

STATE OF ARIZONA
AQUIFER PROTECTION PERMIT NO. P-100620
PLACE ID 1003, LTF 46556
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, US Section of the International Boundary and Water Commission is hereby authorized to operate the Nogales International Wastewater Treatment Plant (WWTP), located at Rio Rico in Santa Cruz County, Arizona, over groundwater of the Tucson AMA in Township 23 S, Range 13 E, Section 12, NE¹/₄, SW¹/₄, E¹/₂, and Section 1, SE¹/₄, 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: Nogales International Wastewater Treatment Plant
Facility Address: 865, Rio Rico Industrial Park, Rio Rico, Arizona 85648
Santa Cruz County

Permittee: 1) United States Section of the International Boundary and Water Commission, co-owner 2) City of Nogales, Arizona, co-owner

Permittee Address: PO Box 4063 777 N. Grand Ave.
Rio Rico, Arizona 85648 Nogales, AZ 85621

Facility Contact: John Light, Area Operations Manager
Elsayyid Ibrahim, Engineer

Emergency Phone#: (520) 281-1832

Latitude/Longitude: 31° 26' 49" N/ 110° 58' 51" W

Legal Description: Township 23 S, Range 13 E, Section 12, NE¹/₄, SW¹/₄, E¹/₂, and Section 1, SE¹/₄ of the Gila and Salt River Baseline and Meridian

1.2 AUTHORIZING SIGNATURE

Joan Card, 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 permittee is authorized to operate the Nogales International Wastewater Treatment Plant (WWTP) with an average monthly flow of 17 millions gallons per day (mgd). The new facility is located within the footprint of the existing lagoon treatment system. The WWTP process consists of headworks (refurbished existing mechanical screen, new vortex grit chamber and new fine screen with odor control), new Biological Nutrient Removal (BNR) treatment which includes aeration basins with anoxic zones and aeration zones, new secondary clarifiers, existing sand filters, new UV disinfection system and existing chlorine disinfection for backup, aerobic digester, a sludge belt filter press and waste activated sludge (WAS) storage pond for sludge storage. One of the existing lagoons, complete mixed lagoon (CML) -1 will be used to equalize the flow. Other existing lagoons will be taken out of the service, once the new BNR treatment plant is in operation.

The effluent is discharged to the Santa Cruz River near the confluence of Potrero Creek and the Santa Cruz Rivers in accordance with AZPDES permit AZ0025607. The dried sludge will be hauled offsite to be used for beneficial land application. The solids generated from screenings, grit, and scum will be hauled off-site for disposal in accordance with state and federal regulations. The WWTP is designed and constructed according to plans approved by the ADEQ APP and Reuse Unit.

The depth to groundwater at the site is generally 5 to 20 feet and is generally shallower closer to Santa Cruz River and Potrero Creek. The direction of groundwater flow generally is to the north or northwest.

The WWTP accepts sewage from the collection systems of the following communities: (1) The community of Rio Rico operated by Rio Rico Utilities; (2) the City of Nogales, Arizona, operated by the City of Nogales, Arizona; and (3) the City of Nogales, Sonora, Mexico, operated by the Organismo Operador Municipal de Agua Potable, Alcantarillado y Saneamiento de Nogales, Sonora (OOMAPAS-NS). The flows from Nogales, Sonora, Mexico, include storm water (combined flows) directed into the sewer system.

This amendment is to construct and operate the new Biological Nutrient Removal (BNR) treatment plant with capacity of 14.74 mgd. However, the permittee has submitted hydraulic modeling data that demonstrates that the new BNR can meet the discharge limits described under Section 4.2, Table I for flow up to 17 mgd.

During the initial start-up of 30-day period, the effluent will be monitored as per Section 4.1, Table I. Monitoring will begin after 30 days from the signature date of permit as per Section 4.2, Table I.

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:

Facility	Latitude	Longitude
Center of Nogales International WWTP	31° 26' 49" N	110° 58' 51" W
AZPDES Discharge to the Santa Cruz River	31° 27' 24" N	110° 58' 05" 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 14.74 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 \$2,275,000. 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 WWTP shall be designed, constructed, operated, and maintained to meet the treatment performance criteria for new facilities as specified in A.A.C. R18-9-B204.

The treatment facility shall not exceed a maximum seepage rate of 550 gallons per day per acre for all containment structures within the treatment works.

The facility shall meet the requirements for pretreatment by conducting monitoring as per: R18-9-B204(B)(6)(b)(ii). The city of Nogales, Arizona and city of Nogales, Sonora have a pretreatment program in place to reduce the potential of contaminants from entering the plant.

2.2.1 Engineering Design

The WWTP was designed as per the design report prepared by Stantec Consulting, Inc. dated May 16, 2007 and the county approved plans.

2.2.2 Site-specific Characteristics

Not applicable.

2.2.3 Pre-operational Requirements

The permittee shall submit a signed, dated, and sealed Engineer's Certificate of Completion in a format approved by the Department per the Compliance Schedule in Section 3.0. The Certificate shall be submitted to the Groundwater Section and a copy shall be sent to the Water Quality Compliance Section.

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 WWTP 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]

Not applicable.

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 WWTP with a maximum average monthly flow of 17 mgd.

2. The permittee shall notify all users that the materials authorized to be disposed of through the WWTP 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, Table I.

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

The Point of Compliance (POC) is established by the following monitoring location:

POC #	POC Locations	Latitude	Longitude
MW # 4	North/East side of WWTP up gradient of the AZPDES Discharge and WWTP	31° 27' 20" N	110°58' 02"W
MW # 5	450 feet North/West and down gradient of AZPDES effluent discharge point and WWTP	31° 27' 26"N	110° 58 '02"W
MW # 6	1900 feet northwest and down gradient of the AZPDES effluent discharge point and WWTP	31° 27' 36"N	110° 58' 28"W

Groundwater monitoring is required at the point of compliance well(s).

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 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

During the initial start-up period, the permittee shall monitor the flow rate according to Section 4.1, Table I. Flow rate shall be measured through flow meter located south of the AZPDES

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

discharge point. Monitoring under Section 4.1, Table I shall continue for 30-day start up period and initiates routine discharge monitoring under Section 4.2, Table IA.

2.5.2 Routine Discharge Monitoring

Upon cessation of the initial start-up period, the permittee shall monitor the wastewater according to Section 4.2, Table I. A representative sample of the wastewater shall be collected at the point of discharge from the outfall pipe to the Santa Cruz River.

2.5.3 Reclaimed Water Monitoring

Not required under the terms of this permit.

2.5.4 Groundwater Monitoring

The permittee shall monitor the groundwater according to Section 4.2, Table II.

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 (2) 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 the Department 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 I 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 I is exceeded, the permittee shall submit an application for an APP amendment to expand the WWTP 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 were 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 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.

2.6.3 Discharge Limit Violation

1. If a DL set in Section 4.2, Table I 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 II 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 II)	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 quarter, 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 (5) 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 the Department 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 10 days of any change of facility information including Facility Name, Permittee Name, Mailing or Street Address, Facility Contact Person, or Emergency Telephone Number.

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

The permittee shall give written notice to the Water Quality 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 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]

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

Description	Due by:
WWTP Construction:	
The permittee shall submit a signed, dated, and sealed Engineer's Certificate of Completion in a format approved by the Department that confirms that the facility is constructed according to the Department-approved design report or plans and specifications, as applicable.	Prior to discharging under this permit and within 90 days of completion of construction
Notify ADEQ about completion of start up period.	Within 15 days of the date of the completion of start up period.
Berm Construction for 100-yr Flood Event:	
The permittee shall finish construction of berms around the WWTP to protect the facility from 100-yr flood event.	Within 120 days of the date of permit issuance
The permittee shall notify ADEQ about completion of berm construction.	Within 30 days of the date of completion of the berm construction
Hydrology Study:	
<p>The permittee shall perform a hydrologic study for the project area and shall address all the following items that were not provided in response to the department's request for more information:</p> <ul style="list-style-type: none"> a. Pursuant to A.A.C. R18-9-A202, Please provide an updated hydrogeologic study for the project area. The hydrologic report shall include a summary of the hydrogeologic setting at the facility and surrounding area. The summary must include the name of the geologic basin in which the facility is located; a description of the underlying geologic units, including depth of each unit and the geologic composition; the location and description of any water bearing and low-permeability units. b. Pursuant to A.A.C. R18-9-A202(A)(11), please provide a site map based on either an aerial photograph or a topographic map showing the following information: site topography; facility site plan showing all known property lines and structures; the wastewater treatment facilities; all discharging sites with latitude and longitude coordinates; the outline of the 100-year flood plain if it exists in the map 	Within 24 months of the date of permit issuance ²

² In case the permittee is unable to acquire the funds in 2011 budget to conduct hydrology studies, the permittee shall submit an amendment to modify the due date in this compliance schedule.

<p>area; the location of the Point(s) of Compliance (POCs) with latitude and longitude coordinates; the area of the Pollutant Management Area (PMA) and the land uses surrounding the PMA; the Discharge Impact Area (DIA); the location of any nearby surface water bodies (rivers, lakes, ephemeral washes, etc.); the depth to groundwater and the direction of groundwater flow and equipotential lines showing the elevation of groundwater and the direction of groundwater flow; the location of each well and its use within one mile radius of the PMA; any injection wells, and drywells and their uses; and all known borings. The site map should fit on an 8½ x 11 inch sheet of paper or folded to fit that space.</p> <ul style="list-style-type: none"> c. Pursuant to A.A.C. R18-9-A202(A)(4), please provide the location(s) of the discharge and a map outlining the Pollutant Management Area (PMA). d. Pursuant to A.A.C. R18-9-A202(A)(8)(b)(xii) and (xiii), please provide a map of the facilities Discharge Impact Area (DIA) and the criteria and methodologies used to determine the DIA. e. Pursuant to A.A.C. R18-9-A202(A)(11), please provide the depth to groundwater and the direction of groundwater flow. If available, please submit an equipotential map showing the elevation of groundwater and the direction of groundwater flow. f. Pursuant to A.A.C. R18-9-A202(A)(8)(b)(x), please describe any expected changes in the elevation or flow directions of the groundwater that may be caused by the facility. g. Pursuant to A.A.C. R18-9-A202(A)(8)(b)(vi), please provide documentation of the existing quality of the water in the aquifers underlying the site, including, where available, the methods of analysis and quality assurance and quality control procedures. Provide water quality data from the surrounding wells. h. Pursuant to A.A.C. R18-9-A202(A)(8)(b)(x), please provide any anticipated changes in groundwater quality as a result of the discharge. i. Pursuant to A.A.C. R18-9-A202(A)(11), please provide a list of all wells within a ½ mile radius of the facility. The list should include the ownership of the well, the Arizona Department of Water Resources (ADWR) well registration number, the well depth, the screened interval and the well use. Please provide a map showing the location of all wells described in the list. j. Pursuant to A.A.C. R18-9-A202(A)(8)(b)(vii), please provide documentation of the extent and degree of any known soil contamination at the site. 	
---	--

<p>k. Pursuant to R18-9-A202(A)(8)(b)(viii), please provide an assessment of the potential of the discharge to cause the leaching of pollutants from surface soils or vadose materials or cause the migration of contaminated groundwater.</p> <p>l. Pursuant to A.A.C. R18-9-A202(A)(6), please demonstrate that:</p> <ul style="list-style-type: none"> a. The facility will not cause or contribute to a violation of the Aquifer Water Quality Standards at the proposed point of compliance, or b. If an Aquifer Water Quality Standard for a pollutant has been exceeded in an aquifer at the time of permit issuance, no additional degradation of the aquifer relative to that pollutant and determined at the proposed point of compliance will occur as a result of the discharge from the facility. <p>m. Pursuant to A.A.C. R18-9-A202(A)(6), please discuss the effect of the presence/ potential of fissures and land subsidence in the area of the facility.</p> <p>n. Pursuant to A.A.C. R18-9-A202(A)(8)(b)(ii), please provide the location of any perennial, intermittent, or ephemeral surface water bodies.</p> <p>o. Pursuant to A.A.C. R18-9-A202(A)(8)(b)(iv), please provide the rates, volumes, and directions of surface water flow, including hydrographs, if available, and equipotential maps.</p> <p>p. ADEQ generally requests that POC monitoring wells be perforated 5-20 feet above the water table and 20-40 feet below the water table. In accordance with A.A.C. R18-9-A202(A)(6), please provide POC well details showing conformance with ADEQ monitoring requirements.</p> <p>Based on the results of the hydrologic study the department will decide if any changes to the POCs locations and/depths will need to be made to better monitor the effects of the discharge on the groundwater quality in the area affected by the discharge.</p>	
--	--

4.0 TABLES OF MONITORING REQUIREMENTS

4.1 PRE-OPERATIONAL MONITORING (OR CONSTRUCTION REQUIREMENTS)

**TABLE I
INITIAL START-UP PLAN³**

Sampling Point Number	Sampling Point Identification			Latitude	Longitude
1	Flow Meter Located South of the AZPDES Discharge Point ⁴			31° 27' 20.1" N	110° 58' 5.2" W
2	AZPDES Discharge Point to the Santa Cruz River			31° 27' 24" N	110° 58' 05" W
Parameter	AL ⁵	DL ⁶	Units	Sampling Frequency	Reporting Frequency
Total Flow: Daily ⁷	Reserved ⁸	Reserved	mgd ⁹	Daily	Quarterly
Total Nitrogen ¹⁰	Reserved	Reserved	mg/l	Monthly	Quarterly
<i>E. Coli</i>	Reserved	Reserved	CFU or MPN ¹¹	Daily	Quarterly

³ Monitoring under this table shall continue for period of 30-day after the issuance of permit. The permittee shall initiate routine monitoring under Section 4.2, Table I after completion of 30-day period.

⁴ Only flow is measured at sampling point #1, all other parameters are sampled at sampling point #2.

⁵ AL = Alert Level

⁶ DL = Discharge Limit

⁷ Flow shall be measured using a continuous recording flow meter that totals the flows daily.

⁸ Reserved = No limits are specified.

⁹ mgd = million gallons per day

¹⁰ Total Nitrogen = Nitrate as N + Nitrite as N + Total Kjeldahl Nitrogen.

¹¹ CFU = 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.

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

**TABLE I
ROUTINE DISCHARGE MONITORING¹²**

Sampling Point Number	Sampling Point Identification			Latitude	Longitude
1	Flow Meter Located South of the AZPDES Discharge Point ¹³			31° 27' 20.1" N	110° 58' 5.2" W
2	AZPDES Discharge Point to the Santa Cruz River			31° 27' 24" N	110° 58' 05" W
Parameter	AL ¹⁴	DL ¹⁵	Units	Sampling Frequency	Reporting Frequency
Total Flow: Daily ¹⁶	Not Established ¹⁷	Not Established	mgd ¹⁸	Daily	Quarterly
Total Flow: Average Monthly	16.15	17.0	mgd	Monthly ¹⁹	Quarterly
<i>E. Coli</i> : Single sample maximum	Not established	15.0	CFU or MPN ²⁰	Daily ²¹	Quarterly
<i>E. Coli</i> : four (4) of seven (7) samples in a week ²²	Not established	Non-detect ²³	CFU or MPN	Daily ²⁴	Quarterly
Total Nitrogen ²⁵ : Five-sample rolling geometric mean	9.0	10.0	mg/l	Monthly ²⁶	Quarterly

¹²The permittee shall initiate monitoring under this table (Table IA) upon completing 30-day period for the initial start-up. (see Table IA-I)

¹³ Only flow is measured at sampling point #1, all other parameters are sampled at sampling point #2.

¹⁴AL = Alert Level

¹⁵DL = Discharge Limit

¹⁶Flow shall be measured using a continuous recording flow meter which totals the flow daily.

¹⁷Not Established means monitoring is required but no limits have been specified.

¹⁸mgd = million gallons per day

¹⁹Monthly = Calculated value = Average of daily flows in a month.

²⁰CFU = 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.

²¹ At least four samples shall be taken during a week.

²²**Week** means a seven-day period starting on Sunday and ending on the following Saturday.

²³If 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 fecal coliform, report "no" in the appropriate space on the SMRF (indicating that the standard has **not** been met).

²⁴ At least four samples shall be taken during a week.

²⁵Total Nitrogen = Nitrate as N + Nitrite as N + Total Kjeldahl Nitrogen.

²⁶A Five-Month Geometric Mean of the results of the five (5) most recent samples

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

TABLE I
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

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

**TABLE 1
DISCHARGE MONITORING (continued)**

Parameter	AL	DL	Units	Sampling Frequency	Reporting Frequency
Volatile Organic Compounds (VOCs):					
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) ²⁷	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

²⁷Total Trihalomethanes are comprised of Bromoform, Bromodichloromethane, Chloroform, and Dibromochloromethane.

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

TABLE 1
DISCHARGE MONITORING (continued)

Parameter	AL	DL	Units	Sampling Frequency	Reporting Frequency
Indicator Parameters / Major Cations and Anions:					
pH (field)	Monitor ²⁸	Monitor	S.U.	Quarterly	Quarterly
Iron	Monitor	Monitor	mg/l	Quarterly	Quarterly
Manganese	Monitor	Monitor	mg/l	Quarterly	Quarterly
Total Organic Carbon	Monitor	Monitor	mg/l	Quarterly	Quarterly
Total Dissolved Solids	Monitor	Monitor	mg/l	Quarterly	Quarterly
Sodium	Monitor	Monitor	mg/l	Quarterly	Quarterly
Potassium	Monitor	Monitor	mg/l	Quarterly	Quarterly
Calcium	Monitor	Monitor	mg/l	Quarterly	Quarterly
Magnesium	Monitor	Monitor	mg/l	Quarterly	Quarterly
Chloride	Monitor	Monitor	mg/l	Quarterly	Quarterly
Sulfate	Monitor	Monitor	mg/l	Quarterly	Quarterly
Alkalinity	Monitor	Monitor	mg/l	Quarterly	Quarterly
Specific Conductivity (field)	Monitor	Monitor	µmhos/cm	Quarterly	Quarterly

²⁸ Monitoring required, but no limits established.

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

**TABLE II
GROUNDWATER MONITORING**

Sampling Point Number	Sampling Point Identification			Latitude	Longitude
3	North/East side of WWTP up gradient of the AZPDES Discharge and WWTP			31° 27' 20" N	110°58' 02"W
4	450 feet North/West and down gradient of AZPDES effluent discharge point and WWTP			31° 27' 26"N	110° 58 '02"W
5	1900 feet northwest and down gradient of the AZPDES effluent discharge point and WWTP			31° 27' 36"N	110° 58' 28"W
Parameter	AL ²⁹	AQL ³⁰	Units	Sampling Frequency	Reporting Frequency
Total Nitrogen ³¹ :	8.0	10.0	mg/l	Monthly	Quarterly
Nitrate-Nitrite as N	8.0	10.0	mg/l	Monthly	Quarterly
Nitrate as N	8.0	10.0	mg/l	Monthly	Quarterly
Nitrite as N	0.8	1.0	mg/l	Monthly	Quarterly
Total Kjeldahl Nitrogen (TKN)	Not Established ³²	Not Established	mg/l	Monthly	Quarterly
Total Coliform	Absence	Absence ³³	CFU or MPN ³⁴	Monthly	Quarterly
Depth to Groundwater	Not Established	Not Established	feet	Monthly	Quarterly

²⁹ AL = Alert Level

³⁰ AQL = Aquifer Quality Limit

³¹ Total Nitrogen is equal to nitrate as N plus nitrite as N plus TKN.

³² Not Established means monitoring is required but no limits have been specified.

³³ A positive result for total coliform may be verified with an analysis for fecal coliform or *E. coli*. A positive result for fecal coliform or *E. coli* shall be considered an exceedance of the AQL for total coliform.

³⁴ CFU = Colony Forming Units per 100 ml, MPN = Most Probable Number per 100 ml.

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

TABLE II
GROUNDWATER MONITORING (continued)

Parameter	AL	AQL	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

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

TABLE II
GROUNDWATER MONITORING (continued)

Parameter	AL	AQL	Units	Sampling Frequency	Reporting Frequency
Volatile Organic Compounds (VOCs)					
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) ³⁵	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

³⁵Total Trihalomethanes are comprised of Bromoform, Bromodichloromethane, Chloroform, and Dibromochloromethane.

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

TABLE II
GROUNDWATER MONITORING (continued)

Parameter	AL	AQL	Units	Sampling Frequency	Reporting Frequency
Indicator Parameters / Major Cations and Anions:					
pH (field)	Monitor ³⁶	Monitor	S.U.	Quarterly	Quarterly
Iron	Monitor	Monitor	mg/l	Quarterly	Quarterly
Manganese	Monitor	Monitor	mg/l	Quarterly	Quarterly
Total Organic Carbon	Monitor	Monitor	mg/l	Quarterly	Quarterly
Total Dissolved Solids	Monitor	Monitor	mg/l	Quarterly	Quarterly
Sodium	Monitor	Monitor	mg/l	Quarterly	Quarterly
Potassium	Monitor	Monitor	mg/l	Quarterly	Quarterly
Calcium	Monitor	Monitor	mg/l	Quarterly	Quarterly
Magnesium	Monitor	Monitor	mg/l	Quarterly	Quarterly
Chloride	Monitor	Monitor	mg/l	Quarterly	Quarterly
Sulfate	Monitor	Monitor	mg/l	Quarterly	Quarterly
Alkalinity	Monitor	Monitor	mg/l	Quarterly	Quarterly
Specific Conductivity (field)	Monitor	Monitor	µmhos/cm	Quarterly	Quarterly

³⁶ Monitoring required, but no limits established.

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
WAS Storage Pond Berm Integrity	No visible structural damage, breach, or erosion of embankments	Weekly	Quarterly
Liner Integrity of WAS storage pond	No cracks or leaks that would exceed a leakage rate of 550 gpd/acre	Weekly	Quarterly
WAS storage Pond Freeboard	One (1) Linear Foot	Weekly	Quarterly
Monitoring wells	Adequately protected from flooding; Good working condition	Monthly and after flood events. Annual inspection of interior of wells	Quarterly
Discharge points	Adequately protected from flooding; good working condition	Monthly and after flood events	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. APP Application dated: January 16, 2001 (APP, signed on 3/27/03)
January 16, 2008 (Significant Amendment)
2. Contingency Plan, dated: May 2001 (APP)
December 2008 (Significant Amendment)
3. Final Hydrologist Report dated: March 3, 2009 (Significant Amendment)
4. Final Engineering Report dated: February 10, 2009 (Significant Amendment)
5. Public Notice dated: September 27, 2002 (APP)
6. Public Hearing, dated: N/A
7. 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).