

STATE OF ARIZONA
AQUIFER PROTECTION PERMIT NO. P-100983
PLACE ID 1213, LTF 49480
OTHER 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 City of Bisbee is hereby authorized to operate the San Jose Wastewater Treatment Facility located at 940 Purdy Lane, in Bisbee, Arizona, in Cochise County, over groundwater of the Upper San Pedro basin in Township 24 S, Range 24 E, Section 9, Gila and Salt River Baseline and Meridian.

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

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

1.1 PERMITTEE INFORMATION

Facility Name: City of Bisbee San Jose Wastewater Treatment Facility
Facility Address: 940 Purdy Lane, Bisbee, Arizona
County: Cochise County

Permittee: City of Bisbee
Permittee Address: 118 Arizona Street
Bisbee, Arizona 85603

Facility Contact: Russell McConnell, Public Works Director
Emergency Phone No.: (520) 432-6004

Latitude/Longitude: 31° 21' 41" N/ 109° 54' 48" W
Legal Description: Township 24S, Range 24E, Section 09 of the Gila and Salt River Baseline and Meridian

1.2 AUTHORIZING SIGNATURE

Henry R. Darwin, Acting Director
Water Quality Division
Arizona Department of Environmental Quality

Signed this _____ day of _____, 2009

THIS PERMIT SUPERCEDES ALL PREVIOUS PERMITS

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

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

The City of Bisbee is authorized to operate the San Jose Wastewater Treatment Facility (WWTF) with a permitted capacity to collect and treat a maximum average monthly flow of 1.22 million gallons per day (mgd). The WWTF consists of an influent lift station, a septage receiving station, headworks with bar screen and grit removal, sequencing batch reactors with surge basins for biological treatment including nitrification-denitrification, ultraviolet (UV) disinfection, aerobic sludge digesters, a sludge dewatering belt filter press, and an effluent reuse pump station. All treatment units are constructed of either reinforced concrete or steel tanks. The wastewater treated at this facility is typical domestic sewage from residential and commercial areas in the city of Bisbee. The WWTP is rated as producing Class B+ reclaimed water. Excess effluent not needed for reuse may be conveyed approximately 1.5 miles southwest to an outfall in Greenbush Draw where it may be discharged pursuant to AZPDES Permit No. AZ0025275. Sludge is thickened, dewatered, and transported to an approved landfill in accordance with state and federal regulations.

At the site, there are two treatment lagoons and one polishing pond which are currently (at permit issuance) undergoing clean-closure review by ADEQ. Upon clean-closure approval, the permittee may apply for a permit amendment to include the use of one of these lagoons for emergency effluent storage.

Groundwater flows generally southward beneath the WWTF at a depth of about 200 to 240 feet below the land surface (bls) to the outfall in Greenbush Draw where the depth to groundwater is approximately 120 feet bls. In this area, the groundwater flow turns westward and generally trends in the same direction as topography and surface water toward the San Pedro River.

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 purpose of this "other" amendment is to classify the WWTF as producing Class B+ reclaimed water standards, as per A.A.C. R18-11, Article 3. Also, compliance schedule items in the previous permit which have been fulfilled have been deleted.

The facility includes the following permitted discharging facilities:

Facility	Latitude	Longitude
San Jose Wastewater Treatment Facility	31° 21' 41" N	109° 54' 48" W
Discharge into Greenbush Draw	31° 20' 35" N	109° 56' 10" W

Annual Registration Fee [A.R.S. § 49-242]

The Annual Registration Fee for this permit is established by A.R.S. § 49-242(E) and is payable to the Arizona Department of Environmental Quality (ADEQ) each year. The design flow is 1.22 mgd.

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 permittee shall maintain financial capability throughout the life of the facility. The estimated dollar amount demonstrated for financial capability is \$500,000. The financial capability was demonstrated through A.A.C. R18-9-A203(B)(1) and (2).

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

The WWTF is designed and constructed, operated, and maintained to achieve the treatment performance criteria for new facilities as specified in A.A.C. R18-9-B204.

The facility shall meet the requirements for pretreatment by conducting monitoring as per R18-9-B204(B)(6)(b)(iii).

2.2.1 Engineering Design

The WWTF was designed as per the design report prepared by Gregory M. Haldane, P.E., of Brown and Caldwell, dated December 3, 2003, and finalized by Michael A. Fleury, P.E., of Brown and Caldwell. PACE Engineering submitted a changed application design for the wastewater treatment methods as the result of the Value Engineering Changes Process Design Report submitted on May 12, 2005. This report incorporated a new design which included: combining the effluent lift station with the septage receiving station; replacing a custom screenings and grit removal unit with a packaged combination screenings and grit removal unit; utilizing a Sequencing Batch Reactor (SBR) activated sludge treatment in place of a Modified Lutzack Ettinger (MLE) activated sludge treatment to improve ease of operation and reduce up-front capital expenditures, and; add mechanical solids dewatering in place of sludge drying beds to reduce up-front capital expenditures. The engineering design was approved by ADEQ on October 18, 2005.

Since the WWTF does not have any odor, noise, or aesthetic controls, the City of Bisbee has obtained a waiver letter from the affected property owner Phelps Dodge Corporation, and therefore, is in compliance with the required setback requirements. The WWTF is not located in a 100-year flood plain.

2.2.2 Site-specific Characteristics

Groundwater flows generally southward beneath the WWTF at a depth of about 200 to 240 feet below the land surface (bls) to the outfall in Greenbush Draw where the depth to groundwater is approximately 120 feet bls. In this area, the groundwater flow turns westward and generally trends in the same direction as topography and surface water toward the San Pedro River.

2.2.3 Pre-operational Requirements

Not applicable.

2.2.4 Operational Requirements

1. The permittee shall maintain a copy of the up-to-date Operation and Maintenance (O & M) Manual at the WWTF site at all times and 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.
3. If any damage of the pollution control structures is identified during inspection, proper repair procedures shall be performed. All repair procedures and material(s) used shall be documented on the Self-Monitoring Report Form submitted quarterly to the ADEQ Water Quality Compliance Section.

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 classified as producing Class B+ reclaimed water and may be used for any allowable Class B or C use under a valid reclaimed water permit.

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 1.22 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 pollutant control technologies including liner failure¹, uncontrollable leakage, overtopping (e.g., exceeding the maximum storage capacity, defined as a fluid level exceeding the crest elevation of a permitted impoundment), of basins, lagoons, impoundments or sludge drying beds, berm breaches, accidental spills, or other unauthorized discharges.
4. Specific discharge limitations are listed in Section 4.2, Tables IA and IB.

2.4 Points of Compliance [A.R.S. § 49-244]

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

POC#	POC Locations	Latitude	Longitude
1	Monitor well located ~ 700' downgradient of the AZPDES outfall in Greenbush Draw	31° 20' 36" N	109° 56' 18" W
2	Conceptual point at the downgradient boundary of the pollutant management area (PMA), which is ~ 750' downgradient of the calculated maximum lineal extent of flow of effluent within Greenbush Draw	31° 23' 34" N	110° 05' 05" W
3	Conceptual point at the southwest boundary of the WWTF	31° 21' 26" N	109° 55' 06" W

Groundwater monitoring is required at POC #1 (see Section 4.2, Table IIA). Groundwater monitoring at POC #s 2 and 3 are not required at permit issuance. The Director may amend this permit to designate additional points of compliance if information on groundwater gradients or groundwater usage indicates the need.

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

All monitoring required in this permit shall continue for the duration of the permit, regardless of the status of the facility. All sampling, preservation and holding times shall be in accordance with currently

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

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. The permittee shall consult the most recent version of the ADEQ Quality Assurance Project Plan (QAPP) and Environmental Protection Agency (EPA) 40 Code of Federal Regulations (CFR) PART 136 for guidance in this regard. 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 IA. Representative samples of the effluent shall be collected at sampling point #1, immediately downstream of the ultra-violet (UV) disinfection system.

2.5.3 Reclaimed Water Monitoring

The permittee shall monitor the reclaimed water according to Section 4.2, Table IB. Representative samples of the reclaimed water shall be collected at sampling point #1, immediately downstream of the ultra-violet (UV) disinfection system.

2.5.4 Groundwater Monitoring

The permittee shall monitor the groundwater at POC #1 according to Section 4.2, Table IIA, and shall monitor the sentinel well according to Section 4.2, Table IIB.

Static water levels shall be measured and recorded prior to sampling. Wells shall be purged of at least three borehole volumes (as calculated using the static water level) or until field parameters (pH, 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.

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, insufficient water in the well(s) for more than two sampling events, 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 alert levels (ALs) and aquifer quality limits (AQLs) established for the previously 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.

1. 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 on the SMRF submitted quarterly to the ADEQ Water Quality Compliance Section, Data Unit. If none of the conditions occur, the report shall say “no event” for a particular reporting period. If the facility is not in operation, the permittee shall indicate this on the SMRF.
2. The permittee shall submit data required in Section 4.2, Table III regardless of the operating status of the facility unless otherwise approved by ADEQ or allowed in 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. 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 Arizona state-certified laboratories can be obtained at the address below:

Arizona Department of Health Services
Office of Laboratory Licensure and Certification
250 North 17th Avenue
Phoenix, AZ 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 ADEQ 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 Considerations

At least one copy of the approved contingency and emergency response plan(s) 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 any violation of an AQL, discharge limit (DL), or other permit condition shall be reported to ADEQ following the reporting requirements in Section 2.7.3.

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

is responsible for compliance with contingency plans relating to the exceedance of an AL or violation of a DL, AQL or any other permit condition.

2.6.2 Exceeding of Alert Levels/Performance Levels

2.6.2.1 Exceeding of Performance Levels Set for Operational Conditions

1. If an operational performance level (PL) set in Section 4.2, Table III has been exceeded the permittee shall:
 - a. Notify the ADEQ Water Quality Compliance Section (by phone or fax, see Section 2.7.5) within five days of becoming aware of the exceedance.
 - b. Submit a written report to the ADEQ Water Quality Compliance Section within 30 days of becoming aware of the exceedance. The report shall document all of the following:
 - (1) a description of the exceedance and its cause;
 - (2) the period of the exceedance, including exact date(s) and time(s), if known, and the anticipated time period during which the exceedance is expected to continue;
 - (3) any action taken or planned to mitigate the effects of the exceedance or spill, or to eliminate or prevent recurrence of the exceedance or spill;
 - (4) any monitoring activity or other information which indicates that any pollutants would be reasonably expected to cause a violation of an AWQS; and
 - (5) any malfunction or failure of pollution control devices or other equipment or process.
2. The facility is no longer on alert status once the operational indicator no longer indicates that a PL is being exceeded. The permittee shall, however, complete all tasks necessary to return the facility to its pre-alert operating condition.

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

1. If an AL set in Section 4.2, 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 parameters 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 an AL exceedance. To implement any other corrective action the permittee shall obtain prior approval from ADEQ according to Section 2.6.6.

3. Within 30 days after an AL exceedance, the permittee shall submit the laboratory results to the ADEQ Water Quality Compliance Section, along with a summary of the findings of the investigation, the cause of the exceedance, and actions taken to resolve the problem.
4. Upon review of the submitted report, the Department may amend the permit to require additional monitoring, increased frequency of monitoring, amendments to permit conditions or other actions.

2.6.2.2.1. Exceeding Permit Flow Limit

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

2.6.2.3 Exceeding of Alert Levels in Groundwater Monitoring

2.6.2.3.1 Alert Levels for Indicator Parameters

No ALs have been established for indicator parameters.

2.6.2.3.2 Alert Levels for Pollutants with Numeric Aquifer Water Quality Standards

1. If an AL for a pollutant set in Section 4.2, Table II has been exceeded, the permittee may conduct verification sampling within five days of becoming aware of the exceedance. The permittee may use results of another sample taken between the date of the last sampling event and the date of receiving the result as verification.
2. If 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 as follows:

Specified Monitoring Frequency (Section 4.2, Table II)	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 Part 5.0 and specific contingency measures identified in Part 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 is exceeded, pollutants are not reasonably expected to cause a violation of an AQL. The demonstration may propose a revised AL or monitoring frequency for approval in writing by the Groundwater Section.

4. Within 30 days after confirmation of an AL exceedance, the permittee shall submit the laboratory results to the Water Quality Compliance Section along with a summary of the findings of the investigation, the cause of the exceedance, and actions taken to resolve the problem.
5. Upon review of the submitted report, the Department may amend the permit to require additional monitoring, increased frequency of monitoring, amendments to permit conditions or other actions.
6. The increased monitoring required as a result of an AL exceedance may be reduced to the monitoring frequency in Section 4.2, Table II if the results of four sequential sampling events demonstrate that no parameters exceed the AL.
7. If the increased monitoring required as a result of an AL exceedance continues for more than six 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 permit issuance.

2.6.3 Discharge Limit Violation

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

The permittee 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. 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.

2. The permittee shall comply with the freeboard requirements as specified in Section 4.2, Table III (Facility Inspections) to prevent the overtopping of an impoundment or sludge drying bed. If an impoundment or sludge drying bed is overtopped, the permittee shall follow the requirements in Section 2.6.5.3 and the reporting requirements of Section 2.7.3.
3. Upon review of the submitted report, the Department may amend the permit to require additional monitoring, increased frequency of monitoring, amendments to permit conditions, or other actions.

2.6.4 Aquifer Quality Limit Violation

1. If an AQL set in Section 4.2, Table IIA has been exceeded, the permittee may conduct verification sampling within five days of becoming aware of an AQL being exceeded. 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 that the AQL is violated for any parameter or if the permittee opts not to perform verification sampling, then, the permittee shall increase the frequency of monitoring as follows:

Specified Monitoring Frequency (Section 4.2, Table IIA)	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.

3. Upon review of the submitted report, the Department may amend the permit to require additional monitoring, increased frequency of monitoring, amendments to permit conditions or other 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 ADEQ Southern Regional Office at (520) 628-6724, and the ADEQ Water Quality Compliance Section at (602) 771-4497 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 ADEQ Southern Regional Office at (520) 628-6724, and the ADEQ Water Quality Compliance Section at (602) 771-4497, within 24 hours of discovering the discharge of non-hazardous material which: a) has the potential to cause an AQL exceedance; or b) could pose an endangerment to public health or the environment.

2.6.5.4 Reporting Requirements

The permittee shall submit a written report for any unauthorized discharges reported under Sections 2.6.5.2 and 2.6.5.3 to the ADEQ Southern Regional Office and the ADEQ Water Quality Compliance Section (see Section 2.7.5), 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; and/or
5. Mitigation to limit the impact of pollutants on existing uses of the aquifer.

Within 30 days of completion of any corrective action, the operator shall submit to the ADEQ Water Quality Compliance 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 SMRF provided by ADEQ. The completed SMRF shall be submitted to the Water Quality Compliance Section, Data Unit.
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 parameters to be monitored and the frequency for reporting results for compliance monitoring. Monitoring and analytical methods shall be recorded on the SMRF. The permittee reserves the right to request a relaxation of the monitoring frequency for metals and volatile organic compounds through a permit amendment if the data indicate that water quality standards are being achieved consistently.
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 R18-9 A206(B)(2).

2.7.3 Permit Violation and Alert Level Status Reporting

1. The permittee shall notify the Water Quality Compliance Section in writing within five days (except as provided in Section 2.6.5) of becoming aware of a violation of any permit condition, AQL, or DL, or of an AL exceedance.

2. The permittee shall submit a written report to the Water Quality Compliance 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 complete the SMRF provided by ADEQ to reflect facility inspection requirements designated in Section 4.2, Table III and submit to the ADEQ Water Quality Compliance Section, Data Unit quarterly along with other reports required by this permit. Facility inspection reports shall be submitted no less frequently than quarterly, regardless of operational status.

2.7.5 Reporting Location

All SMRFs shall be submitted to:

Arizona Department of Environmental Quality
Water Quality Compliance Section, Data Unit
Mail Code: 5415B-1
1110 West Washington Street
Phoenix, Arizona 85007
Phone (602) 771-4681

All documents required by this permit to be submitted to the Water Quality Compliance Section shall be directed to both of the following addresses:

Arizona Department of Environmental Quality
Water Quality Compliance Section
Mail Code: 5415B-1
1110 West Washington Street
Phoenix, Arizona 85007
Phone (602) 771-4497
Fax (602) 771-4505

-AND-

Arizona Department of Environmental Quality
Southern Regional Office
400 West Congress Street, Suite 433
Tucson, Arizona 85701
Phone (520) 628-6733
Fax (520) 628-6745

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) 771-4428

2.7.6 Reporting Deadline

The following table lists the quarterly report due dates:

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:

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 Section and Water Quality Compliance 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 Water Quality Compliance Section and the Southern Regional Office 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 ADEQ Water Quality Compliance Section and Southern Regional Office with a monthly facility status report describing the activities conducted on the treatment facility to correct the problem.

At the time of notification the permittee shall submit for ADEQ approval a plan for maintenance of discharge control systems and for monitoring during the period of temporary cessation. Immediately following ADEQ approval, the permittee shall implement the approved plan. If necessary, ADEQ shall amend permit conditions to incorporate conditions to address temporary cessation. During the period of temporary cessation, the permittee shall provide written notice to the Water Quality Compliance Section

and the Southern Regional Office of the operational status of the facility every three years. If the permittee intends to permanently cease operation of any facility, the permittee shall submit closure notification, as set forth in Section 2.9 below.

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

For a facility addressed under this permit, the permittee shall give written notice of closure to the Water Quality Compliance Section and the Southern Regional Office of the intent to cease operation without resuming activity for which the facility was designed or operated.

2.9.1 Closure Plan

Within 90 days following notification of closure, the permittee shall submit for approval to the 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. Remedial 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]

All compliance schedule items listed in the previous permit have been completed and removed from this permit, except the requirement in #2 to monitor the sentinel well. This is a routine permit monitoring requirement and has been moved to Section 4.2, Table IIB.

4.0 TABLES OF MONITORING REQUIREMENTS

4.1 PRE-OPERATIONAL MONITORING (OR CONSTRUCTION REQUIREMENTS)

Not applicable.

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

**TABLE IA
ROUTINE DISCHARGE MONITORING**

Sampling Point Number	Sampling Point Identification			Latitude	Longitude
1	Effluent sump downstream from the UV disinfection unit			31° 21' 41" N	109° 54' 41" W
Parameter	AL ²	DL ³	Units	Sampling Frequency	Reporting Frequency
Total Flow ⁴ : Daily ⁵	Not Established ⁶	Not Established	mgd ⁷	Daily	Quarterly
Total Flow: Monthly Average	1.159	1.22	mgd	Monthly ⁸	Quarterly
Flow: AZPDES Daily	Not Established	Not Established	mgd	Daily	Quarterly
Flow: AZPDES Monthly Average	1.159	1.22	mgd	Monthly	Quarterly
Flow: Reuse Daily	Not Established	Not Established	mgd	Daily	Quarterly
Flow: Reuse Monthly Average	1.159	1.22	mgd	Monthly	Quarterly
<i>E. coli</i> : Single sample maximum	Not Established	15	CFU or MPN ⁹	Daily ¹⁰	Quarterly
<i>E. coli</i> : four (4) of seven (7) samples in a week ¹¹	Not established	Non-detect ¹²	CFU or MPN	Daily	Quarterly
Total Nitrogen ¹³ : Five-sample rolling geometric mean	8.0	10.0	mg/l	Monthly ¹⁴	Quarterly

²AL = Alert Level

³DL = Discharge Limit

⁴Total flow for both methods of disposal (reuse and AZPDES).

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

⁶Not Established means monitoring is required but no limits have been specified.

⁷mgd = million gallons per day

⁸Monthly = Calculated value, average of daily flows in a month.

⁹CFU = Colony Forming Units / 100 ml sample. MPN = Most Probable Number / 100 ml sample.

For CFU, a value of <1.0 shall be considered to be non-detect. For MPN, a value of <2.2 shall be considered to be non-detect.

¹⁰For *E. coli*, “daily” sampling means every day in which a sample can practicably be obtained and delivered in sufficient time for proper analysis, provided that no less than four samples in each calendar week are obtained and analyzed.

¹¹**Week** means the seven-day period starting on Sunday and ending on the following Saturday.

¹²If at least four (4) of seven (7) samples in a week are non-detect, report “yes” in the appropriate space on the SMRF (indicating that the standard has been met). If at least four (4) of seven (7) samples in a week have detections of *E. coli*, report “no” in the appropriate space on the SMRF (indicating that the standard has **not** been met).

¹³Total Nitrogen = Nitrate as N + Nitrite as N + Total Kjeldahl Nitrogen.

¹⁴Monthly calculation: the five-month geometric mean of the results of the five (5) most recent samples

TABLE IA
DISCHARGE MONITORING (continued)

Parameter	AL	DL	Units	Sampling Frequency	Reporting Frequency
Metals (total):					
Antimony	0.0048	0.006	mg/l	Quarterly	Quarterly
Arsenic	0.04	0.05	mg/l	Quarterly	Quarterly
Barium	1.60	2.00	mg/l	Quarterly	Quarterly
Beryllium	0.0032	0.004	mg/l	Quarterly	Quarterly
Cadmium	0.004	0.005	mg/l	Quarterly	Quarterly
Chromium	0.08	0.1	mg/l	Quarterly	Quarterly
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
Radionuclides:					
Gross alpha	12	15	pCi/l	Semi-Annually	Semi-Annually
Gross beta	40	50 ¹⁵	pCi/l	Semi-Annually	Semi-Annually

¹⁵ 50 pCi/l is the approximate equivalent to the AWQS of four (4) mrem/yr

TABLE 1A
DISCHARGE MONITORING (continued)

Parameter	AL	DL	Units	Sampling Frequency	Reporting Frequency
Volatile Organic Compounds (VOCs):					
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) ¹⁶	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

¹⁶Total Trihalomethanes are comprised of Bromoform, Bromodichloromethane, Chloroform, and Dibromochloromethane.

TABLE 1A
DISCHARGE MONITORING (continued)

Parameter	AL	DL	Units	Sampling Frequency	Reporting Frequency
Major Cations and Anions:					
Alkalinity	Monitor ¹⁷	Monitor	mg/l	Annually	Annually
Bicarbonate	Monitor	Monitor	mg/l	Annually	Annually
Calcium	Monitor	Monitor	mg/l	Annually	Annually
Carbonate	Monitor	Monitor	mg/l	Annually	Annually
Chloride	Monitor	Monitor	mg/l	Annually	Annually
Hardness	Monitor	Monitor	mg/l	Annually	Annually
Hydroxide	Monitor	Monitor	mg/l	Annually	Annually
Iron	Monitor	Monitor	mg/l	Annually	Annually
Magnesium	Monitor	Monitor	mg/l	Annually	Annually
Manganese	Monitor	Monitor	mg/l	Annually	Annually
Potassium	Monitor	Monitor	mg/l	Annually	Annually
Sodium	Monitor	Monitor	mg/l	Annually	Annually
Sulfate	Monitor	Monitor	mg/l	Annually	Annually
Total Dissolved Solids (TDS)	Monitor	Monitor	mg/l	Annually	Annually

¹⁷ Monitoring required, but no limits established.

TABLE 1B
CLASS B+ RECLAIMED WATER MONITORING¹⁸

Sampling Point Number	Sampling Point Identification	Latitude	Longitude	
1	Effluent sump downstream from the UV disinfection unit	31° 21' 41" N	109° 54' 41" W	
Parameter	DL	Units	Sampling Frequency	Reporting Frequency
Total Nitrogen ¹⁹ : Five-sample rolling geometric mean	10.0	mg/l	Monthly ²⁰	Quarterly
<i>E. coli</i> ²¹ : Single-sample maximum	504	CFU or MPN ²²	Daily ²³	Quarterly
<i>E. coli</i> : Four of last seven samples	126 ²⁴	CFU or MPN	Daily	Quarterly

¹⁸ Reclaimed water monitoring is in addition to routine discharge monitoring.

¹⁹ Nitrate N, plus Nitrite N, plus Total Kjeldahl Nitrogen (TKN)

²⁰ Monthly calculation of the five-month geometric mean of the results of the five most recent samples.

²¹ *E. coli* monitoring results that meet the specified discharge limits are considered to demonstrate compliance with A.A.C. R18-11-305.

²² CFU = Colony Forming Units per 100 ml; MPN = Most Probable Number per 100 ml

²³ For *E. coli*, “daily” sampling means every day in which a sample can practicably be obtained and delivered in sufficient time for proper analysis, provided that no less than four samples in each seven-day period are obtained and analyzed.

²⁴ If at least four of the last seven samples are equal to or less than 126 CFU or MPN per 100 ml, report “yes” in the appropriate space on the SMRF (indicating that the standard has been met). If at least four of the last seven samples are greater than 126 CFU or MPN per 100 ml, report “no” in the appropriate space on the SMRF (indicating that the standard has **not** been met).

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

**TABLE IIA
GROUNDWATER MONITORING - POC Well #1**

Sampling Point Number	Sampling Point Identification			Latitude	Longitude
2	Monitor well located ~ 700' downgradient of the AZPDES outfall in Greenbush Draw			31° 20' 36" N	109° 56' 18" W
Parameter	AL ²⁵	AQL ²⁶	Units	Sampling Frequency	Reporting Frequency
Depth to groundwater	Not Established ²⁷	Not Established	Feet below ground surface (bls)	Monthly	Monthly
Total Nitrogen ²⁸ :	Not Established	Not Established	mg/l	Monthly	Quarterly
Nitrate-Nitrite as N	8	10	mg/l	Monthly	Quarterly
Total Kjeldahl Nitrogen (TKN)	Not Established	Not Established	mg/l	Monthly	Quarterly
Total Coliform	Absence	Absence	P/A ²⁹	Monthly	Quarterly
Metals (total):					
Antimony	0.0048	0.006	mg/l	Annually	Annually
Arsenic	0.04	0.05	mg/l	Annually	Annually
Barium	1.60	2.00	mg/l	Annually	Annually
Beryllium	0.0032	0.004	mg/l	Annually	Annually
Cadmium	0.004	0.005	mg/l	Annually	Annually
Chromium	0.08	0.1	mg/l	Annually	Annually
Cyanide (as free cyanide)	0.16	0.2	mg/l	Annually	Annually
Fluoride	3.2	4.0	mg/l	Annually	Annually
Lead	0.04	0.05	mg/l	Annually	Annually
Mercury	0.0016	0.002	mg/l	Annually	Annually
Nickel	0.08	0.1	mg/l	Annually	Annually
Selenium	0.04	0.05	mg/l	Annually	Annually
Thallium	0.0016	0.002	mg/l	Annually	Annually
Radionuclides:					
Gross alpha	12	15	pCi/l	Annually	Annually
Gross beta	40	50 ³⁰	pCi/l	Annually	Annually

²⁵ AL = Alert Level

²⁶ AQL = Aquifer Quality Limit

²⁷ Not Established means monitoring is required but no limits are specified.

²⁸ Total Nitrogen is equal to nitrate as N plus nitrite as N plus TKN.

²⁹ P/A = Presence or absence of total coliforms in a 100-milliliter sample.

³⁰ 50 pCi/l is the approximate equivalent to the AWQS of four (4) mrem/yr

TABLE IIA
GROUNDWATER MONITORING - POC Well #1 (continued)

Parameter	AL	AQL	Units	Sampling Frequency	Reporting Frequency
Volatile Organic Compounds (VOCs)					
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) ³¹	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

³¹ Total Trihalomethanes are comprised of Bromoform, Bromodichloromethane, Chloroform, and Dibromochloromethane.

TABLE 11A
GROUNDWATER MONITORING (continued)

Parameter	AL	DL	Units	Sampling Frequency	Reporting Frequency
Major Cations and Anions:					
Alkalinity	Monitor ³²	Monitor	mg/l	Annually	Annually
Bicarbonate	Monitor	Monitor	mg/l	Annually	Annually
Calcium	Monitor	Monitor	mg/l	Annually	Annually
Carbonate	Monitor	Monitor	mg/l	Annually	Annually
Chloride	Monitor	Monitor	mg/l	Annually	Annually
Hardness	Monitor	Monitor	mg/l	Annually	Annually
Hydroxide	Monitor	Monitor	mg/l	Annually	Annually
Iron	Monitor	Monitor	mg/l	Annually	Annually
Magnesium	Monitor	Monitor	mg/l	Annually	Annually
Manganese	Monitor	Monitor	mg/l	Annually	Annually
Potassium	Monitor	Monitor	mg/l	Annually	Annually
Sodium	Monitor	Monitor	mg/l	Annually	Annually
Sulfate	Monitor	Monitor	mg/l	Annually	Annually
Total Dissolved Solids (TDS)	Monitor	Monitor	mg/l	Annually	Annually

³² Monitoring required, but no limits established.

**TABLE IIB
GROUNDWATER MONITORING - SENTINEL WELL**

Sampling Point Number	Sampling Point Identification			Latitude	Longitude
3	Sentinel Well located within 500 feet of the Arizona Water Company well, within 75 feet of Greenbush Draw			31° 20' 56" N	109° 57' 27" W
Parameter	AL ³³	DL ³⁴	Units	Sampling Frequency	Reporting Frequency
<i>E. coli</i> : Single sample maximum	Not Established	Non-detect	CFU or MPN ³⁵	Monthly	Within five days of receipt of sampling results ³⁶
Total Nitrogen ³⁷ :	Not Established	5.0	mg/l	Quarterly	Within five days of receipt of sampling results ³⁸

³³AL = Alert Level

³⁴DL = Discharge Limit

³⁵CFU = Colony Forming Units / 100 ml sample. MPN = Most Probable Number / 100 ml sample.

For CFU, a value of <1.0 shall be considered to be non-detect. For MPN, a value of <2.2 shall be considered to be non-detect.

³⁶Permittee shall notify the ADEQ Groundwater Section, the ADEQ Southern Regional Office, and the Arizona Water Company within five days after receipt of sampling results which indicate the presence of *E. coli* in the sentinel well.

³⁷Total Nitrogen = Nitrate as N + Nitrite as N + Total Kjeldahl Nitrogen.

³⁸Permittee shall notify the ADEQ Groundwater Section, the ADEQ Southern Regional Office, and the Arizona Water Company within five days after receipt of sampling results which indicate an exceedance of 5.0 mg/l of total nitrogen in the sentinel well.

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

**TABLE III
FACILITY INSPECTION (Operational Monitoring)**

Pollution Control Structures/Parameter	Performance Levels	Inspection Frequency	Reporting Frequency
Pump Integrity	Good working condition	Weekly	Quarterly
Treatment Plant Components	Good working condition	Weekly	Quarterly
Collection system inflow and infiltration volume increases	Daily flow volumes at the WWTF during storm events shall be obtained	After each storm event	Quarterly

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. Aquifer Protection Permit Other Amendment Application dated: February 4, 2009
2. Public Notice dated: *to be entered*
3. Public Hearing, dated: N/A
4. Responsiveness Summary, dated: N/A

6.0 NOTIFICATION PROVISIONS

6.1 Annual Registration Fees

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

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 AWQS at the applicable 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(D), shall be in effect prior to any discharge authorized by this permit and shall remain in effect for the duration of the permit.

6.6 Reporting of Bankruptcy or Environmental Enforcement [A.A.C. R18-9-A207(C)]

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

1. the filing of bankruptcy by the permittee; 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).