

ORIGINAL



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1 FENNEMORE CRAIG, P.C. 2007 MAY -11 P 3: 57  
 2 A Professional Corporation  
 3 Jay L. Shapiro (No. 014650)  
 4 Patrick J. Black (No. 017141) AZ CORP COMMISSION  
 5 3003 N. Central Ave., Suite 2600 DOCUMENT CONTROL  
 6 Phoenix, Arizona 85012  
 7 Telephone (602) 916-5000  
 8 Attorneys for Coronado Utilities, Inc.

**BEFORE THE ARIZONA CORPORATION COMMISSION**

8 IN THE MATTER OF THE  
 9 APPLICATION OF CORONADO  
 10 UTILITIES, INC. FOR A CERTIFICATE  
 11 OF CONVENIENCE AND NECESSITY  
 12 TO PROVIDE WASTEWATER SERVICE  
 13 IN PINAL COUNTY, ARIZONA.

DOCKET NO: SW-04305A-05-0086

12 IN THE MATTER OF THE  
 13 APPLICATION OF CORONADO  
 14 UTILITIES, INC., AN ARIZONA  
 15 CORPORATION, FOR AUTHORITY TO  
 16 ISSUE SHORT AND LONG-TERM  
 17 DEBT INSTRUMENTS IN  
 18 CONNECTION WITH FINANCING  
 19 THE ACQUISITION OF THE  
 20 WASTEWATER UTILITY PLANT OF  
 21 BHP COPPER, INC. AND  
 22 CONSTRUCTING IMPROVEMENTS  
 23 THERETO.

DOCKET NO. SW-04305A-05-0087

**(Consolidated)**

**NOTICE OF COMPLIANCE WITH  
DECISION NO. 68608**

19 Coronado Utilities, Inc. ("Coronado Utilities" or "Company") hereby files this  
 20 Notice of Compliance with Decision No. 68608 dated March 23, 2006 ("Order"). The  
 21 Order requires the Company to file a copy of the Arizona Department of Environmental  
 22 Quality ("ADEQ") Unified Water Quality Permit of the San Manual Wastewater  
 23 Treatment Facility authorizing a treatment and disposal capacity of 350,000 gallons per  
 24 day.

25 On March 20, 2007 Coronado Utilities filed in this docket ADEQ's preliminary  
 26 decision to issue an Aquifer Protection Permit. To supplement its March 20, 2007 filing,

1 the Company hereby submits its Aquifer Protection Permit 105607, issued by ADEQ on  
2 April 26, 2007 (see Exhibit A attached hereto).

3 DATED this 1st day of May, 2007.

4 FENNEMORE CRAIG, P.C.

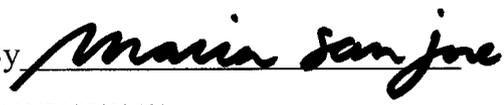
5  
6 By   
7 Jay L. Shapiro  
8 Patrick J. Black  
9 Attorneys for Coronado Utilities, Inc.

10 ORIGINAL and 15 copies of the foregoing  
11 filed this 1st day of May, 2007 with:

12 Arizona Corporation Commission  
13 Docket Control  
14 1200 West Washington Street  
15 Phoenix, Arizona 85007

16 COPIES of the foregoing hand-delivered  
17 this 1st day of May, 2007 to:

18 Shannon Kanlan  
19 Compliance Section  
20 Arizona Corporation Commission  
21 1200 West Washington Street  
22 Phoenix, AZ 85007

23  
24 By 

25 1910947.1/12923.001

26

# **EXHIBIT**

**A**



Janet Napolitano  
Governor

# ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

1110 West Washington Street • Phoenix, Arizona 85007  
(602) 771-2300 • www.azdeq.gov



Stephen A. Owens  
Director

## Notice of Granting License Notice of Appealable Agency Action

April 26, 2007

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

Mr. Jason Williamson, President  
Coronado Utilities, Inc.  
6825 East Tennessee Ave, Suite 547  
Denver, CO 80224

RE: San Manuel Wastewater Treatment Plant (WWTP) - APP Application  
Inventory #105607 / LTF # 35672

Dear Mr. Williamson:

The Arizona Department of Environmental Quality's (ADEQ's) review of this application was subject to the requirements of the licensing time frames ("LTF") statute under Arizona Revised Statutes ("A.R.S.") § 41-1072 through § 41-1079 and the LTF rules under Arizona Administrative Code ("A.A.C.") R18-1-501 through R18-1-525. This Notice is being issued within the overall time frame for your application.

ADEQ hereby grants/approves your application for an Aquifer Protection Permit under A.R.S. 49-241. As a courtesy I am also enclosing the fact sheet and the final permit as it will be signed by the ADEQ Water Quality Division Director.

This decision is an appealable agency action under A.R.S. § 41-1092. You have a right to request a hearing and file an appeal under A.R.S. § 41-1092.03(B). You must file a written Request for Hearing or Notice of Appeal within **30 days** of your receipt of this Notice. A Request for Hearing or Notice of Appeal is filed when it is received by ADEQ's Hearing Administrator as follows:

Judith Fought, Hearing Administrator  
Office of Administrative Counsel  
Arizona Department of Environmental Quality  
1110 W. Washington Street  
Phoenix, AZ 85007

The Request for Hearing or Notice of Appeal shall identify the party, the party's address, the agency and the action being appealed and shall contain a concise statement of the reasons for the appeal. Upon proper filing of a Request for Hearing or Notice of Appeal, ADEQ will serve a

Northern Regional Office  
1801 W. Route 66 • Suite 117 • Flagstaff, AZ 86001  
(928) 779-0313

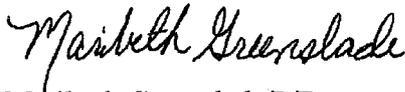
Southern Regional Office  
400 West Congress Street • Suite 433 • Tucson, AZ 85701  
(520) 628-6733

Notice of Hearing on all parties to the appeal. If you file a timely Request for Hearing or Notice of Appeal you have a right to request an informal settlement conference with ADEQ under A.R.S. § 41-1092.06. This request must be made in writing no later than **20 days** before a scheduled hearing and must be filed with the Hearing Administrator at the above address.

You will soon receive an invoice for the final bill or a refund check for an amount if any initial fee paid exceeds the billable costs for processing your permit application. The permit will be signed and mailed to you upon receipt of the payment for the final bill.

If you have any other questions, please feel free to give me a call at (602) 771-4578.

Sincerely,



Maribeth Greenslade P.E.  
Aquifer Protection Permit & Reuse Unit  
Groundwater Section, Water Quality Division

cc: Asif Majeed, Manager, Wastewater, Recharge, & Reuse Unit, ADEQ  
Lynne Dekarske, Administrative Assistant III, Water Permits Section, ADEQ  
John Gibbons, Manager, Field Service Compliance Unit  
Daniel Dow, P.E., Santec Corporation

Enclosures (2)

WWR07:0271



## Fact Sheet

Aquifer Protection Permit 105607  
 Place ID #23636, LTF # 35672  
 San Manuel Wastewater Treatment Plant

The Arizona Department of Environmental Quality (ADEQ) proposes to issue an amendment to the 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 Arizona Administrative Code (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 or to prevent pollutants from reaching the aquifer.

### I. FACILITY INFORMATION

#### Name and Location

Permittee's Name:	Coronado Utilities, Inc.
Mailing Address:	Coronado Utilities, Inc. 6825 E. Tennessee Ave., Suite 547 Denver, CO 80224
Facility Name and Location:	San Manuel Wastewater Treatment Plant 88606 E. Magma Plant Road, San Manuel, Arizona 85631 (Adjacent to the unincorporated town of San Manuel on the former BHP Copper Plant Site near Reddington Road)

#### Regulatory Status

The existing facility was previously owned and operated by BHP Copper under a notice of disposal (NOD). An APP was never issued for the existing facility. This permit will cover both the existing facility and the new facility.

### **Facility Description**

#### **Existing Facility**

The unincorporated community of San Manuel consists of residential and commercial development. Sewer and wastewater treatment services were previously provided by BHP Copper Inc. The existing system was constructed in 1953 and is designed to treat up to 800,000 gpd of flow (0.8 MGD). The permittee, Coronado Utilities, is replacing the existing system with a new facility because it does not meet BADCT requirements. Closure of the existing facility, will be performed as part of the compliance schedule requirements of this permit. Some components of the existing facility may be used in the new facility in accordance with compliance schedule requirements. The existing evaporation ponds will continue to be used for effluent evaporation.

#### **New Facility**

The new San Manuel WWTP will be constructed adjacent to, and use portions of, the existing WWTP for effluent and sludge disposal. The new 0.35 MGD WWTP will use an extended aeration, activated sludge process which incorporates denitrification in the secondary treatment process. The facility will include grit and solids removal, influent flow metering, flow equalization basins, sludge treatment and handling, disinfection using chlorination/dechlorination, standby power, and ancillary laboratory and control buildings. WWTP components will be constructed of prefabricated fiberglass tanks and concrete. Upon demonstration of BADCT and amendment of the permit, one of the existing oxidation ponds (re-named Reserve Storage Pond) may be used by the new facility for temporary influent storage. The second existing oxidation pond (re-named Sludge Oxidation Pond) may be used for sludge drying upon demonstration of BADCT and amendment of the permit. The BADCT demonstrations and permit amendment requirements are included in the Compliance Schedule section of the permit.

## **II. BEST AVAILABLE DEMONSTRATED CONTROL TECHNOLOGY**

#### **Existing Facility**

The existing WWTP will not be upgraded because the new WWTP is currently under construction. Monitoring of the existing WWTP effluent will be required until the new plant is operational.

### **New Facility**

The new WWTP is designed to meet the treatment performance criteria for new facilities as specified in A.A.C. R18-9-B204.

The permit requires that all industrial hookups and other non-residential hookups to the treatment system be authorized according to the applicable federal, state or local regulations.

Engineering Design: The new WWTP was designed as per the design report prepared and stamped, dated, and signed (sealed) by Daniel E. Dow, P.E. (Professional Engineer), Santec Corporation, dated September 28, 2005, and subsequent sealed submittals that served as additions to the design report.

WWTP Capacity: The new WWTP will have a total capacity to collect and treat annual average daily wastewater flow of 0.35 MGD. The existing WWTP is designed to treat 0.8 MGD through the pond system.

Service Area: The service area is the unincorporated town of San Manuel.

Type of Wastewater Treated: The wastewater will consist of residential and light commercial wastewater with no industrial discharges.

Treatment Process Description: The new WWTP treatment process includes grit removal, comminution, screening, flow equalization, nitrification and denitrification, secondary clarification, chlorination/dechlorination, and sludge drying.

Pretreatment: The facility meets the requirements for the pretreatment by conducting monitoring in accordance with: R18-9-B204(A)(6)(b)(iii).

Odor, Noise, & Aesthetic Controls and Setbacks: The permittee obtained a setback waiver from the land owner, BHP Copper, Inc., for a 1000 foot circumference surrounding the WWTP pursuant to A.A.C. R18-9-B201(I)(2)(b).

Effluent Quality: The new WWTP is designed to produce reclaimed water meeting Class B+ Reclaimed Water Quality Standards (A.A.C. R18-11, Article 3) and can be used for any allowable use in that class under a valid reclaimed water permit (A.A.C. R18-9, Article 7).

Effluent Disposal: The effluent may either be reused under a valid reclaimed water permit or disposed via evaporation ponds.

Sludge Disposal: Sludge will be dried in the Sludge Oxidation Pond and if it is necessary to remove sludge from the site, it will be hauled off-site for disposal in accordance with state and federal regulations.

WWTP Leaking Potential: The new WWTP units will be constructed of prefabricated fiberglass tanks and concrete. The tanks will be hydrostatically tested at installation to ensure that leakage is less than 550 gpd/acre.

Emergency Operation: The Emergency Operation Plan is based on the emergency situations listed in page XI – 4 of the ADEQ Guidance Bulletin # 11.

Overall BADCT: The new WWTP is designed to meet the treatment performance criteria for new facilities as specified in A.A.C. R18-9-B204. Site specific characteristics were not used to meet BADCT requirements for the WWTP design. However, site specific BADCT was evaluated for effluent disposal.

Storm Water and Surface Water Considerations: The WWTP is located outside of a 100-year flood plain.

Discharge Monitoring Requirements in the APP:

The permit requires the standard BADCT monitoring at the effluent lift station. Since the design WWTP flow is greater than 250,000 gallons per day (gpd), a Fecal Coliform limit of non-detect for a seven (7) sample median, and less than or equal to a single sample maximum of 23 CFU/100 ml sample, is required for the discharge going to the evaporation ponds.

The permit requires the reclaimed water Class B+ limits for the discharge going to reuse for Fecal Coliform not to exceed a maximum value of 800 CFU/100 ml for a single sample and 200 CFU/100 ml in 4 of the last 7 samples.

Discharge Sampling Point in the APP: For the existing facility, sampling will be conducted at the discharge point to the first evaporation pond. For the new facility, sampling will be conducted at the effluent lift station.

Permit Compliance Schedule Requirements: The permittee shall submit a signed, dated and sealed Engineer's Certificate of completion for the new WWTP prior to discharge and within 90 days of completion of construction pursuant to Section 3.0 of the permit.

### III. HYDROGEOLOGIC SETTING

SRK Consulting summarized the geology and hydrogeology in the vicinity of the WWTP. This summary was derived from the hydrogeology reports prepared by SRK for the closure of the San Manuel Mine Plant Site property (Inventory No. 102370) including the ore processing plant, existing WWTP, and tailings areas.

The WWTP site is located within the Lower San Pedro Groundwater Basin within the Lower San Pedro – Willcox Playa – Rio Yaqui Watershed. The Lower San Pedro Basin is a broad alluvial basin within the Basin and Range Physiographic Province

which is defined by uplifted blocks or mountain ranges with intervening alluvial basins or valleys, created by extensional (pull apart) faulting. The elongated basins and ranges typically trend northwest-southeast and parallel one another. The basin is bounded on the southeast by the Winchester Mountains, on the east by the Galiuro Mountains, on the southwest by the Rincon Mountains, and on the west by the Santa Catalina and Tortilla Mountains.

The WWTP site is underlain by shallow soils above thick, semi-consolidated, basin-fill sediments of varying thickness, and the surrounding valley floor contains irregular fluvial and lacustrine deposits of sand, gravel, silt and clay. The alluvial deposits and underlying bedrock have been divided into the following units: Quaternary Alluvial Deposits, Quiburis Formation, San Manuel Formation, Cloudburst Formation, Tertiary and Cretaceous Volcanics, Apache Group, and Oracle Granite.

Most of the groundwater in the basin is derived from the alluvial units between the mountain blocks with limited fracture flow within the bedrock complexes surrounding the basin. Five aquifers (Floodplain, Upper Basin Fill, Lower Basin Fill, Conglomerate, and Bedrock) have been identified in the area with most groundwater withdrawn from the Floodplain and Basin Fill aquifers.

Groundwater is generally flowing northeast in all alluvial aquifers towards the San Pedro River then northward along the axis of the river and alluvial basin. A local groundwater mound is present beneath the existing WWTP because of infiltration of effluent and mining wastewater. Limited extent perched zones may also be present throughout the basin.

Ten monitor wells (SMW-5, 7, 8, 9, 13, 21, 55-560981, 55-560982, 55-560983, and 55-560984) were located within 0.5 miles of the facility but have been abandoned upon closure of the mining facilities.

Depths to groundwater were measured by BHP in two on-site monitor wells located between the wastewater treatment lagoons and evaporation/infiltration basins. One of these wells, SMW-8, is a shallow well and the other (SMW-13) is a deep well. Depth to groundwater in the uppermost unconfined aquifer as measured in SMW-8 ranged from 16.7 feet below the ground surface (bgs) in November 1996 to 30.8 feet in August 2004. Depth to groundwater in the aquifer as measured in the deep well, SMW-13 ranged from 48.34 feet bgs to 58.36 feet for the same time period indicating partial confinement. Depths to groundwater in both wells has declined since closure of the mine and plant site although SMW-8 appears to have stabilized at a depth of about 25 feet bgs.

#### **IV. COMPLIANCE WITH AQUIFER WATER QUALITY STANDARDS**

The permittee is required to show that pollutants discharged will not cause or contribute to a violation of aquifer water quality standards at the POC. The location of the points of compliance (POCs) which show compliance with aquifer water

quality standards is determined by an analysis of the pollutant management area (PMA), the discharge impact area (DIA), and locations and uses of groundwater wells in the area. The POC locations are selected to protect off-site uses of groundwater, to verify BADCT performance, and to allow early detection of potential impact from the WWTP discharges.

The pollutant management area (PMA) is described in A.R.S. §49-244 as the limit projected in the horizontal plane of the area on which pollutants are or will be placed. The PMA includes horizontal space taken up by any liner, dike or other barrier designed to contain pollutants in the facility. If the facility contains more than one discharging activity, the PMA is described by an imaginary line circumscribing the several discharging activities. The PMA for this facility is defined by a line circumscribing all wastewater treatment plant components and effluent evaporation/infiltration/ storage ponds for the existing and new WWTPs.

The discharge impact area (DIA) is defined by A.R.S. §49-201.13. The DIA means the potential areal extent of pollutant migration, as projected on the land surface, as the result of a discharge from a facility. The DIA analysis typically evaluates the distance a particle of a "pollutant" may travel from the point of recharge. In the event that effluent meets AWQS at the point of discharge from the WWTP, the "pollutant" is defined as a particle of "water".

A groundwater mound or Area of Impact (AOI) measures the changes in water levels due to the recharge with the extent generally defined by a rise in the water table of one foot or more. Changes in water level may or may not be similar to the distance a particle (of a pollutant) may travel depending on site conditions. A groundwater mound is present beneath the facility due to discharges from the tailings facility, WWTP, and other discharging facilities at the San Manuel Ore Processing Plant Site. This mound extended radially for approximately 0.5 miles from beneath the center of the Ore Processing Plant Site. The maximum depth of the mound was calculated to be approximately 40 feet (August 2004) and is believed to have decreased with closure of the mine operations.

A DIA that pertains only to the discharges from the existing and new WWTPs may not be distinguishable from the DIA for the mine site. The DIA for the new WWTP will be set at the edge of the property on which the new WWTP will be constructed.

There are currently no wells located within 0.5 miles of the facility although more than 10 monitor/water supply wells were present while the mine was active. All wells within 0.5 miles have been abandoned in accordance with ADWR requirements upon closure of the mine. The nearest drinking water supply well is located approximately 1.75 miles northeast (down or cross gradient) of the facility adjacent to the San Pedro River.

Contaminants of concern from the WWTP are primarily nitrogen species and pathogens. Two monitoring wells, SMW-8 and SMW-13 were located on the WWTP

site, between the wastewater treatment ponds and disposal ponds, with groundwater quality data records from January 1996 through January 2004 available. Based upon these data, no reported AWQS exceedances are present.

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

One hazardous / non-hazardous POC has been designated for this facility as follows:

POC #	Descriptive Location	Latitude	Longitude
1	northeast boundary of the WWTP site, within ~300 feet of the center of Pond #3	32° 37'27" N	110° 36' 38" W

This location is upgradient of the tailings ponds and downgradient (northeast) of the evaporation ponds and WWTP. Groundwater monitoring will be required at a POC well to be installed in accordance with a compliance schedule in the permit. The proposed POC well design shows that the POC will be a 4-inch diameter PVC cased well completed to an approximate depth of 115 feet with 40 feet of perforated casing located in the bottom of the well. The actual depth and screened interval for the well will be dependent on the depth to the static water level which may be present between 30 and 70 feet below the ground surface. The screened interval will be designed such that approximately 10 feet of the screen is located above and 30 feet is located below the static water level.

The Director may designate addition points of compliance if information on groundwater gradients or groundwater usage indicates the need.

Monitoring and Reporting Requirements

Effluent and groundwater were not monitored for the existing facility which was operating in accordance with a Notice of Disposal. Effluent monitoring will be required at the existing facility until the new facility begins operation.

Effluent and groundwater monitoring are required for the new WWTP. Effluent and groundwater are recommended to be monitored as follows:

Sampling Point Number	Descriptive Location	Latitude	Longitude
1	Existing Facility - effluent discharge to the first Evaporation Pond	32° 37' 24.39" N	110° 36' 46.61" W
2	New Facility - Effluent Lift Station	32° 37' 13" N	110° 37' 04" W

Sampling Point Number	Descriptive Location	Latitude	Longitude
3	POC #1: northeast boundary of the WWTP site, within ~300 feet of the center of Pond #3	32° 37' 27" N	110° 36' 38" W

Parameter	Effluent – Existing Plant	Effluent- New Plant	Reuse <sup>1</sup>	Groundwater
Flow: effluent and reuse	daily; calculate monthly avg	daily; calculate monthly avg	daily; calculate annual avg	not applicable
pathogens: fecal or total coliform	not required	daily: fecal coliform	daily: fecal coliform	monthly: total coliform
nutrients: nitrate, nitrite, TKN, total nitrogen	monthly	monthly	not required	monthly
depth to groundwater	not applicable	not applicable	not applicable	monthly
inorganic chemicals: metals, cyanide, fluoride as listed in A.A.C. R18-9-11-406.B	quarterly	quarterly	not required	quarterly
VOCs and semi-VOCs per A.A.C. R-18-11-406.C	semi-annual	semi-annual	not required	semi-annual

Discharge limits (DLs) and Aquifer Quality Limits (AQLs) are set equivalent to the applicable AWQS. ALs are set at 80% of the DLs or AQLs in accordance with standard industry practice.

#### V. STORM WATER AND SURFACE WATER CONSIDERATIONS

Storm water/surface water considerations included whether the facility was located within a 100-year flood plain and whether the discharge had the potential to impact adjacent and downgradient surface water drainages. The facility is located on a pediment in the Lower San Pedro Surface Water Basin ~0.75 miles south of ephemeral Big Wash which trends east-northeast towards the San Pedro River, located ~2 miles east of the WWTP site. The San Pedro River is a through-going, intermittent, desert stream. The river channel and floodplain are entrenched ~5.75 feet below the adjacent alluvial deposits and extend 0.5 miles on either side of the

<sup>1</sup>Reuse monitoring applies only when reclaimed water is discharged for reuse.

river channel. The river flows northward from Mexico through southeastern Arizona and joins the Gila River in central Arizona.

The WWTP site is not located-within the 100-year flood plain associated with Big Wash or the San Pedro River.

Monitoring of nearby drainages was not included as a permit condition because the facility does not directly discharge to any surface water.

## **VI. COMPLIANCE SCHEDULE**

A compliance schedule is included to address closure of the existing facility, operation of the new facility, installation of the POC monitor well, and BADCT demonstrations and permit amendments for the oxidation ponds to be used for temporary influent storage and sludge drying. The schedule also indicates that the existing oxidation ponds can be used to dry sludge and temporarily store influent until the permit is amended to include the ponds in the permit as part of the new facility.

## **VII. OTHER REQUIREMENTS FOR ISSUING THIS PERMIT**

### **Technical Capability**

Coronado Utilities, Inc. 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).

Coronado Utilities, Inc. is responsible for the operation of the facility. Coronado will provide a Grade 3 certified operator, Robert E. Evans III.

The WWTP was designed as per the design report prepared and stamped, dated, and signed (sealed) by Daniel E. Dow, P.E. (Professional Engineer), Santec Corporation, dated September 28, 2005, and subsequent sealed submittals that served as additions to the design report.

ADEQ 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**

#### **Existing Facility**

BHP Copper has established financial capability for closure of the existing facility. The estimated dollar amount demonstrated for financial capability is \$75,000.00 for

closure and post-closure costs. The financial capability was demonstrated through R18-9-A203(C)(9).

#### **New facility**

Coronado Utilities, Inc. has 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/post-closure cost estimate of \$61,250.00. The financial capability was demonstrated through a letter of credit in accordance with A.A.C. R18-9-A203(C)(5).

#### **Zoning Requirements**

The San Manuel WWTP has been properly zoned for the permitted use and the permittee has complied with all local 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 – Groundwater Section - APP & Reuse Unit  
Attn: Maribeth Greenslade  
1110 W. Washington St., Mail Code 5415B-3  
Phoenix, Arizona 85007  
Phone: (602) 771- 4578

**STATE OF ARIZONA**  
**AQUIFER PROTECTION PERMIT NO. P-105607**  
**PLACE ID 23636, LTF 35672**

**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, Coronado Utilities, Inc. is hereby authorized to operate the San Manuel Wastewater Treatment Plant located at the former BHP Copper San Manuel Plant Site, located adjacent to the unincorporated town of San Manuel, on State Route 76, Pinal County, Arizona, over groundwater of the Lower San Pedro groundwater basin, in Township 9 S, Range 17 E, Section 28, of the Gila and Salt River Base Line and Meridian.

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

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

**1.1 PERMITTEE INFORMATION**

**Facility Name:** San Manuel Wastewater Treatment Plant (WWTP)  
**Facility Address:** 88606 E. Magma Plant Road, San Manuel, Arizona 85631  
(Adjacent to the unincorporated town of San Manuel  
on the former BHP Plant Site near Reddington Road)  
Pinal County

**Permittee:** Coronado Utilities, Inc.  
**Permittee Address:** 6825 E. Tennessee Ave., Suite 547  
Denver, CO 80224

**Facility Contact:** Jason Williamson, Coronado Utilities, Inc.  
**Emergency Phone No.:** (520) 471-6538

**Latitude/Longitude:** 32° 37' 15" N, 110° 07' 07" W  
**Legal Description:** Township 9S, Range 17E, Section 28, SW 1/4, SW 1/4, NE1/4 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 \_\_\_\_\_, 2007

**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 San Manuel Wastewater Treatment Plant (WWTP) is an existing primary clarifier/oxidation pond system operated since 1953 by BHP Copper, Inc. and has served the BHP Plant Site and adjacent unincorporated town of San Manuel. The existing WWTP will be closed and will be replaced by a new activated sludge package plant with the capacity to treat a maximum average monthly flow of 0.35 million gallons per day (MGD).

**2.1.1 Existing Facility Site Description [A.A.C. R18-9-B205]**

The existing WWTP will continue to be operated until the new plant is constructed and operational. The existing WWTP consists of a bar screen, primary clarifier, two oxidation ponds, a sludge digester, and sludge drying beds, capable of treating up to 0.8 MGD of domestic wastewater. Effluent is not disinfected prior to disposal to three effluent evaporation ponds. Denitrification may occur, although the facility is not designed to denitrify. Effluent is monitored in accordance with Section 4.0, Table IA (Existing Facility Routine Discharge Monitoring). The effluent may also be discharged to the nearby tailings facility to prevent overflow of the evaporation ponds.

**2.1.2 New Facility Site Description [A.A.C. R18-9-B204]**

The new San Manuel WWTP will be constructed adjacent to, and use portions of, the existing WWTP for effluent and sludge disposal. The 0.35 MGD WWTP will use an extended aeration, activated sludge process which incorporates denitrification in the secondary treatment process. The facility will include grit and solids removal, influent flow metering, flow equalization basins, sludge treatment and handling, disinfection using chlorination/dechlorination, standby power, and ancillary laboratory and control buildings. WWTP components will be constructed of prefabricated fiberglass tanks and concrete. Upon demonstration of BADCT (Permit Section 3.4), this permit may be amended to allow the western-most existing oxidation pond, re-named "Sludge Oxidation Pond", to be used for sludge drying. After drying, all sludge including screenings, grit and scum, shall be hauled off-site for disposal in accordance with state and federal regulations.

Depth to groundwater at the WWTP site is approximately 25 feet below ground surface (bgs) and the direction of groundwater flow is to the northeast.

During the initial start-up period for the new WWTP, the effluent may be discharged to the evaporation ponds in accordance with Section 4.0, Table IB-1 (New Facility Initial Start-up Plan). After the initial start-up period, the effluent may be discharged to the evaporation ponds in accordance with Section 4.0, Table IB (New Facility Routine Discharge Monitoring). Upon demonstration of BADCT (Permit Section 3.5), this permit may be amended to allow the eastern-most existing oxidation pond, renamed the "Reserve Storage Pond", to be used for temporary storage of influent.

The new WWTP will produce reclaimed water meeting Class B+ Reclaimed Water Standards (A.A.C. R18-11, Article 3) and may be delivered for beneficial use under a valid reclaimed water permit under A.A.C. R18-9 Article 7.

The site includes the following permitted discharging facilities:

Facility	Latitude	Longitude
Center of New WWTP	32° 37' 15" N	110° 07' 07" W
Oxidation Pond (Existing)	32° 37' 13" N	110° 37' 04" W
Sludge Oxidation Pond (Upon Demonstration of BADCT per Section 3.4 and permit		

amendment)		
Evaporation Pond #1	32° 37' 24" W	110° 36' 47" W
Evaporation Pond #2	32° 37' 24" W	110° 36' 43" W
Evaporation Pond #3	32° 37' 26" W	110° 36' 42" W
Oxidation Pond (Existing) Reserve Storage Pond (Upon Demonstration of BADCT per Section 3.5 and permit amendment)	32° 37' 15" N	110° 37' 01" 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 ADEQ each year. The design flow is 0.35 million gallons per day.

**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.

**Existing Facility**

BHP Copper has established financial capability for closure of the existing facility. The estimated dollar amount demonstrated for financial capability is \$75,000.00 for closure and post-closure costs. The financial capability was demonstrated pursuant to R18-9-A203(C)(9).

**New Facility**

The permittee shall maintain financial capability throughout the life of the facility. The estimated dollar amount demonstrated for financial capability is \$61,250.00 for closure and post-closure costs. The financial capability was demonstrated with a letter of credit pursuant to A.A.C. R18-9-A203(C)(5).

**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 shall be designed, constructed, operated, and maintained to meet the treatment performance criteria for new facilities as specified in Arizona Administrative Code R18-9-B204.

The facility shall meet the requirements for the pretreatment by conducting monitoring as per R18-9-B204(B)(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 Daniel E. Dow, P.E., Santec Corporation, dated September 28, 2005 and subsequent revisions.

**2.2.2 Site-specific Characteristics**

Site specific characteristics were not used to meet BADCT for the WWTP.

Site specific characteristics were evaluated for effluent disposal. Reuse and evaporation were chosen as the primary methods of disposal because the site is located in the middle of the BHP

San Manuel Mine Plant Site, upgradient of a large tailings facility located ~0.25 miles east of the WWTP. Reuse and evaporation will limit the infiltration of effluent into the subsurface preventing potential contaminants within the tailings facility from being leached to the groundwater.

Effluent generated will be primarily reused on a nearby golf course with an annual demand of 0.400 million gallons per day (MGD). An additional 84 acres around the wastewater treatment site is also available for reuse, if needed. In the event that effluent cannot be reused, the four on-site effluent ponds are estimated to have at least 16 days storage capacity, assuming a 3-foot operational depth in each pond.

In addition to reuse, an estimated 0.085 MGD of effluent can be evaporated from the three evaporation ponds (Ponds 1, 2, and 3) proposed to be operated continuously. The fourth evaporation pond (Reserve Evaporation and Storage Pond #4) will only be used when one of the other three ponds is out of service for maintenance or extra effluent storage is needed.

There may also be additional effluent disposal capacity by infiltration from Ponds 2 and 3. A seepage analysis by BHP indicates that Ponds 2 and 3 could percolate at rates greater than 550 gpd/acre. Evaporation Pond 2 could percolate at rates ranging from 597 to 2861 gpd/acre and Evaporation Pond 3 could percolate at rates ranging from 368 to 2684 gpd/acre. Percolation of effluent from these ponds ultimately discharges to the tailings facility located ~0.25 miles east of the WWTP. Pond #1 appears to have a liner that prevents leakage greater than 550 gpd/acre.

### 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 Compliance Schedule in Section 3.0.

### 2.2.4 Operational Requirements

1. The permittee shall maintain a copy of the new O & M manual at the WWTP site at all times and the manual shall be available upon request during inspections by ADEQ personnel.
2. The pollution control structures shall be inspected for the items listed in Section 4.0, Table III - FACILITY INSPECTION (OPERATIONAL MONITORING).
3. If any damage of the pollution control structures is identified during inspection, proper repair procedures shall be performed. All repair procedures and 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.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 annual flow of 0.35 MGD. Three tables are listed for discharge monitoring. These are "Table IA (Existing Facility)", "Table IB (New Facility)", and "Table IB-1 (New Facility) Initial Start-up Plan". The permittee shall only monitor the appropriate Table for monitoring that is commensurate with the facility under operation. Monitoring shall be conducted in accordance with Section 3.0, Compliance Schedule requirements.

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. 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 BADCT pollutant control technologies including liner failure<sup>1</sup>, 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 4.0, Table I.

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

The Point of Compliance is established by the following designated location:

P.O.C.#	P.O.C. Locations	Latitude	Longitude
1	Northeast boundary of the WWTP site, within ~ 300 feet of the center of Evaporation Pond #3.	32° 37' 27" N	110° 36' 38" W

The Director may amend this permit to designate additional points of compliance if information on groundwater gradients or groundwater usage indicates the need. Groundwater monitoring is required at the POC upon installation of the monitoring well as required by Section 3.0, Compliance Schedule.

**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 IA, IB, and IB-I as applicable. A representative sample of the wastewater shall be collected at the point of discharge to either the first evaporation pond (existing facility) or effluent lift station (new facility).

**2.5.1.1 Reclaimed Water Monitoring**

The permittee shall monitor the parameters listed under Table IC in addition to the routine discharge monitoring parameters listed in Table IB.

**2.5.2 Facility / Operational Monitoring**

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

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

- 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 this on 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 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% 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 17<sup>th</sup> 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 Groundwater 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 Requirements

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) exceedance, or 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.

### 2.6.2 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 the permittee shall:
  - a. Notify the ADEQ Water Quality Compliance Section within five (5) days of becoming aware of an exceedance of any permit condition in Table III.
  - b. Submit a written report within thirty (30) days after becoming aware of an exceedance of a permit condition. 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 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 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 4.0, TABLES IA through IC have been exceeded, the permittee shall immediately investigate to determine the cause of the exceedance. 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;
  - c. Pretreatment source control for industrial pollutants.
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 thirty (30) days of an AL exceedance, the permittee shall submit the laboratory results to the ADEQ Water Quality Compliance Section, Enforcement Unit, 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 4.0, Table IA through IC is exceeded, the permittee shall submit an application for an APP amendment to expand the WRP or submit a report detailing the reasons that an 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**

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, Table II has been exceeded, the permittee may conduct verification sampling within 5 days of becoming aware of an AL 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 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 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 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 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 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 Limit (DL) Violations**

1. If a DL set in Section 4.0, Tables IA through IC 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. 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. The permittee shall comply with the freeboard requirements as specified in Section 4.0, Table III (Facility Inspections) to prevent the overtopping of an impoundment. If an impoundment is overtopped, the permittee shall follow the requirements in Section 2.6.5.3 and the reporting requirements of Section 2.7.3.
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 (AQL) Violation

1. If an AQL set in Section 4.0, Table II has 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. 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(18)) 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 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 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 Water Quality Field Services Unit at (602) 771-4841, within 24 hours upon 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 Water Quality Field Services Unit, Mail Code 5415B-1, 1110 West Washington Street, Phoenix, Arizona, 85007, 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 the notice. Upon review of the submitted report, ADEQ may require additional monitoring or corrective actions.

**2.6.6 Corrective Actions**

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

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

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

5. Mitigation to limit the impact of pollutants on existing uses of the aquifer.

Within 30 days of completion of any corrective action, the operator shall submit to the 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 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 SMRFs. The permittee reserves the right to request a relaxation of the monitoring frequency for metals and volatile organic compounds if the data indicate that water quality standards are being achieved.
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
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, Enforcement Unit in writing within five (5) days (except as provided in Section 2.6.5) of becoming aware of a violation of any permit condition, discharge limitation, or of an AL exceedance.

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 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 Aquifer Water Quality Standard;
  - 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 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.

If the treatment facility is classified for reclaimed water under this permit, the permittee shall submit the reclaimed water monitoring results as required in Table IC 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, 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 the following address, and the applicable regional office:

Arizona Department of Environmental Quality  
Water Quality Compliance Section, Enforcement Unit  
Mail Code: 5415B-1  
1110 W. Washington Street  
Phoenix, Arizona 85007  
Phone (602) 771-4614

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 W. 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

**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 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.
3. Notify ADEQ 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 of the operational status of the facility every three (3) 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 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)(a). The Closure Plan shall address characterization and closure of the existing facility oxidation ponds and assure that historical facility discharges are considered when developing the site investigation plan.

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 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 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(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 Groundwater Section. A copy of the cover letter must also be submitted to the Water Quality Compliance Section, Enforcement Unit.

**3.1 Installation of Monitoring Well POC #1**

Description	Due by:
a. Install the monitoring well at POC #1	Within 180 days of permit issuance.
b. Submit a Well Installation Report to ADEQ for review pursuant to Section 2.7.4.	Within 30 days after monitor well completion.
c. Commence groundwater quality sampling for the parameters listed in Section 4.0, Table II. Ambient groundwater quality will not be included because nearby well data indicates existing groundwater may not exceed applicable AWQS.	Within 30 days after monitor well completion.

**3.2 Existing Facility Operation and Closure**

Description	Due by:
a. Monitor existing facility discharge in accordance with Section 4.0, Table IA: Existing Facility Routine Discharge Monitoring. Monitoring at the existing facility shall continue until discharge from the existing facility ceases.	Begin within 30 days of permit issuance
b. Notify ADEQ of intent to permanently cease operations at the existing wastewater treatment plant	Within 3 months of new facility start-up
c. Commence closure of existing WWTP facility except for components to be used in the new facility.	Within 6 months of new facility start-up
d. Submit closure completion report	Within 6 months of completion of closure at the existing facility

**3.3 New Facility Construction and Monitoring**

Description	Due by:
a. Submit a signed, dated, and sealed Engineer's Certificate of Completion in a format approved by the Department that confirms that the new facility is constructed according to the Department-approved design report or plans and specifications, as applicable.	Prior to discharging from the new facility under this permit and within 90 days of completion of construction of the new facility.
b. Notify ADEQ of the start date of new facility discharge.	Within 15 days of commencement of new facility discharge.
c. Monitor new facility discharge per Table IB-1: New Facility Initial Start-up Plan.	Upon commencement of new facility start-up.
d. Notify ADEQ of the start date of monitoring per Table IB-1: New Facility Initial Start-up Plan.	Within 15 days of commencement of monitoring.
e. Monitor new facility discharge per Table IB: New Facility Routine Discharge Monitoring.	Within 90 days of commencement of new facility start-up.
f. Notify ADEQ of the start date of monitoring per Table IB: New Facility Discharge Monitoring.	Within 15 days of commencement of monitoring.

**3.4 Western-most Oxidation Pond (Renamed Sludge Oxidation Pond):  
Sludge Disposal and BADCT Demonstration**

Description	Due by:
a. Submit a demonstration for ADEQ review that evaluates the design of the pond and whether the design meets the Best Available Demonstrated Control Technology (BADCT) requirements for an existing facility (A.R.S. 49-243(B)). The demonstration must address whether the existing design is sufficient for the new use for sludge drying. Specifically, indicate how the clay liner will be protected from damage during sludge removal. Include an evaluation of whether a drainage system is needed to remove liquids from the sludge and operational requirements needed to demonstrate BADCT.	Within 90 days of permit issuance.
b. Submit an application for an amendment to include the Sludge Oxidation Pond as a discharging facility in this permit, or to close the pond under the closure requirements of A.A.C. R18-9-A209.	Within 180 days of ADEQ review of the BADCT demonstration required by Section 3.4.a.
c. The facility may continue to use the existing ponds for sludge drying until specified under "Due by:"	Until ADEQ issues an amended permit to either include the Sludge Oxidation Pond or require closure as per 3.4.b.

**3.5 Eastern-most Oxidation Pond (Renamed Reserve Storage Pond):  
Sludge Disposal and BADCT Demonstration**

Description	Due by:
a. Remove and properly dispose of all liquids and sludge from the existing oxidation pond (Reserve Storage Pond).  Indicate the disposal method for the sludge.	Within 180 days of permit issuance.
b. Submit a demonstration for ADEQ review that evaluates the design of the pond and whether the design meets the Best Available Demonstrated Control Technology (BADCT) requirements for an existing facility (A.R.S. 49-243(B)). The demonstration must address whether the existing design is sufficient for the new use as temporary influent storage. Specifically, indicate how the clay liner will be protected from dessication when the pond is not in use. Include an evaluation of whether a synthetic liner is needed to demonstrate BADCT.	Within 90 days of permit issuance and prior to use for temporary influent storage.
c. Submit an application for an amendment to include the Reserve Storage Pond as a discharging facility in this permit, or to close the pond under the closure requirements of A.A.C. R18-9-A209.	Within 180 days of ADEQ review of the BADCT demonstration required by Section 3.5.b and prior to use for temporary influent storage.
d. The facility may continue to use the existing ponds for temporary influent storage until specified under "Due by:"	Until ADEQ issues an amended permit to either include the Reserve Storage Pond or require closure as per 3.5.c.

4.0 TABLES OF MONITORING REQUIREMENTS

**TABLE IA  
EXISTING FACILITY  
ROUTINE DISCHARGE MONITORING<sup>2</sup>**

Sampling Point Number	Sampling Point Identification			Latitude	Longitude
1	Discharge to the First Evaporation Pond			32° 37' 24.39" N	110° 36' 46.61" W
Parameter	AL <sup>3</sup>	DL <sup>4</sup>	Units	Sampling Frequency	Reporting Frequency
Total Flow: Daily <sup>5</sup>	Not Established <sup>6</sup>	Not Established	MGD <sup>7</sup>	Daily <sup>8</sup>	Quarterly
Total Flow: Average Monthly	0.33	0.35	MGD	Monthly <sup>9</sup>	Quarterly
Total Nitrogen <sup>10</sup> : 5-sample rolling geometric mean	Not Established	Not Established	mg/l	Monthly <sup>11</sup>	Quarterly

Parameter	AL	DL	Units	Sampling Frequency	Reporting Frequency
<b>Metals (Total):</b>					
Antimony	0.0048	0.006	mg/l	Quarterly	Quarterly
Arsenic	0.04	0.05	mg/l	Quarterly	Quarterly
Barium	1.60	2.00	mg/l	Quarterly	Quarterly
Beryllium	0.0032	0.004	mg/l	Quarterly	Quarterly
Cadmium	0.004	0.005	mg/l	Quarterly	Quarterly
Chromium	0.08	0.1	mg/l	Quarterly	Quarterly
Cyanide (as free cyanide)	0.16	0.2	mg/l	Quarterly	Quarterly
Fluoride	3.2	4.0	mg/l	Quarterly	Quarterly
Lead	0.04	0.05	mg/l	Quarterly	Quarterly
Mercury	0.0016	0.002	mg/l	Quarterly	Quarterly
Nickel	0.08	0.1	mg/l	Quarterly	Quarterly
Selenium	0.04	0.05	mg/l	Quarterly	Quarterly
Thallium	0.0016	0.002	mg/l	Quarterly	Quarterly

<sup>2</sup> The permittee shall monitor the discharge from the Existing Facility according to this table (Table IA) until the discharge from the Existing Facility ceases as required by Section 3, Compliance Schedule.

<sup>3</sup>AL = Alert Level

<sup>4</sup>DL = Discharge Limit

<sup>5</sup>Total flow is measured in million gallons per day (MGD).

<sup>6</sup>Not established = Monitoring required but no limits have been specified at time of permit issuance.

<sup>7</sup>MGD = Million Gallons per Day

<sup>8</sup>Flow shall be measured using a continuous recording flow meter which totals the flow daily.

<sup>9</sup>Monthly = Monthly average of daily flow values (calculated value)

<sup>10</sup>Total Nitrogen = Nitrate as N + Nitrite as N + Total Kjeldahl Nitrogen

<sup>11</sup>A 5-Month Geometric Mean of the results of the 5 most recent samples

## 4.0 TABLES OF MONITORING REQUIREMENTS

TABLE IA  
EXISTING FACILITY  
ROUTINE DISCHARGE MONITORING (continued)

Parameter	AL	DL	Units	Sampling Frequency	Reporting Frequency
<b>Volatile Organic Compounds (VOCs):</b>					
Benzene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Carbon tetrachloride	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
o-Dichlorobenzene	0.48	0.6	mg/l	Semi-Annually	Semi-Annually
para-Dichlorobenzene	0.06	0.075	mg/l	Semi-Annually	Semi-Annually
1,2-Dichloroethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
1,1-Dichloroethylene	0.0056	0.007	mg/l	Semi-Annually	Semi-Annually
cis-1,2-Dichloroethylene	0.05	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
Hexachlorobenzene	0.0008	0.001	mg/l	Semi-Annually	Semi-Annually
Hexachlorocyclopentadiene	0.04	0.05	mg/l	Semi-Annually	Semi-Annually
Monochlorobenzene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Styrene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Tetrachloroethylene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Toluene	0.8	1.0	mg/l	Semi-Annually	Semi-Annually
Trihalomethanes (total) <sup>12</sup>	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
1,1,1-Trichloroethane	0.16	0.2	mg/l	Semi-Annually	Semi-Annually
1,2,4 - Trichlorobenzene	0.056	0.07	mg/l	Semi-Annually	Semi-Annually
1,1,2 - Trichloroethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Trichloroethylene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Vinyl Chloride	0.0016	0.002	mg/l	Semi-Annually	Semi-Annually
Xylenes (Total)	8.0	10.0	mg/l	Semi-Annually	Semi-Annually

<sup>12</sup> Total Trihalomethanes are comprised of Bromoform, Bromodichloromethane, Chloroform, and Dibromochloromethane.

4.0 TABLES OF MONITORING REQUIREMENTS

**TABLE IB  
NEW FACILITY  
ROUTINE DISCHARGE MONITORING<sup>13</sup>**

Sampling Point Number	Sampling Point Identification			Latitude	Longitude
2	Effluent Lift Station			32° 37' 13" N	110° 37' 04" W
Parameter	AL <sup>14</sup>	DL <sup>15</sup>	Units	Sampling Frequency	Reporting Frequency
Total Flow: Daily <sup>16</sup>	Not Established <sup>17</sup>	Not Established	MGD <sup>18</sup>	Daily <sup>19</sup>	Quarterly
Total Flow: Average Monthly	0.33	0.35	MGD	Monthly <sup>20</sup>	Quarterly
Fecal Coliform: Single sample maximum	Not established	23	CFU or MPN <sup>21</sup>	Daily <sup>22</sup>	Quarterly
Fecal Coliform: four (4) of seven (7) samples in a week <sup>23</sup>	Not established	Non-detect <sup>24</sup>	CFU or MPN	Daily	Quarterly
Total Nitrogen <sup>25</sup> : 5-sample rolling geometric mean	8.0	10.0	mg/l	Monthly <sup>26</sup>	Quarterly

<sup>13</sup> Monitoring under this table shall commence within 90 days of start-up of the New Facility in accordance with the Compliance Schedule, Section 3 of this permit.

<sup>14</sup>AL = Alert Level

<sup>15</sup>DL = Discharge Limit

<sup>16</sup>Total flow is measured in million gallons per day (MGD).

<sup>17</sup>Not established = Monitoring required but no limits have been specified at time of permit issuance.

<sup>18</sup>MGD = Million Gallons per Day

<sup>19</sup>Flow shall be measured using a continuous recording flow meter which totals the flow daily.

<sup>20</sup>Monthly = Monthly average of daily flow values (calculated value)

<sup>21</sup>CFU = Colony Forming Units / 100 ml sample. MPN = Most Probable Number / 100 ml sample. 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.

<sup>22</sup>Daily means at least four (4) samples per week must be analyzed.

<sup>23</sup>Week means a seven-day period starting on Sunday and ending on the following Saturday.

<sup>24</sup>If at least four (4) of the daily samples 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 the daily samples have detections of fecal coliform, report "no" in the appropriate space on the SMRF (indicating that the standard has not been met).

<sup>25</sup>Total Nitrogen = Nitrate as N + Nitrite as N + Total Kjeldahl Nitrogen

<sup>26</sup>A 5-Month Geometric Mean of the results of the 5 most recent samples

4.0 TABLES OF MONITORING REQUIREMENTS

TABLE 1B  
 NEW FACILITY  
 ROUTINE DISCHARGE MONITORING (continued)

Parameter	AL	DL	Units	Sampling Frequency	Reporting Frequency
<b>Metals (Total):</b>					
Antimony	0.0048	0.006	mg/l	Quarterly	Quarterly
Arsenic	0.04	0.05	mg/l	Quarterly	Quarterly
Barium	1.60	2.00	mg/l	Quarterly	Quarterly
Beryllium	0.0032	0.004	mg/l	Quarterly	Quarterly
Cadmium	0.004	0.005	mg/l	Quarterly	Quarterly
Chromium	0.08	0.1	mg/l	Quarterly	Quarterly
Cyanide (as free cyanide)	0.16	0.2	mg/l	Quarterly	Quarterly
Fluoride	3.2	4.0	mg/l	Quarterly	Quarterly
Lead	0.04	0.05	mg/l	Quarterly	Quarterly
Mercury	0.0016	0.002	mg/l	Quarterly	Quarterly
Nickel	0.08	0.1	mg/l	Quarterly	Quarterly
Selenium	0.04	0.05	mg/l	Quarterly	Quarterly
Thallium	0.0016	0.002	mg/l	Quarterly	Quarterly

## 4.0 TABLES OF MONITORING REQUIREMENTS

TABLE 1B  
NEW FACILITY  
ROUTINE DISCHARGE MONITORING (continued)

Parameter	AL	DL	Units	Sampling Frequency	Reporting Frequency
<b>Volatile Organic Compounds (VOCs):</b>					
Benzene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Carbon tetrachloride	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
o-Dichlorobenzene	0.48	0.6	mg/l	Semi-Annually	Semi-Annually
para-Dichlorobenzene	0.06	0.075	mg/l	Semi-Annually	Semi-Annually
1,2-Dichloroethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
1,1-Dichloroethylene	0.0056	0.007	mg/l	Semi-Annually	Semi-Annually
cis-1,2-Dichloroethylene	0.05	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
Hexachlorobenzene	0.0008	0.001	mg/l	Semi-Annually	Semi-Annually
Hexachlorocyclopentadiene	0.04	0.05	mg/l	Semi-Annually	Semi-Annually
Monochlorobenzene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Styrene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Tetrachloroethylene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Toluene	0.8	1.0	mg/l	Semi-Annually	Semi-Annually
Trihalomethanes (total) <sup>27</sup>	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
1,1,1-Trichloroethane	0.16	0.2	mg/l	Semi-Annually	Semi-Annually
1,2,4 - Trichlorobenzene	0.056	0.07	mg/l	Semi-Annually	Semi-Annually
1,1,2 - Trichloroethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Trichloroethylene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Vinyl Chloride	0.0016	0.002	mg/l	Semi-Annually	Semi-Annually
Xylenes (Total)	8.0	10.0	mg/l	Semi-Annually	Semi-Annually

<sup>27</sup> Total Trihalomethanes are comprised of Bromoform, Bromodichloromethane, Chloroform, and Dibromochloromethane.

## 4.0 TABLES OF MONITORING REQUIREMENTS

**TABLE IB-I  
NEW FACILITY  
INITIAL START-UP PLAN<sup>28</sup>**

Sampling Point Number	Sampling Point Identification		Latitude		Longitude
2	Effluent Lift Station		32° 37' 13" N		110° 37' 04" W
Parameter	AL <sup>29</sup>	DL <sup>30</sup>	Units	Sampling Frequency	Reporting Frequency
Total Flow: Daily <sup>31</sup>	Not Established <sup>32</sup>	Not Established	MGD	Daily <sup>33</sup>	Quarterly
Total Flow: Average Monthly	0.33	0.35	MGD	Monthly <sup>34</sup>	Quarterly
Fecal Coliform: Single sample maximum	Not established	Not established	CFU or MPN <sup>35</sup>	Daily <sup>36</sup>	Quarterly
Fecal Coliform: four (4) of seven (7) samples in a week <sup>37</sup>	Not established	Not established	CFU or MPN	Daily	Quarterly
Total Nitrogen <sup>38</sup> : 5-sample rolling geometric mean	Not established	Not established	mg/l	Monthly <sup>39</sup>	Quarterly

<sup>28</sup>Monitoring according to this table will commence at start-up when the New Facility begins to discharge effluent. Monitoring under this table will continue for a maximum of 90 days until routine monitoring begins under Table IB (New Facility) as specified in Section 3, Compliance Schedule

<sup>29</sup>AL = Alert Level.

<sup>30</sup>DL = Discharge Limit.

<sup>31</sup>Total flow is measured in million gallons per day (MGD)

<sup>32</sup>Not Established = Monitoring required but no limits have been specified at time of permit issuance.

<sup>33</sup>Flow shall be measured using a continuous recording flow meter that totals the flows daily.

<sup>34</sup>Monthly = Monthly average of daily flow values (calculated value)

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

<sup>36</sup>Daily means at least four (4) samples per week must be analyzed.

<sup>37</sup>Week means a seven-day period starting on Sunday and ending on the following Saturday.

<sup>38</sup>Total Nitrogen = Nitrate as N + Nitrite as N + Total Kjeldahl Nitrogen

<sup>39</sup>A 5-Month Geometric Mean of the results of the 5 most recent samples

4.0 TABLES OF MONITORING REQUIREMENTS

TABLE IC  
RECLAIMED WATER MONITORING TABLE - CLASS B+<sup>40</sup>

Sampling Point Number	Sampling Point Identification	Latitude	Longitude
2	Effluent Lift Station	32° 37' 13" N	110° 37' 04" W

Parameter	DL	Units	Sampling Frequency	Reporting Frequency
Flow: Daily	Reserved	MGD <sup>41</sup>	Everyday <sup>42</sup>	Quarterly
Flow: Total monthly flow provided for reuse	Reserved	MGD	Monthly Calculation	Quarterly
Total Nitrogen <sup>43</sup> : Five-sample rolling geometric mean	10.0	mg/l	Monthly	Quarterly
Fecal Coliform: Single-sample maximum	800	CFU or MPN <sup>44</sup>	Daily <sup>45</sup>	Quarterly
Fecal Coliform: Four (4) of last seven (7) samples	200 <sup>46</sup>	CFU or MPN	Daily	Quarterly

<sup>40</sup> Reclaimed water monitoring is in addition to routine discharge monitoring. Monitoring according to Table IC will be conducted whenever reclaimed water is sent to the direct reuse site.

<sup>41</sup> Million Gallons per Day

<sup>42</sup> Flow rate shall be measured using a continuously recording flow meter which totals the flow daily.

<sup>43</sup> Nitrate N, plus Nitrite N, plus Total Kjeldahl Nitrogen (TKN)

<sup>44</sup> CFU = Colony Forming Units per 100 ml; MPN = Most Probable Number per 100 ml.

<sup>45</sup> 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.

<sup>46</sup> 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  
GROUNDWATER MONITORING

Sampling Point Number	Sampling Point Identification		Latitude		Longitude
3	MW #1		32° 37' 27" N		110° 36' 38" W
Parameter	AL <sup>47</sup>	AQL <sup>48</sup>	Units	Sampling Frequency	Reporting Frequency
Total Nitrogen <sup>49</sup> :	8.0	10.0	mg/l	Monthly	Quarterly
Nitrate-Nitrite as N	10.0	10.0	mg/l	Monthly	Quarterly
Nitrite as N	0.8	1.0	mg/l	Monthly	Quarterly
Total Kjeldahl Nitrogen (TKN)	Not Established <sup>50</sup>	Not Established	mg/l	Monthly	Quarterly
Total Coliform	Absence	Absence <sup>51</sup>	CFU or MPN <sup>52</sup>	Monthly	Quarterly
<b>Metals (Dissolved):</b>					
Antimony	0.0048	0.006	mg/l	Quarterly	Quarterly
Arsenic	0.04	0.05	mg/l	Quarterly	Quarterly
Barium	1.60	2.00	mg/l	Quarterly	Quarterly
Beryllium	0.0032	0.004	mg/l	Quarterly	Quarterly
Cadmium	0.004	0.005	mg/l	Quarterly	Quarterly
Chromium	0.08	0.1	mg/l	Quarterly	Quarterly
Cyanide (as free cyanide)	0.16	0.2	mg/l	Quarterly	Quarterly
Fluoride	3.2	4.0	mg/l	Quarterly	Quarterly
Lead	0.04	0.05	mg/l	Quarterly	Quarterly
Mercury	0.0016	0.002	mg/l	Quarterly	Quarterly
Nickel	0.08	0.1	mg/l	Quarterly	Quarterly
Selenium	0.04	0.05	mg/l	Quarterly	Quarterly
Thallium	0.0016	0.002	mg/l	Quarterly	Quarterly

<sup>47</sup>AL = Alert Level

<sup>48</sup>AQL = Aquifer Quality Limit

<sup>49</sup>Total Nitrogen is equal to nitrate as N plus nitrite as N plus TKN.

<sup>50</sup>Not Established = Monitoring required, but no limits have been established at this time.

<sup>51</sup>A positive result for total coliform shall be verified with repeat analysis for total coliform and an analysis for fecal coliform. A positive result for total or fecal coliform shall be considered an exceedance of the AQL for total coliform.

<sup>52</sup>CFU = Colony Forming Units per 100 ml, MPN = Most Probable Number per 100 ml.

## 4.0 TABLES OF MONITORING REQUIREMENTS

TABLE II  
GROUNDWATER MONITORING (continued)

Parameter	AL	AQL	Units	Sampling Frequency	Reporting Frequency
<b>Volatile Organic Compounds (VOCs):</b>					
Benzene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Carbon tetrachloride	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
o-Dichlorobenzene	0.48	0.6	mg/l	Semi-Annually	Semi-Annually
para-Dichlorobenzene	0.06	0.075	mg/l	Semi-Annually	Semi-Annually
1,2-Dichloroethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
1,1-Dichloroethylene	0.0056	0.007	mg/l	Semi-Annually	Semi-Annually
cis-1,2-Dichloroethylene	0.05	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
Hexachlorobenzene	0.0008	0.001	mg/l	Semi-Annually	Semi-Annually
Hexachlorocyclopentadiene	0.04	0.05	mg/l	Semi-Annually	Semi-Annually
Monochlorobenzene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Styrene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Tetrachloroethylene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Toluene	0.8	1.0	mg/l	Semi-Annually	Semi-Annually
Trihalomethanes (total) <sup>53</sup>	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
1,1,1-Trichloroethane	0.16	0.2	mg/l	Semi-Annually	Semi-Annually
1,2,4 - Trichlorobenzene	0.056	0.07	mg/l	Semi-Annually	Semi-Annually
1,1,2 - Trichloroethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Trichloroethylene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Vinyl Chloride	0.0016	0.002	mg/l	Semi-Annually	Semi-Annually
Xylenes (Total)	8.0	10.0	mg/l	Semi-Annually	Semi-Annually

<sup>53</sup>Total Trihalomethanes are comprised of Bromoform, Bromodichloromethane, Chloroform, and Dibromochloromethane.

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

<b>Pollution Control Structures/Parameter</b>	<b>Performance Levels</b>	<b>Inspection Frequency</b>	<b>Reporting Frequency</b>
Pump Integrity	Good working condition	Weekly	Quarterly
Treatment Plant Components	Good working condition	Weekly	Quarterly
Evaporation Ponds	No visible structural damage, breach, or erosion of embankments	Weekly	Quarterly
Evaporation Ponds	Minimum 3 feet freeboard	Weekly	Quarterly
Oxidation Ponds (Existing Facility)	No visible structural damage, breach, or erosion of embankments	Weekly	Quarterly
Oxidation Pond (Existing Facility)	Minimum 2 feet	Weekly	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: March 11, 2005
2. Contingency Plan, dated: March 11, 2005
3. Final Hydrologist Report dated: September 18, 2006
4. Final Engineering Report dated: February 16, 2007
5. Public Notice dated: February 28, 2007
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 gallons per day 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 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.

**6.5 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;
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).