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JOHNSON UTILITIES, L.L.C.

5230 East Shea Boulevard * Scottsdale, Arizona 852

PH: (480) 998-3300; FAX: (480) 493-7908

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2007 OCT -4 P 4: 17

AZ CORP COMMISSION
DOCKET CONTROL

October 4, 2007

Mr. Ernest Johnson
Arizona Corporation Commission
1200 W. Washington Street
Phoenix, Arizona 85007

RE: Johnson Utilities, L.L.C.: Compliance with Decision No. 68237
ACC Docket No. WS-02987A-04-0288

RE: Unified (Aquifer Protection) Water Quality Permit for the Merrill Ranch &
the Copper Basin Wastewater Treatment Facilities

Dear Mr. Johnson:

Pursuant to the above mentioned decision, Johnson Utilities hereby submits this compliance filing in accordance with the Commission's orders. Enclosed please find the Unified (Aquifer Protection) Water Quality Permit ("APP") for the Merrill Ranch Wastewater Treatment Facility attached hereto as Attachment 1.

We hereby requests an extension of time to file the APP for the Copper Basin Wastewater Treatment Facility that is currently due on October 25th. We submitted our APP application on May 4th, 2006 with ADEQ and have run into an unexpected delay. During the permitting processes we learned that the plant site had been illegally conveyed by the previous land owner to a third party in 2006. We were forced to file a lawsuit to regain clear title to the property. Although it was a lengthy process we have received a judgment from the courts conveying the property back to the Utility.

Now that we have received clear title, we are re-filing our APP application with ADEQ and are in need of an extension of the compliance date. We hereby request a 24 month extension of the compliance date to October 25, 2009. All the flow from the Anthem Development is treated by the Merrill Ranch WWTP and the delay in the Copper Basin APP will not adversely affect this CC&N expansion.

Arizona Corporation Commission
DOCKETED

OCT 04 2007

DOCKETED BY

JOHNSON UTILITIES, L.L.C

5230 East Shea Boulevard * Scottsdale, Arizona 85254

PH: (480) 998-3300; FAX: (480) 483-7908

If you need any additional information in regards to this compliance items, please do not hesitate to contact me. Thank you for your time and consideration in this matter.

Sincerely,



Brian P Tompsett
Johnson Utilities, LLC

Cc: Docket Control, (1 original, 15 copies)
Judge Dwight Nodes, Hearing
Mr. Brian Bozzo, Compliance
Mr. Richard Sallquist, Sallquist, Drummond & O'Connor

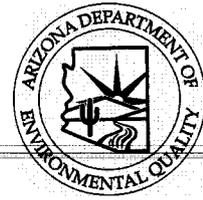
ATTACHMENT 1



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

July 12, 2006

Mr. Greg Brown
Specific Engineering
5230 East Shea Blvd., Suite 220
Scottsdale, Arizona 85254

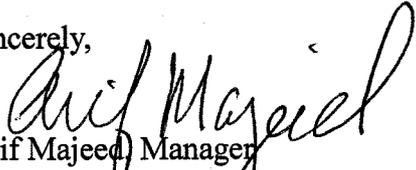
**Re: Johnson Utilities-Anthem at Merrill Ranch Water Reclamation Plant (WRP)
Signed Permit - Aquifer Protection Permit (APP) # 105646, LTF # 36819**

Dear Mr. Brown:

Enclosed is a copy of the signed Aquifer Protection Permit Other Amendment, and the Executive Summary for the above referenced facility. The APP conditions shall apply from June 30, 2006 which is 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).

Thank you for your cooperation in protecting the water quality of the State of Arizona. If you have any questions about the permit or need further assistance, please contact me at (800) 234-5677 ext.771- 4683 or (602) 771-4683.

Sincerely,


Asif Majeed, Manager
Wastewater and APP Unit
Groundwater Section, Water Quality Division

Enclosures (2): Permit & Executive Summary

cc: Henry Darwin, Acting Manager, Water Quality Compliance Section
Matthew Hodge, Mgr., Water Quality Data Unit, ADEQ
Robert Casey, Manager, Water Quality Enforcement Unit, ADEQ
Lynne Dekarske, Administrative Assistant III, Groundwater Section, ADEQ
Marcy Mullins, Wastewater, and APP Unit (letter only)
Jean Black, Technical Support Unit (letter only)

MWWR06:0437

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

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



Fact Sheet

Aquifer Protection Permit (APP)105646
 Place ID #91546, LTF # 36819
 Anthem at Merrill Ranch Water
 Reclamation Plant

The Arizona Department of Environmental Quality (ADEQ) proposes to issue an 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:	Johnson Utilities, LLC
Mailing Address:	Johnson Utilities, LLC 5230 E. Shea Blvd. Suite 200 Scottsdale, AZ 85254
Facility Name and Location:	Anthem at Merrill Ranch Water Reclamation Plant, 8465 W. Ocotillo Dr., Florence, AZ 85232, located ¼ mile west of the intersection of Della Road and Hunt Highway, in the Town of Florence, Pinal County

Regulatory Status

This is new facility. An APP application was received on June 21, 2005. Therefore there is no compliance history for this facility.

The development known as Anthem at Merrill Ranch was originally developed as Rancho Sendero in 2003. According to the WLB Group, Rancho Sendero was approved by Pinal County for development of a maximum of 4317 dwellings on approximately 1220 acres with 172 acres of public/open space. The facility was expanded and renamed Merrill Ranch in 2004 when Farley Farms was included in the development plan. Merrill Ranch is proposed to contain 6507 dwellings on 1677 acres supporting an estimated population of 14,304 and 209 acres of common areas

and schools. Farley Farms is proposed to contain 6182 dwellings on 1592 acres supporting an estimated population of 16,073 and 76 acres of common areas and schools.

Facility Description

The Anthem at Merrill Ranch Water Reclamation Plant (WRP) has the capacity at completion to treat, and dispose a maximum average monthly flow of 3.0 million gallons per day (MGD) of wastewater. The WRP shall be constructed in two phases. Phase I will be constructed with a treatment capacity of 1.5 MGD, using two trains. The permittee is authorized to operate the first phase upon ADEQ receipt and approval of the Engineering Completion Report by the facility's Arizona Registered Engineer. Phase II will be constructed with two additional trains with a capacity of 1.5 MGD, which will increase the total treatment capacity to 3.0 MGD, in accordance with the Compliance Schedule listed in Section 3.0 of this permit. The permittee is authorized to operate both phases upon ADEQ receipt and approval of the Engineering Completion Report for Phase II prepared and sealed by the facility's Arizona Registered Engineer.

The WRP treatment process consists of an influent lift station, and the treatment for each of the four trains consist of headworks with barscreen, extended aeration with nitrification-denitrification, clarifiers, filters, and ultraviolet (UV) disinfection. All treatment trains deliver sludge to digesters, sludge dewatering belt filter press, and effluent to an effluent pump station. Chemical feed facilities are available to assist in maintaining the turbidity limits for reclaimed water. All the WRP units will be constructed of either reinforced concrete or steel. All odor and noise producing units which include the headworks, the extended aeration process, the blower room, and the sludge dewatering belt filter press will be enclosed inside a metal building with odor control scrubbers installed on all vents. The entire WRP will be surrounded by a combination of an eight-foot high concrete block wall and an 8-foot chain link fence.

Disposal of the effluent will be by reuse irrigation of the nearby golf course and the landscaped areas and trees within the Anthem development and any other reuse site as regulated under valid Reclaimed Water Reuse Permits and to recharge basins and/or vadose zone wells, located within the plant's fenced location. The sludge, including the screenings, grit, and scum, will be hauled off-site for disposal at a landfill.

All industrial hookups and other non-residential hookups to the treatment system shall be authorized according to the federal pretreatment program, or as otherwise approved by federal, state or local regulations. The WRP is designed and constructed according to plans approved by the ADEQ, APP & Reuse Unit.

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

II. BEST AVAILABLE DEMONSTRATED CONTROL TECHNOLOGY

The existing WRP process employs nitrification-denitrification to achieve an effluent total nitrogen level of 10 mg/l and UV disinfection to achieve an effluent fecal coliform level of 23/non-detect CFU/100ml. All the lagoons and wetland cells of the WRP, and the effluent storage lakes, located at the golf courses, are lined with liners that have a permeability of less than 550 gallons per day per acre.

The denitrified effluent will be disinfected by UV and filtered prior to disposal. The effluent will be reused on a nearby golf course and recharged by basins, and/or recharge wells. All the WRP units will be constructed of reinforced concrete. All treatment units upstream of the filters will be covered with concrete or aluminum covers and air scrubbers will be provided for odor control. All pumps, blowers, and electrical equipment will be housed within buildings for noise control. The entire WRP will be surrounded by a combination of an eight-foot high concrete block wall and an 8-foot chain link fence.

The WRP meets the 350-foot setback from the nearest adjacent property line, the minimum distance for a facility that has noise, odor, or aesthetic controls. In accordance with this permit, no development of residential lots is allowed within the 350-foot setback boundary.

The ultimate disposal options will be determined based on site specific soil data and infiltration rate data. This information will be used to determine the number and size of recharge basins and injection wells that will be needed for disposal of the effluent. Based on the site geology four acres recharge basins totaling 14.85 acres and 7 vadose and/or direct injection wells may be needed to infiltrate all effluent into the subsurface. Two basins will be constructed immediately with the additional two basins, vadose zone wells or injection wells constructed, as needed, in the future. Site specific data for soil type will be collected and optimum infiltration rates will be determined during the first year of operation of the recharge basins.

III. COMPLIANCE WITH AQUIFER WATER QUALITY STANDARDS

Monitoring and Reporting Requirements

The Anthem at Merrill Ranch WWRP is located within the Basin and Range Physiographic Province, which formed as a result of extensional tectonics ~15 million years ago. The site is located in the northern portion of a north-trending alluvial basin designated as the Eloy sub-basin of the Pinal Active Management Area (AMA) within the Middle Gila Watershed.

The Eloy sub-basin is divided into the three units called the Upper Alluvial Unit, the Middle Silt and Clay Unit and the Lower Conglomerate Unit. Groundwater is present in two aquifers within the basin that may be connected. The Upper Aquifer is located primarily within the Upper Alluvial Unit, may be partially confined, is generally

flowing northeast, and has a depth to groundwater of ~145 feet below the ground surface with groundwater first detected at about 170 feet. Infiltration and recharge of rainwater and river water after very wet winter conditions such as that which occurred in 1983 and 1993 can cause groundwater levels in the area to rise abruptly (less than one year) up to 100 feet and to gradually decline to pre-flood conditions. The groundwater flow direction north of the river may flow predominantly northeast. However, during a prolonged drought, groundwater may be flowing southwest. Groundwater in the Lower Alluvial Unit may be present under confined or unconfined conditions. Near the facility, it appears that the groundwater in the Lower Aquifer may be confined because groundwater was first detected at about 240 feet yet the potentiometric surface is ~145 feet and groundwater is generally flowing northeast.

The site is located in or near a known area of subsidence according to Figure 3: Land subsidence and Fissures from Pinal County. There are no known fissures in the area; however, the data is over 10 years old.

To ensure that the site operations do not impact either the surface water or the groundwater, quarterly discharge and groundwater monitoring will be required for total nitrogen, metals, and VOCs, as described in the permit. The facility will be required to meet the aquifer water quality standards (AWQS) in the discharge and in the groundwater. Therefore, the facility is not likely to exceed AWQS at the point of compliance (POC).

The permit requires the permittee to inspect the WRP site for signs of on-site fissures on a monthly basis. Visual inspections must be performed by personnel trained in identification of surficial features of earth fissures. Inspections must be made of the buffer zone surrounding the wastewater recharge site to a distance of 300 feet from the recharge site, where practicable. If surficial features that could indicate the presence of earth fissures are observed, the observations will be confirmed by a third party professional engineer or geologist. If the third party inspection confirms the possibility that the surficial features indicate a fissure, the features will be documented with sketches, maps and photographs as appropriate, indicating the nature of the feature, dimensions, and orientation. Documentation will also include any incremental changes in a feature previously documented. Contingency language in the permit requires that all this information be submitted in a report to the ADEQ, within 60 days of the confirmation of the presence of fissures. The report must consist of observations and interpretations and potential endangerment of pollutant contamination to the environment and public health.

If the alert level (AL) for average monthly flow in Section 4.0, Table IA or IB is exceeded, the permittee shall submit an application for an APP amendment within 90 day of such an exceedance to expand the WRP.

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

Two hazardous/ non-hazardous points of compliance have been designated for this facility as identified below:

P.O.C #	P.O.C. Locations	Latitude	Longitude
1	~50 feet north of the northeast corner of the NE Recharge Basin	33°03'10.786" N	111°29'15.924" W
2	~50 feet south of the southeast corner of the SE Recharge Basin	33°02'59.819" N	111°29'15.982" W

Two monitor wells are proposed to be installed to monitor the impacts of recharge. The well design will be determined as per the compliance schedule in Section 3.0

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

MONITORING REQUIREMENTS

Effluent and groundwater monitoring are required for this facility. Effluent and groundwater are recommended to be monitored as follows

Sampling Point #	Facility/Monitoring Point	Descriptive Location	Latitude	Longitude
1	Effluent Lift Station/ Effluent discharge monitoring point	~100 feet east of center of WRP site	33°03'05" N	111°29'19" W
2	POC #1	~50 feet north of the northeast corner of the of the NE Recharge Basin	33°03'11" N	111°29'16" W
3	POC #2	~50 feet south of the southeast corner of the of the NE Recharge Basin	33°02'59" N	111°29'16" W

Parameter	Effluent	Ambient Groundwater	Routine Groundwater
Flow: daily to reuse and recharge, and total monthly to reuse and recharge, and total discharge flow from the WRP	Daily	Not applicable	Not applicable
bacteria: fecal and total coliform	Daily	Not Applicable	Monthly
nutrients: nitrate, nitrite, TKN	Monthly	Monthly for 8 months	Monthly

Parameter	Effluent	Ambient Groundwater	Routine Groundwater
depth to groundwater	Not applicable	Monthly for 8 months	Monthly
inorganic chemicals: metals, cyanide, fluoride as listed in A.A.C R18-9-11-406.B	Semi-annually	Not applicable	Semi-annually
VOCs and semi-VOCs per A.A.C R-18-11-406.C	Semi-annually	Not applicable	Semi-annually

Discharge limits are set equivalent to the applicable AWQS. ALs are set at 80% of the discharge limits for all water quality constituents unless indicated otherwise. Ambient groundwater quality data will be collected monthly from the two new monitor wells in order to determine existing groundwater quality because data from the public water supply wells indicates the potential for exceedances of the AWQS for nitrates in the uppermost aquifer. The limits in Table II have been set as reserved for total nitrogen, and nitrates to allow for the collection of ambient data. After collection of the ambient data, Aquifer Quality Limit (AQLs) and ALs will be set for all total nitrogen and nitrates.

IV. STORM WATER AND SURFACE WATER CONSIDERATIONS

Storm water / surface water considerations considered included whether the facility was located within the 100-year flood plain and whether the discharge had the potential to impact adjacent surface water drainages located downgradient of the WRP and recharge facility.

The facility is located in the Paisano Wash - Middle Gila River (HUC-10) sub-basin within the Middle Gila River Surface Water Basin. The nearest surface water features include an unnamed ephemeral wash trending north to south located ~0.5 miles east of the WRP; the North Side Canal which flows from northeast to southwest located ~1.0 mile south of the WRP; and the ephemeral Gila River, trending northeast to southwest located ~2.5 miles south of the WRP. The ephemeral wash and the North Side Canal drain into the Gila River.

The facility is not located in a 100-year flood plain and will be protected from run-on during storm events.

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

V. COMPLIANCE SCHEDULE

The following compliance schedule is provided for the construction of groundwater wells, ambient monitoring and construction of recharge basins and recharge contingency wells.

Compliance Item		Schedule
Monitor Well		
1	Drill borings for the POC well.	Within 30 days of the date of permit issuance
2	Using the geophysical data, determine appropriate well design. Submit proposed design to ADEQ for approval prior to completing the wells.	Within 30 days of drilling the borings.
3	Install monitor well at both POCs	Within 30 days of receiving ADEQ approval
4	Submit monitoring well construction completion documentation including well driller's log, construction materials used, and actual latitude and longitude of the completed well.	Within 30-days after well completion
5	Collect ambient groundwater quality data from POC wells.	Monthly for 8 months minimum.
6	Submit ambient groundwater quality data for nitrates and total nitrogen as required by Section 4.0, Table II, and a report, upon completion of all ambient sampling, showing the results of the monitoring. Submit an application for an Other APP Amendment with proposals for the groundwater permit monitoring requirements. This report must propose ALs and AQLs for nitrates and total nitrogen in Table II, and provide calculations and statistical methods used to develop the ALs and AQLs.	Within 90 days of last monthly ambient sample collection and no later than 13 months after permit issuance.
Recharge Basins		
7	Construct two recharge basins for effluent recharge.	Prior to operation of the WRP.
8	Complete testing to determine optimum infiltration and drying schedules.	Within one year of initial use of basins or when 1 year of recharge data can be obtained.
9	Submit report documenting testing for optimum infiltration and drying schedules. This report may propose construction of additional recharge basins or alternative disposal methods.	Within 60 days of obtaining the recharge data
10	If required, construct two additional recharge basins or implement contingency recharge well requirement below.	Based on design parameters or to be determined based on testing – Notify ADEQ 90 days before construction, the number of basins or recharge wells to be constructed.
Contingency Recharge Wells or Direct Injection Wells		
11	If required propose recharge well design	Within 30 days of determining the need for recharge wells
12	Upon ADEQ approval, construct one recharge well and perform a test for determining recharge rates.	Within 30 days of construction
13	Submit the well completion report, including a determination if additional wells are needed	Within 90 days from the end of the 30-day start-up test, identifying how many and type of wells to be constructed
14	Construct up to six additional wells and submit well completion reports	When actual flows exceed 80% of the existing recharge capacity or earlier if desired.
WRP		
15	Construct Phase I WRP	Start within of one year of permit issuance
16	Submit Arizona Registered Engineer's Certification of Construction for Phase I and obtain ADEQ approval before putting this phase into full operation.	Within 60 days after completion of construction and prior operation of phase I.
17	Notify ADEQ, Water Permits Section of intent to construct Phase II of the WRP (Expand to 3.0 MGD design treatment flow).	At least 90 days prior to start of construction
18	Construct Phase II WRP	When daily WRP effluent flows reach 1.125 MGD.
19	Submit Arizona Registered Engineer's Certification of Construction for Phase II and obtain ADEQ approval before putting this phase into full operation.	Within 60 days after completion of construction and prior operation of phase II.
20	When the facility is completely constructed, some of the tables relevant to Phase I may no longer be needed. The facility may request an "other" amendment to delete the non-relevant Phase I monitoring tables in section 4.0, or other parts of this permit, that are no longer applicable.	Upon completion of all phases and ADEQ approval prior to operation.

VI. OTHER REQUIREMENTS FOR ISSUING THIS PERMIT

Technical Capability

Johnson Utilities, L.L.C. has demonstrated the technical competence necessary to carry out the terms and conditions of the permit in accordance with A.R.S. § 49-243(N) and A.A.C. R18-9-A202(B).

The WRP will be designed as per the design report prepared and stamped, dated, and signed (sealed) by Gregory H. Brown, P.E. (Professional Engineer), Specific Engineering, Inc., dated June 17, 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. A certified operator will be retained for the operation and maintenance of the WRP.

Financial Capability

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

The permittee provided a statement outlining the costs of construction, operation, closure and post-closure costs. The permittee submitted a closure cost estimate of \$119,500.00, and furnished a letter of credit from a financial institution as per R18-9-A203 (C)(5) to demonstrate financial capability.

Zoning Requirements

The Anthem Merrill WRP has been properly zoned for the permitted use and the permittee has complied with all Town of Florence 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 – APP & Reuse Unit
Attn: Asif Majeed
1110 W. Washington St., Mail Code 5415B-3
Phoenix, Arizona 85007
Phone: (602) 771- 4683

STATE OF ARIZONA
AQUIFER PROTECTION PERMIT NO. P-105646
PLACE ID 91546, LTF 36819

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, Johnson Utilities, L.L.C. is hereby authorized to operate the Anthem at Merrill Ranch Water Reclamation Plant located at 8465 W. Ocotillo Dr., Florence, AZ 85232, ¼ mile west of the intersection of Della Road and Hunt Highway over the groundwater of the Eloy Sub-basin within the Pinal Active Management Area (AMA) in Township 4 S, Range 8 E, Section 25, SW 1/4, NW, 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: Anthem at Merrill Ranch Water Reclamation Plant (WRP)

Permittee: Johnson Utilities, L.L.C. (480) 998-3300	Mailing Address: Johnson Utilities, L.L.C. 5230 E. Shea Blvd. #200 Phoenix, AZ 85254	Facility's Street Address: 8465 W. Ocotillo Dr., Florence, AZ 85232. Located ¼ west of the intersection of Della Road and Hunt Highway in the Town of Florence, Pinal County.
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Facility Contact: Gary Larsen , Johnson Utilities, L.L.C., Tel: (480) 987-9870

Emergency Telephone Number: (480) 797-2660

Latitude: 33° 03' 04.788" N

Longitude: 111° 29' 20.424" W

Legal Description: Township 4 S, Range 8 E, Section 25, SW ¼

1.2 AUTHORIZING SIGNATURE



Joan Card, Director
Water Quality Division
Arizona Department of Environmental Quality

Signed this 30th day of June, 2006

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 Anthem at Merrill Ranch Water Reclamation Plant (WRP) has the capacity at completion to treat, and dispose a maximum average monthly flow of 3.0 million gallons per day (MGD) of wastewater. The WRP shall be constructed in two phases. Phase I will be constructed with a treatment capacity of 1.5 MGD, using two trains. The permittee shall be authorized to operate the first phase upon ADEQ receipt and approval of the Engineering Completion Report by the facility's Arizona Registered Engineer. Phase II shall be constructed with two additional trains with a capacity of 1.5 MGD, which will increase the total treatment capacity to 3.0 MGD, in accordance with the Compliance Schedule listed in Section 3.0 of this permit. The permittee shall be authorized to operate both phases upon ADEQ receipt and approval of the Engineering Completion Report for Phase II by the facility's Arizona Registered Engineer.

The WRP treatment process shall consist of an influent lift station, and the treatment for each of the four trains shall consist of a headworks with barscreen, extended aeration with nitrification-denitrification, clarifiers, filters, and ultraviolet (UV) disinfection. All treatment trains shall deliver sludge to digesters, sludge dewatering belt filter press, and effluent to an effluent pump station. Chemical feed facilities shall be available to assist in maintaining the turbidity limits for reclaimed water. All the WRP units shall be constructed of either reinforced concrete or steel. All odor and noise producing units which include the headworks, the extended aeration process, the blower room, and the sludge dewatering belt filter press shall be enclosed inside a metal building with odor control scrubbers installed on all vents. The entire WRP will be surrounded by a combination of an eight-foot high concrete block wall and an 8-foot chain link fence.

Disposal of the effluent shall be by reuse irrigation on the nearby golf course and the landscaped areas and trees within the Anthem development and any other reuse site as regulated under valid Reclaimed Water Reuse Permits and to recharge basins and/or vadose zone wells, located within the plant's fenced location, and constructed as per the compliance schedule in Section 3.0 of the permit. The sludge, including the screenings, grit, and scum, shall be hauled off-site for disposal at a landfill.

All industrial hookups and other non-residential hookups to the treatment system shall be authorized according to the federal pretreatment program, or as otherwise approved by federal, state or local regulations.

The site includes the following permitted discharging facilities:

Facility	Latitude	Longitude
Water Reclamation Plant	33° 03' 04.79" N	111° 29' 20.42" W
NW Recharge Basin	33° 03' 07.71" N	111° 29' 23.81" W
SW Recharge Basin	33° 03' 01.68" N	111° 29' 23.81" W
NE Recharge Basin	33° 03' 09.07" N	111° 29' 18.30" W
SE Recharge Basin	33° 03' 07.77" N	111° 29' 17.87" W
Recharge Well # 1	33° 03' 09.63" N	111° 29' 25.52" W
Recharge Well # 2	33° 03' 06.63" N	111° 29' 25.49" W
Recharge Well # 3	33° 03' 6.73" N	111° 29' 25.50" W
Recharge Well # 4	33° 03' 00.74" N	111° 29' 25.50" W
Recharge Well # 5	33° 03' 59.00" N	111° 29' 25.41" W
Recharge Well # 6	33° 02' 58.98" N	111° 29' 22.35" W
Recharge Well # 7	33° 02' 58.95" N	111° 29' 19.02" W

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

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 3.0 MGD.

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

The permittee has demonstrated financial capability under A.R.S. § 49-243(N) and A.A.C. R18-9-A203. The permittee shall maintain financial capability throughout the life of the facility. The estimated dollar amount is \$119,500 for closure and post-closure and was demonstrated by the providing a letter of credit, as per 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 WRP 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 A.A.C. R18-9-B204(A)(6)(b)(i).

All the treatment units shall be constructed from steel or reinforced concrete to maintain a maximum seepage rate less than 550 gpd per acre.

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

The WRP shall meet the 350-foot setback from the nearest adjacent property line, the minimum distance for a facility that has noise, odor, or aesthetic controls. In accordance with this permit, no development of residential lots shall take place within the 350-foot setback boundary.

All treatment units upstream of the filters shall be covered with concrete or aluminum covers and air scrubbers will be provided for odor control. All pumps, blowers, and electrical equipment shall be housed within buildings for noise control. The entire WRP will be surrounded by a combination of an eight-foot high concrete block wall and an 8-foot chain link fence.

2.2.1 Engineering Design

The Anthem at Merrill Ranch WRP shall be designed as per the design report prepared by Gregory H. Brown, P.E., dated June 17, 2005. The facility shall be constructed, operated and maintained in accordance with this design report.

2.2.2 Site-specific Characteristics

Site specific characteristics were not used to determine BADCT for the WRP. The size, number, and proposed operation of the recharge basins/injection wells/vadose zone wells will use site specific data for soil type and infiltration rates as part of the demonstration. Based on the site geology, approximately four acres of recharge basins totaling 14.85 acres and 7 vadose and/or direct injection wells may be needed to infiltrate all effluent into the subsurface. Two basins will be constructed immediately with the additional two basins, vadose zone wells or injection wells constructed, as needed, in the future. Site specific data for soil type will be collected and optimum infiltration rates will be determined during the first year of operation of the recharge basins.

2.2.3 Pre-Operational Requirements

The permittee shall submit a signed, dated, and sealed Engineer's Certificate of Completion in a format approved by the Department per the Compliance Schedule in Section 3.0.

2.2.4 Operational Requirements

1. The permittee shall maintain a copy of the O & M manual at the WRP site at all times and shall be available upon request during inspections by ADEQ personnel.
2. The pollution control structures shall be inspected for the items listed in Section 4.0, TABLE III – Facility Inspection (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 Section.

2.2.5 Water Reclamation Plant Classification

[A.A.C. R18-9-703(C)(2)(a), A.A.C. R18-11-303 THROUGH 307]

The WRP produces reclaimed water meeting Class A+ Reclaimed Water Quality 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.

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 WRP with a maximum average monthly flow of 1.5 MGD upon ADEQ approval of the engineer's certificate of completion. Upon ADEQ approval of the engineer's certificate of completion for Phase II, the permittee is authorized to operate the WRP with a maximum average monthly flow of 3.0 MGD.
2. The permittee shall notify all users that the materials authorized to be disposed through the Water Reclamation Plant 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 failure¹, uncontrollable leakage, overtopping (e.g., exceeding the maximum storage capacity, defined as a fluid level exceeding the crest elevation of a permitted impoundment), of basins, lagoons, impoundments or sludge drying beds, berm breaches, accidental spills, or other unauthorized discharges.
4. Specific discharge limitations are listed in Section 4.0, Tables IA, IB and IC.

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

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

The Point of Compliance wells for the WRP shall be constructed in accordance with the compliance schedule in Section 3.0 of this permit, within 60 days of the issuance of this permit at the following monitoring location:

P.O.C. Locations	Latitude	Longitude
POC # 1: NE Corner of Plant (hazardous/non-hazardous)	33° 03' 10.786" N	111° 29' 15.924" W
POC # 2: SE Corner of Plant (hazardous/non-hazardous)	33° 02' 58.819" N	111° 29' 15.982" W

Groundwater monitoring shall be initiated at the POC well in accordance with the Compliance Schedule, Section 3.0, of this permit within 30 days of completion of the construction of these wells. Additional groundwater monitoring wells and POCs may be required as the volumes of recharge increase through the phases of this permit and the groundwater mounds created by those recharge volumes increase.

The Director may amend this permit to designate additional points of compliance if information on groundwater gradients or groundwater usage indicates the need.

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

All monitoring required in this permit shall continue for the duration of the permit, regardless of the status of the facility. All sampling, preservation and holding times shall be in accordance with currently accepted standards of professional practice. Trip blanks, equipment blanks and duplicate samples shall also be obtained, and chain of custody procedures shall be followed, in accordance with currently accepted standards of professional practice. The permittee shall consult the most recent version of the ADEQ Quality Assurance Project Plan (QAPP) and EPA 40 CFR PART 136 for guidance in this regard. Copies of laboratory analyses and chain of custody forms shall be maintained at the permitted facility. Upon request these documents shall be made immediately available for review by ADEQ personnel.

2.5.1 Discharge Monitoring

The permittee shall monitor the wastewater according to Section 4.0, TABLE IA, IB and IC. A representative sample of the treated wastewater shall be collected at the effluent pump station.

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 IA and IB.

2.5.2 Facility / Operational Monitoring

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

- a. If any damage of the pollution control structures is identified during inspection, proper repair procedures shall be performed. All repair procedures and materials used shall be documented on the Self-Monitoring Report Form (SMRF) submitted quarterly to the ADEQ Water Quality Compliance. If none of the conditions occur, the report shall say "no event" for a particular reporting period. If the facility is not in operation, the permittee shall indicate that fact in the SMRF.

- b. The permittee shall submit data required in Section 4.0, TABLE III regardless of the operating status of the facility unless otherwise approved by the Department or allowed in this permit.

2.5.3 Groundwater Monitoring and Sampling Protocols

Groundwater monitoring shall be conducted as per Section 4.0, Table II. The facility shall submit eight months of sampling data for total nitrogen and nitrates. After the data is received and reviewed by ADEQ, the AQLs and ALs will be established for these constituents.

2.5.4 Surface Water Monitoring and Sampling Protocols

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

2.5.5 Analytical Methodology

All samples collected for compliance monitoring shall be analyzed using Arizona state approved methods. If no state approved method exists, then any appropriate EPA approved method shall be used. Regardless of the method used, the detection limits must be sufficient to determine compliance with the regulatory limits of the parameters specified in this permit. Analyses shall be performed by a laboratory licensed by the Arizona Department of Health Services, Office of Laboratory Licensure and Certification. For results to be considered valid, all analytical work shall meet quality control standards specified in the approved methods. A list of Arizona state certified laboratories can be obtained at the address below:

Arizona Department of Health Services
Office of Laboratory Licensure and Certification
250 North 17th Avenue
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 monitoring points.

2.6 Contingency Plan Requirements

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

2.6.1 General Contingency Plan Requirements

At least one copy of the approved contingency and emergency response plan submitted in the application shall be maintained at the location where day-to-day decisions regarding the operation of the facility are made. The permittee shall be aware of and follow the contingency and emergency plans.

Any alert level (AL) that is exceeded or any violation of an aquifer quality limit (AQL), discharge limit (DL), or other permit condition shall be reported to ADEQ following the reporting requirements in Section 2.7.3.

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

2.6.1.1. Specific Contingencies (Fissures)

The permittee shall inspect the facility for fissures that may impact the treatment and disposal processes on a monthly basis. Visual inspections shall be performed by personnel trained in identification of surficial features of earth fissures. Inspections shall be made of the buffer zone surrounding the wastewater recharge site to a distance of 300 feet from the recharge site, where practicable. If the surficial features that could indicate the presence of earth fissures are observed, the observations shall be confirmed by a third party professional engineer or geologist. If the third party inspection confirms the possibility that the surficial features indicate an active fissure, the features will be documented with sketches, maps and photographs as appropriate, indicating the nature of the feature, dimensions, and orientation. Documentation will also include any incremental changes in a feature previously documented. All this information shall be submitted in a report to the ADEQ, within 60 days of the confirmation of the presence of fissures. The report shall consist of observations and interpretations and potential endangerment of pollutant contamination to the environment and public health.

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 or the exceedance, or the spill, or to eliminate or prevent recurrence of the exceedance;

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 PL is being exceeded. The permittee shall, however, complete all tasks necessary to return the facility to its pre-alert operating condition.

2.6.2.2 Exceeding of Alert Levels Set for Discharge Monitoring

1. If an AL set in Section 4.0, TABLES IA or IB has been exceeded, the permittee shall immediately investigate to determine the cause of the AL being exceeded. The investigation shall include the following:
 - a. Inspection, testing, and assessment of the current condition of all treatment or pollutant discharge control systems that may have contributed to the AL being exceeded;
 - b. Review of recent process logs, reports, and other operational control information to identify any unusual occurrences;
 - 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 being exceeded. To implement any other corrective action the permittee shall obtain prior approval from ADEQ according to Section 2.6.6.
3. Within thirty (30) days of an AL being exceeded, 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 AL being exceeded, 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.
5. If the depth to groundwater in any of the wells listed in Section 4.0, Table II, reaches the AL of 50 feet below ground surface, the permittee shall immediately cease recharge and dispose the effluent using an alternative method. The permittee shall submit a report indicating the date of exceedance and the measures taken to remedy the water level rise, and specifying the method of alternative disposal. This report shall be submitted within five days of such exceedance

2.6.2.2.1 Exceeding Permit Flow Limit

1. If the AL for average monthly flow in Section 4.0, Table I is exceeded, the permittee shall submit an application for an APP amendment within 90 days of such exceedance to expand the WRF

or submit a report detailing the reasons that the 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 Section 4.0, Table I 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 permit issuance.

2.6.3 Discharge Limitation (DL) Violations

1. If a DL set in Section 4.0, Table I has been violated, the permittee shall immediately investigate to determine the cause of the violation. The investigation shall include the following:
 - a. Inspection, testing, and assessment of the current condition of all treatment or pollutant discharge control systems that may have contributed to the violation;
 - b. Review of recent process logs, reports, and other operational control information to identify any unusual occurrences;
 - c. 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 operate the recharge basins to prevent the overtopping. If overtopping occurs, 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, 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 five (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.

2.6.5 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 exceeding an AL or violation of an AQL, DL, or other permit condition:

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

Within 30 days of completion of any corrective action, the operator shall submit to the ADEQ Water Quality Compliance Section, a written report describing the causes, impacts, and actions taken to resolve the problem.

2.7 Reporting and Recordkeeping Requirements

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

2.7.1 Self Monitoring Report Forms (SMRF)

1. The permittee shall complete the SMRFs provided by ADEQ, and submit them to the Water Quality Compliance Section, Data Unit.
2. The permittee shall complete the SMRF to the extent that the information reported may be entered on the form. If no information is required during a quarter, the permittee shall enter "not required" on the SMRF and submit the report to ADEQ. The permittee shall use the format devised by ADEQ.
3. The tables contained in Sections 4.0 list the parameters to be monitored and the frequency for reporting results for compliance monitoring. Monitoring and Analytical methods shall be recorded on the SMRFs.
4. In addition to the SMRF, the information contained in Section 6.9.3 shall be included for exceeding an AL or violation of an AQL, DL, or any other permit condition being reported in the current reporting period.

2.7.2 Operation Inspection / Log Book Recordkeeping

A signed copy of this permit shall be maintained at all times at the location where day-to-day decisions regarding the operation of the facility are made. A log book (paper copies, forms or electronic data) of the inspections and measurements required by this permit shall be maintained at the location where day-to-day decisions are made regarding the operation of the facility. The log book shall be retained for ten (10) years from the date of each inspection, and upon request, the permit and the log book shall be made immediately available for review by ADEQ personnel. The information in the log book shall include, but not be limited to, the following information as applicable:

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

2.7.3 Permit Violation and Alert Level Status Reporting

1. The permittee shall notify the Water Quality Compliance Section, Enforcement Unit in writing within five (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 Alert Level (AL) being exceeded.
2. The permittee shall submit a written report to the Water Quality Compliance Section, Enforcement Unit within 30 days of becoming aware of the violation of any permit condition or discharge limitation. The report shall document all of the following:
 - a. Identification and description of the permit condition for which there has been a violation and a description of its cause.

- b. The period of violation including exact date(s) and time(s), if known, and the anticipated time period during which the violation is expected to continue.
- c. Any corrective action taken or planned to mitigate the effects of the violation, or to eliminate or prevent a recurrence of the violation.
- d. Any monitoring activity or other information which indicates that any pollutants would be reasonably expected to cause a violation of an Aquifer Water Quality Standard.
- e. Proposed changes to the monitoring which include changes in constituents or increased frequency of monitoring.
- f. Description of any malfunction or failure of pollution control devices or other equipment or processes.

2.7.4 Operational, Other or Miscellaneous Reporting

The permittee shall complete the Self-Monitoring Report Form provided by the Department to reflect facility inspection requirements designated in Section 4.0, TABLE III and submit to the ADEQ, Water Quality Compliance Section quarterly along with other reports required by this permit. Facility inspection reports shall be submitted no less frequently than quarterly, regardless of operational status.

2.7.5 Reporting Location

All SMRFs shall be submitted to:

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

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

Arizona Department of Environmental Quality
Water Quality Compliance Section, Enforcement Unit
Mail Code: 5415B-1
1110 W. Washington Street
Phoenix, AZ 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, AZ 85007
Phone (602) 771-4428

2.7.6 Reporting Deadline

The following table lists the quarterly report due dates:

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

2.7.7 Changes to Facility Information in Section 1.0

The 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 upon ceasing operation of the facility for a period of 60 days or greater. The permittee shall take the following measures upon temporary cessation:

1. If applicable, direct the wastewater flows from the facility to another State approved Water Reclamation 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 WRP to correct the problem

At the time of notification the permittee shall submit for ADEQ approval a plan for maintenance of discharge control systems and for monitoring during the period of temporary cessation. Immediately following ADEQ's approval, the permittee shall implement the approved plan. If necessary, ADEQ shall amend permit conditions to incorporate conditions to address temporary cessation. If the facility ceases operation, the permittee shall submit closure notification, as set forth in Section 2.9 below.

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

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

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

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

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

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. If clean closure has been achieved, ADEQ shall issue a letter of approval to the permittee at that time. If any of the following conditions apply, the permittee shall follow the terms of Post-Closure stated in this permit:

1. Clean closure cannot be achieved at the time of closure notification or within one year thereafter under a diligent schedule of closure actions;
2. Further action is necessary to keep the facility in compliance with aquifer water quality standards at the applicable point of compliance;
3. Continued action is required to verify that the closure design has eliminated discharge to the extent intended;
4. Remedial or mitigative measures are necessary to achieve compliance with Title 49, Ch. 2;
5. Further action is necessary to meet property use restrictions.

2.9.1 Closure Plan

A specific closure plan is required within 180 days of closure of the facility that meets the requirements of A.A.C R18-9-A306.

2.9.2 Closure Completion

Not required at time of permit issuance.

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.

Compliance Item	Schedule	
Monitor Well		
1	Drill borings for the POC well.	Within 30 days of the date of permit issuance
2	Using the geophysical data, determine appropriate well design. Submit proposed design to ADEQ for approval prior to completing the wells.	Within 30 days of drilling the borings.
3	Install monitor well at both POCs.	Within 30 days of receiving ADEQ approval
4	Submit monitoring well construction completion documentation including well driller's log, construction materials used, and actual latitude and longitude of the completed well.	Within 30-days after well completion
5	Collect ambient groundwater quality data from POC Wells.	Monthly for 8 months minimum.
6	Submit ambient groundwater quality data for nitrates and total nitrogen as required by Section 4.0, Table II, and a report, upon completion of all ambient sampling, showing the results of the monitoring. Submit an application for an Other APP Amendment with proposals for the groundwater permit monitoring requirements. This report must propose ALs and AQLs for nitrates and total nitrogen in Table II, and provide calculations and statistical methods used to develop the ALs and AQLs.	Within 90 days of last monthly ambient sample collection and no later than 13 months after permit issuance.
Recharge Basins		
7	Construct two recharge basins for effluent recharge.	Prior to operation of the WRP.
8	Complete testing to determine optimum infiltration and drying schedules.	Within one year of initial use of basins or when one year of recharge data can be obtained.
9	Submit report documenting testing for optimum infiltration and drying schedules. This report may propose construction of additional recharge basins or alternative disposal methods.	Within 60 days of obtaining the recharge data.
10	If required, construct two additional recharge basins or implement contingency recharge well requirement below.	Based on design parameters or to be determined based on testing – Notify ADEQ 90 days before construction, the number of basins or recharge wells to be constructed.
Contingency Recharge Wells or Direct Injection Wells		
11	If required propose recharge well design	Within 30 days of determining the need for recharge wells.
12	Upon ADEQ approval, construct one recharge well and perform a test for determining recharge rates.	Within 30 days of construction
13	Submit the well completion report, including a determination if additional wells are needed	Within 90 days from the end of the 30-day start-up test, identifying how many and type of wells to be constructed.
14	Construct up to six additional wells and submit well completion reports.	When actual flows exceed 80% of the existing recharge capacity or earlier if desired.
WRP		
15	Construct Phase I WRP	Start within of one year of permit issuance
16	Submit Arizona Registered Engineer's Certification of Construction for Phase I and obtain ADEQ approval before putting this phase into full operation.	Within 60 days after completion of construction and prior operation of phase I.
17	Notify ADEQ, Water Permits Section of intent to construct Phase II of the WRP (Expand to 3.0 MGD design treatment flow).	At least 90 days prior to start of construction
18	Construct Phase II WRP	When daily WRP effluent flows reach 1.125 MGD.
19	Submit Arizona Registered Engineer's Certification of Construction for Phase II and obtain ADEQ approval before putting this phase into full operation.	Within 90 days after completion of construction and prior operation of phase II.
20	When the facility is completely constructed, some of the tables relevant to Phase I may no longer be needed. The facility may request an "other" amendment to delete the non-relevant Phase I monitoring tables in section 4.0, or other parts of this permit, that are no longer applicable.	Upon completion of all phases and ADEQ approval prior to operation.

4.0

TABLES OF MONITORING REQUIREMENTS

PHASE I (For Flows 1.5 MGD or less)

TABLE IA

ROUTINE DISCHARGE MONITORING²

Sampling Point Number	Sampling Point Identification		Latitude		Longitude
1	Effluent pump station		33° 03' 05.213" N		111° 29' 19.321" W
Parameter	AL ³	DL ⁴	Units	Sampling Frequency	Reporting Frequency
Total Flow ⁵ : Daily ⁶	Not Established ⁷	Not Established	MGD ⁸	Daily ⁹	Quarterly
Total Flow: Average Monthly	1.425	1.5	MGD	Monthly ¹⁰	Quarterly
Reuse Flow: Daily	Not Established	Not Established	MGD	Daily	Quarterly
Reuse Flow: Average Monthly	Not Established	Not Established	MGD	Monthly	Quarterly
Recharge Flow: Daily	Not Established	Not Established	MGD	Daily	Quarterly
Recharge Flow: Average Monthly	Not Established	Not Established	MGD	Monthly	Quarterly
Fecal Coliform Single sample maximum	Not Established	23	CFU or MPN ¹¹	Daily ¹²	Quarterly
Fecal Coliform: four (4) seven (7) samples in a week ¹³	Not Established	Non-detect ¹⁴	CFU or MPN	Daily	Quarterly
Total Nitrogen ¹⁵ : 5-sampling rolling geometric mean.	8.0	10.0	mg/l	Monthly ¹⁶	Quarterly

² Flows of greater than 1.5 MGD monthly average are not allowed.

³ AL = Alert Level.

⁴ DL = Discharge Limit.

⁵ Total flow is the sum of flows to the reuse and recharge site.

⁶ Total flow is measured in million gallons per day (MGD).

⁷ Reserved = Monitoring required but no limits have been specified at time of permit issuance.

⁸ MGD = Million Gallons per Day.

⁹ Flow shall be measured using a continuous recording flow meter that totals the flow daily.

¹⁰ Monthly = Calculated value = Average of daily flows in a month.

¹¹ CFU = Colony Forming Units per 100 ml; MPN = Most Probable Number per 100 ml. For CFU, a value of <1 shall be considered to be non-detect. For MPN, a value of <2.2 shall be considered to be non-detect.

¹² "Daily" means at least 4 samples per week must be analyzed and must meet the standard.

¹³ "Week" means a seven day period starting on Sunday and ending on the following Saturday

¹⁴ 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 have detections of fecal coliform, report "no" in the appropriate space on the SMRF (indicating that the standard has not been met).

¹⁵ Total Nitrogen = Nitrate as N + Nitrite as N + Total Kjeldahl Nitrogen.

¹⁶ Monthly = 5-Month Geometric Mean calculated from the results of the 5 most recent samples.

4.0 TABLES OF MONITORING REQUIREMENTS

TABLE IA
ROUTINE DISCHARGE MONITORING (Continued)

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

4.0 TABLES OF MONITORING REQUIREMENTS

TABLE IA
ROUTINE DISCHARGE MONITORING (Continued)

Parameter	AL	DL	Units	Sampling Frequency	Reporting Frequency
Volatile Organic Compounds (VOCs):					
Benzene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Carbon tetrachloride	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
o-Dichlorobenzene	0.48	0.6	mg/l	Semi-Annually	Semi-Annually
para-Dichlorobenzene	0.06	0.075	mg/l	Semi-Annually	Semi-Annually
1,2-Dichloroethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
1,1-Dichloroethylene	0.0056	0.007	mg/l	Semi-Annually	Semi-Annually
cis-1,2-Dichloroethylene	0.05	0.07	mg/l	Semi-Annually	Semi-Annually
trans-1,2-Dichloroethylene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Dichloromethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
1,2-Dichloropropane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Ethylbenzene	0.56	0.7	mg/l	Semi-Annually	Semi-Annually
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) ¹⁷	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

¹⁷Total Trihalomethanes are comprised of Bromoform, Bromodichloromethane, Chloroform, and Dibromochloromethane.

4.0 TABLES OF MONITORING REQUIREMENTS

PHASE II (For Flows 3.0 MGD or less)

TABLE IB

ROUTINE DISCHARGE MONITORING¹⁸

Sampling Point Number	Sampling Point Identification		Latitude	Longitude	
1	Effluent pump station		33° 03' 05.213" N	111° 29' 19.321" W	
Parameter	AL ¹⁹	DL ²⁰	Units	Sampling Frequency	Reporting Frequency
Total Flow: Daily ²¹	Not Established ²²	Not Established	MGD ²³	Daily ²⁴	Quarterly
Total Flow ²⁵ : Average Monthly	2.85	3.0	MGD	Monthly ²⁶	Quarterly
Reuse Flow: Daily	Not Established	Not Established	MGD	Daily	Quarterly
Reuse Flow: Average Monthly	Not Established	Not Established	MGD	Monthly	Quarterly
Recharge Flow: Daily	Not Established	Not Established	MGD	Daily	Quarterly
Recharge Flow: Average Monthly	Not Established	Not Established	MGD	Monthly	Quarterly
Fecal Coliform Single sample maximum	Not Established	23	CFU or MPN ²⁷	Daily ²⁸	Quarterly
Fecal Coliform: four (4) seven (7) samples in a week ²⁹	Not Established	Non-detect ³⁰	CFU or MPN	Daily	Quarterly
Total Nitrogen ³¹ : 5-sampling rolling geometric mean.	8.0	10.0	mg/l	Monthly ³²	Quarterly

¹⁸ Flows of greater than 3.0 MGD monthly average are not allowed.

¹⁹ AL = Alert Level.

²⁰ DL = Discharge Limit.

²¹ Total flow is measured in million gallons per day (MGD)

²² Reserved = Monitoring required but no limits have been specified at time of permit issuance.

²³ MGD = Million Gallons per Day.

²⁴ Flow shall be measured using a continuous recording flow meter that totals the flow daily.

²⁵ Total flow is the sum of flows to the reuse and recharge site

²⁶ Monthly = Calculated value = Average of daily flows in a month.

²⁷ CFU = Colony Forming Units per 100 ml; MPN = Most Probable Number per 100 ml. For CFU, a value of <1 shall be considered to be non-detect. For MPN, a value of <2.2 shall be considered to be non-detect.

²⁸ "Daily" means at least 4 samples per week must be analyzed and must meet the standard

²⁹ "Week" means a seven day period starting on Sunday and ending on the following Saturday

³⁰ 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 have detections of fecal coliform, report "no" in the appropriate space on the SMRF (indicating that the standard has not been met).

³¹ Total Nitrogen = Nitrate as N + Nitrite as N + Total Kjeldahl Nitrogen.

³² Monthly = 5-Month Geometric Mean calculated from the results of the 5 most recent samples.

4.0 TABLES OF MONITORING REQUIREMENTS

TABLE IB
ROUTINE DISCHARGE MONITORING (Continued)

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

4.0 TABLES OF MONITORING REQUIREMENTS

TABLE IB
ROUTINE DISCHARGE MONITORING (Continued)

Parameter	AL	DL	Units	Sampling Frequency	Reporting Frequency
Volatile Organic Compounds (VOCs):					
Benzene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Carbon tetrachloride	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
o-Dichlorobenzene	0.48	0.6	mg/l	Semi-Annually	Semi-Annually
para-Dichlorobenzene	0.06	0.075	mg/l	Semi-Annually	Semi-Annually
1,2-Dichloroethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
1,1-Dichloroethylene	0.0056	0.007	mg/l	Semi-Annually	Semi-Annually
cis-1,2-Dichloroethylene	0.05	0.07	mg/l	Semi-Annually	Semi-Annually
trans-1,2-Dichloroethylene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Dichloromethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
1,2-Dichloropropane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Ethylbenzene	0.56	0.7	mg/l	Semi-Annually	Semi-Annually
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) ³³	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

³³Total Trihalomethanes are comprised of Bromoform, Bromodichloromethane, Chloroform, and Dibromochloromethane.

4.0 TABLES OF MONITORING REQUIREMENTS

TABLE IC
RECLAIMED WATER MONITORING TABLE – CLASS A+³⁴

Sampling Point Number	Sampling Point Identification	Latitude	Longitude
1	Effluent pump station	33° 03' 05.213" N	111° 29' 19.321" W

Parameter	DL	Units	Sampling Frequency	Reporting Frequency
Total Nitrogen ³⁵ : Five-sample rolling geometric mean	10.0	mg/l	Monthly	Quarterly
Fecal Coliform: Single-sample maximum	23	CFU or MPN ³⁶	Daily ³⁷	Quarterly
Fecal Coliform: Four (4) of last seven (7) samples	Non-detect ³⁸	CFU or MPN	Daily	Quarterly
Turbidity ³⁹ : Single reading	5.0	NTU ⁴⁰	Everyday ⁴¹	Quarterly
Turbidity: 24-hour average	2.0	NTU	Everyday	Quarterly

³⁴ Reclaimed water monitoring is in addition to routine discharge monitoring.

³⁵ Nitrate N, plus Nitrite N, plus Total Kjeldahl Nitrogen (TKN)

³⁶ CFU = Colony Forming Units per 100 ml: MPN = Most Probable Number per 100 ml. For CFU, a value of <1 shall be considered to be non-detect. For MPN, a value of <2.2 shall be considered to be non-detect.

³⁷ 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.

³⁸ If at least four (4) of the last seven (7) 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 last seven (7) samples have detections of fecal coliform, report "no" in the appropriate space on the SMRF (indicating that the standard has not been met).

³⁹ Turbidimeter shall have a signal averaging time not exceeding 120 seconds. Occasional spikes due to back-flushing or instrument malfunction shall not be considered an exceedance. All exceedances must be explained and submitted to the Department with the corresponding quarterly SMRF.

⁴⁰ Nephelometric Turbidity Units

⁴¹ For the single turbidity reading, "everyday" means the maximum reading during the 24 hour period.

4.0 TABLES OF MONITORING REQUIREMENTS

TABLE II
GROUNDWATER MONITORING

Sampling Point Number	Sampling Point Identification		Latitude	Longitude	
2	MW #1		33° 03' 10.786" N	111° 29' 15.924" W	
3	MW #2		33° 02' 58.819" N	111° 29' 15.982" W	
Parameter	AL	AQL ⁴²	Units	Sampling Frequency	Reporting Frequency
Total Nitrogen ⁴³	Reserved ⁴⁴	Reserved	mg/l	Monthly	Quarterly
Nitrate-Nitrite as N	Reserved	Reserved	mg/l	Monthly	Quarterly
Total Kjeldahl Nitrogen	Reserved	Reserved	mg/l	Monthly	Quarterly
Total Coliform	Not Established	Absence ⁴⁵	CFU or MPN ⁴⁶	Monthly	Quarterly
Depth to Groundwater	50	Not established	Feet (bgs)	Monthly	Quarterly

⁴² AQL = Aquifer Quality Limit⁴³ Total Nitrogen is equal to nitrate as N plus nitrite as N plus TKN⁴⁴ Reserved means, no limits have been set at the time of permit issuance. The limits will be set according to the Compliance schedule outlined in Section 3.0 for the construction and sampling of the POC well.⁴⁵ A positive result for total coliform may be verified with an analysis for fecal coliform. A positive result for fecal coliform shall be considered an exceedance of the AQL for total coliform.⁴⁶ CFU = Colony Forming Units per 100 ml, MPN = Most Probable Number per 100 ml.

.0 TABLE OF MONITORING REQUIREMENTS

TABLE II
GROUNDWATER MONITORING (Continued)

Parameter	AL	AQL	Units	Sampling Frequency	Reporting Frequency
Metals (Total)⁴⁷:					
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

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If the AQL for listed pollutants has not been exceeded in all of eight (8) consecutive quarters, the owner or operator may apply to ADEQ's Groundwater Section to request this permit so as to reduce sampling and reporting frequencies for these pollutants.

4.0 TABLES OF MONITORING REQUIREMENTS

TABLE II
GROUNDWATER MONITORING (Continued)

Parameter	AL	AQL	Units	Sampling Frequency	Reporting Frequency
Volatile Organic Compounds (VOCs):					
Benzene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Carbon tetrachloride	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
o-Dichlorobenzene	0.48	0.6	mg/l	Semi-Annually	Semi-Annually
para-Dichlorobenzene	0.06	0.075	mg/l	Semi-Annually	Semi-Annually
1,2-Dichloroethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
1,1-Dichloroethylene	0.0056	0.007	mg/l	Semi-Annually	Semi-Annually
cis-1,2-Dichloroethylene	0.05	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) ⁴⁸	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

⁴⁸Total Trihalomethanes are comprised of Bromoform, Bromodichloromethane, Chloroform, and Dibromochloromethane.

4.0 TABLES OF MONITORING REQUIREMENTS

TABLE III
FACILITY INSPECTION (Operational Monitoring)

Pollution Control Structures/Parameter	Performance Levels	Inspection Frequency
Pump Integrity	Good Working Condition	Weekly
Treatment Plant Components	Good Working Condition	Weekly
Visual Inspection of effects of Subsidence and Fissuring on the WRP structures, the surrounding land, and the effluent disposal sites	Not enough to cause leakage of greater than 550 gpd/acre or facility failure	Monthly
Recharge Basins	Maintain Desired Recharge Rates	Monthly
Recharge Wells	Maintain Desired Recharge Rates	Monthly

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: June 17, 2005
- 2 Engineering Approval : October 17, 2005
- 3 Hydrology Approval: February 6, 2006
- 4 Public Notice, dated: February 23, 2006
- 5 Public Hearing, dated: N/A
- 6 Responsiveness Summary: N/A

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

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

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. §§ 49-203(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 & Revocation
[A.R.S. §§ 49-201, 49-241 through 251, A.A.C. R18-9-A211, R18-9-A212 and R18-9-A213]**

This permit may be amended, transferred, renewed, or revoked for cause, under the rules of the Department.

The 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).