monthly	AGMR
Total Coliform	P/A <sup>58</sup>	Monthly	AGMR
<b>Metals (Total):</b>			
Antimony	mg/l	Monthly	AGMR
Arsenic	mg/l	Monthly	AGMR
Barium	mg/l	Monthly	AGMR
Beryllium	mg/l	Monthly	AGMR
Cadmium	mg/l	Monthly	AGMR
Chromium	mg/l	Monthly	AGMR
Cyanide (as free cyanide)	mg/l	Monthly	AGMR
Fluoride	mg/l	Monthly	AGMR
Lead	mg/l	Monthly	AGMR
Mercury	mg/l	Monthly	AGMR
Nickel	mg/l	Monthly	AGMR
Selenium	mg/l	Monthly	AGMR
Thallium	mg/l	Monthly	AGMR

<sup>55</sup> The permittee shall cease monitoring under this table (Table IID) and commence monitoring under Table IIE after collecting eight consecutive monthly samples of ambient groundwater, as per Section 3.0, Compliance Schedule Item #10.

<sup>56</sup>AGMR= Ambient Groundwater Monitoring Report – The report shall be submitted per Section 2.7.4.7.

<sup>57</sup>Total Nitrogen is equal to nitrate as N plus nitrite as N plus TKN.

<sup>58</sup> P/A = Presence or absence of total coliforms in a 100-milliliter sample.

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

<b>Parameter</b>	<b>Units</b>	<b>Sampling Frequency</b>	<b>Reporting Frequency</b>
Benzene	mg/l	Once	AGMR <sup>59</sup>
Carbon tetrachloride	mg/l	Once	AGMR
o-Dichlorobenzene	mg/l	Once	AGMR
para-Dichlorobenzene	mg/l	Once	AGMR
1,2-Dichloroethane	mg/l	Once	AGMR
1,1-Dichloroethylene	mg/l	Once	AGMR
cis-1,2-Dichloroethylene	mg/l	Once	AGMR
trans-1,2-Dichloroethylene	mg/l	Once	AGMR
Dichloromethane	mg/l	Once	AGMR
1,2-Dichloropropane	mg/l	Once	AGMR
Ethylbenzene	mg/l	Once	AGMR
Hexachlorobenzene	mg/l	Once	AGMR
Hexachlorocyclopentadiene	mg/l	Once	AGMR
Monochlorobenzene	mg/l	Once	AGMR
Styrene	mg/l	Once	AGMR
Tetrachloroethylene	mg/l	Once	AGMR
Toluene	mg/l	Once	AGMR
Trihalomethanes (total) <sup>60</sup>	mg/l	Once	AGMR
1,1,1-Trichloroethane	mg/l	Once	AGMR
1,2,4 - Trichlorobenzene	mg/l	Once	AGMR
1,1,2 - Trichloroethane	mg/l	Once	AGMR
Trichloroethylene	mg/l	Once	AGMR
Vinyl Chloride	mg/l	Once	AGMR
Xylenes (Total)	mg/l	Once	AGMR

<sup>59</sup>AGMR= Ambient Groundwater Monitoring Report – The report shall be submitted per Section 2.7.4.7.

<sup>60</sup>Total Trihalomethanes are comprised of Bromoform, Bromodichloromethane, Chloroform, and Dibromochloromethane.

**TABLE IIE<sup>61</sup>**  
**GROUNDWATER MONITORING – POC #4**

Sampling Point Number	Sampling Point Identification			Latitude	Longitude
6	POC # 4			TBD	TBD
Parameter	AL <sup>62</sup>	AQL <sup>63</sup>	Units	Sampling Frequency	Reporting Frequency
Total Nitrogen <sup>64</sup> :	Reserved <sup>65</sup>	Reserved	mg/l <sup>66</sup>	Monthly Calculation	Quarterly
Nitrate-Nitrite as N	Reserved	Reserved	mg/l	Monthly Calculation	Quarterly
Nitrate as N	Reserved	Reserved	mg/l	Monthly	Quarterly
Nitrite as N	Reserved	Reserved	mg/l	Monthly	Quarterly
Total Kjeldahl Nitrogen (TKN)	Not Established <sup>67</sup>	Not Established	mg/l	Monthly	Quarterly
Total Coliform	Absence	Absence	P/A <sup>68</sup>	Monthly	Quarterly
Depth to Water	Reserved	Reserved	ft. bgs <sup>69</sup>	Monthly	Quarterly
<b>Metals (total):</b>					
Antimony	Reserved	Reserved	mg/l	Quarterly	Quarterly
Arsenic	Reserved	Reserved	mg/l	Quarterly	Quarterly
Barium	Reserved	Reserved	mg/l	Quarterly	Quarterly
Beryllium	Reserved	Reserved	mg/l	Quarterly	Quarterly
Cadmium	Reserved	Reserved	mg/l	Quarterly	Quarterly
Chromium	Reserved	Reserved	mg/l	Quarterly	Quarterly
Cyanide (as free cyanide)	Reserved	Reserved	mg/l	Quarterly	Quarterly
Fluoride	Reserved	Reserved	mg/l	Quarterly	Quarterly
Lead	Reserved	Reserved	mg/l	Quarterly	Quarterly
Mercury	Reserved	Reserved	mg/l	Quarterly	Quarterly
Nickel	Reserved	Reserved	mg/l	Quarterly	Quarterly
Selenium	Reserved	Reserved	mg/l	Quarterly	Quarterly
Thallium	Reserved	Reserved	mg/l	Quarterly	Quarterly

<sup>61</sup> Groundwater monitoring is required at POC #4. The permittee shall commence monitoring under this table (Table IIE) after ceasing the ambient groundwater monitoring under Table IID per Section 3.0, Compliance Schedule #12.

<sup>62</sup>AL = Alert Level

<sup>63</sup>AQL = Aquifer Quality Limit

<sup>64</sup>Total Nitrogen is equal to Nitrate as N plus Nitrite as N plus TKN.

<sup>65</sup> Reserved – Monitoring is required, the limits will be set per Section 3.0, Compliance Schedule Item #11

<sup>66</sup>mg/l = milligrams per liter

<sup>67</sup>Not Established means monitoring is required, but no limits are specified.

<sup>68</sup>P/A = Presence or absence of total coliforms in a 100-milliliter sample. If total coliforms are present, enter “Non-compliance on the SMRF. If total coliforms are absent, enter “Compliance” on the SMRF.

<sup>69</sup>t. bgs – feet below ground surface

**TABLE IIE**  
**GROUNDWATER MONITORING – POC #4 (continued)**

Parameter	AL	AQL	Units	Sampling Frequency	Reporting Frequency
<b>Volatile and Semi-Volatile Organic Compounds (VOCs and SVOCs):</b>					
Benzene	Reserved	Reserved	mg/l	Semi-Annually	Semi-Annually
Carbon tetrachloride	Reserved	Reserved	mg/l	Semi-Annually	Semi-Annually
o-Dichlorobenzene	Reserved	Reserved	mg/l	Semi-Annually	Semi-Annually
para-Dichlorobenzene	Reserved	Reserved	mg/l	Semi-Annually	Semi-Annually
1,2-Dichloroethane	Reserved	Reserved	mg/l	Semi-Annually	Semi-Annually
1,1-Dichloroethylene	Reserved	Reserved	mg/l	Semi-Annually	Semi-Annually
cis-1,2-Dichloroethylene	Reserved	Reserved	mg/l	Semi-Annually	Semi-Annually
trans-1,2-Dichloroethylene	Reserved	Reserved	mg/l	Semi-Annually	Semi-Annually
Dichloromethane	Reserved	Reserved	mg/l	Semi-Annually	Semi-Annually
1,2-Dichloropropane	Reserved	Reserved	mg/l	Semi-Annually	Semi-Annually
Ethylbenzene	Reserved	Reserved	mg/l	Semi-Annually	Semi-Annually
Hexachlorobenzene	Reserved	Reserved	mg/l	Semi-Annually	Semi-Annually
Hexachlorocyclopentadien	Reserved	Reserved	mg/l	Semi-Annually	Semi-Annually
Monochlorobenzene	Reserved	Reserved	mg/l	Semi-Annually	Semi-Annually
Styrene	Reserved	Reserved	mg/l	Semi-Annually	Semi-Annually
Tetrachloroethylene	Reserved	Reserved	mg/l	Semi-Annually	Semi-Annually
Toluene	Reserved	Reserved	mg/l	Semi-Annually	Semi-Annually
Trihalomethanes (total) <sup>70</sup>	Reserved	Reserved	mg/l	Semi-Annually	Semi-Annually
1,1,1-Trichloroethane	Reserved	Reserved	mg/l	Semi-Annually	Semi-Annually
1,2,4 - Trichlorobenzene	Reserved	Reserved	mg/l	Semi-Annually	Semi-Annually
1,1,2 - Trichloroethane	Reserved	Reserved	mg/l	Semi-Annually	Semi-Annually
Trichloroethylene	Reserved	Reserved	mg/l	Semi-Annually	Semi-Annually
Vinyl Chloride	Reserved	Reserved	mg/l	Semi-Annually	Semi-Annually
Xylenes (Total)	Reserved	Reserved	mg/l	Semi-Annually	Semi-Annually

<sup>70</sup>Total Trihalomethanes are comprised of Bromoform, Bromodichloromethane, Chloroform, and Dibromochloromethane.

**TABLE III  
FACILITY INSPECTION (OPERATIONAL MONITORING)<sup>71</sup>**

Inspection Point Identification		Latitude	Longitude
Staff Gauge in Basin #1		34° 49' 37.7" N	111° 53' 55.4" W
Staff Gauge in Basin #2		34° 49' 42.3" N	111° 53' 53.3" W
Staff Gauge in Basin #3		34° 49' 45.3" N	111° 53' 51.8" W
Piezometer Well Down gradient of Basin #1 (A1)		34° 49' 54.6" N	111° 53' 35.7" W
Piezometer Well Down gradient of Basin #2 (A2)		34° 49' 52.2" N	111° 53' 37.5" W
Piezometer Well Down gradient of Basin #3 (A3)		34° 49' 49.7" N	111° 53' 38.7" W
Piezometer Well Down gradient of Basin #3 (B3)		34° 49' 51.5" N	111° 53' 41.7" W
Pollution Control Structure/Parameter	Performance Level	Inspection Frequency	Reporting Frequency
Riparian Basin Nos. 1 & 2 Freeboard	Three (3) Feet of freeboard from top of berm	Monthly	See Section 2.7.3
Effluent Storage Reservoir No.3 Freeboard	Three (3) feet of freeboard from top of berm	Monthly	See Section 2.7.3
Staff Gauge in RIB #1	9 inches <sup>72</sup>	Daily <sup>73</sup>	See Section 2.7.3
Staff Gauge in RIB #2	9 inches	Daily	See Section 2.7.3
Staff Gauge in RIB #3	9 inches	Daily	See Section 2.7.3
Piezometer well located Downgradient of RIB #1 (A1)	Two (2) feet <sup>74</sup>	Daily <sup>75</sup>	See Section 2.7.3
Piezometer well located Downgradient of RIB #2 (A2)	Two (2) feet	Daily	See Section 2.7.3
Piezometer wells located Downgradient of RIB #3 (A3) and (B3)	Two (2) feet	Daily	See Section 2.7.3

<sup>71</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.

<sup>72</sup>These RIBs shall not contain more than 9 inches of effluent in them at any time as indicated by a Staff gauge located in each basin. If the amount is exceeded, then the permittee shall comply with the contingency requirements in Section 2.6.2.1(1).

<sup>73</sup>Daily with use, none when not in use.

<sup>74</sup>If the water level in a piezometer closest to each basin rises to within (less than) two feet of the bottom surface elevation of the basin, the permittee shall cease discharge to that basin and comply with the contingency requirements in Section 2.6.2.1 (3).

<sup>75</sup>Daily with use, monthly when not in use.

**TABLE III**  
**FACILITY INSPECTION (OPERATIONAL MONITORING) – CONTINUED**

<b>Pollution Control Structure/Parameter</b>	<b>Performance Level</b>	<b>Inspection Frequency</b>	<b>Reporting Frequency</b>
Stormwater Berm and Diversion Channel Integrity	No visible damage or structural weakness, seepage erosion or other or other hazardous conditions	Monthly	See Section 2.7.3
Riparian Basin Nos. 1 & 2	No day-lighting or runoff (Outside basins)	Monthly	See Section 2.7.3
Effluent Storage Reservoir No.3	No visible cracks, no visible tears, cracks, punctures, or deteriorations of liner	Monthly	See Section 2.7.3
Pump Integrity	Good working condition	Weekly	See Section 2.7.3
Treatment Plant Components	Good working condition	Weekly	See Section 2.7.3
Effluent Disposal Areas	No day-lighting or runoff (outside of bermed areas), sprinklers and laterals in good working conditions	Quarterly	See Section 2.7.3
Rapid Infiltration Basins 1-3	No day-lighting or runoff (Outside basins)	Daily <sup>76</sup>	See Section 2.7.3
Wetlands #1 - #6	No day-lighting or runoff, no evidence of odor or vector problems	Monthly	See Section 2.7.3
Existing Wetland Basin No.7	No day-lighting or runoff	Monthly	See Section 2.7.3
Existing overflow Pond Basin No.8	No day-lighting or runoff	Monthly	See Section 2.7.3
Injection Well Integrity	Good working condition	Weekly	See Section 2.7.3
Freeboard for Sludge drying beds Nos. 5-10	One (1) Foot	Weekly	See Section 2.7.3

<sup>76</sup>Daily required only when in use. Otherwise indicate “No flow” on Logbook.

## **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: February 29, 2016
2. Contingency Plan, dated: February 26, 2016
3. Final Hydrologist Report, dated: June 20, 2016
4. Final Engineering Report, dated: August 9, 2016
5. Public Notice, dated: November 11, 2016

## **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 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).