



Janet Napolitano
Governor

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

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(602) 771-2300 • www.azdeq.gov



Stephen A. Owens
Director

May 31, 2005

Byron McMillan
Pima County Wastewater Management
7101 N. Casa Grande Highway
Tucson, AZ 85743

**Re: Roger Road Wastewater Treatment Plant (WWTP)
Signed Aquifer Protection Permit (APP), File No. 100655**

Dear Mr. McMillan,

Enclosed is a signed copy of the amended APP with Fact Sheet for the above referenced facility. The permit conditions shall apply from May 26, 2005 which is the date of the Water Quality Division Director's signature, and shall be valid for the life of the facility. Thank you for your cooperation in protecting the water quality of the State of Arizona.

If you have any questions about this permit or need further assistance, please contact me at (800) 234-5677 ext. 771-4743 or at (602) 771-4743.

Sincerely,

Matthew Hodge, Project Manager & Reuse Coordinator
Wastewater, Recharge, & Reuse Unit
Water Permits Section, Water Quality Division

cc: Asif Majeed, Manager, Wastewater, Recharge, & Reuse Unit
Robert Casey, Manager, Enforcement Unit, Water Quality Compliance Section
Don Shroyer, Manager, Data Unit, Water Quality Compliance Section
Lynne Dekarske, Administrative Assistant III, Water Permits Section
Diane Reed, Biosolids Coordinator

WRR05:0416

Northern Regional Office
1515 East Cedar Avenue • Suite F • Flagstaff, AZ 86004
(928) 779-0313

Southern Regional Office
400 West Congress Street • Suite 433 • Tucson, AZ 85701
(520) 628-6733



FACT SHEET

Aquifer Protection Permit (APP) # 100655, Place ID # 10309, LTF #32628 Significant Amendment Roger Road Wastewater Treatment Plant

The Arizona Department of Environmental Quality (ADEQ) proposes to issue an amendment to aquifer protection permit for the subject facility that covers the life of the facility, including operational, closure, and post-closure periods unless suspended or revoked pursuant to A.A.C. R18-9-A213. This document gives pertinent information concerning the issuance of the permit. The requirements contained in this permit will allow the permittee to comply with the two key requirements of the Aquifer Protection Program: 1) meet Aquifer Water Quality Standards at the Point of Compliance; and 2) demonstrate Best Available Demonstrated Control Technology (BADCT). BADCT's purpose is to employ engineering controls, processes, operating methods or other alternatives, including site-specific characteristics (i.e., the local subsurface geology), to reduce discharge of pollutants to the greatest degree achievable before they reach the aquifer.

I. FACILITY INFORMATION

Name and Location

Permittee's Name:	Pima County Wastewater Management Department
Mailing Address:	2600 W. Sweetwater Dr. Tucson, AZ 85705
Facility name and location:	Roger Road Wastewater Treatment Plant 2600 W. Sweetwater Dr. Tucson, AZ 85705

Regulatory Status

The facility submitted a Notice of Disposal (NOD) on July 16, 1984. An Aquifer Protection Permit (APP) was issued on January 26, 2002. An application for a Significant Amendment, was received on April 12, 2004. The facility also holds AZPDES permit #AZ0020923 that was issued on March 5, 2002.

The facility was issued an Opportunity to Correct Deficiencies to the AZPDES permit on May 26, 2004 for the following reason: "The Best Management Practices document must address the following issues, if it does not already do so (for Storm Water Discharges). Explain in detail how runoff from construction would be managed for areas less than 5 acres."

The Opportunity to Correct Deficiencies was closed on August 23, 2004.

Facility Description

The WWTP has a capacity to treat a maximum daily average flow of 41.0 million gallons per day (MGD). The WWTP collects and treats wastewater from the City of Tucson and surrounding areas. The WWTP process consists of headworks with a bar-screen, grit chambers, primary clarifiers, bio-filters, aeration basins, final clarifiers, chlorine disinfection, gravity sludge thickeners, anaerobic sludge digestors, partially concrete-lined sludge drying beds, and an effluent pump station. The WWTP is protected from a 100 year flood by banks surrounding the site. Part of the effluent generated is discharged into the Santa Cruz River. The remaining effluent is consumptively reused by the City of Tucson's reclaimed water system. The materials removed at the headworks are dewatered and disposed of at a State-approved facility. Sludge and biosolids are thickened, digested, and disposed of in accordance with Federal and State regulations. The depth to groundwater is approximately 150 feet below the WWTP and the direction of groundwater flow is believed to be towards the northwest. The WWTP is designed and constructed according to plans approved by the ADEQ Wastewater, Recharge, & Reuse Unit.

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

In addition to the APP conditions pertaining to treatment and disposal of sewage sludge, the permittee must also comply with the requirements for sewage sludge disposal in 40 Code of Federal Regulations (CFR) Part 503 and 18 A.A.C. Ch. 9, Art. 10.

Amendment Description

This amendment is to deepen monitor well SC-01 & relocate monitor well W-12 on the permittee's property. This permit amendment is also to set the nitrogen limit in the groundwater at 18.6 mg/L for monitor well SC-01. This was done at the request of the applicant.

Listed below are the changes to the permit as a result of this amendment:

1. Section 4.0 - Table II, the aquifer quality limit (AQL) for SC-01 has been set at 18.6 mg/l due to the ambient conditions in the groundwater.
2. Other changes include change in permit language to conform to the latest boilerplate language.

II. BEST AVAILABLE DEMONSTRATED CONTROL TECHNOLOGY (BADCT)

The WWTP process employs chlorine disinfection to achieve a monthly average effluent fecal coliform level of 200 CFU. All treatment units are constructed from reinforced concrete. The sludge drying beds are partially concrete-lined. Depth to groundwater at the site is 150 feet.

III. COMPLIANCE WITH AQUIFER WATER QUALITY STANDARDS

Monitoring and Reporting Requirements

The facility is located over groundwater of the Tucson Active Management Area. The depth to groundwater is approximately 150 feet below the surface and the regional direction of groundwater flow is generally to the northwest. The nearest points of use in the aquifer are several City of Tucson non-potable recovery wells located just south of the facility and associated with the Sweetwater recharge facility; and a private domestic well located approximately 3/4 mile downstream (northwest) of the facility. Two hazardous points of compliance were selected to be protective of all downgradient uses of the aquifer.

Point(s) of Compliance (P.O.C)

There are two hazardous points of compliance for this facility. Groundwater quality monitoring will be conducted from both points of compliance. The first POC (SC-01) is located approximately 3/4 mile downstream of the facility, near the east bank of the Santa Cruz River (Pollutant Management Area) at latitude 32° 17' 23", longitude 111° 02' 04". The second POC (W-12) is currently located approximately 1.5 miles downstream of the facility at latitude 32° 18' 00", longitude 111° 02' 25". However, due to the proximity of the second POC to a landfill, the permittee will relocate the second POC to a more representative location under a permit compliance schedule. In the interim, the AQL for nitrate-nitrite will be set to not established until the second POC has been approved and the appropriate groundwater quality data has been collected and analyzed. Also, based on new upgradient groundwater quality data, the first POC will have a new AQL of 18.6 mg/l for total nitrogen and the Alert Level set to "Not Established". Both hazardous points of compliance will be monitored for nitrate, total nitrogen, and coliform at a monthly frequency, metals at a quarterly frequency, and organics (VOCs) at a semi-annual frequency.

P.O.C. #	P.O.C. Locations	Latitude	Longitude
1	SC-01, located approximately 3/4 mile downstream of the facility, near the east bank of the Santa Cruz River	32° 17' 23"	111° 02' 04"
2	W-12, located approximately 1.5 miles downstream of the facility	32° 18' 00"	111° 02' 25"

Both hazardous points of compliance will be monitored for nitrate, total nitrogen, and coliform at a monthly frequency, metals at a quarterly frequency, and organics (VOCs) at a semi-annual frequency.

IV. STORM WATER and SURFACE WATER CONSIDERATIONS

The facility discharges into the Santa Cruz River which runs along the western border of the facility. Surface water monitoring of the Santa Cruz River may be required under an AZPDES permit.

The WWTP is protected from a 100 year flood by banks surrounding the site.

V. COMPLIANCE SCHEDULE

Under a permit compliance schedule, the permittee will relocate the second POC (monitor well W-12) to a more representative location. W-12 is currently located next to a landfill and could possibly be affected by discharges from the landfill. In the interim, the AQL for W-12 will be set to "Not Established".

VI. OTHER REQUIREMENTS FOR ISSUING THIS PERMIT

Technical Capability

The Pima County Wastewater Management Department has demonstrated the technical competence necessary to carry out the terms and conditions of the permit in accordance with A.R.S. § 49-243(N) and A.A.C. R18-9-A202(B).

The WWTP was designed as per the design report prepared by Consoer, Townsend & Associates Inc. dated June 1991. A certified operator will be retained for the operation and maintenance of the WWTP.

The permit requires that appropriate documents be sealed by an Arizona registered geologist or professional engineer. This requirement is a part of an on-going demonstration of technical capability. The permittee is expected to maintain technical capability throughout the life of the facility.

Financial Capability

The Pima County Wastewater Management Department has demonstrated the financial responsibility necessary to carry out the terms and conditions of the permit in accordance with A.R.S. § 49-243(N) and A.A.C. R18-9-A203. The permittee is expected to maintain financial; capability throughout the life of the facility.

The permittee submitted a closure cost estimate of \$1,194,207.00. The permittee, being a local government, provided a detailed financial plan on its letterhead for meeting the requirements for financial capability, according to rule R18-9-A203(B)(1) to demonstrate financial capability.

Zoning Requirements

Roger Road Wastewater Treatment Plant has been properly zoned for the permitted use and the permittee has complied with all Pima County zoning ordinances in accordance with A.R.S. § 49-243(O) and A.A.C. R18-9-A201(A)(2)(c).

VII. ADMINISTRATIVE INFORMATION

Public Notice (A.A.C. R18-9-108(A))

The public notice is the vehicle for informing all interested parties and members of the general public of the contents of a draft permit or other significant action with respect to a permit or application. The basic intent of this requirement is to ensure that all interested parties have an opportunity to comment on significant actions of the permitting agency with respect to a permit application or permit. This permit will be public noticed in a local newspaper after a pre-notice review by the applicant and other affected agencies.

Public Comment Period (A.A.C. R18-9-109(A))

The aquifer protection program rules require that permits be public noticed in a newspaper of general circulation within the area affected by the facility or activity and provide a minimum of 30 calendar days for interested parties to respond in writing to ADEQ. After the closing of the public comment period, ADEQ is required to respond to all significant comments at the time a final permit decision is reached or at the same time a final permit is actually issued.

Public Hearing (A.A.C R18-9-109(B))

A public hearing may be requested in writing by any interested party. The request should state the nature of the issues proposed to be raised during the hearing. A public hearing will be held if the Director determines there is a significant amount of interest expressed during the 30-day public comment period, or if significant new issues arise that were not considered during the permitting process.

VIII. ADDITIONAL INFORMATION

Additional information relating to this proposed permit may be obtained from:

Arizona Department of Environmental Quality
Water Quality Division – Wastewater, Recharge & Reuse Unit
Attn: Matthew Hodge
1110 W. Washington St., Mail Code 5415B-3
Phoenix, Arizona 85007
Phone: (602) 771-4743

STATE OF ARIZONA
AQUIFER PROTECTION PERMIT NO. P-100655
PLACE ID 10309, LTF 32628
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, Pima County Wastewater Management Department (PCWMD) is hereby authorized to operate the Roger Road Wastewater Treatment Plant located on 2600 W. Sweetwater Drive, Tucson, Pima County, over groundwater of the Tucson Active Management Area (AMA), in Township 13 S, Range 13 E, Section 21, SW1/4, SW1/4, of the Gila and Salt River Baseline and Meridian.

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

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

1.1 PERMITTEE INFORMATION

Facility Name:	Roger Road Wastewater Treatment Plant	
Permittee:	Mailing Address:	Facility Street Address:
Pima County Wastewater Management Department	2600 W. Sweetwater Dr. Tucson, AZ 85705	2600 W. Sweetwater Dr. Tucson, AZ 85705

Facility Contact: Helen Rhudy, WW Plant Superintendent

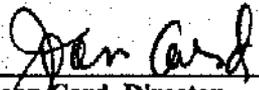
Emergency Telephone Number: (520) 888-4801

Latitude: 32° 16' 50" N

Longitude: 111° 01' 30" W

Legal Description: Township 13 S, Range 13 E, Section 21, SW ¼, SW ¼ - Gila and Salt River Base Line and Meridian Basin.

1.2 AUTHORIZING SIGNATURE



Joan Card, Director
Water Quality Division
Arizona Department of Environmental Quality
Signed this 26 day of May, 2005
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 WWTP has a capacity to treat a maximum daily average flow of 41.0 million gallons per day (MGD). The WWTP collects and treats wastewater from the City of Tucson and surrounding areas. The WWTP process consists of headworks with a bar-screen, grit chambers, primary clarifiers, bio-filters, aeration basins, final clarifiers, chlorine disinfection, gravity sludge thickeners, anaerobic sludge digestors, partially concrete-lined sludge drying beds, and an effluent pump station. The effluent is dechlorinated before being discharged. The WWTP is protected from a 100 year flood by banks surrounding the site. Part of the effluent generated is discharged into the Santa Cruz River. The remaining effluent is consumptively reused by the City of Tucson's reclaimed water system. The materials removed at the headworks are dewatered and disposed of at a State-approved facility. Sludge and biosolids are thickened, digested, and disposed of in accordance with Federal and State regulations. The depth to groundwater is approximately 150 feet below the WWTP and the direction of groundwater flow is believed to be towards the northwest. The WWTP is designed and constructed according to plans approved by the ADEQ Wastewater, Recharge, & Reuse Unit.

This amendment is to deepen monitor well SC-01 & relocate monitor well W-12 on the permittee's property. This permit amendment is also to set the nitrogen limit in the groundwater at 18.6 mg/L for monitor well SC-01. This was done at the request of the applicant.

The site includes the following permitted discharging facilities:

Facility	Latitude	Longitude
WWTP	33° 16' 50" N	111° 01' 30" W
Point of discharge to the Santa Cruz River	32° 17' 05" N	111° 01' 41" W

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

The Wastewater Treatment Plant is designed to meet the treatment performance criteria for existing facilities as specified in Arizona Administrative Code R18-9-B205.

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

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

2.2.1 Engineering Design

The WWTP was designed as per the design report prepared by Consoer, Townsend & Associates Inc. dated June 1991.

2.2.2 Site-specific Characteristics

Not Applicable.

2.2.3 Pre-Operational Requirements

Not Applicable.

2.2.4 Operational Requirements

1. The permittee shall maintain a copy of the 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 4.0, 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.

2.2.5 Wastewater Treatment Plant Classification
A.C. R18-9-703(C)(2)(a), A.A.C. R18-11-303 THROUGH 307]

The WWTP will produce reclaimed water meeting Class B Reclaimed Water Quality Standards and can be used for any allowable use in that class under a valid reclaimed water permit (A.A.C. R18-9, Article 7).

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 41.0 MGD.
2. The permittee shall notify all users that the materials authorized to be disposed of through the WWTP are typical household sewage 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. Specific discharge limitations are listed in Section 4.0, Tables IA and IB

2.4 Points of Compliance (P.O.C.) [A.R.S. § 49-244]

The Points of Compliance are located near the Santa Cruz River, northwest and downgradient of the effluent discharge point, respectively at:

P.O.C. #	P.O.C. Locations	Latitude	Longitude
1	SC-01, located approximately ¼ mile downstream of the facility, near the east bank of the Santa Cruz River	32° 17' 23"	111° 02' 04"
2	MW-12, located approximately 1.5 miles downstream of the facility	32° 18' 00"	111° 02' 25"

Monitoring requirements for each P.O.C. are listed in Section 4.0, Table II.

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 EPA 40 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 Discharge Monitoring

The permittee shall monitor the wastewater according to Section 4.0, Table I. A representative sample of the wastewater shall be collected from the effluent discharge channel.

2.5.1.1 Reclaimed Water Monitoring

The permittee shall monitor the parameters listed under Table 1B in addition to the routine discharge monitoring parameters listed in Table 1A.

2.5.2 Facility / Operational Monitoring

Operational monitoring inspections shall be conducted according to Section 4.0, Table III.

- a. 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 Self-Monitoring Report Form (SMRF) submitted quarterly to the ADEQ Water Quality Compliance. 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 that fact in the SMRF.
- b. The permittee shall submit data required in Section 4.0, Table III regardless of the operating status of the facility unless otherwise approved by the Department or allowed in this permit.

2.5.3 Groundwater Monitoring and Sampling Protocols

The permittee shall monitor the groundwater according to Section 4.0, Table IIA and 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 indicator 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% 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 Self-Monitoring Report Form (SMRF).

2.5.4 Surface Water Monitoring and Sampling Protocols

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

2.5.5 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 Ave.
Phoenix, AZ 85007
Phone: (602) 364-0720

2.5.6 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 Water Permits Section for approval prior to installation and the permit shall be amended to include any new points.

2.6 Contingency Plan Requirements

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

2.6.1 General Contingency Plan 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 alert level (AL) that is exceeded or any violation of an aquifer quality limit (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.

2.6.1.1 Contingency Plan to Deepen a Point of Compliance Well.

In the event that groundwater levels decline in the area of the POC wells, the permittee may deepen the POC wells in the same location so that they can resume sampling the groundwater. This can be done without any amendment to the permit.

2.6.1.2 Contingency Plan for a Point of Compliance well which can no longer be sampled due to falling groundwater levels.

If the monitor well at POC#1 (currently SC-01) can no longer be sampled due to falling groundwater levels, then the permittee shall construct a new POC monitor well at a location no further than 500 feet from the original POC#1. The new monitor well shall be constructed such that groundwater may be sampled from the upper 20 feet of the aquifer. This can be done without any amendment to the permit. ADEQ shall be notified of this change within 30 days of construction of the well at the new location.

2.6.2 Exceeding of Alert Levels/Performance Levels**2.6.2.1 Exceeding of Performance Levels (PL) Set for Operational Conditions**

1. If the operational PL set in Section 4.0, Table III has been exceeded (permit condition violated) the permittee shall
 - a. Notify the ADEQ Water Quality Compliance Section within five (5) days of becoming aware of a violation of any permit condition in Table III.
 - b. Submit a written report within thirty (30) days after becoming aware of a violation of a permit condition. The report shall document all of the following:
 1. A description of the violation and its cause;
 2. 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;
 3. any action taken or planned to mitigate the effects or the violation, or the spill, or to eliminate or prevent recurrence of the violation;
 4. any monitoring activity or other information which indicates that any pollutants would be reasonably expected to cause a violation of an Aquifer Water Quality Standard; and
 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 an 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 Set for Discharge Monitoring

1. If an AL set in Section 4.0, TABLE I has been exceeded, the permittee shall immediately investigate to determine the cause of the AL being exceeded. 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 AL being exceeded.

- b. Review of recent process logs, reports, and other operational control information to identify any unusual occurrences;
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 being exceeded. To implement any other corrective action the permittee shall obtain prior approval from ADEQ according to Section 2.6.6.
3. Within thirty (30) days after confirmation of an AL being exceeded, the permittee shall submit the laboratory results to the ADEQ Water Quality Compliance Section, Data Unit, along with a summary of the findings of the investigation, the cause of the AL being exceeded, and actions taken to resolve the problem.
4. Upon review of the submitted report, the Department may require additional monitoring, increased frequency of monitoring, amendments to permit conditions or other actions.

2.6.2.3 Exceeding of Alert Levels in Groundwater Monitoring

2.6.2.3.1 Alert Levels for Indicator Parameters

Not required at time of permit issuance.

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 4.0, Tables IIA & IIB have been exceeded, the permittee may conduct verification sampling within 5 days of becoming aware of an AL being exceeded.
2. If verification sampling confirms the AL being exceeded or if the permittee opts not to perform verification sampling, then the permittee shall increase the frequency of monitoring to 'Daily', 'Weekly', and 'Monthly' for constituents that have a permit monitoring frequency of 'Weekly', 'Monthly', and 'Quarterly', 'Semi-Annual' or 'Annual' respectively. In addition, the permittee shall immediately initiate an investigation of the cause of the AL being exceeded, 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 being exceeded. 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 Water Permits 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 Water Permits Section.

4. Within thirty (30) days after confirmation of an AL being exceeded, the permittee shall submit the laboratory results to the Water Quality Compliance Section, Data Unit along with a summary of the findings of the investigation, the cause of the AL being exceeded, and actions taken to resolve the problem.
5. Upon review of the submitted report, the Department may require additional monitoring, increased frequency of monitoring, amendments to permit conditions or other actions.
6. The increased monitoring required as a result of ALs being exceeded may be reduced to 4.0, Table II frequencies, if the results of four sequential sampling events demonstrate that no parameters exceed the AL.

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 Limitations (DL) Violations

1. If a DL set in Section 4.0, Tables IA and IB have 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. Sampling of individual waste streams composing the wastewater for the parameters in 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. Upon review of the submitted report, the Department may require additional monitoring, increased frequency of monitoring, amendments to permit conditions or other actions.

2.6.4 Aquifer Quality Limit (AQL) Violation

1. If an AQL set in Section 4.0, Tables IIA & IIB have been exceeded, the permittee may conduct verification sampling within 5 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 to 'Daily', 'Weekly', and 'Monthly' for constituents that have a permit monitoring frequency of 'Weekly', 'Monthly', and 'Quarterly', 'Semi-Annual' or 'Annual' respectively. 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. 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 require additional monitoring, increased frequency of monitoring, amendments to permit conditions or other actions.

2.6.5 Emergency Response and Contingency Requirements for Spills and Unauthorized Discharges

2.6.5.1 Duty to Respond

The permittee shall act immediately to correct any condition resulting from a discharge 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 Spills of Toxic Pollutants

In the event of any unauthorized discharge (A.R.S. § 49-201(12)) of suspected hazardous substances (A.R.S. § 49-201(18)) or any spills of toxic pollutants (A.R.S. § 49-243(T)) on the facility site, the permittee shall promptly isolate the area and attempt to identify the spilled 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. Spilled materials, absorbents, and contaminated media generated during emergency response shall be removed and disposed of according to applicable federal, state and local regulations. The permittee shall notify the ADEQ Water Quality Field Service Unit at (602) 771-4841 within 24-hours upon discovering the discharge of hazardous material which: a) has the potential to cause an AWQS or AQL to be exceeded; or b) could pose an endangerment to public health or the environment.

2.6.5.3 Discharge of Non-hazardous Materials

In the event of any unauthorized discharge 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 Southern Regional Office at 520-628-6733, within 24-hours upon discovering the discharge of non-hazardous material which: a) has the potential to cause an AQL to be exceeded; or b) could pose an endangerment to public health or the environment.

2.6.5.4 Reporting Requirements

The permittee shall submit a written report for any unauthorized discharges described in Sections 2.6.5.2 and 2.6.5.3 to Southern Regional Office, 400 West Congress Street, Suite 433, Tucson, AZ 85701, within thirty days of the discharge or as required by subsequent ADEQ action. The report shall summarize the event, including any human exposure, and facility response activities and include all information specified in Section 2.7.3. If a notice is issued by ADEQ subsequent to the discharge notification, any additional information requested in the notice shall also be submitted within the time frame specified in that notice. Upon review of the submitted report, ADEQ may require additional monitoring or corrective actions.

2.6.6 Corrective Actions

Specific contingency measures identified in Part 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 Water Permits Section prior to implementing a corrective action to accomplish any of the following goals in response to exceeding an AL or violation of an AQL, DL, or other permit condition:

1. Control of the source of an unauthorized discharge;
2. Soil cleanup;
3. Cleanup of affected surface waters;
4. Cleanup of affected parts of the aquifer;
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 Forms (SMRF)

1. The permittee shall complete the SMRFs provided by ADEQ, and submit them 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 Sections 4.0 list the parameters to be monitored and the frequency for reporting results for groundwater compliance monitoring. Monitoring methods shall be recorded on the SMRFs.
4. In addition to the SMRF, the information contained in Section 6.9.3 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;
6. Any other information required by this permit to be entered in the log book, and
7. Monitoring records for each measurement shall comply with R18-9 A206(B)(2).

2.7.3 Permit Violation and Alert Level Status Reporting

1. The permittee shall notify the Water Quality Compliance Section, Enforcement Unit in writing within five days (except as provided in Section 2.6.5) of becoming aware of a violation of any permit condition, discharge limitation or of an Alert Level being exceeded.
2. The permittee shall submit a written report to the Water Quality Compliance Section, Enforcement Unit within 30 days of becoming aware of the violation of any permit condition or discharge limitation. The report shall document all of the following:
 - a. Identification and description of the permit condition for which there has been a violation and a description of its cause.
 - b. The period of violation including exact date(s) and time(s), if known, and the anticipated time period during which the violation is expected to continue.
 - c. Any corrective action taken or planned to mitigate the effects of the violation, or to eliminate or prevent a recurrence of the violation.
 - d. Any monitoring activity or other information which indicates that any pollutants would be reasonably expected to cause a violation of an Aquifer Water Quality Standard.

- e. Proposed changes to the monitoring which include changes in constituents or increased frequency of monitoring.
- 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 Self-Monitoring Report Form provided by the Department to reflect facility inspection requirements designated in Section 4.0, Table III and submit to the ADEQ, Water Quality Compliance quarterly along with other reports required by this permit. Facility inspection reports shall be submitted no less frequently than quarterly, regardless of operational status.

The permittee shall submit the results of water quality testing for total nitrogen, fecal coliform and flow volumes to any of the following in accordance with A.A.C. R18-9-703(C)(2)(c):

- 1. Any reclaimed water agent who has contracted for delivery of reclaimed water from the permittee;
- 2. Any end user who has not waived interest in receiving this information.

2.7.5 Reporting Location

All SMRFs shall be submitted to:

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

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

ADEQ Southern Regional Office,
400 West Congress Street, Suite 433,
Tucson, AZ 85701
(520) 628-6733

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

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

2.7.6 Reporting Deadline

The following table lists the quarterly report due dates:

Monitoring conducted during quarter:	Quarterly Report due by:
January-March	April 30
April-June	July 30
July-September	October 30
October-December	January 30

2.7.7 Changes to Facility Information in Section 1.0

The Water Permits 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 upon 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.
3. Notify ADEQ with a monthly facility Status Report describing the activities conducted on the WWTP to correct the problem

At the time of notification the permittee shall submit for ADEQ approval a plan for maintenance of discharge control systems and for monitoring during the period of temporary cessation. Immediately following ADEQ's approval, the permittee shall implement the approved plan. If necessary, ADEQ shall amend permit conditions to incorporate conditions to address temporary cessation. If the facility ceases operation, 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)]

The permittee shall give written notice of closure to the Water Quality Compliance Section before closing, or before ceasing use of a facility addressed under this permit if the cessation is projected to last more than three years.

2.9.1 Closure Plan

Within 90 days following notification of closure, the permittee shall submit for approval to the Water Permits Section, a detailed Closure Plan which meets the requirements of A.R.S. § 49-252 and A.A.C. R18-9-A209(B)(1)(a).

If the closure plan achieves clean closure immediately, ADEQ shall issue a letter of approval to the permittee. If the closure plan contains a schedule for bringing the facility

to a clean closure configuration at a future date, ADEQ may incorporate any part of the schedule as an amendment to this permit.

2.9.2 Closure Completion

Upon completion of closure activities, the permittee shall give written notice to the Water Permits 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 aquifer water quality standards at the applicable point of compliance;
3. Continued action is required to verify that the closure design has eliminated discharge to the extent intended;
4. Remedial or mitigative measures are necessary to achieve compliance with Title 49, Ch. 2;
5. Further action is necessary to meet property use restrictions.

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

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

In the event clean closure cannot be achieved pursuant to A.R.S. § 49-252, the permittee shall submit for approval to the Water Permits 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(29) 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 Water Permits Section. A copy of the cover letter must also be submitted to the Water Quality Compliance Section, Data Unit.

1. Within three months from the signature date of this permit, the permittee shall submit a map with the location of the facility (and Pollutant Management Area) and of a proposed location for a Point of Compliance (POC) well to replace POC well W-12.
2. Upon receiving approval of the proposed location for the replacement POC well from ADEQ, the permittee shall submit the latitude and longitude coordinates of the new POC location, and commence with construction of the new monitor well.
3. Within 30 days of receiving approval of the location of the POC well from ADEQ, the permittee shall begin sampling the groundwater and continue for 8 monthly samples.
4. Within 30 days of collecting the last sample from the replacement POC well, the permittee shall submit an application for an amendment along with sampling data for the POC well, one round of sampling from an upgradient well for nitrates as well as providing the latitude and longitude for the POC well and proposed AQL for nitrates for the replacement POC well. If the permittee does not submit or propose the AQLs or if ADEQ disagrees with the proposed AQLs for nitrates, ADEQ will establish the AQLs for nitrates for the replacement POC. The amendment application shall be submitted no later than July 31, 2006.

4.0 TABLES OF MONITORING REQUIREMENTS

TABLE IA
DISCHARGE MONITORING

Sampling Point Number	Sampling Point Identification		Latitude	Longitude	
1	Point downstream of effluent dechlorination and upstream of the point of discharge to Santa Cruz River		32° 17' 05" N	111° 01' 41" W	
Parameter	AL ¹	DL ²	Units	Sampling Frequency	Reporting Frequency
Flow: Daily	Not Established ³	Not Established	MGD ⁴	Daily ⁵	Quarterly
Flow: Average Monthly	40.0	41.0	MGD	Monthly ⁶	Quarterly
Flow: Reuse Daily	Not Established	Not Established	MGD	Monthly	Quarterly
Flow: Reuse Average Monthly	40.0	41.0	MGD	Monthly	Quarterly
Flow: AZPDES Daily	Not Established	Not Established	MGD	Monthly	Quarterly
Flow: AZPDES Average Monthly	40.0	41.0	MGD	Monthly	Quarterly

¹ AL = Alert Level.² DL = Discharge Limit.³ Not Established = Monitoring required but no limits have been specified at time of permit issuance.⁴ MGD = Million Gallons per Day.⁵ Flow shall be measured using a continuous recording flow meter.⁶ Monthly = Calculated value = Average of daily flows in a month.

4.0 TABLES OF MONITORING REQUIREMENTS

TABLE IA
DISCHARGE MONITORING (Continued)

Sampling Point Number	Sampling Point Identification		Latitude	Longitude	
1	Point downstream of effluent dechlorination and upstream of the point of discharge to Santa Cruz River		32° 17' 05" N	111° 01' 41" W	
Parameter	AL	DL	Units	Sampling Frequency	Reporting Frequency
BOD (30-day average)	Not Established	30	Units	Daily ⁷	Quarterly ⁸
BOD (7-day average)	Not Established	45	Units	Daily	Quarterly ⁹
TSS (30-day average)	Not Established	30	Units	Daily	Quarterly
TSS (7-day average)	Not Established	45	Units	Daily	Quarterly
Fecal Coliform Single sample maximum	No Limit	800	CFU or MPN ¹⁰	Monthly	Quarterly
Fecal Coliform Seven sample median	No Limit	200	CFU or MPN	Monthly	Quarterly
Total Nitrogen ¹¹ : 5-sampling rolling geometric mean.	Not Established	Not Established	mg/l	Monthly ¹²	Quarterly

⁷ Daily = Every day on 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.

⁸ Results obtained every 30 days reported quarterly.

⁹ Results obtained every 7 days reported quarterly.

¹⁰ CFU = Colony Forming Units / 100 ml sample. MPN = Most Probable Number / 100 ml sample

¹¹ Total Nitrogen = Nitrate as N + Nitrite as N + Total Kjeldahl Nitrogen.

¹² A 5-Month Geometric Mean of the results of the 5 most recent samples.

4.0 TABLES OF MONITORING REQUIREMENTS

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

4.0 TABLES OF MONITORING REQUIREMENTS

TABLE 1A
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	0.05	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
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) ¹³	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

¹³Total Trihalomethanes comprises of Bromoform, Bromodichloromethane, Chloroform, and Dibromochloromethane.

4.0 TABLES OF MONITORING REQUIREMENTS

TABLE IB
RECLAIMED WATER MONITORING TABLE - CLASS B¹⁴

Sampling Point Number	Sampling Point Identification		Latitude	Longitude
1	Point downstream of effluent dechlorination and upstream of the point of discharge to Santa Cruz River		32° 17' 05" N	111° 01' 41" W
Parameter	DL	Units	Sampling Frequency	Reporting Frequency
Fecal Coliform: Single-sample maximum	800	CFU or MPN ¹⁵	Daily ¹⁶	Quarterly
Fecal Coliform: Four (4) of last seven (7) samples	200 ¹⁷	CFU or MPN	Daily	Quarterly

¹⁴ Reclaimed water monitoring under Table IB will be performed anytime effluent is discharged to the reuse site and is in addition to routine discharge monitoring required under Table 1A.

¹⁵ CFU = Colony Forming Units per 100 ml; MPN = Most Probable Number per 100 ml. For CFU, a value of <1 shall be considered to be non-detect. For MPN, a value of <2.2 shall be considered to be non-detect.

¹⁶ For fecal coliform, "daily" sampling means every day in which a sample can practicably be obtained and delivered in sufficient time for proper analysis, provided that no less than four (4) samples in each calendar week are obtained and analyzed.

¹⁷ If at least four (4) of the last seven (7) samples are equal to or less than 200 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 (4) of the last seven (7) samples are greater than 200 CFU or MPN per 100 ml, report "no" in the appropriate space on the SMRF (indicating that the standard has not been met).

4.0 TABLES OF MONITORING REQUIREMENTS

TABLE II A
GROUNDWATER MONITORING

Sampling Point Number	Sampling Point Identification		Latitude	Longitude	
2	Point of Compliance Well SC-01 (POC #1)		32° 17' 23" N	111° 02' 04" W	
Parameter	AL ¹⁸	AQL ¹⁹	Units	Sampling Frequency	Reporting Frequency
Total Nitrogen ²⁰ :	Not Established ²¹	18.6	mg/l	Monthly	Quarterly
Nitrate-Nitrite as N	Not Established	18.6	mg/l	Monthly	Quarterly
Total Kjeldahl Nitrogen (TKN)	Not Established	Not Established	mg/l	Monthly	Quarterly
Total Coliform	Absence	Absence ²²	CFU or MPN ²³	Monthly	Quarterly

Parameter	AL	AQL	Units	Sampling Frequency	Reporting Frequency
Metals (Total): (Sampling point 2 only)²⁴					
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

¹⁸ AL = Alert Level¹⁹ AQL = Aquifer Quality Limit²⁰ Total Nitrogen is equal to nitrate as N plus nitrite as N plus TKN.²¹ Not Established = Monitoring required, but no limits have been established at this time.²² A positive result for total coliform may be verified with an analysis for fecal coliform. A positive result for fecal coliform shall be considered an exceedance of the AQL for total coliform.²³ CFU = Colony Forming Units per 100 ml, MPN = Most Probable Number per 100 ml.²⁴ Metals will also be sampled and reported at sampling point 3 if and when there is any verified AL exceedance of one or more Metal at Sampling point 2.

4.0 TABLE OF MONITORING REQUIREMENTS

TABLE II A
GROUNDWATER MONITORING (Continued)

Parameter	AL	AQL	Units	Sampling Frequency	Reporting Frequency
Volatile Organic Compounds (VOCs): (Sampling point 2 only) ²⁵					
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	0.05	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
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) ²⁶	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

²⁵VOCs will also be sampled and reported at Sampling point 3 if and when there is any verified AL exceedance of one or more VOC at Sampling point 2.

²⁶Total Trihalomethanes comprises of Bromoform, Bromodichloromethane, Chloroform, and Dibromochloromethane.

4.0 TABLES OF MONITORING REQUIREMENTS

TABLE II B
GROUNDWATER MONITORING (Continued)

Sampling Point Number	Sampling Point Identification		Latitude	Longitude	
3	Point of Compliance Well W-12 (FOC #2)		To be determined as per Section 3.0		To be determined as per Section 3.0
Parameter	AL ²⁷	AQL ²⁸	Units	Sampling Frequency	Reporting Frequency
Total Nitrogen ²⁹ :	Not Established ³⁰	Not Established	mg/l	Monthly	Quarterly
Nitrate-Nitrite as N	Not Established	Not Established	mg/l	Monthly	Quarterly
Total Kjeldahl Nitrogen (TKN)	Not Established	Not Established	mg/l	Monthly	Quarterly
Total Coliform	Absence	Absence ³¹	CFU or MPN ³²	Monthly	Quarterly

Parameter	AL	AQL	Units	Sampling Frequency	Reporting Frequency
Metals (Total):³³					
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

²⁷ AL = Alert Level

²⁸ AQL = Aquifer Quality Limit

²⁹ Total Nitrogen is equal to nitrate as N plus nitrite as N plus TKN.

³⁰ Not Established = Monitoring required, but no limits have been established at this time.

³¹ A positive result for total coliform may be verified with an analysis for fecal coliform. A positive result for fecal coliform shall be considered an exceedance of the AQL for total coliform.

³² CFU = Colony Forming Units per 100 ml, MPN = Most Probable Number per 100 ml.

³³ Metals will also be sampled and reported at sampling point 3 if and when there is any verified AL exceedance of one or more Metal at Sampling point 2.

4.0 TABLE OF MONITORING REQUIREMENTS

TABLE II B
GROUNDWATER MONITORING (Continued)

Parameter	AL	AQL	Units	Sampling Frequency	Reporting Frequency
Volatile Organic Compounds (VOCs):³⁴					
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	0.05	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
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

³⁴VOCs will also be sampled and reported at Sampling point 3 if and when there is any verified AL exceedance of one or more VOC at Sampling point 2.

³⁵Total Trihalomethanes comprises of Bromoform, Bromodichloromethane, Chloroform, and Dibromochloromethane.

4.0 TABLE OF MONITORING REQUIREMENTS

TABLE III
FACILITY INSPECTION (Operational Monitoring)

Pollution Control Structures/Parameter	Performance Levels	Inspection Frequency
Pump Integrity	Good Working Condition ³⁶	Weekly
Wastewater Containment Structures:	No cracks or spalling in concrete that results in leaks or impairs structural integrity.	Weekly
Treatment Plant Components	Good Working Condition ³⁷	Weekly

³⁶The pump is operational and the wastewater is being discharged to its intended location. The threshold for non-compliance of this performance level is pump operation that results in an unauthorized discharge or spill on the facility property of a non-hazardous material, untreated or partially treated wastewater which: a) has the potential to cause an AQL to be exceeded; or b) could pose an endangerment to public health or the environment.

³⁷The WWTP components are operating in a manner to produce the quality effluent that is required by this permit and there is no discharge to any unauthorized sites. The threshold for non-compliance of this performance level is pump operation that results in an unauthorized discharge or spill on the facility property of a non-hazardous material, untreated or partially treated wastewater which: a) has the potential to cause an AQL to be exceeded; or b) could pose an endangerment to public health or the environment.

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: July 18, 1991 (APP, signed on 2/26/02)
April 12, 2004 (Significant Amendment)
2. Contingency Plan, dated: July 18, 1991 (APP)
April 12, 2004 (Significant Amendment)
3. Final Hydrologist Report dated: August 29, 2001 (APP)
February 23, 2005 (Significant Amendment)
4. Final Engineering Report dated: N/A
5. Public Notice dated: May 21, 2001 (APP)
March 4, 2005 (Significant Amendment)
6. Public Hearing, dated: N/A
7. Responsiveness Summary, dated: N/A

6.0 GENERAL CONDITIONS AND RESPONSIBILITIES**6.1 Annual Registration Fees**

The permittee is notified of the obligation to pay an Annual Registration Fee to ADEQ. The Annual Registration Fee is based upon the amount of daily influent or discharge of pollutants in gallons per day as established by A.R.S. § 49-242(D). This fee is payable to ADEQ each year. The design flow is 41.0 MGD.

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 Severability [A.R.S. § 49-243(K)(8)]

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.

6.5 Proper Operation and Maintenance [A.R.S. § 49-243(K)(8)]

The permittee shall properly operate and maintain all facilities, treatment processes, and discharge control systems which are installed or used by the permittee to achieve compliance with the terms and conditions of this permit.

6.6 Compliance with Aquifer Water Quality Standards [A.R.S. §§ 49-243(B)(2) and 49-243(B)(3)]

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

6.7 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.

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

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

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

6.9 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.

1. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
2. The permittee shall retain records of all monitoring information, including copies of all reports required by this permit and records of all data used to complete the application for this permit, for a period of 10 years from the date of the sample, measurement report, or application. This period may be extended by request of the Director at any time.
3. At a minimum, records of monitoring information shall include:
 - a. Date, time, and exact place of sampling or measurements;
 - b. Individual(s) who performed the sampling or measurements;
 - c. Date(s) analyses were performed;
 - d. Individual(s) or laboratory who performed the analyses;
 - e. Analytical techniques or methods used;
 - f. Results of such analyses;
 - g. Chain of custody records;
 - h. Names of samples;
 - i. Static water level in monitor well prior to sampling;
 - j. Sampling method;
 - k. Purging volume;
 - l. Indicator parameters including field conductance ($\mu\text{mhos/cm}$), field temperature ($^{\circ}\text{C}$), and field pH (standard units);
 - m. Preservation and transportation procedures;
 - n. Name of the analytical facility, and;
 - o. Any field notes relating to the information described in (a) -- (n) above.

6.10 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.

6.11 Inspection and Entry [A.R.S. §§ 49-203(B) and 49-243(K)(8)]

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. In so doing, the Department representative may:

1. Enter upon the operator's premises where a regulated facility or activity is located or conducted, or locations where records must be kept under the conditions of this permit.
2. Have access to and copy, at reasonable times, any records required to be kept under the conditions of this permit.
3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit.
4. Sample or monitor at reasonable times, for the purposes of assuring permit compliance, any substances or parameters at any location.
5. Take photographs or video tape.
6. Take other actions reasonably necessary to determine compliance with Aquifer Protection Permit statutes or rules or the terms and conditions of this permit.

6.12 Duty to Modify [A.R.S. § 49-243(K)(8)]

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

**6.13 Permit Action: Amendment, Transfer, Suspension & Revocation
[A.R.S. §§ 49-201, 49-241 through 251, A.A.C. R18-9-A211, R18-9-A212 and R18-9-A213]**

This permit may be amended, transferred, renewed, or revoked for cause, under the rules of the Department. The filing of a request by the permittee for a permit action does not stay or suspend the effectiveness of any existing permit condition. The Director shall issue a public notice of all proposed permit actions pursuant to A.A.C. R18-9-A211, R18-9-A212 and R18-9-A213.

6.13.1 Permit Reopen

The Director may reopen this permit and amend it pursuant to A.A.C. R18-9-A211.

6.13.2 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 will be approved until the applicant complies with all transfer requirements as specified in A.A.C. R18-9-A212(B) and (C).

The permittee shall notify the Water Permits 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.