

STATE OF ARIZONA
AQUIFER PROTECTION PERMIT NO. P-102716
PLACE ID 2012, LTF 94006
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 Town of Gilbert to operate the Town of Gilbert Underground Storage and Recovery Project, located at 402 N. Neely St., Gilbert, Arizona in Maricopa County, over groundwater of the Phoenix Active Management Area (AMA) groundwater basin in Township 01 S, Range 05 E, Section 12, of the Gila and Salt River Baseline and Meridian.

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

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

1.1. PERMITTEE INFORMATION

Facility Name: Town of Gilbert Underground Storage and Recovery Project
Facility Address: 402 N. Neely St.
Gilbert, Arizona 85234
County: Maricopa

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

Permittee: Town of Gilbert
Permittee Address: 900 E. Juniper Ave.
Gilbert, Arizona 85234

Facility Contact: Roy Hicken, Recharge and Compliance Supervisor
Emergency Phone No.: 480-528-2036

Latitude/Longitude: 33° 21' 15" N / 111° 48' 07" W
Legal Description: Township 01S, Range 05E, Section 12, of the Gila and Salt River Baseline and Meridian

1.2. AUTHORIZING SIGNATURE

Randall Matas, Deputy Director

Water Quality Division
Arizona Department of Environmental Quality
Signed this _____ day of _____, 2023

THIS AMENDED PERMIT SUPERCEDES ALL PREVIOUS PERMITS

TABLE OF CONTENTS

1.0 AUTHORIZATION.....1

1.1. PERMITTEE INFORMATION.....1

1.2. AUTHORIZING SIGNATURE.....1

2.0 SPECIFIC CONDITIONS5

2.1. FACILITY / SITE DESCRIPTION5

2.1.1. Annual Registration Fee.....5

2.1.2. Financial Capability6

2.2. BEST AVAILABLE DEMONSTRATED CONTROL TECHNOLOGY (BADCT).....6

2.2.1. Engineering Design6

2.2.2. Site-Specific Characteristics.....6

2.2.3. Pre-Operational Requirements6

2.2.4. Operational Requirements6

2.2.5. Reclaimed Water Classification6

2.2.6. Certified Areawide Water Quality Management Plan Conformance6

2.3. DISCHARGE LIMITATIONS7

2.4. POINT OF COMPLIANCE (POC).....7

2.4.1. Upgradient Wells.....7

2.5. MONITORING REQUIREMENTS8

2.5.1. Pre-Operational Monitoring8

2.5.2. Routine Discharge Monitoring8

2.5.3. Reclaimed Water Monitoring8

2.5.4. Facility / Operational Monitoring.....8

2.5.5. Groundwater Monitoring and Sampling Protocols.....8

2.5.5.1. POC Well Replacement.....9

2.5.6. Surface Water Monitoring and Sampling Protocols.....9

2.5.7. Analytical Methodology.....9

2.5.8. Installation and Maintenance of Monitoring Equipment.....9

2.6. CONTINGENCY PLAN REQUIREMENTS.....10

2.6.1. General Contingency Plan Requirements.....10

2.6.2. Exceeding of Alert Levels and Performance Levels10

2.6.2.1. Exceeding of Performance Levels Set for Operational Conditions.....10

2.6.2.2. Exceeding of Alert Levels (ALs) Set for Discharge Monitoring.....11

2.6.2.2.1. Exceeding Permit Flow Limit.....11

2.6.2.3. Exceeding of Alert Levels in Groundwater Monitoring.....11

2.6.2.3.1. Alert Levels for Indicator Parameters.....11

2.6.2.3.2. Alert Levels for Pollutants with Numeric Aquifer Water Quality Standards.....11

2.6.2.3.3. Alert Levels to Protect Downgradient Users from Pollutants Without Numeric Aquifer Water Quality Standards.....12

2.6.2.3.4. Alert Level for Groundwater Level.....12

2.6.2.3.5. Alert Level for E. coli in Groundwater.....13

2.6.3. Discharge Limit Violation.....13

2.6.4. Aquifer Quality Limit Violation.....13

2.6.5. Emergency Response and Contingency Requirements for Unauthorized Discharges.....14

2.6.5.1. Duty to Respond.....14

2.6.5.2. Discharge of Hazardous Substances or Toxic Pollutants.....14

2.6.5.3. Discharge of Non-Hazardous Materials.....15

2.6.5.4. Reporting Requirements.....15

2.6.6. Corrective Actions.....15

2.7. REPORTING AND RECORDKEEPING REQUIREMENTS.....16

2.7.1. Self-Monitoring Report Form.....16

2.7.2.	Operation Inspection / Log Book Recordkeeping	16
2.7.3.	Permit Violation and Alert Level Status Reporting.....	17
2.7.4.	Operational, Other or Miscellaneous Reporting.....	17
2.7.5.	Reporting Location.....	17
2.7.6.	Reporting Deadline.....	18
2.7.7.	Changes To Facility Information In Section 1.0	18
2.8.	TEMPORARY CESSATION	18
2.9.	CLOSURE	18
2.9.1.	Closure Plan	19
2.9.2.	Closure Completion.....	19
2.10.	POST-CLOSURE	19
2.10.1.	Post-Closure Plan	19
2.10.2.	Post-Closure Completion.....	19
3.0	COMPLIANCE SCHEDULE	20
4.0	TABLES OF MONITORING REQUIREMENTS	22
4.1.	PRE-OPERATIONAL MONITORING (OR CONSTRUCTION REQUIREMENTS)	22
4.2.	COMPLIANCE OR OPERATIONAL MONITORING	22
5.0	REFERENCES AND PERTINENT INFORMATION	35
6.0	NOTIFICATION PROVISIONS.....	35
6.1.	ANNUAL REGISTRATION FEES.....	35
6.2.	DUTY TO COMPLY.....	35
6.3.	DUTY TO PROVIDE INFORMATION	35
6.4.	COMPLIANCE WITH AQUIFER WATER QUALITY STANDARDS.....	35
6.5.	TECHNICAL AND FINANCIAL CAPABILITY	35
6.6.	REPORTING OF BANKRUPTCY OR ENVIRONMENTAL ENFORCEMENT	36
6.7.	MONITORING AND RECORDS	36
6.8.	INSPECTION AND ENTRY.....	36
6.9.	DUTY TO MODIFY.....	36
6.10.	PERMIT ACTION: AMENDMENT, TRANSFER, SUSPENSION, AND REVOCATION	36
7.0	ADDITIONAL PERMIT CONDITIONS	36
7.1.	OTHER INFORMATION	36
7.2.	SEVERABILITY	36
7.3.	PERMIT TRANSFER.....	37

TABLE OF TABLES

TABLE 1: DISCHARGING FACILITIES5
 TABLE 2: POINT(S) OF COMPLIANCE.....7
 TABLE 3: UPGRADIENT WELLS7
 TABLE 4: ACCELERATED MONITORING - ALERT LEVEL EXCEEDANCE11
 TABLE 5: ACCELERATED MONITORING - AQUIFER QUALITY LIMIT VIOLATION.....14
 TABLE 6: QUARTERLY REPORTING DEADLINES18
 TABLE 7: (SEMI-)ANNUAL REPORTING DEADLINES18
 TABLE 8: COMPLIANCE SCHEDULE ITEMS.....20
 TABLE 9: ROUTINE DISCHARGE MONITORING – FLOWS UP TO 1.8 MGD.....22
 TABLE 10: ROUTINE DISCHARGE MONITORING – FLOWS UP TO 2.0 MGD.....22
 TABLE 11: ROUTINE DISCHARGE MONITORING – FLOWS UP TO 2.2 MGD.....22
 TABLE 12: ROUTINE DISCHARGE MONITORING – FLOWS UP TO 2.4 MGD.....23
 TABLE 13: ROUTINE DISCHARGE MONITORING – FLOWS UP TO 2.6 MGD.....23
 TABLE 14: ROUTINE DISCHARGE MONITORING – FLOWS UP TO 2.8 MGD.....23
 TABLE 15: ROUTINE DISCHARGE MONITORING – FLOWS UP TO 3.0 MGD.....23
 TABLE 16: GROUNDWATER MONITORING FOR WELL G-1A24
 TABLE 17: GROUNDWATER MONITORING FOR WELL G-4A26
 TABLE 18: GROUNDWATER MONITORING FOR WELL G-9A28
 TABLE 19: GROUNDWATER MONITORING FOR WELL G-7A30
 TABLE 20: GROUNDWATER MONITORING FOR WELL G-1132
 TABLE 21: FACILITY INSPECTION AND OPERATIONAL MONITORING34

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 an Underground Storage and Recovery (US&R) Project to recharge up to an annual average of 3.0 million gallons per day (mgd). The permitted flow shall increase from 0.8 mgd to a maximum annual average of 3.0 mgd, over a series of up to 11 phases in increments of 0.2 mgd. The effluent recharge flow to the US&R Project will increase in increments due to the potential impact of increased recharge flow to a nearby Cooper and Commerce Water Quality Assurance Revolving Fund (WQARF) Site. The permittee shall operate the US&R Project under each phase for at least two years prior to requesting the next 0.2 mgd increase and shall submit a hydrological report to the Department as described under Section 3.0, Compliance Schedule.

The US&R Project recharges secondary treated effluent from the Town of Gilbert Neely Water Reclamation Facility (WRF), regulated under APP No. 100393. The Recharge of emergency flows from the Town of Gilbert Neely WRF is also permitted. The facility consists of 11 infiltration basins totaling approximately 50 acres of area. The infiltration basins are designed and constructed according to plans approved by ADEQ.

The US&R Project is located south and upgradient of the Cooper and Commerce WQARF Site. In order to minimize the probability that recharge at the US&R Project will contribute to migration of the groundwater contamination plume originating at the Cooper and Commerce WQARF Site, the Town of Gilbert will direct 80% of the effluent to the five (5) basins farthest from the WQARF Site. The remaining 20% of the effluent will be recharged in the remaining basins, primarily to preserve vegetation.

The current depth-to-water beneath the facility ranges from 101.3 to 109.8 feet below land surface (bls). The recent groundwater flow direction in the vicinity of the site is to the northwest.

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

The site includes the following permitted discharging facilities:

Table 1: DISCHARGING FACILITIES		
Facility	Latitude	Longitude
Town of Gilbert US&R Project	33° 21' 15" N	111° 48' 07" W
Infiltration Basin 1	33° 21' 23.1" N	111° 47' 58.8" W
Infiltration Basin 2	33° 21' 19.3" N	111° 47' 58.8" W
Infiltration Basin 3	33° 21' 15.3" N	111° 47' 58.8" W
Infiltration Basin 4	33° 21' 15.2" N	111° 48' 05.8" W
Infiltration Basin 5	33° 21' 19.3" N	111° 48' 05.8" W
Infiltration Basin 6	33° 21' 23.0" N	111° 48' 06.1" W
Infiltration Basin 7	33° 21' 22.8" N	111° 48' 13.0" W
Infiltration Basin 8	33° 21' 18.8" N	111° 48' 13.2" W
Infiltration Basin 9	33° 21' 15.3" N	111° 48' 13.4" W
Infiltration Basin 10	33° 21' 19.6" N	111° 48' 20.6" W
Infiltration Basin 11	33° 21' 23.0" N	111° 48' 21.0" W

2.1.1. Annual Registration Fee

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

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

2.1.2. Financial Capability

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

The permittee has demonstrated financial capability under A.R.S. § 49-243(N) and A.A.C. R18-9-A203. The estimated dollar amount for facility closure is \$1,669,463. 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)]

Not applicable as per A.A.C. R18-9-A201(C).

2.2.1. Engineering Design

The Town of Gilbert US&R Project was designed and constructed as per the APP Application prepared by the Town of Gilbert, dated December 7, 1992 and the Plan Approval by the ADEQ Plan Review and Permits Section, dated February 16, 1993.

The hydrogeologic study for this amendment was prepared and stamped, dated, and signed (sealed) by Geno J. Mammini, R.G., of Clear Creek Associates, dated February 3, 2023.

2.2.2. Site-Specific Characteristics

The permittee has demonstrated under the Town of Gilbert Neely WRF (APP Permit No. 100393) that the discharge of secondary treated reclaimed water to the Town of Gilbert US&R Project (APP Permit No. 102716) recharge site meets the requirements for the pathogen removal by Soil Aquifer Treatment (SAT) per New Facility BADCT Standards under A.A.C. R18-9-B204(B)(4)(d).

2.2.3. Pre-Operational Requirements

Not applicable at the time of permit issuance.

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 21: FACILITY INSPECTION AND OPERATIONAL MONITORING

2.2.5. Reclaimed Water Classification

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

Not applicable.

2.2.6. Certified Areawide Water Quality Management Plan Conformance

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

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

2.3. DISCHARGE LIMITATIONS

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

1. The permittee is authorized to operate the treatment facility with a maximum average monthly flow of 3.0 mgd which will happen in increment of 0.2 mgd. Table 9: ROUTINE DISCHARGE MONITORING – Flows up to 1.8 mgd through Table 15: ROUTINE DISCHARGE MONITORING – Flows up to 3.0 mgd are listed in Section 4.2 for discharge monitoring. The permittee shall use the monitoring table which is commensurate with the phase in use at the time.
2. The permittee shall notify all users that the materials authorized to be disposed of through the treatment facility are typical household sewage and pre-treated commercial wastewater and shall not include motor oil, gasoline, paints, varnishes, hazardous wastes, solvents, pesticides, fertilizers or other materials not generally associated with toilet flushing, food preparation, laundry facilities and personal hygiene.
3. The permittee shall operate and maintain all permitted facilities to prevent unauthorized discharges pursuant to A.R.S. § 49-201(12) resulting from failure or bypassing of applicable BADCT.
4. Specific discharge limitations are listed in Section 4.2, Table 9: ROUTINE DISCHARGE MONITORING – Flows up to 1.8 mgd through Table 15: ROUTINE DISCHARGE MONITORING – Flows up to 3.0 mgd.

2.4. POINT OF COMPLIANCE (POC)

[A.R.S. § 49-244]

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

Table 2: POINT(S) OF COMPLIANCE				
POC #	POC Location	ADWR Well Registration #	Latitude	Longitude
1	G-7A, North edge of Basin #6	55-917771	33° 21' 24.8" N	111° 48' 4.1" W
3	G-9A, West edge of the Cooper & Commerce WQARF Site	55-917835	33° 21' 35.9" N	111° 48' 24.8" W
5	G-11, West of the recharge basins	55-917788	33° 21' 13.1" N	111° 48' 20.3" W

Groundwater monitoring is required at the point of compliance wells G-7A, G-9A and G-11 as specified in Section 4.2, Table 18: GROUNDWATER MONITORING for Well G-9A, Table 19: GROUNDWATER MONITORING for Well G-7A, and Table 20: GROUNDWATER MONITORING for Well G-11. The POC wells, POC #2 (G-8) and POC #4 (G-10) were removed from the permit (LTF #58645) as monitoring at these points was not necessary.

The director may require an amendment of this permit to install a monitoring well if there is cause or concern that groundwater quality may be impacted at the POC. The Director may amend this permit to designate additional points of compliance if information on groundwater gradients or groundwater usage indicates the need.

2.4.1. Upgradient Wells

Table 3: UPGRADIENT WELLS				
Well #	Upgradient Well Location	ADWR Well Registration #	Latitude	Longitude
6	Well G-1A	55-917774	33° 21' 12.6" N	111° 48' 8.6" W
7	Well G-4A	55-917787	33° 20' 45.7" N	111° 48' 0.6" W

Groundwater monitoring is required at the upgradient monitoring wells identified as G-1A and G-4A according to Section 4.2, Table 16: GROUNDWATER MONITORING for Well G-1A and Table 17: GROUNDWATER MONITORING for Well G-4A.

2.5. MONITORING REQUIREMENTS

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

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

2.5.1. Pre-Operational Monitoring

Not applicable.

2.5.2. Routine Discharge Monitoring

The permittee shall monitor the effluent according to Section 4.2, Table 9: ROUTINE DISCHARGE MONITORING – Flows up to 1.8 mgd through Table 15: ROUTINE DISCHARGE MONITORING – Flows up to 3.0 mgd. Effluent quality monitoring is conducted under the Town of Gilbert Neely WRF APP (P-100393). The flow is monitored at the flow meter located prior to the point of discharge into the infiltration basin distribution structures.

2.5.3. Reclaimed Water Monitoring

Not applicable.

2.5.4. Facility / Operational Monitoring

Operational monitoring inspections shall be conducted according to Section 4.2, Table 21: FACILITY INSPECTION AND OPERATIONAL MONITORING.

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

2.5.5. Groundwater Monitoring and Sampling Protocols

The permittee shall monitor the groundwater according to Section 4.2, Table 16 through Table 20. Static water levels shall be measured and recorded prior to sampling. Wells shall be purged of at least three borehole volumes (as calculated using the static water level) or until field parameters (pH, temperature, conductivity) are stable, whichever represents the greater volume. If evacuation results in the well going dry, the well shall be allowed to recover to 80 percent of the original borehole volume, or for 24 hours, whichever is shorter, prior to sampling. If after 24 hours there is not sufficient water for sampling, the well shall be recorded as “dry” for the monitoring event. An explanation for reduced pumping volumes, a record of the volume pumped, and modified sampling procedures shall be reported and submitted with the SMRF.

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

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

2.5.5.1. POC Well Replacement

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

2.5.6. Surface Water Monitoring and Sampling Protocols

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

2.5.7. Analytical Methodology

All samples collected for compliance monitoring shall be analyzed using Arizona state-approved methods. If no state-approved method exists, then any appropriate EPA-approved method shall be used. Regardless of the method used, the detection limits must be sufficient to determine compliance with the regulatory limits of the parameters specified in this permit. If all methods have detection limits higher than the applicable limit, the permittee shall follow the applicable contingency requirements of Section 2.6 and may propose "other actions" including amending the permit to set higher limits. Analyses shall be performed by a laboratory licensed by the Arizona Department of Health Services, Office of Laboratory Licensure and Certification unless exempted under A.R.S. 36-495.02. For results to be considered valid, all analytical work shall meet quality control standards specified in the approved methods. A list of state-certified laboratories in Arizona can be obtained at the address below:

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

2.5.8. Installation and Maintenance of Monitoring Equipment

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

2.6. CONTINGENCY PLAN REQUIREMENTS

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

2.6.1. General Contingency Plan Requirements

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

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

2.6.2. Exceeding of Alert Levels and Performance Levels

2.6.2.1. Exceeding of Performance Levels Set for Operational Conditions

For freeboard alert levels, the permittee shall comply with the requirements as specified in Section 4.2, Table 21: FACILITY INSPECTION AND OPERATIONAL MONITORING to prevent the overtopping of an impoundment. If an impoundment is overtopped, the permittee shall follow the requirements in Section 2.6.5.3 and the reporting requirements of Section 2.7.3.

If an alert level set in Section 4.2, Table 21: FACILITY INSPECTION AND OPERATIONAL MONITORING has been exceeded the permittee shall:

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

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

Not applicable.

2.6.2.2.1. Exceeding Permit Flow Limit

Not applicable.

2.6.2.3. Exceeding of Alert Levels in Groundwater Monitoring

2.6.2.3.1. Alert Levels for Indicator Parameters

No ALs have been established for indicator parameters.

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

1. In the case of an exceedance of an AL for a pollutant set in Section 4.2, Table 16 through Table 20, the permittee may conduct verification sampling for those pollutant(s) that exceeded their respective AL(s) within five (5) days of becoming aware of the exceedance. The permittee may use results of another sample taken between the date of the last sampling event and the date of receiving the result as verification.
2. If verification sampling confirms the AL exceedance or if the permittee opts not to perform verification sampling, then the permittee shall increase the frequency of monitoring for each pollutant exceeding its' respective AL(s) as follows:

Table 4: ACCELERATED MONITORING - ALERT LEVEL EXCEEDANCE	
Specified Monitoring Frequency	Monitoring Frequency for AL Exceedance
Daily	Daily
Weekly	Daily
Monthly	Weekly
Quarterly	Monthly
Semi-annually	Quarterly
Annually	Quarterly

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

3. The permittee shall initiate actions identified in the approved contingency plan referenced in Section 5.0 and specific contingency measures identified in Section 2.6 to resolve any problems identified by the investigation which may have led to an AL exceedance. To implement any other corrective action the permittee shall obtain prior approval from ADEQ according to Section 2.6.6. Alternatively, the permittee may submit a technical demonstration, subject to written approval by the Groundwater Protection Value Stream, that although an AL has been exceeded, the pollutant(s) that exceeded their respective AL(s) are not reasonably expected to cause a violation of an AQL. The demonstration may propose a revised AL or monitoring frequency, for those pollutant(s) that exceeded their respective AL(s), for approval in writing by the Groundwater Protection Value Stream.
4. Within 30 days after confirmation of an AL exceedance, for each pollutant that exceeded an AL, the permittee shall submit the laboratory results to the Groundwater Protection Value Stream along with a summary of the findings of the investigation, the cause of the exceedance, and actions taken to resolve the problem.

5. Upon review of the submitted report, the Department may amend the permit to require additional monitoring, increased frequency of monitoring, amendments to permit conditions or other actions.
6. For each pollutant that exceeded an AL, the increased monitoring required as a result of an AL exceedance may be reduced to the monitoring frequency in Section 4.2, Table 16 through Table 20 if the results of four sequential sampling events of those pollutants demonstrate that they did not exceed the AL.
7. If the increased monitoring required as a result of an AL exceedance continues for more than six (6) sequential sampling events, the permittee shall submit to ADEQ a second report documenting an investigation of each pollutant which continued to exceed an AL. This report is due 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 16 through Table 20, the permittee shall submit a written report to the Groundwater Protection Value Stream 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 16 through Table 20 for more than six (6) sequential sampling events, the permittee shall submit a second report which evaluates the cause(s) of the exceedance and recommends whether the well should be replaced pursuant to Section 2.5.5.1. The report shall discuss and demonstrate whether samples representative of the water quality of the relevant aquifer can be practicably obtained from the well.
3. Upon review of the submitted report, the Department may amend the permit to require replacement of the well, require additional permit conditions, or other actions.

2.6.2.3.5. Alert Level for E. coli in Groundwater

1. In the case of an exceedance of the AL for E. coli in Section 4.2, Table 16 through Table 20: The permittee may conduct verification sampling within five (5) days of becoming aware of the exceedance of the E. coli. 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. If verification sampling confirms the AL exceedance or if the permittee opts not to perform verification sampling, then the permittee shall conduct monitoring required below.
2. If the AL for E. coli is exceeded, the permittee shall begin monitoring for total coliform.
3. If the total coliform AQL is exceeded, then the permittee must follow the requirements of section 2.6.4.
4. Permittee may cease monitoring for total coliform when neither the E. coli alert level nor the total coliform AQL are exceeded for four consecutive months.

2.6.3. Discharge Limit Violation

1. If a DL set in Section 4.2, Table 9 through Table 15 has been violated, the permittee shall immediately investigate to determine the cause. The investigation shall include the following:
 - a. Inspection, testing, and assessment of the current condition of all treatment or pollutant discharge control systems that may have contributed to the violation;
 - b. Review of recent process logs, reports, and other operational control information to identify any unusual occurrences;
 - c. If the investigation procedures indicated in (a) and (b) above fail to reveal the cause of the violation, the permittee shall sample individual waste streams composing the wastewater for the parameters in violation, as necessary to identify the cause of the violation.

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

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

2.6.4. Aquifer Quality Limit Violation

1. If an AQL set in Section 4.2, Table 16 through Table 20 has been exceeded, the permittee may conduct verification sampling for those pollutant(s) that were above their respective AQL(s) within five (5) days of becoming aware of the exceedance. The permittee may use results of another sample taken between the date of the last sampling event and the date of receiving the result as verification.
2. If verification sampling does not confirm an AQL exceedance, no further action is needed under this Section.
3. If verification sampling confirms that an AQL was exceeded for any parameter or if the permittee opts not to perform verification sampling, then, the permittee shall increase the frequency of monitoring for those parameters as follows:

Table 5: ACCELERATED MONITORING - AQUIFER QUALITY LIMIT VIOLATION	
Specified Monitoring Frequency	Monitoring Frequency for AQL Violation
Daily	Daily
Weekly	Daily
Monthly	Weekly
Quarterly	Monthly
Semi-annually	Quarterly
Annually	Quarterly

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

The permittee also shall submit a report according to Section 2.7.3, which includes a summary of the findings of the investigation, the cause of the violation, and actions taken to resolve the problem. A verified exceedance of an AQL will be considered a violation unless the permittee demonstrates within 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 2.6.5.

4. Upon review of the submitted report, the Department may amend the permit to require additional monitoring, increased frequency of monitoring, amendments to permit conditions or other actions.
5. The increased monitoring for those pollutant(s) required as a result of an AQL exceedance may be reduced to the original sampling frequency for each respective pollutant, if the results of three sequential sampling events demonstrate that the parameter(s) does not exceed their respective AQL(s), and upon ADEQ approval.

2.6.5. Emergency Response and Contingency Requirements for Unauthorized Discharges

[A.R.S. § 49-201(12) AND PURSUANT TO A.R.S. § 49-241]

2.6.5.1. Duty to Respond

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

2.6.5.2. Discharge of Hazardous Substances or Toxic Pollutants

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

2.6.5.3. Discharge of Non-Hazardous Materials

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

2.6.5.4. Reporting Requirements

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

2.6.6. Corrective Actions

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

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

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

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

2.7. REPORTING AND RECORDKEEPING REQUIREMENTS

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

2.7.1. Self-Monitoring Report Form

1. The permittee shall complete the Self-Monitoring Reporting Forms (SMRFs) provided by ADEQ, and submit the completed report through the myDEQ online reporting system. The permittee shall use the format devised by ADEQ.
2. The permittee shall complete the SMRF to the extent that the information reported may be entered on the form. If no information is required during a reporting period, the permittee shall enter “not required” on the form, include an explanation, and submit the form to the Groundwater Protection Value Stream.
3. The tables contained in Section 4.0 list the monitoring parameters and the frequencies for reporting results on the SMRF:
 - a. Discharge Monitoring Tables: Table 9 through Table 15
 - b. Groundwater Monitoring Tables: Table 16 through Table 20

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

2.7.2. Operation Inspection / Log Book Recordkeeping

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

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

2.7.3. Permit Violation and Alert Level Status Reporting

1. The permittee shall notify the Groundwater Protection Value Stream within five (5) days (except as provided in Section 2.6.5) of becoming aware of an AL exceedance, or violation of any permit condition, AQL, or DL for which notification requirements are not specified in Sections 2.6.2 through 2.6.5.
2. The permittee shall submit a written report to the Groundwater Protection Value Stream within 30 days of becoming aware of the violation of any permit condition, AQL, or DL. The report shall document all of the following:
 - a. Identification and description of the permit condition for which there has been a violation and a description of the cause;
 - b. The period of violation including exact date(s) and time(s), if known, and the anticipated time period during which the violation is expected to continue;
 - c. Any corrective action taken or planned to mitigate the effects of the violation, or to eliminate or prevent a recurrence of the violation;
 - d. Any monitoring activity or other information which indicates that any pollutants would be reasonably expected to cause a violation of an AWQS;
 - e. Proposed changes to the monitoring which include changes in constituents or increased frequency of monitoring; and
 - f. Description of any malfunction or failure of pollution control devices or other equipment or processes.

2.7.4. Operational, Other or Miscellaneous Reporting

The permittee shall record the information as required in Section 4.2, Table 21: FACILITY INSPECTION AND OPERATIONAL MONITORING in the facility log book as per Section 2.7.2, and report to the Groundwater Protection Value Stream any violations or exceedances as per Section 2.7.3.

2.7.5. Reporting Location

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

All other documents required by this permit shall be mailed to:

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

2.7.6. Reporting Deadline

The following table lists the quarterly report due dates:

Table 6: QUARTERLY REPORTING DEADLINES	
Monitoring Conducted During Quarter:	Quarterly Report Due By:
January-March	April 30
April-June	July 30
July-September	October 30
October-December	January 30

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

Table 7: (SEMI-)ANNUAL REPORTING DEADLINES	
Monitoring Conducted:	Report Due By:
Semi-annual: January-June	July 30
Semi-annual: July-December	January 30
Annual: January-December	January 30

2.7.7. Changes to Facility Information In Section 1.0

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

2.8. Temporary Cessation

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

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

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

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

2.9. Closure

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

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

2.9.1. Closure Plan

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

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

2.9.2. Closure Completion

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

1. Clean-closure cannot be achieved at the time of closure notification or within one year thereafter under a diligent schedule of closure actions;
2. Further action is necessary to keep the facility in compliance with the AWQS at the applicable POC or, for any pollutant for which the AWQS was exceeded at the time this permit was issued, further action is necessary to prevent the facility from further degrading the aquifer at the applicable POC with respect to that pollutant;
3. Remedial, mitigative or corrective actions or controls are necessary to comply with A.R.S. § 49-201(30) and Title 49, Chapter 2, Article 3;
4. Further action is necessary to meet property use restrictions.
5. SMRF submittals are still required until Clean Closure is issued.

2.10. Post-closure

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

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

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

2.10.1. Post-Closure Plan

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

2.10.2. Post-Closure Completion

Not required at the time of permit issuance.

3.0 COMPLIANCE SCHEDULE

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

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

Table 8: COMPLIANCE SCHEDULE ITEMS			
No.	Description	Due By:	Permit Amendment Required?
1	Increase of Recharge Flow to 2.0 mgd:		
	a. The permittee shall conduct a hydrological study to determine the effect of increased recharge flow on the Cooper and Commerce WQARF Site groundwater contamination plume and submit a report to the GWS.	Within 30 days after the end of the two year period of recharge at 1.8 mgd	No
	b. The permittee shall increase the recharge flow to 2.0 mgd and initiate monitoring under Table 10 upon receipt of written authorization from the GWS.	Upon receipt of written approval from the Department	No
2	Increase of Recharge Flow to 2.2 mgd:		
	a. The permittee shall conduct a hydrological study to determine the effect of increased recharge flow on the Cooper and Commerce WQARF Site groundwater contamination plume and submit a report to the GWS.	Within 30 days after the end of the two year period of recharge at 2.0 mgd	No
	b. The permittee shall increase the recharge flow to 2.2 mgd and initiate monitoring under Table 11 upon receipt of written authorization from the GWS.	Upon receipt of written approval from the Department	No
3	Increase of Recharge Flow to 2.4 mgd:		
	a. The permittee shall conduct a hydrological study to determine the effect of increased recharge flow on the Cooper and Commerce WQARF Site groundwater contamination plume and submit a report to the GWS.	Within 30 days after the end of the two year period of recharge at 2.2 mgd	No
	b. The permittee shall increase the recharge flow to 2.4mgd and initiate monitoring under Table 12 upon receipt of written authorization from the GWS.	Upon receipt of written approval from the Department	No
4	Increase of Recharge Flow to 2.6 mgd:		
	a. The permittee shall conduct a hydrological study to determine the effect of increased recharge flow on the Cooper and Commerce WQARF Site groundwater contamination plume and submit a report to the GWS.	Within 30 days after the end of the two year period of recharge at 2.4 mgd	No
	b. The permittee shall increase the recharge flow to 2.6 mgd and initiate monitoring under Table 13 upon receipt of written authorization from the GWS.	Upon receipt of written approval from the Department	No

Table 8: COMPLIANCE SCHEDULE ITEMS

Table 8: COMPLIANCE SCHEDULE ITEMS			
5	Increase of Recharge Flow to 2.8 mgd:		
	a. The permittee shall conduct a hydrological study to determine the effect of increased recharge flow on the Cooper and Commerce WQARF Site groundwater contamination plume and submit a report to the GWS.	Within 30 days after the end of the two year period of recharge at 2.6 mgd	No
	b. The permittee shall increase the recharge flow to 2.8 mgd and initiate monitoring under Table 14 upon receipt of written authorization from the GWS.	Upon receipt of written approval from the Department	No
6	Increase of Recharge Flow to 3.0 mgd:		
	a. The permittee shall conduct a hydrological study to determine the effect of increased recharge flow on the Cooper and Commerce WQARF Site groundwater contamination plume and submit a report to the GWS.	Within 30 days after the end of the two year period of recharge at 2.8 mgd	No
	b. The permittee shall increase the recharge flow to 3.0 mgd and initiate monitoring under Table 15 upon receipt of written authorization from the GWS.	Upon receipt of written approval from the Department	No
7	Update Contingency Plan: Submit a complete and up to date Emergency Operation/Contingency Plan (EOP). The EOP should have an appendix of Emergency contact numbers and cover emergency situations (e.g. FEMA).	Within 6 months of issuance of this permit.	No

4.0 TABLES OF MONITORING REQUIREMENTS

4.1. PRE-OPERATIONAL MONITORING (OR CONSTRUCTION REQUIREMENTS)

Not applicable.

4.2. COMPLIANCE OR OPERATIONAL MONITORING

Table 9: ROUTINE DISCHARGE MONITORING – Flows up to 1.8 mgd					
Sampling Point Number	Sampling Point Identification	Latitude (North)		Longitude (West)	
1	Flow meter located prior to the point of discharge into the infiltration basin distribution structure	33° 21' 15"		111° 48' 07"	
Parameter	Alert Level	Discharge Limit	Units	Sampling Frequency	Reporting Frequency
Total Flow: Daily	Not Applicable	Not Applicable	mgd	Daily	Quarterly
Total Flow: Annual Average	Not Applicable	1.8	mgd	Annual Calculation	Annually

Table 10: ROUTINE DISCHARGE MONITORING – Flows up to 2.0 mgd ¹					
Sampling Point Number	Sampling Point Identification	Latitude (North)		Longitude (West)	
1	Flow meter located prior to the point of discharge into the infiltration basin distribution structure	33° 21' 15"		111° 48' 07"	
Parameter	Alert Level	Discharge Limit	Units	Sampling Frequency	Reporting Frequency
Total Flow: Daily	Not Applicable	Not Applicable	mgd	Daily	Quarterly
Total Flow: Annual Average	Not Applicable	2.0	mgd	Annual Calculation	Annually

Table 11: ROUTINE DISCHARGE MONITORING – Flows up to 2.2 mgd ²					
Sampling Point Number	Sampling Point Identification	Latitude (North)		Longitude (West)	
1	Flow meter located prior to the point of discharge into the infiltration basin distribution structure	33° 21' 15"		111° 48' 07"	
Parameter	Alert Level	Discharge Limit	Units	Sampling Frequency	Reporting Frequency
Total Flow: Daily	Not Applicable	Not Applicable	mgd	Daily	Quarterly
Total Flow: Annual Average	Not Applicable	2.2	mgd	Annual Calculation	Annually

¹ The permittee shall initiate monitoring under Table 10 upon receipt of approval from ADEQ as per Item #1b of Section 3.0, Compliance Schedule.
² The permittee shall initiate monitoring under Table 11 upon receipt of approval from ADEQ as per Item #2b of Section 3.0, Compliance Schedule.

Table 12: ROUTINE DISCHARGE MONITORING – Flows up to 2.4 mgd ³					
Sampling Point Number	Sampling Point Identification	Latitude (North)		Longitude (West)	
1	Flow meter located prior to the point of discharge into the infiltration basin distribution structure	33° 21' 15"		111° 48' 07"	
Parameter	Alert Level	Discharge Limit	Units	Sampling Frequency	Reporting Frequency
Total Flow: Daily	Not Applicable	Not Applicable	mgd	Daily	Quarterly
Total Flow: Annual Average	Not Applicable	2.4	mgd	Annual Calculation	Annually

Table 13: ROUTINE DISCHARGE MONITORING – Flows up to 2.6 mgd ⁴					
Sampling Point Number	Sampling Point Identification	Latitude (North)		Longitude (West)	
1	Flow meter located prior to the point of discharge into the infiltration basin distribution structure	33° 21' 15"		111° 48' 07"	
Parameter	Alert Level	Discharge Limit	Units	Sampling Frequency	Reporting Frequency
Total Flow: Daily	Not Applicable	Not Applicable	mgd	Daily	Quarterly
Total Flow: Annual Average	Not Applicable	2.6	mgd	Annual Calculation	Annually

Table 14: ROUTINE DISCHARGE MONITORING – Flows up to 2.8 mgd ⁵					
Sampling Point Number	Sampling Point Identification	Latitude (North)		Longitude (West)	
1	Flow meter located prior to the point of discharge into the infiltration basin distribution structure	33° 21' 15"		111° 48' 07"	
Parameter	Alert Level	Discharge Limit	Units	Sampling Frequency	Reporting Frequency
Total Flow: Daily	Not Applicable	Not Applicable	mgd	Daily	Quarterly
Total Flow: Annual Average	Not Applicable	2.8	mgd	Annual Calculation	Annually

Table 15: ROUTINE DISCHARGE MONITORING – Flows up to 3.0 mgd ⁶					
Sampling Point Number	Sampling Point Identification	Latitude (North)		Longitude (West)	
1	Flow meter located prior to the point of discharge into the infiltration basin distribution structure	33° 21' 15"		111° 48' 07"	
Parameter	Alert Level	Discharge Limit	Units	Sampling Frequency	Reporting Frequency
Total Flow: Daily	Not Applicable	Not Applicable	mgd	Daily	Quarterly
Total Flow: Annual Average	Not Applicable	3.0	mgd	Annual Calculation	Annually

³ The permittee shall initiate monitoring under Table 12 upon receipt of approval from ADEQ as per Item #3b of Section 3.0, Compliance Schedule.
⁴ The permittee shall initiate monitoring under Table 13 upon receipt of approval from ADEQ as per Item #4b of Section 3.0, Compliance Schedule.
⁵ The permittee shall initiate monitoring under Table 14 upon receipt of approval from ADEQ as per Item #5b of Section 3.0, Compliance Schedule.
⁶ The permittee shall initiate monitoring under Table 15 upon receipt of approval from ADEQ as per Item #6b of Section 3.0, Compliance Schedule.

Table 16: GROUNDWATER MONITORING for Well G-1A

Sampling Point Number	Sampling Point Identification			Latitude (North)	Longitude (West)
2	Upgradient Well G-1A			33° 21' 12.6"	111° 48' 8.6"
Parameter	Alert Level	Aquifer Quality Limit	Units	Sampling Frequency	Reporting Frequency
Total Nitrogen ⁷ :	Monitor	Monitor	mg/l ⁸	Monthly Calculation	Quarterly
Nitrate-Nitrite as N	Monitor	Monitor	mg/l	Monthly Calculation	Quarterly
Nitrate as N	Monitor	Monitor	mg/l	Monthly	Quarterly
Nitrite as N	Monitor	Monitor	mg/l	Monthly	Quarterly
Total Kjeldahl Nitrogen (TKN)	Monitor	Monitor	mg/l	Monthly	Quarterly
E. coli	Monitor	Monitor	MPN ⁹	Monthly	Quarterly
Total Coliform	Monitor	Monitor	P/A ¹⁰	Monthly/Suspended ¹¹	Quarterly
Water Level (upper limit)	Monitor	Monitor	Feet bgs ¹²	Monthly	Quarterly
Water Level (lower limit)	Monitor	Monitor	Feet bgs	Monthly	Quarterly
Metals (Dissolved)					
Antimony	Monitor	Monitor	mg/l	Quarterly	Quarterly
Arsenic	Monitor	Monitor	mg/l	Quarterly	Quarterly
Barium	Monitor	Monitor	mg/l	Quarterly	Quarterly
Beryllium	Monitor	Monitor	mg/l	Quarterly	Quarterly
Cadmium	Monitor	Monitor	mg/l	Quarterly	Quarterly
Chromium	Monitor	Monitor	mg/l	Quarterly	Quarterly
Cyanide (as free cyanide)	Monitor	Monitor	mg/l	Quarterly	Quarterly
Fluoride	Monitor	Monitor	mg/l	Quarterly	Quarterly
Lead	Monitor	Monitor	mg/l	Quarterly	Quarterly
Mercury	Monitor	Monitor	mg/l	Quarterly	Quarterly
Nickel	Monitor	Monitor	mg/l	Quarterly	Quarterly
Selenium	Monitor	Monitor	mg/l	Quarterly	Quarterly
Thallium	Monitor	Monitor	mg/l	Quarterly	Quarterly

⁷ Total Nitrogen is the sum of Nitrate as N, Nitrite as N, and Total Kjeldahl Nitrogen (TKN)

⁸ Mg/l = milligrams per liter

⁹ MPN = Most Probable Number per 100 ml.

¹⁰ 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.

¹¹ Monitoring required only as per Section 2.6.2.3.5. If the fecal coliform or E. coli Alert Level is not exceeded, indicate 'Suspended' on SMRFs.

¹² ft. bgs – feet below ground surface

Table 16: GROUNDWATER MONITORING for Well G-1A

Volatile and Semi-Volatile Organic Compounds (VOCs and SVOCs)					
Benzene	Monitor	Monitor	mg/l	Semi-Annually	Semi-Annually
Carbon tetrachloride	Monitor	Monitor	mg/l	Semi-Annually	Semi-Annually
o-Dichlorobenzene	Monitor	Monitor	mg/l	Semi-Annually	Semi-Annually
para-Dichlorobenzene	Monitor	Monitor	mg/l	Semi-Annually	Semi-Annually
1,2-Dichloroethane	Monitor	Monitor	mg/l	Semi-Annually	Semi-Annually
1,1-Dichloroethylene	Monitor	Monitor	mg/l	Semi-Annually	Semi-Annually
cis-1,2-Dichloroethylene	Monitor	Monitor	mg/l	Semi-Annually	Semi-Annually
trans-1,2-Dichloroethylene	Monitor	Monitor	mg/l	Semi-Annually	Semi-Annually
Dichloromethane	Monitor	Monitor	mg/l	Semi-Annually	Semi-Annually
1,2-Dichloropropane	Monitor	Monitor	mg/l	Semi-Annually	Semi-Annually
Ethylbenzene	Monitor	Monitor	mg/l	Semi-Annually	Semi-Annually
Hexachlorobenzene	Monitor	Monitor	mg/l	Semi-Annually	Semi-Annually
Hexachlorocyclopentadiene	Monitor	Monitor	mg/l	Semi-Annually	Semi-Annually
Monochlorobenzene	Monitor	Monitor	mg/l	Semi-Annually	Semi-Annually
Styrene	Monitor	Monitor	mg/l	Semi-Annually	Semi-Annually
Tetrachloroethylene	Monitor	Monitor	mg/l	Semi-Annually	Semi-Annually
Toluene	Monitor	Monitor	mg/l	Semi-Annually	Semi-Annually
Trihalomethanes (total) ¹³	Monitor	Monitor	mg/l	Semi-Annually	Semi-Annually
1,1,1-Trichloroethane	Monitor	Monitor	mg/l	Semi-Annually	Semi-Annually
1,2,4 - Trichlorobenzene	Monitor	Monitor	mg/l	Semi-Annually	Semi-Annually
1,1,2 - Trichloroethane	Monitor	Monitor	mg/l	Semi-Annually	Semi-Annually
Trichloroethylene	Monitor	Monitor	mg/l	Semi-Annually	Semi-Annually
Vinyl Chloride	Monitor	Monitor	mg/l	Semi-Annually	Semi-Annually
Xylenes (Total)	Monitor	Monitor	mg/l	Semi-Annually	Semi-Annually

¹³ Total Trihalomethanes are comprised of Bromoform, Bromodichloromethane, Chloroform, and Dibromochloromethane.

Table 17: GROUNDWATER MONITORING for Well G-4A

Sampling Point Number	Sampling Point Identification			Latitude (North)	Longitude (West)
3	Upgradient Well G-4A			33° 20' 45.7" N	111° 48' 0.6" W
Parameter	Alert Level	Aquifer Quality Limit	Units	Sampling Frequency	Reporting Frequency
Total Nitrogen ¹⁴ :	Monitor	Monitor	mg/l ¹⁵	Monthly Calculation	Quarterly
Nitrate-Nitrite as N	Monitor	Monitor	mg/l	Monthly Calculation	Quarterly
Nitrate as N	Monitor	Monitor	mg/l	Monthly	Quarterly
Nitrite as N	Monitor	Monitor	mg/l	Monthly	Quarterly
Total Kjeldahl Nitrogen (TKN)	Monitor	Monitor	mg/l	Monthly	Quarterly
E. coli	Monitor	Monitor	MPN ¹⁶	Monthly	Quarterly
Total Coliform	Monitor	Monitor	P/A ¹⁷	Monthly/Suspended ¹⁸	Quarterly
Water Level (upper limit)	Monitor	Monitor	Feet bgs ¹⁹	Monthly	Quarterly
Water Level (lower limit)	Monitor	Monitor	Feet bgs	Monthly	Quarterly
Metals (Dissolved)					
Antimony	Monitor	Monitor	mg/l	Quarterly	Quarterly
Arsenic	Monitor	Monitor	mg/l	Quarterly	Quarterly
Barium	Monitor	Monitor	mg/l	Quarterly	Quarterly
Beryllium	Monitor	Monitor	mg/l	Quarterly	Quarterly
Cadmium	Monitor	Monitor	mg/l	Quarterly	Quarterly
Chromium	Monitor	Monitor	mg/l	Quarterly	Quarterly
Cyanide (as free cyanide)	Monitor	Monitor	mg/l	Quarterly	Quarterly
Fluoride	Monitor	Monitor	mg/l	Quarterly	Quarterly
Lead	Monitor	Monitor	mg/l	Quarterly	Quarterly
Mercury	Monitor	Monitor	mg/l	Quarterly	Quarterly
Nickel	Monitor	Monitor	mg/l	Quarterly	Quarterly
Selenium	Monitor	Monitor	mg/l	Quarterly	Quarterly
Thallium	Monitor	Monitor	mg/l	Quarterly	Quarterly

¹⁴ Total Nitrogen is the sum of Nitrate as N, Nitrite as N, and Total Kjeldahl Nitrogen (TKN)

¹⁵ Mg/l = milligrams per liter

¹⁶ MPN = Most Probable Number per 100 ml.

¹⁷ 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.

¹⁸ Monitoring required only as per Section 2.6.2.3.5. If the fecal coliform or E. coli Alert Level is not exceeded, indicate 'Suspended' on SMRFs.

¹⁹ ft. bgs – feet below ground surface

Table 17: GROUNDWATER MONITORING for Well G-4A

Volatile and Semi-Volatile Organic Compounds (VOCs and SVOCs)					
Benzene	Monitor	Monitor	mg/l	Semi-Annually	Semi-Annually
Carbon tetrachloride	Monitor	Monitor	mg/l	Semi-Annually	Semi-Annually
o-Dichlorobenzene	Monitor	Monitor	mg/l	Semi-Annually	Semi-Annually
para-Dichlorobenzene	Monitor	Monitor	mg/l	Semi-Annually	Semi-Annually
1,2-Dichloroethane	Monitor	Monitor	mg/l	Semi-Annually	Semi-Annually
1,1-Dichloroethylene	Monitor	Monitor	mg/l	Semi-Annually	Semi-Annually
cis-1,2-Dichloroethylene	Monitor	Monitor	mg/l	Semi-Annually	Semi-Annually
trans-1,2-Dichloroethylene	Monitor	Monitor	mg/l	Semi-Annually	Semi-Annually
Dichloromethane	Monitor	Monitor	mg/l	Semi-Annually	Semi-Annually
1,2-Dichloropropane	Monitor	Monitor	mg/l	Semi-Annually	Semi-Annually
Ethylbenzene	Monitor	Monitor	mg/l	Semi-Annually	Semi-Annually
Hexachlorobenzene	Monitor	Monitor	mg/l	Semi-Annually	Semi-Annually
Hexachlorocyclopentadiene	Monitor	Monitor	mg/l	Semi-Annually	Semi-Annually
Monochlorobenzene	Monitor	Monitor	mg/l	Semi-Annually	Semi-Annually
Styrene	Monitor	Monitor	mg/l	Semi-Annually	Semi-Annually
Tetrachloroethylene	Monitor	Monitor	mg/l	Semi-Annually	Semi-Annually
Toluene	Monitor	Monitor	mg/l	Semi-Annually	Semi-Annually
Trihalomethanes (total) ²⁰	Monitor	Monitor	mg/l	Semi-Annually	Semi-Annually
1,1,1-Trichloroethane	Monitor	Monitor	mg/l	Semi-Annually	Semi-Annually
1,2,4 - Trichlorobenzene	Monitor	Monitor	mg/l	Semi-Annually	Semi-Annually
1,1,2 - Trichloroethane	Monitor	Monitor	mg/l	Semi-Annually	Semi-Annually
Trichloroethylene	Monitor	Monitor	mg/l	Semi-Annually	Semi-Annually
Vinyl Chloride	Monitor	Monitor	mg/l	Semi-Annually	Semi-Annually
Xylenes (Total)	Monitor	Monitor	mg/l	Semi-Annually	Semi-Annually

²⁰ Total Trihalomethanes are comprised of Bromoform, Bromodichloromethane, Chloroform, and Dibromochloromethane.

Table 18: GROUNDWATER MONITORING for Well G-9A

Sampling Point Number	Sampling Point Identification			Latitude (North)	Longitude (West)
4	POC #2, Well G-9A			33° 21' 35.9"	111° 48' 24.8"
Parameter	Alert Level	Aquifer Quality Limit	Units	Sampling Frequency	Reporting Frequency
Total Nitrogen ²¹ :	Not Applicable	14.0	mg/l ²²	Monthly Calculation	Quarterly
Nitrate-Nitrite as N	Not Applicable	12.2	mg/l	Monthly Calculation	Quarterly
Nitrate as N	Not Applicable	12.2	mg/l	Monthly	Quarterly
Nitrite as N	0.8	1.0	mg/l	Monthly	Quarterly
Total Kjeldahl Nitrogen (TKN)	Not Applicable ²³	Not Applicable	mg/l	Monthly	Quarterly
E. coli	Non-detect ²⁴	Not Applicable	MPN ²⁵	Monthly	Quarterly
Total Coliform	Absence	Absence	P/A ²⁶	Monthly/Suspended ²⁷	Quarterly
Water Level (upper limit)	40	Not Applicable	Feet bgs ²⁸	Monthly	Quarterly
Water Level (lower limit)	130	Not Applicable	Feet bgs	Monthly	Quarterly
Metals (Dissolved)					
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

²¹ Total Nitrogen is the sum of Nitrate as N, Nitrite as N, and Total Kjeldahl Nitrogen (TKN)

²² Mg/l = milligrams per liter

²³ Not Applicable means that monitoring is required, but no limits have been specified at the time of permit issuance

²⁴ In the event that the alert level for monthly E. coli sample is exceeded, the permittee shall initiate monthly Total Coliform monitoring as described under Section 2.6.2.3.5. For MPN, a value of <2.2 shall be considered to be non-detect.

²⁵ MPN = Most Probable Number per 100 ml.

²⁶ 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.

²⁷ Monitoring required only as per Section 2.6.2.3.5. If the fecal coliform or E. coli Alert Level is not exceeded, indicate 'Suspended' on SMRFs.

²⁸ ft. bgs – feet below ground surface

Table 18: GROUNDWATER MONITORING for Well G-9A

Volatile and Semi-Volatile Organic Compounds (VOCs and SVOCs)					
Benzene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Carbon tetrachloride	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
o-Dichlorobenzene	0.48	0.6	mg/l	Semi-Annually	Semi-Annually
para-Dichlorobenzene	0.06	0.075	mg/l	Semi-Annually	Semi-Annually
1,2-Dichloroethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
1,1-Dichloroethylene	0.0056	0.007	mg/l	Semi-Annually	Semi-Annually
cis-1,2-Dichloroethylene	0.056	0.07	mg/l	Semi-Annually	Semi-Annually
trans-1,2-Dichloroethylene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Dichloromethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
1,2-Dichloropropane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Ethylbenzene	0.56	0.7	mg/l	Semi-Annually	Semi-Annually
Hexachlorobenzene	0.0008	0.001	mg/l	Semi-Annually	Semi-Annually
Hexachlorocyclopentadiene	0.04	0.05	mg/l	Semi-Annually	Semi-Annually
Monochlorobenzene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Styrene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Tetrachloroethylene	Monitor	Monitor	mg/l	Semi-Annually	Semi-Annually
Toluene	0.8	1.0	mg/l	Semi-Annually	Semi-Annually
Trihalomethanes (total) ²⁹	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	Monitor	Monitor	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

²⁹ Total Trihalomethanes are comprised of Bromoform, Bromodichloromethane, Chloroform, and Dibromochloromethane.

Table 19: GROUNDWATER MONITORING for Well G-7A

Sampling Point Number	Sampling Point Identification			Latitude (North)	Longitude (West)
5	POC #1, Well G-7A			33° 21' 24.8" N	111° 48' 4.1" W
Parameter	Alert Level	Aquifer Quality Limit	Units	Sampling Frequency	Reporting Frequency
Total Nitrogen ³⁰ :	Not Applicable	14.0	mg/l ³¹	Monthly Calculation	Quarterly
Nitrate-Nitrite as N	Not Applicable	12.2	mg/l	Monthly Calculation	Quarterly
Nitrate as N	Not Applicable	12.2	mg/l	Monthly	Quarterly
Nitrite as N	0.8	1.0	mg/l	Monthly	Quarterly
Total Kjeldahl Nitrogen (TKN)	Not Applicable ³²	Not Applicable	mg/l	Monthly	Quarterly
E. coli	Non-detect ³³	Not Applicable	MPN ³⁴	Monthly	Quarterly
Total Coliform	Absence	Absence	P/A ³⁵	Monthly/Suspended ³⁶	Quarterly
Water Level (upper limit)	40	Not Applicable	Feet bgs ³⁷	Monthly	Quarterly
Water Level (lower limit)	130	Not Applicable	Feet bgs	Monthly	Quarterly
Metals (Dissolved)					
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

³⁰ Total Nitrogen is the sum of Nitrate as N, Nitrite as N, and Total Kjeldahl Nitrogen (TKN)

³¹ Mg/l = milligrams per liter

³² Not Applicable means that monitoring is required, but no limits have been specified at the time of permit issuance

³³ In the event that the alert level for monthly E. coli sample is exceeded, the permittee shall initiate monthly Total Coliform monitoring as described under Section 2.6.2.3.5. For MPN, a value of <2.2 shall be considered to be non-detect.

³⁴ MPN = Most Probable Number per 100 ml.

³⁵ 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.

³⁶ Monitoring required only as per Section 2.6.2.3.5. If the fecal coliform or E. coli Alert Level is not exceeded, indicate 'Suspended' on SMRFs.

³⁷ ft. bgs – feet below ground surface

Table 19: GROUNDWATER MONITORING for Well G-7A

Volatile and Semi-Volatile Organic Compounds (VOCs and SVOCs)					
Benzene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Carbon tetrachloride	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
o-Dichlorobenzene	0.48	0.6	mg/l	Semi-Annually	Semi-Annually
para-Dichlorobenzene	0.06	0.075	mg/l	Semi-Annually	Semi-Annually
1,2-Dichloroethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
1,1-Dichloroethylene	0.0056	0.007	mg/l	Semi-Annually	Semi-Annually
cis-1,2-Dichloroethylene	0.056	0.07	mg/l	Semi-Annually	Semi-Annually
trans-1,2-Dichloroethylene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Dichloromethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
1,2-Dichloropropane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Ethylbenzene	0.56	0.7	mg/l	Semi-Annually	Semi-Annually
Hexachlorobenzene	0.0008	0.001	mg/l	Semi-Annually	Semi-Annually
Hexachlorocyclopentadiene	0.04	0.05	mg/l	Semi-Annually	Semi-Annually
Monochlorobenzene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Styrene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Tetrachloroethylene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Toluene	0.8	1.0	mg/l	Semi-Annually	Semi-Annually
Trihalomethanes (total) ³⁸	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

³⁸ Total Trihalomethanes are comprised of Bromoform, Bromodichloromethane, Chloroform, and Dibromochloromethane.

Table 20: GROUNDWATER MONITORING for Well G-11

Sampling Point Number	Sampling Point Identification			Latitude (North)	Longitude (West)
6	POC #3 Well G-11			33° 21' 13.1" N	111° 48' 20.3" W
Parameter	Alert Level	Aquifer Quality Limit	Units	Sampling Frequency	Reporting Frequency
Total Nitrogen ³⁹ :	Not Applicable	14.0	mg/l ⁴⁰	Monthly Calculation	Quarterly
Nitrate-Nitrite as N	Not Applicable	12.2	mg/l	Monthly Calculation	Quarterly
Nitrate as N	Not Applicable	12.2	mg/l	Monthly	Quarterly
Nitrite as N	0.8	1.0	mg/l	Monthly	Quarterly
Total Kjeldahl Nitrogen (TKN)	Not Applicable ⁴¹	Not Applicable	mg/l	Monthly	Quarterly
E. coli	Non-detect ⁴²	Not Applicable	MPN ⁴³	Monthly	Quarterly
Total Coliform	Absence	Absence	P/A ⁴⁴	Monthly/Suspended ⁴⁵	Quarterly
Water Level (upper limit)	40	Not Applicable	Feet bgs ⁴⁶	Monthly	Quarterly
Water Level (lower limit)	130	Not Applicable	Feet bgs	Monthly	Quarterly
Metals (Dissolved)					
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

³⁹ Total Nitrogen is the sum of Nitrate as N, Nitrite as N, and Total Kjeldahl Nitrogen (TKN)

⁴⁰ Mg/l = milligrams per liter

⁴¹ Not Applicable means that monitoring is required, but no limits have been specified at the time of permit issuance

⁴² In the event that the alert level for monthly E. coli sample is exceeded, the permittee shall initiate monthly Total Coliform monitoring as described under Section 2.6.2.3.5. For MPN, a value of <2.2 shall be considered to be non-detect.

⁴³ MPN = Most Probable Number per 100 ml.

⁴⁴ 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.

⁴⁵ Monitoring required only as per Section 2.6.2.3.5. If the fecal coliform or E. coli Alert Level is not exceeded, indicate 'Suspended' on SMRFs.

⁴⁶ ft. bgs – feet below ground surface

Table 20: GROUNDWATER MONITORING for Well G-11

Volatile and Semi-Volatile Organic Compounds (VOCs and SVOCs)					
Benzene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Carbon tetrachloride	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
o-Dichlorobenzene	0.48	0.6	mg/l	Semi-Annually	Semi-Annually
para-Dichlorobenzene	0.06	0.075	mg/l	Semi-Annually	Semi-Annually
1,2-Dichloroethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
1,1-Dichloroethylene	0.0056	0.007	mg/l	Semi-Annually	Semi-Annually
cis-1,2-Dichloroethylene	0.056	0.07	mg/l	Semi-Annually	Semi-Annually
trans-1,2-Dichloroethylene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Dichloromethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
1,2-Dichloropropane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Ethylbenzene	0.56	0.7	mg/l	Semi-Annually	Semi-Annually
Hexachlorobenzene	0.0008	0.001	mg/l	Semi-Annually	Semi-Annually
Hexachlorocyclopentadiene	0.04	0.05	mg/l	Semi-Annually	Semi-Annually
Monochlorobenzene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Styrene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Tetrachloroethylene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Toluene	0.8	1.0	mg/l	Semi-Annually	Semi-Annually
Trihalomethanes (total) ⁴⁷	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

⁴⁷ Total Trihalomethanes are comprised of Bromoform, Bromodichloromethane, Chloroform, and Dibromochloromethane.

Table 21: FACILITY INSPECTION AND OPERATIONAL MONITORING

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

Pollution Control Structure/Parameter	Performance Level	Inspection Frequency	Reporting Frequency
Infiltration Basin Freeboard	Three (3) Linear Foot	Monthly	See Section 2.7.3
Infiltration Basin Berm Integrity	No visible structural damage, breach, or erosion of embankments	Monthly	
POC Wells	Well cap and seals are intact. No discernable corrosion or deterioration of the well(s). No discernable materials accumulating in the well. Any dedicated well equipment are functional and intact.	Monthly	See Section 2.7.3 and 2.5.5.1

5.0 REFERENCES AND PERTINENT INFORMATION

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

APP Application, dated: 3/3/2023

Contingency Plan, dated: To be submitted as part of:
Section 3.0 COMPLIANCE SCHEDULE,
Table 8: COMPLIANCE SCHEDULE ITEMS, Item No. 7

6.0 NOTIFICATION PROVISIONS

6.1. Annual Registration Fees

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

6.2. Duty to Comply

[A.R.S. §§ 49-221 through 263]

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

6.3. Duty to Provide Information

[A.R.S. §§ 49-243(K)(2) and 49-243(K)(8)]

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

6.4. Compliance with Aquifer Water Quality Standards

[A.R.S. §§ 49-243(B)(2) and 49-243(B)(3)]

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

6.5. Technical and Financial Capability

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

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

6.6. Reporting of Bankruptcy or Environmental Enforcement

[A.A.C. R18-9-A207(C)]

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

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

6.7. Monitoring and Records

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

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

6.8. Inspection and Entry

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

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

6.9. Duty to Modify

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

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

6.10. Permit Action: Amendment, Transfer, Suspension, and Revocation

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

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

7.0. ADDITIONAL PERMIT CONDITIONS

7.1. Other Information

[A.R.S. § 49-243(K)(8)]

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

7.2. Severability

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

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

7.3. Permit Transfer

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