

ORIGINAL



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BEFORE THE ARIZONA CORPORATION COMMISSION

MARC SPITZER
CHAIRMAN
WILLIAM A. MUNDELL
COMMISSIONER
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COMMISSIONER
MIKE GLEASON
COMMISSIONER
KRISTIN K. MAYES
COMMISSIONER

2006 JUL -5 P 4: 18

AZ CORP COMMISSION
DOCUMENT CONTROL

IN THE MATTER OF THE APPLICATION OF
ARIZONA AMERICAN WATER COMPANY, AN
ARIZONA CORPORATION, FOR AN EXTENSION
OF THE SERVICE AREA UNDER ITS EXISTING
CERTIFICATE OF CONVENIENCE AND
NECESSITY TO PROVIDE WATER AND SEWER
UTILITY SERVICES IN ITS AGUA FRIA WATER
AND ANTHEM/AGUA FRIA WASTEWATER
DISTRICTS

Docket No. WS-01303A-06-0242

**RESPONSE TO
INSUFFICIENCY LETTER**

**ARIZONA-AMERICAN WATER COMPANY'S
RESPONSE TO INSUFFICIENCY LETTER**

1 Arizona-American Water Company ("Arizona-American") hereby responds to the May 9,
2 2006, Insufficiency Letter from Blessing Chukwu of the Arizona Corporation Commission Staff.
3 For convenience, Arizona-American first reprints Commission Staff's particular question or
4 request, and then follows with its response.

5 *1. Please provide the, amount of Ak-Chin water (in acre-feet) that the Developer will assign*
6 *to the Company to use in serving Tesota Hills if the Developer's Well facilities fail to*
7 *meet the minimum pump test requirement of 770 gallons per minute referenced in*
8 *Paragraph IV.4 of the Water Facilities Line Extension Agreement.*

9 **Response:** The amount of Ak-Chin water to be assigned to the Company varies
10 depending on well performance, which is not yet known. The equation and test to determine the
11 amount is set forth in Paragraph VII.2 of the Water Facilities Line Extension Agreement. The
12 equation is:

13 **Tesota Hills Ak-Chin Water Contribution (acre-feet per year) =**

$$= \frac{690 \text{ acre-foot}}{\text{year}} \cdot \left[WF \times \frac{1080 \text{ min}}{\text{day}} \times \frac{365 \text{ day}}{\text{year}} \times \frac{1 \text{ acre-foot}}{325,851 \text{ gal}} \right]$$

where WF = minimum sustained pumping capacity of Well Facilities (gpm). For example, if the minimum sustained pumping capacity of the Well Facilities is 400 gpm, then the Tesota Hills Ak-Chin Water Contribution is 206 acre-feet per year [690 afy-(400)(1.21)]. If Developer's Well Facilities meet or exceed the minimum pump test requirements in Paragraph IV.4, then the Tesota Hills Ak-Chin Water Contribution is zero. Please note the 100-year assured water supply application for this project will not rely upon the Tesota Hills Ak-Chin Water Contribution.

2. *Has the Ak-Chin Indian Community and the Secretary of the Interior approved the assignment of the right to receive that amount of Ak-Chin Water to the Utility by Del Webb Corporation? If so, please provide a copy of the approvals. If no, please inform Staff of the status of the application for the approvals.*

Response: As described above, the amount of the Tesota Hills Ak-Chin Water Contribution is not yet known. The Developer expects to drill and test the well in the next eight months. Pursuant to Paragraph VII.5 of the Water Facilities Line Extension Agreement, the initiation of the assignment of the Tesota Hills Ak-Chin Water Contribution to the Utility will occur no later than the date Del Webb Corporation begins the same assignment process for water committed to the Anthem development. The parties anticipate this process will begin in 2007. Since the assignment requires the approval of the Ak-Chin Indian Community and the Secretary of the Interior, the length of the approval process is not known.

3. *Please provide a copy of the Arizona Department of Water Resources ("ADWR") Certificate of Assured Water Supply for the extension area. If not available; please provide a copy the ADWR's Physical Availability Determination. If a determination of Assured Water Supply has not been obtained from ADWR, please inform Utilities Division Staff ("Staff") of the status of the application for that determination. "*

Response: The Developer expects to submit a hydrologic study and an Application for a Certificate of Assured Water Supply to ADWR in the next 90 days. ADWR typically reviews

1 such applications within four-to-six months. Physical availability will be proven based on the
2 use of 100% groundwater.

3 4. *Please provide a copy of the Arizona Department of Environmental Quality's Approval to*
4 *Construct the water facilities to serve the proposed extension area. If the Approval to*
5 *Construct has not been issued, please inform Staff of the status of the application for the*
6 *Approval to Construct.*

7 **Response:** Approvals to construct the McDowell Road water and sewer extensions are
8 attached to this response as Exhibit A. Additional approvals are expected for the remaining
9 facilities later this year.

10 5. *Please submit a drinking water design report which clarifies how water will be provided*
11 *to the proposed CC&N area.*

12 *The report should identify existing and future sources, the capacities of existing sources,*
13 *the estimated capacities of future sources and any existing demand on the present water*
14 *sources.*

15 *The report should include the estimated water demand from a typical dwelling unit, the*
16 *estimated demand from the proposed CC&N area.*

17 *The report should identify the location of future and existing transmission mains and*
18 *include the timing or construction phasing of facilities.*

19 *The design report should describe water quality and address any water quality problems*
20 *with the existing and future sources of water (as an example, will extra treatment costs*
21 *arise in order to meet existing or future maximum contaminant levels for arsenic nitrates*
22 *or fluorides in the drinking water and if so, how does the applicant plan to fund the*
23 *necessary treatment plant additions).*

24 *Please provide any other information which will allow the Commission to analyze and*
25 *conclude that the company has sufficient water production capacity, or can develop*

1 *enough drinking water capacity to service the existing and future demands from the*
2 *proposed CC&N area.*

3 **Response:** The developer and Arizona-American are evaluating several options for new
4 well locations within Arizona-American's existing service areas to supply water to Tesota Hills,
5 and expect to choose among these options in the next 90 days.

6 If the addition of groundwater from the developer's well to Arizona-American's existing
7 water supply system requires the construction of additional treatment facilities to meet primary
8 water quality standards required under the Safe Drinking Water Act, or if arsenic in delivered
9 water will exceed 8 ppb, then the developer will construct water treatment facilities at the
10 developer's expense on the well site, or at another location acceptable to Arizona-American.

11 To assist Staff in its evaluation Arizona-American is also concurrently providing to Staff
12 a copy of the "Verrado Update to Planning Unit Potable Water Plan for Portions of Planning
13 Units III & IV (Phase 2), Tesota Hills and Master Potable Water Plan."

14 6. *Please provide a detailed description for the existing water system related to the*
15 *proposed new development, Tesota Hills, and submit water flow for the last 12 months.*

16 **Response:** Tesota Hills will be served as part of Arizona-American's Agua Fria Water
17 District. Please see Arizona-American's Annual Report for 2005 for detailed information
18 concerning the Agua Fria Water District. The requested water use information for the Agua Fria
19 system for the months March 2005 through March 2006 was provided as Exhibit I to the
20 Application.

21 7. *Please provide a set of design plans for the proposed water facilities. If final plans are*
22 *not available, preliminary design plans should be provided.*

23 **Response:** Design plans for water facilities are voluminous and are not included as part
24 of the CC&N filing requirements. However, to assist Staff with its review, Arizona-American is
25 concurrently providing Staff a copy of the "Verrado Update to Planning Unit Potable Water Plan
26 for Portions of Planning Units III & IV (Phase 2), Tesota Hills and Master Potable Water Plan."

1 8. *Please provide a copy of the approved Central Arizona Association of Government*
2 *("CAAG") Section 208 Plan, any subsequent amendments, and any proposed*
3 *amendments which includes the proposed extension area. If the Section 208 Plan has not*
4 *been issued, please inform Staff of the status of the application for the Section 208 Plan.*

5 **Response:** The requested document is 497 pages long, is in color, and includes
6 numerous oversize pages. The entire Maricopa Association of Government's "208 Water
7 Quality Management Plan" is available for download for no charge at:

8 <http://www.mag.maricopa.gov/pdf/cms.resource/208FinalReport.pdf>

9 Please see Table ES-1 (p. 27 of 492), which references the ultimate 3.35 MGD for the
10 Verrado WRF. The Verrado WRF is further described on page 4-50 (p. 142 of 497) and page
11 491 of 497. At anticipated buildout for the Verrado community, including Tesota Hills, the
12 Verrado WRF will need to be expanded to 3.72 MGD. This will require an amendment to the
13 Company's § 208 plan.

14 9. *If the information is not contained in the §208 plans, please submit a master wastewater*
15 *design report which clarifies how wastewater service will be provided to the proposed*
16 *CC&N area.*

17 *The report should identify the location of existing and future wastewater treatment plants*
18 *and major wastewater interceptors. It should also provide the capacities of existing and*
19 *future wastewater treatment plants, any existing service base in the proposed CC&N,*
20 *service connections at build out in the proposed CC&N, estimated wastewater flow from*
21 *a typical dwelling unit.*

22 *The report should also include the estimated wastewater total flows or contributions from*
23 *future build out within the proposed CC&N, the timing or construction phasing of*
24 *facilities and methods of effluent disposal.*

25 *Please include any other information which will allow the Commission to analyze and*
26 *conclude that the company has sufficient wastewater treatment capacity, or can develop*

1 *enough treatment capacity to service the existing and future demands from the proposed*
2 *CC&N.*

3 **Response:** The developer's and Arizona-American's respective responsibilities for the
4 infrastructure are set forth in Exhibit F to the Application ("Wastewater Facilities Line Extension
5 Agreement"). To assist Staff in its review, Arizona-American is concurrently providing to Staff
6 copies of the "Wastewater Master Plan for Tesota Hills" and the "Verrado Planning Unit
7 Wastewater Plan for Portions of Planning Units II & IV (Phase 3), Tesota Hills and Update to
8 Master Wastewater Plan."

9 *10. Please provide a copy of the Arizona Department of Environmental Quality's Aquifer*
10 *Protection Permit for the wastewater treatment plant. If that permit has not been issued,*
11 *please inform Staff of the status of the application for that permit.*

12 **Response:** A copy of the Aquifer Protection Permit for the Verrado Water Reclamation
13 Facility is attached as Exhibit B.

14 *11. Please provide a detailed description for the existing wastewater system related to the*
15 *proposed new development, Tesota Hills, and submit wastewater flow for the last 12*
16 *months.*

17 **Response:** Design plans for wastewater facilities are voluminous and are not included as
18 part of the CC&N filing requirements. However, to assist Staff with its review, Arizona-
19 American is concurrently providing Staff "Wastewater Master Plan for Tesota Hills" and the
20 "Verrado Planning Unit Wastewater Plan for Portions of Planning Units II & IV (Phase 3),
21 Tesota Hills and Update to Master Wastewater Plan."

22 Wastewater flows for the months June 2005 through May 2006 for the Verrado
23 Sequential Batch Reactor ("SBR") are set forth in the following table:

	Average Daily Flow	
	Influent	Effluent
May-06	92,670	84,710
April-06	98,887	87,500
March-06	93,124	90,613
Febuary-06	90,327	77,679

January-06	81,505	82,226
December 05-	78,282	72,903
November-05	72,599	70,600
October-05	64,539	62,484
September-05	59,556	54,567
August-05	61,399	61,968
July-05	49,251	101,867
June-05	42,185	84,167

1 The SBR does not discharge on a daily basis, thus effluent average daily flows will not match
2 influent daily flows. The average daily flow for effluent is based only on the number of days
3 discharging, not on number of days in a month.

4 *12. Please provide a set of design plans for the proposed wastewater facilities. If final plans
5 are not available, preliminary design plans should be provided.*

6 **Response:** Please see response to Question 11.

7 *13. Does the Company plan to use effluent for artificial lakes, golf courses, ornamental
8 structures, open spaces, and any other aesthetic water features? If so, at what point in
9 time does the Company intend to utilize effluent for such uses? Please explain in detail.
10 Please be sure to include the number of houses that would have to be built in order to
11 generate enough effluent for such uses.*

12 **Response:** The Developer is considering use of effluent in the park parcel, for
13 monumentation, and possibly in the larger common areas. There are no golf courses or lakes
14 planned. Effluent is typically available at a rate of approximately 66% of the interior water
15 consumed, and its availability over time is expected to increase as residents move into the
16 community and neighboring communities. Tesota Hills is expected to have about 1,035
17 residential lots and multifamily units, which are expected to generate roughly 129 acre-feet per
18 year of reclaimed water, which will not be sufficient alone to water all non-residential areas.
19 Since Tesota Hills will be obtaining effluent from a regional wastewater treatment plant, effluent
20 may be available in excess of the amount generated in Tesota Hills, and is expected to be
21 generated by neighboring communities in advance of construction at Tesota, and may be
22 available in quantities that exceed the amount generated within Tesota in the early years.

1 If Staff requires any additional information, please contact me.

2 RESPECTFULLY SUBMITTED on July 5, 2006.

3
4
5 By 
6 Craig A. Marks
7 Arizona-American Water Company
8 19820 N. 7th Street
9 Suite 201
10 Phoenix, Arizona 85024
11 (623) 445-2442
12 Craig.Marks@amwater.com

13
14 **Original** and 13 copies filed on
15 July 5, 2006, with:

16
17 Docket Control
18 Arizona Corporation Commission
19 1200 West Washington
20 Phoenix, Arizona 85007

21
22 **Copy** of the foregoing delivered on
23 July 5, 2006, to:

24
25 Blessing Chukwu
26 Utilities Division
27 Arizona Corporation Commission
28 1200 West Washington
29 Phoenix, Arizona 85007

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31 **Copy** of the foregoing mailed on
32 July 5, 2006, to:

33
34 Michele L. Van Quathem
35 Ryley Carlock & Applewhite
36 One North Central Ave., Ste. 1200
37 Phoenix, AZ 85004

38
39
40 By:


41 Courtney Appelhans

Docket No. WS-01303A-06-0242
Arizona-American Water Company
Response to Deficiency Letter
Exhibit A

Certificates of Approval to Construct - McDowell Road Extensions



Approval Date: 3/14/06

MCESD Project: No. 057836
PWS SYSTEM No. 0407519

**CERTIFICATE OF APPROVAL TO CONSTRUCT
(WITH STIPULATIONS)
PUBLIC WATER SYSTEM EXTENSION**

PROJECT DESCRIPTION: Verrado McDowell Road - potable water distribution system of approximately 4000 linear feet and associated appurtenances with a point of connection to the Arizona-American Water Company/Verrado water system.

LOCATION: Town of Buckeye, Maricopa County
Section 30, T2N, R2W

PROJECT OWNER: Derek Earle, Director of Development
DMB White Tank, LLC
4106 N. 195th Avenue
Buckeye, AZ 85326

Pursuant to Arizona Administrative Code (AAC) Title 18: Chapters 4 and 5 and the Maricopa County Environmental Health Code: Chapters IV and V.

Approval to construct the above described facilities as represented in the approved plan documents on file with the Maricopa County Environmental Services Department is hereby given subject to the following stipulations: **NONE**

Operation of this public water system project shall not begin until an Approval of Construction is issued by Maricopa County Environmental Services Department.

WATER AND WASTE MANAGEMENT DIVISION

By Steven G. Borst
Steven G. Borst, PE, Program Manager
Subdivision Infrastructure & Planning Program

From the approval date noted above this certificate will expire if construction has not commenced within one year, there is a halt in construction of more than one year or construction is not completed within three years.



Approval Date: 3/14/06

MCESD Project No. 057837
SYSTEM: Arizona-American Water Company

**CERTIFICATE OF APPROVAL TO CONSTRUCT
(WITH STIPULATIONS)
and
PROVISIONAL VERIFICATION OF GENERAL PERMIT CONFORMANCE
SEWAGE DISPOSAL SYSTEM EXTENSION**

PROJECT DESCRIPTION: Verrado McDowell Road - sanitary sewer collection system of approximately 5800 linear feet with a point of connection to the Arizona-American Water Company sewer system.

LOCATION: Town of Buckeye, Maricopa County
Section 30, T2N, R2W

PROJECT OWNER: Derek Earle, Director of Development
DMB White Tank, LLC
4106 N. 195th Avenue
Buckeye, AZ 85326

Pursuant to Arizona Administrative Code (AAC) Title 18: Chapter 9, Article 3 and the Maricopa County Environmental Health Code: Chapters II.

Approval to construct the above described facilities as represented in the approved plan documents on file with the Maricopa County Environmental Services Department is hereby given subject to the following stipulations: **None**

Operation of this sewer collection system project shall not begin until an Approval of Construction and Verification of General Permit Conformance is issued by the Maricopa County Environmental Services Department.

WATER AND WASTE MANAGEMENT DIVISION

By Steven G. Borst
Steven G. Borst, PE, Program Manager
Subdivision Infrastructure & Planning Program

From the approval date noted above this certificate will expire, if construction has not substantially started within one year or if no Approval OF Construction has been received within two years showing verification of completion.

Docket No. WS-01303A-06-0242
Arizona-American Water Company
Response to Deficiency Letter
Exhibit B

Verrado Water Reclamation Facility – ADEQ Aquifer Protection Permit



FACT SHEET

Aquifer Protection Permit # 105202
Place ID # 16908, LTF # 27395
Verrado Water Reclamation Facility

The Arizona Department of Environmental Quality (ADEQ) is issuing 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 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:	Arizona-American Water Company
Mailing Address:	19820 North 7 th Street, Suite # 201 Phoenix, AZ 85024
Facility name and location:	Verrado Water Reclamation Facility 1871 N. Lancaster Street Buckeye, AZ 85326

Regulatory Status

This is a new facility. The APP application was received on June 27, 2002

Facility Description

DMB Whitetank LLC is developing a new master planned community, named Verrado, near Jackrabbit Road and Interstate 10. The community will be served by the Verrado Wastewater Reclamation Facility (WRF) owned and operated by Arizona-American Water Co, who is the permittee for this facility.

The permittee is authorized to operate a 0.45 million gallons per day (MGD) Water Reclamation Facility (WRF) using two parallel trains of sequencing batch reactors (SBR). The treatment process consists of screening, grit removal, influent equalization tank, nitrification and de-nitrification, clarification, post equalization tank, filtration and chlorine disinfection. Effluent will be stored in an on-site lined pond prior to disposal.

under a valid reclaimed water permit or may be recharged using vadose zone wells at an aquifer recharge (ARF) site located approximately one mile north-northwest of the WRF.

The sludge from the SBR tanks is pumped to an aerated holding tank, from where it is pumped to the belt press for dewatering. The dewatered sludge is disposed off-site at an approved landfill. The WWTP was designed and constructed according to design report and plans approved by the ADEQ Wastewater, Recharge, & 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 (CFR) Part 503 and 18 A.A.C. Ch. 9, Art. 10.

The facility is located in an alluvial basin adjacent to the west side of the White Tank Mountains in the Basin and Range Province over groundwater of the West Salt River Valley Sub-basin in the Phoenix Active Management Area within the Middle Gila Watershed. The alluvial deposits beneath the facility consist of a thick sequence (at least 550 feet thick) of interbedded silts, sands and gravels divided into three hydrogeologic units commonly called the Upper Alluvial Unit, Middle Alluvial Unit, Lower Alluvial Unit. Bedrock is present beneath these units and is believed to consist of a similar mixture of metamorphic and igneous rocks as found in the adjacent White Tank Mountains. Groundwater is present as both confined and unconfined conditions within groundwater basin with the alluvium in the Middle Alluvial Unit generally acting as the confining layer. The depth to groundwater beneath the wastewater reclamation facility is about 230 feet and at the aquifer recharge facility is about 330 feet. The water table elevation is about 860 feet above mean sea level at both sites. Historically, the groundwater flow direction was probably southeastward similar to topography at both the WRF and ARF sites, but excessive groundwater pumping in the center of the alluvial basin has altered the groundwater flow direction. Groundwater at the WRF appears to be flowing southeastward whereas it appears to be flowing north-northeastward towards a hydrologic sink at the ARF. Existing groundwater quality data indicates that applicable AWQS are not exceeded.

II. BEST AVAILABLE DEMONSTRATED CONTROL TECHNOLOGY (BADCT)

The Veerrado WRF is designed to treat effluent to Class A+ Reclaimed Water quality. Most of the effluent will be reused, and whatever is not reused will be recharged using a vadose zone well. The WRF uses a sequencing batch reactor technology for nitrification and denitrification and filtration to achieve tertiary quality effluent. All process tanks will be constructed of reinforced concrete. Effluent will be monitored for nitrogen, metals, coliforms and Volatile Organic Compounds. In addition whenever effluent is discharged to the reuse site the effluent will also be monitored for Class A+ reclaimed water quality standards, which include monitoring for fecal coliform, turbidity and enteric viruses.

III. COMPLIANCE WITH AQUIFER WATER QUALITY STANDARDS

Monitoring and Reporting Requirements

The facility will produce denitrified and tertiary treated effluent. The effluent will be chlorinated, but not de-chlorinated. A chlorine residual will be maintained to prevent biological fouling of the recharge wells, reuse piping and effluent pipeline. The amount of chlorine used will be carefully monitored to prevent the formation of trihalomethanes. By matching the chlorine dosage with the chlorine demand the facility will not need to de-chlorinate and then re-chlorinate for maintenance of the well and pipeline. The facility has been successful in this approach of chlorine residual management at the Sun City recharge facility. In order to ensure that the facility is not creating any disinfection products, the permit requires monitoring for total trihalomethanes with the discharge limit set for THM at the Aquifer Water Quality Standard. The permit also requires the permittee to meet the Aquifer Water Quality Standards (AWQS) for metals, VOCs, and nitrogen in the effluent being discharged. Most of the effluent will be reused under a valid reclaimed water permit requiring the use of Reclaimed Water Class A+ effluent. When effluent is recharged, groundwater monitoring, with limits set at AWQS (for the same constituents as in discharge) is required at a monitor well MW-1 located immediately downgradient of the recharge well. Because of these considerations the facility is expected to be in compliance with the AWQS at the point of compliance.

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

Two hazardous/non-hazardous points of compliance have been designated for these facilities as follows:

POC #	Descriptive Location	Latitude	Longitude	Monitoring Proposed
1	Southeast corner of the WRF	33°28'02" N	112°29'50" W	No monitoring well required
2	MW-1; located approximately 200-300 feet east of the vadose recharge wells at the ARF	33°28'46" N	112°30'28" W	Monitoring required in MW-1

The point of compliance will be primarily monitoring recharged water quality, which has already been detected in the monitor well during recharge testing of the recharge wells using surface water. The aquifer appears to be of limited extent at this location because the monitor well pumped dry in less than one hour for each sampling event. Theoretically, as effluent is recharged, the well will not pump dry during monitoring events, but the applicant will have to ensure that a sample can be collected during future monitoring events. If the well pumps dry, the applicant may use a low flow purge method prior to collecting a sample. If the well continues to pump dry, additional monitor wells may be required at various depths and distances from the recharge wells.

IV. STORM WATER and SURFACE WATER CONSIDERATIONS

The majority of the surface drainages within the study area are to the east and southeast from the White Tank Mountains towards the center of the alluvial basin. All surface

water drainages are ephemeral. The eastern portion of the WRF site is located within the 100-year flood plain located on Tuthill Dike Wash. The WRF site will be graded and channelized to modify the floodway. Maricopa County has approved these floodway modifications. The recharge site does not appear to be located within the 100-year flood plain. None of the recharge components (recharge or monitor wells) will be constructed in the 100-year flood plain. Both sites will be graded to ensure local surface drainage away from the facilities due to direct precipitation.

V. COMPLIANCE SCHEDULE

There is a concern that if the monitor well pumps dry during a sampling event, then a representative water quality sample may not be collected. Therefore a compliance schedule item has been added to state that if the monitor well pumps dry for two consecutive sampling events even if a low flow sampling method is used, the applicant should submit a report that proposes modifying the monitor well or installing additional monitor wells.

VI. OTHER REQUIREMENTS FOR ISSUING THIS PERMIT

Technical Capability

Arizona-American Water Company 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). Malcolm Pirnie, Inc. has designed this WRF. Malcolm Pirnie has designed several Water Reclamation Plants in the Phoenix area including Chandler and Glendale facilities. Additionally the firm has also been involved with the construction upgrades for the both the Phoenix 91st Avenue and 23rd Avenue wastewater treatment plants.

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

Financial Capability

Arizona-American Water Company 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.

ADEQ currently holds a \$1,125,000 bond for all the facilities operated by Arizona-American Water Company. The permittee submitted a rider adding the Verrado facility to their above referenced bond.

Zoning Requirements

Arizona-American Water Company has been properly zoned for the permitted use and the permittee has complied with all Maricopa County zoning ordinances in accordance with A.R.S. § 49-243(O) and A.A.C. R18-9-A201(A)(2)(c).

VII. ADMINISTRATIVE INFORMATION

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

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

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

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

final permit decision is reached or at the same time a final permit is actually issued.

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

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

VIII. ADDITIONAL INFORMATION

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

Arizona Department of Environmental Quality
Water Quality Division – Wastewater Recharge & Reuse Unit
Attn: 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-105202
PLACE ID 16908, LTF 27395

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, Arizona American Water Company is hereby authorized to operate the Verrado Water Reclamation Facility (WRF), located at 1871 N. Lancaster Street in Buckeye, Arizona, in Maricopa County, over groundwater of the Phoenix Active Management Area, groundwater basin in Township 2N, Range 2 W, Section 31, NE¼, SE¼, SE¼- Gila and Salt River Base Line and Meridian Basin.

This permit becomes effective on the date of the Water Quality Division Director's signature and shall be 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:	Verrado Water Reclamation Facility	
Permittee:	Mailing Address:	Facility's Street Address:
Arizona American Water Company	19820 N. 7 th Street Phoenix, AZ 85024	1871 N. Lancaster Street Buckeye, AZ 85326

Facility Contact: Mr. Troy Day, Director of Water Quality (623) 445-2422

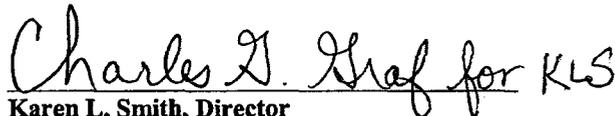
Emergency Telephone Number: (623) 974-2521

Latitude: 33° 28' 06" N

Longitude: 112° 29' 52" W

Legal Description: Township 2N, Range 2 W, Section 31, NE¼, SE¼, SE¼- Gila and Salt River Base Line and Meridian Basin.

1.2 AUTHORIZING SIGNATURE



Karen L. Smith, Director

Water Quality Division

Arizona Department of Environmental Quality

Signed this 11th day of August, 2004

2.0 SPECIFIC CONDITIONS [A.R.S. §§ 49-203(4), 49-241(A)]**2.1 Facility / Site Description [A.R.S. § 49-243(K)(8)]**

The permittee is authorized to operate a 0.45 million gallons per day (mgd) WRF using two parallel trains of sequencing batch reactors (SBR). The treatment process consists of screening, grit removal, influent equalization tank, nitrification and denitrification, clarification, post equalization tank, filtration and chlorine disinfection. Effluent will be stored in an on-site lined pond prior to disposal under a valid reclaimed water permit or may be recharged using vadose zone wells at the recharge site located approximately one mile north-northwest of the facility. The sludge from the SBR tanks is pumped to an aerated holding tank, from where it is pumped to a belt press for dewatering. The dewatered sludge is disposed off-site at an approved landfill. The WRF was designed and constructed according to design report and plans approved by the ADEQ Wastewater, Recharge, & Reuse Unit.

The depth to groundwater is approximately 230 feet below ground surface (bgs) at the WRF and 330 feet bgs at the ARF. Historically, the groundwater flow direction was probably south-southeastward similar to topography at both the WRF and ARF sites, but excessive groundwater pumping in the center of the alluvial basin has altered the groundwater flow direction. Groundwater at the WRF appears to be flowing south-southeastward whereas it appears to be flowing north-northeastward towards a hydrologic sink at the ARF.

The site includes the following permitted discharging facilities:

Facility	Latitude	Longitude
Discharge from chlorine tank	32 ° 28'04 "N	112° 29' 53" W
Vadose Zone Well # 1	33 ° 28' 45" N	112° 30' 28" W
Vadose Zone Well # 2	33 ° 28' 46" N	112° 30' 28" W

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

The WRF is designed to meet the treatment performance criteria as specified in Arizona Administrative Code R18-9-B204.

2.2.1 Engineering Design

The WRF is designed to denitrify the effluent, provide tertiary treatment, and disinfection so that it can be either reused or recharged. The facility has included adequate redundancies by providing a second SBR train, an influent equalization tank and a post equalization tank. The WRF was designed based on a design report submitted by Malcolm Pirnie dated February 2003, and plans date stamped and signed May 7, 2003.

The recharge test project was designed as per the design report prepared by HydroSystems, Inc. dated October 31, 2003.

2.2.2 Site-specific Characteristics

Site characteristics were not used to determine BADCT at the WRF.

The ARF was located over an area of alluvium that is believed will allow recharge of effluent via vadose recharge wells without causing negative impacts to AWQS or nearby

wells. The recharge wells were designed to allow infiltration of effluent into coarser grained alluvium located approximately 150 feet above the existing water table.

2.2.3 Pre-Operational Requirements

Within 60 days of the WRF construction, the operator shall inspect the facility to verify that all components function as designed. Within 90 days of the WRF construction, the permittee shall provide written certification of the WRF construction to ADEQ Water Quality Compliance, that inspection of all components was performed. The results of inspection should also be indicated.

2.2.4 Operational Requirements

1. The permittee shall maintain and update as necessary copies of the new O & M manual information, for the WRF and recharge wells and associated operating parts, at the WRF site and this information shall be available upon request during inspections by ADEQ personnel.
2. The pollution control structures shall be inspected for the items listed in Section 4.0, TABLE III - FACILITY INSPECTION (OPERATIONAL MONITORING).
3. If any damage of the pollution control structures is identified during inspection, proper repair procedures shall be performed. All repair procedures and material(s) used shall be documented on the Self-Monitoring Report Form submitted quarterly to the ADEQ Water Quality Compliance.

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

The facility shall use Reclaimed Water Class A+ effluent for this project consistent with the requirements listed in A.A.C. R18-11-303.

2.3 Discharge Limitations [A.R.S. §§ 49-201(14), 49-243 and A.A.C. R18-9-A205(B)]

The permittee is authorized to operate the Wastewater Reclamation Facility with an estimated average monthly daily flow of 0.45 MGD.

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

There are two points of compliance for this facility. POC # 1 is located just southeast of the WRF. No well is required at this location. POC # 2 is located at Monitor Well # 1, which is located just 200 to 300 feet east of the vadose zone recharge wells. The POC locations are shown below:

P.O.C.#	P.O.C. Locations	Latitude	Longitude
1	Southeast corner of WRF	33° 28' 02" N	112° 29' 50" W
2	MW #1	33° 28' 46" N	112° 30' 28" W

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

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

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

2.5.1 Discharge Monitoring

The permittee shall monitor the wastewater according to Section 4.0, TABLE I. A representative sample of the wastewater shall be collected at the point of discharge from the discharge point of the chlorination unit.

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

2.5.3 Groundwater Monitoring and Sampling Protocols

The permittee shall monitor the groundwater according to Section 4.0, TABLE II.

Whenever there is discharge to the recharge site, the facility shall conduct groundwater monitoring in that month, and for two additional quarters as per Table II. Report "No flow" on the SMRF when there is no discharge to recharge site or after two consecutive quarters of monitoring following a discharge to the recharge site.

Static water levels shall be measured and recorded prior to sampling. Wells shall be purged of at least three borehole volumes (as calculated using the static water level) or until indicator parameters (pH, temperature, conductivity) are stable, whichever represents the greater volume. If evacuation results in the well going dry, the well shall be allowed to recover to 80% of the original borehole volume, or for 24 hours, whichever is shorter, prior to sampling. If after 24 hours there is not sufficient water for sampling, the well shall be recorded as "dry" for the monitoring event. An explanation for reduced pumping volumes, a record of the volume pumped, and modified sampling procedures shall be reported and submitted with the Self-Monitoring Report Form (SMRF).

In low flow conditions, the permittee may conduct the sampling using the low-flow purging method as described in the Arizona Water Resources Research Center, March 1995 *Field Manual for Water Quality Sampling*. The well must be purged until the

indicator parameters stabilize. Indicator parameters shall include dissolved oxygen, turbidity, pH, temperature, and conductivity.

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
1740 W. Adams Street, Room 203 North
Phoenix, AZ 85007
Phone: (602) 364-0720

2.5.6 Installation and Maintenance of Monitoring Equipment

Monitoring equipment required by this permit shall be installed and maintained so that representative samples required by the permit can be collected. If new groundwater wells are determined to be necessary, the construction details shall be submitted to the ADEQ Water Permits Section for approval prior to installation and the permit shall be amended to include any new monitoring points.

2.6 Contingency Plan Requirements

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

2.6.1 General Contingency Plan Considerations

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

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

Some contingency actions involve verification sampling. Verification sampling shall consist of the first follow-up sample collected from a location that previously indicated a violation or the exceedance of an AL. Collection and analysis of the verification sample shall use the same protocols and test methods to analyze for the pollutant or pollutants that exceeded an AL or violated an AQL. The permittee is subject to enforcement action for the failure to comply with any contingency actions in this permit. Where verification

sampling is specified in this permit, it is the option of the permittee to perform such sampling. If verification sampling is not conducted within the timeframe allotted, ADEQ and the permittee shall presume the initial sampling result to be confirmed as if verification sampling has been conducted. The permittee is responsible for compliance with contingency plans relating to the exceedance of an AL or violation of a DL, AQL or any other permit condition.

2.6.2 Exceeding of Alert Levels/Performance Levels

2.6.2.1 Exceeding of Performance Levels (PL) Set for Operational Conditions

1. If the operational PL set in Section 4.0, TABLE III has been exceeded (permit condition violated) the permittee shall
 - a. Notify the ADEQ Water Quality Compliance Section within five (5) days of becoming aware of a violation of any permit condition.
 - b. Submit a written report within thirty (30) days after becoming aware of a violation of a permit condition. The report shall document all of the following:
 1. A description of the violation and its cause;
 2. the period of violation, including exact date(s) and time(s), if known, and the anticipated time period during which the violation is expected to continue;
 3. any action taken or planned to mitigate the effects or the violation, or the spill, or to eliminate or prevent recurrence of the violation;
 4. any monitoring activity or other information which indicates that any pollutants would be reasonably expected to cause a violation of an Aquifer Water Quality Standard; and
 5. any malfunction or failure of pollution control devices or other equipment or process.
2. The facility is no longer on alert status once the operational indicator no longer indicates that a PL is being exceeded. The permittee shall, however, complete all tasks necessary to return the facility to its pre-alert operating condition.

2.6.2.2 Exceeding of Alert Levels Set for Discharge Monitoring

1. If an AL set in Section 4.0, TABLE I has been exceeded, the permittee may conduct verification sampling within 24 hours of becoming aware of the alert status.
2. If the verification sampling confirms that the AL 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;
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.
4. Within thirty (30) days after confirmation of an AL being exceeded, the permittee shall submit the laboratory results to the ADEQ Water Quality Compliance Section, Data Unit, along with a summary of the findings of the investigation, the cause of the AL being exceeded, and actions taken to resolve the problem.
5. Upon review of the submitted report, the Department may require additional monitoring, increased frequency of monitoring, amendments to permit conditions or other actions.

2.6.2.3 Exceeding of Alert Levels in Groundwater Monitoring

2.6.2.3.1 Alert Levels for Indicator Parameters

Not required at time of permit issuance.

2.6.2.3.2 Alert Levels for Pollutants with Numeric Aquifer Water Quality Standards

1. If an AL for a pollutant set in Section 4.0, TABLE I has been exceeded, the permittee may conduct verification sampling within 5 days of becoming aware of an AL being exceeded.
2. If verification sampling confirms the AL being exceeded, the permittee shall increase the frequency of monitoring to 'Daily', 'Weekly', and 'Monthly' for constituents that have a permit monitoring frequency of 'Weekly', 'Monthly', and 'Quarterly', 'Semi-Annual' or 'Annual' respectively. In addition, the permittee shall immediately initiate an investigation of the cause of the AL being exceeded, including inspection of all discharging units and all related pollution control devices, review of any operational and maintenance practices that might have resulted in an unexpected discharge, and hydrologic review of groundwater conditions including upgradient water quality.
3. The permittee shall initiate actions identified in the approved contingency plan referenced in Part 5.0 and specific contingency measures identified in Part 2.6 to resolve any problems identified by the investigation which may have led to an AL being exceeded. To implement any other corrective action the permittee shall obtain prior approval from ADEQ according to Section 2.6.6. Alternatively, the permittee may submit a technical demonstration, subject to written approval by the Water Permits Section, that although an AL is

exceeded, pollutants are not reasonably expected to cause a violation of an AQL. The demonstration may propose a revised AL or monitoring frequency for approval in writing by the Water Permits Section.

4. Within thirty (30) days after confirmation of an AL being exceeded, the permittee shall submit the laboratory results to the Water Quality Compliance Section, Data Unit along with a summary of the findings of the investigation, the cause of the AL being exceeded, and actions taken to resolve the problem.
5. Upon review of the submitted report, the Department may require additional monitoring, increased frequency of monitoring, amendments to permit conditions or other actions.
6. The increased monitoring required as a result of ALs being exceeded may be reduced to 4.0, TABLE 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 issuance.

2.6.3 Discharge Limitations (DL) Violations

1. If a DL set in Section 4.0, TABLE I has been exceeded, the permittee may conduct verification sampling within 24 hours of becoming aware of a DL being exceeded.
2. If verification sampling confirms that the DL 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;
3. 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.
4. Upon review of the submitted report, the Department may require additional monitoring, increased frequency of monitoring, amendments to permit conditions or other actions.

2.6.4 Aquifer Quality Limit (AQL) Violation

1. If an AQL set in Section 4.0, TABLE II has been exceeded, the permittee may conduct verification sampling within 5 days of becoming aware of an AQL being exceeded.
2. If verification sampling confirms that the AQL is violated for any parameter, the permittee shall increase the frequency of monitoring to 'Daily', 'Weekly', and 'Monthly' for constituents that have a permit monitoring frequency of 'Weekly', 'Monthly', and 'Quarterly', 'Semi-Annual' or 'Annual' respectively. In addition, the permittee shall immediately initiate an evaluation for the cause of the violation, including inspection of all discharging units and all related pollution control devices, and review of any operational and maintenance practices that might have resulted in unexpected discharge.

The permittee also shall submit a report according to Section 2.7.3, which includes a summary of the findings of the investigation, the cause of the violation, and actions taken to resolve the problem. The permittee shall consider and ADEQ may require corrective action that may include control of the source of discharge, cleanup of affected soil, surface water or groundwater, and mitigation of the impact of pollutants on existing uses of the aquifer. Corrective actions shall either be specifically identified in this permit, included in an ADEQ approved contingency plan, or separately approved according to Section 2.6.6.

3. Upon review of the submitted report, the Department may require additional monitoring, increased frequency of monitoring, amendments to permit conditions or other actions.

2.6.5 Emergency Response and Contingency Requirements for Spills and Unauthorized Discharges

2.6.5.1 Duty to Respond

The permittee shall act immediately to correct any condition resulting from a discharge if that condition could pose an imminent and substantial endangerment to public health or the environment.

2.6.5.2 Discharge of Hazardous Substances or Spills of Toxic Pollutants

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

2.6.5.3 Discharge of Non-hazardous Materials

In the event of any unauthorized discharge of non-hazardous materials from the facility, the permittee shall promptly attempt to cease the discharge and isolate

the discharged material. Discharged material shall be removed and the site cleaned up as soon as possible. The permittee shall notify the 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 to be exceeded; or b) could pose an endangerment to public health or the environment.

2.6.5.4 Reporting Requirements

The permittee shall submit a written report for any unauthorized discharges described in Sections 2.6.5.2 and 2.6.5.3 to ADEQ Water Quality Field Services Unit, Mail Code: 5415B-1, 1110 West Washington Street, Phoenix, AZ, within thirty days of the discharge or as required by subsequent ADEQ action. The report shall summarize the event, including any human exposure, and facility response activities and include all information specified in Section 2.7.3. If a notice is issued by ADEQ subsequent to the discharge notification, any additional information requested in the notice shall also be submitted within the time frame specified in that notice. Upon review of the submitted report, ADEQ may require additional monitoring or corrective actions.

2.6.6 Corrective Actions

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

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

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

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

2.7 Reporting and Recordkeeping Requirements

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

2.7.1 Self Monitoring Report Forms (SMRF)

1. The permittee shall complete the SMRFs provided by ADEQ, and submit them to the Water Quality Compliance Section, Data Unit.
2. The permittee shall complete the SMRF to the extent that the information reported may be entered on the form. If no information is required during a quarter, the permittee shall enter "not required" on the SMRF and submit the report to ADEQ. The permittee shall use the format devised by ADEQ.

3. The tables contained in Sections 4.0 list the parameters to be monitored and the frequency for reporting results for groundwater compliance monitoring. Monitoring methods shall be recorded on the SMRFs.
4. In addition to the SMRF, the information contained in Section 6.9.3 shall be included for exceeding an AL or violation of an AQL, DL, or any other permit condition being reported in the current reporting period.

2.7.2 Operation Inspection / Log Book Recordkeeping

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

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

2.7.3 Permit Violation and Alert Level Status Reporting

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

- f. Description of any malfunction or failure of pollution control devices or other equipment or processes.

2.7.4 Operational, Other or Miscellaneous Reporting

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

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:

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 Water Permits Section shall be directed to:

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

2.7.6 Reporting Deadline

The following table lists the quarterly report due dates:

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

2.7.7 Changes to Facility Information in Section 1.0

The Water Permits Section and Water Quality Compliance Section shall be notified within 10 days of any change of facility information including Facility Name, Permittee Name, Mailing or Street Address, Facility Contact Person or Emergency Telephone Number.

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

The permittee shall give written notice to the Water Quality Compliance Section upon ceasing operation of the facility for a period of 60 days or greater. The permittee shall take the following measures upon temporary cessation:

1. If applicable, direct the wastewater flows from the facility to another State approved wastewater treatment facility.
2. Correct the problem that caused the temporary cessation of the facility.
3. Notify ADEQ with a monthly facility Status Report describing the activities conducted on the WWTP to correct the problem

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

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

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

Within 90 days following notification of closure, the permittee shall submit for approval to the Water Permits Section, a detailed Closure Plan which meets the requirements of A.R.S. § 49-252 and A.A.C. 18-9-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 Water Permits 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 is not required at the time of permit issuance.

2.9.2 Closure Completion

Not required at the 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 Water Permits Section.

In the event clean closure cannot be achieved pursuant to A.R.S. § 49-252, the permittee shall submit for approval to the Water Permits Section a Post-Closure Plan that addresses post-closure maintenance and monitoring actions at the facility. The Post-Closure Plan shall meet all requirements of A.R.S. §§ 49-201(29) and 49-252 and A.A.C. R18-9-A209(C). Upon approval of the Post-Closure Plan, this permit shall be amended or a new permit shall be issued to incorporate all post-closure controls and monitoring activities of the Post-Closure Plan.

2.10.1 Post-Closure Plan

A specific post closure plan may be required upon the review of the closure plan.

2.10.2 Post-Closure Completion

Not required at the time of permit issuance.

3.0 COMPLIANCE SCHEDULE [A.R.S. § 49-243(K)(5) and A.A.C. R18-9-A208]

1. There is a concern that if the monitor well pumps dry during a sampling event, then a representative water quality sample may not be collected. If the monitor well pumps dry for two consecutive sampling events and even if the low flow purging and sampling method is used, the applicant shall submit a report that proposes modifying the monitor well or installing additional monitor wells, within 30 days of the second sampling event.
2. The permitte shall also perform ambient groundwater monitoring for eight consecutive months to set the Aquifer Quality Limits and Alert Levels in Table II for all nitrogen constituents. The results must be submitted to ADEQ along with an amendment form, within 30 days of completing eight rounds of sampling.

4.0 TABLES OF MONITORING REQUIREMENTS

**TABLE I
DISCHARGE MONITORING**

Sampling Point Number	Sampling Point Identification		Latitude	Longitude	
1	Point of discharge from the Chlorination Unit		32°28'04"N	112° 29'53" W	
Parameter	AL ¹	DL ²	Units	Sampling Frequency	Reporting Frequency
Total Flow: Daily	Reserved	Reserved ³	MGD ⁴	Daily ⁵	Quarterly
Total Flow: Average Monthly	0.43	0.45	MGD	Monthly ⁶	Quarterly
Flow Recharge: Daily	Reserved	Reserved	MGD	Daily	Quarterly
Flow Reuse: Daily	Reserved	Reserved	MGD	Daily	Quarterly
Fecal Coliform Single sample maximum	No Limit	23	CFU or MPN ⁷	Monthly	Quarterly
Fecal Coliform Seven sample median	No Limit	2.2	CFU or MPN	Monthly	Quarterly
Total Nitrogen ⁸ : 5-month sampling rolling geometric mean.	8.0	10.0	mg/l	Monthly ⁹	Quarterly

¹ AL = Alert Level.

² DL = Discharge Limit.

³ Reserved = Monitoring required but no limits have been specified at time of permit issuance.

⁴ MGD = Million Gallons per Day.

⁵ Flow shall be measured using a continuous recording flow meter.

⁶ Monthly = Calculated value = Average of daily flows in a month.

⁷ CFU = Colony Forming Units / 100 ml sample. MPN = Most Probable Number / 100 ml sample

⁸ Total Nitrogen = Nitrate as N + Nitrite as N + Total Kjeldahl Nitrogen.

⁹ A 5-Month Geometric Mean of the results of the 5 most recent samples.

4.0 TABLES OF MONITORING REQUIREMENTS

TABLE I
DISCHARGE MONITORING (Continued)

Parameter	AL	DL	Units	Sampling Frequency	Reporting Frequency
Indicator Parameters:					
Total Dissolved Solids	Reserved	Reserved	mg/l	Semi-Annually	Semi-Annually
Calcium	Reserved	Reserved	mg/l	Semi-Annually	Semi-Annually
Carbonate	Reserved	Reserved	mg/l	Semi-Annually	Semi-Annually
Bicarbonate	Reserved	Reserved	mg/l	Semi-Annually	Semi-Annually
Chloride	Reserved	Reserved	mg/l	Semi-Annually	Semi-Annually
Magnesium	Reserved	Reserved	mg/l	Semi-Annually	Semi-Annually
Potassium	Reserved	Reserved	mg/l	Semi-Annually	Semi-Annually
Sodium	Reserved	Reserved	mg/l	Semi-Annually	Semi-Annually
Sulfate	Reserved	Reserved	mg/l	Semi-Annually	Semi-Annually

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 1
DISCHARGE MONITORING (Continued)

Parameter	AL	DL	Units	Sampling Frequency	Reporting Frequency
Volatile Organic Compounds (VOCs):					
Benzene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Carbon tetrachloride	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
o-Dichlorobenzene	0.48	0.6	mg/l	Semi-Annually	Semi-Annually
para-Dichlorobenzene	0.06	0.075	mg/l	Semi-Annually	Semi-Annually
1,2-Dichloroethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
1,1-Dichloroethylene	0.0056	0.007	mg/l	Semi-Annually	Semi-Annually
cis-1,2-Dichloroethylene	0.05	0.07	mg/l	Semi-Annually	Semi-Annually
trans-1,2-Dichloroethylene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Dichloromethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
1,2-Dichloropropane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Ethylbenzene	0.56	0.7	mg/l	Semi-Annually	Semi-Annually
Monochlorobenzene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Styrene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Tetrachloroethylene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Toluene	0.8	1.0	mg/l	Semi-Annually	Semi-Annually
Trihalomethanes (total) ¹⁰	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

¹⁰Total Trihalomethanes comprises of Bromoform, Bromodichloromethane, Chloroform, and Dibromochloromethane.

4.0 TABLES OF MONITORING REQUIREMENTS

**TABLE 1
RECLAIMED WATER MONITORING TABLE – CLASS A+
(Sampling required only if effluent is discharged for reuse)**

Sampling Point Number	Sampling Point Identification	Latitude	Longitude
1	Discharge from Chlorination Unit	34°28'04" N	112°29'53" W

Parameter	AL	DL	Units	Sampling Frequency	Reporting Frequency
Fecal Coliform: Single-sample maximum	Reserved	23	CFU or MPN ¹¹	Daily ¹²	Quarterly
Fecal Coliform: Four (4) of last seven (7) samples	Reserved	Non- detect ¹³	CFU or MPN	Daily	Quarterly
Turbidity ¹⁴ : Single reading	Reserved	5	NTU ¹⁵	Everyday ¹⁶	Quarterly
Turbidity: 24-hour average	Reserved	2	NTU	Everyday	Quarterly
Enteric Virus ¹⁷ : Four (4) of last seven (7) samples	Reserved	Non- detect	PFU ¹⁸	Monthly / Suspended ¹⁹	Quarterly

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 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.

¹³ 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).

¹⁴ 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.

¹⁵ Nephelometric Turbidity Units

¹⁶ For the single turbidity reading, "everyday" means the maximum reading during the 24 hour period.

¹⁷ Initial monthly enteric virus sampling shall be performed to indicate four (4) out of seven (7) sample results of non-detect.

¹⁸ Plaque Forming Units per 40 Liters

¹⁹ Enteric virus sampling shall resume only if two (2) consecutive turbidity limits are exceeded. Monthly enteric virus monitoring shall continue until four (4) out of seven (7) consecutive sample results show no detection. During times when enteric virus sampling is suspended, enter "suspended" in the appropriate space on the SMRF.

**TABLE II
GROUNDWATER MONITORING²⁰**

Sampling Point number	Sampling Point Identification	Latitude	Longitude
2	MW #1	33° 28' 46" N	112° 30' 28" W

Parameter	AL ²¹	AQL ²²	Units	Sampling Frequency	Reporting Frequency
Total Nitrogen ²³	Reserved ²⁴	Reserved	mg/l	Monthly	Quarterly
Nitrate-Nitrite as N	Reserved	Reserved	mg/l	Monthly	Quarterly
Total Kjeldahl Nitrogen (TKN)	Reserved	Reserved	mg/l	Monthly	Quarterly
Fecal Coliform	Absence	Absence ²⁵	CFU or MPN ²⁶	Monthly	Quarterly
Total Coliform	Absence	Absence	CFU or MPN	Monthly	Quarterly

Parameter	AL	AQL	Units	Sampling Frequency	Reporting Frequency
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Indicator Parameters:

Total Dissolved Solids	Reserved	Reserved	mg/l	Semi-Annually	Semi-Annually
Calcium	Reserved	Reserved	mg/l	Semi-Annually	Semi-Annually
Carbonate	Reserved	Reserved	mg/l	Semi-Annually	Semi-Annually
Carbonic Acid	Reserved	Reserved	mg/l	Semi-Annually	Semi-Annually
Chloride	Reserved	Reserved	mg/l	Semi-Annually	Semi-Annually
Magnesium	Reserved	Reserved	mg/l	Semi-Annually	Semi-Annually
Potassium	Reserved	Reserved	mg/l	Semi-Annually	Semi-Annually
Sodium	Reserved	Reserved	mg/l	Semi-Annually	Semi-Annually
Sulfate	Reserved	Reserved	mg/l	Semi-Annually	Semi-Annually

²⁰ Whenever there is discharge to the recharge site, the facility shall conduct groundwater monitoring in that month, and for two additional quarters as per the above Table. Report "No flow" on SMRFs when there is no discharge to recharge site or after two consecutive quarters of monitoring following a discharge to the recharge site. **This does not apply to the requirement for setting AQLs and ALs for nitrogen forms as stated in footnote # 23.**

²¹ AL = Alert Level

²² AQL = Aquifer Quality Limit

²³ Total Nitrogen is equal to nitrate as N plus nitrite as N plus TKN. The permittee shall also perform ambient groundwater monitoring for eight consecutive months to set the Aquifer Quality Limits and Alert Levels in Table II for all nitrogen constituents. The results must be submitted to ADEQ along with an amendment form, within 30 days of completing eight rounds of sampling.

²⁴ Reserved = Monitoring required, but no limits have been established at this time.

²⁵ Each groundwater sample shall be analyzed for both total and fecal coliforms. A positive total coliform result followed by a negative fecal coliform result shall not be considered an exceedance of the AQL. Any positive result for both total coliforms and fecal coliforms in the same sample shall be considered an exceedance of the AQL.

²⁶ CFU = Colony Forming Units per 100 ml, MPN = Most Probable Number per 100 ml.

TABLE II
GROUNDWATER MONITORING (continued)

Metals (Total):

Parameter	AL	AQL	Units	Sampling Frequency	Reporting Frequency
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

VOCs:

Parameter	AL	AQL	Units	Sampling Frequency	Reporting Frequency
Benzene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Carbon tetrachloride	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
o-Dichlorobenzene	0.48	0.6	mg/l	Semi-Annually	Semi-Annually
para-Dichlorobenzene	0.06	0.075	mg/l	Semi-Annually	Semi-Annually
1,2-Dichloroethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
1,1-Dichloroethylene	0.0056	0.007	mg/l	Semi-Annually	Semi-Annually
cis-1,2-Dichloroethylene	0.05	0.07	mg/l	Semi-Annually	Semi-Annually
trans-1,2-Dichloroethylene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Dichloromethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
1,2-Dichloropropane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Ethylbenzene	0.56	0.7	mg/l	Semi-Annually	Semi-Annually
Monochlorobenzene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Styrene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Tetrachloroethylene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Toluene	0.8	1.0	mg/l	Semi-Annually	Semi-Annually
Trihalomethanes (total) ²⁷	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
1,1,1-Trichloroethane	0.16	0.2	mg/l	Semi-Annually	Semi-Annually
1,2,4 - Trichlorobenzene	0.056	0.07	mg/l	Semi-Annually	Semi-Annually
1,1,2 - Trichloroethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Trichloroethylene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Vinyl Chloride	0.0016	0.002	mg/l	Semi-Annually	Semi-Annually
Xylenes (Total)	8.0	10.0	mg/l	Semi-Annually	Semi-Annually

4.0 TABLES OF MONITORING REQUIREMENTS

²⁷Total Trihalomethanes comprises of Bromoform, Bromodichloromethane, Chloroform, and Dibromochloromethane.

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

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 27, 2002
2. Contingency Plan, dated: Feb. 2002 (submitted in the APP application as exhibit B-7)
3. Final Hydrologist Memo dated: April 5, 2004
4. Final Engineering Memo dated: April 1, 2004
5. Public Notice dated: May 6, 2004
6. Public Hearing, dated: N/A
7. Responsiveness Summary, dated: N/A

6.0 GENERAL CONDITIONS AND RESPONSIBILITIES

6.1 Annual Registration Fees

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

6.2 Duty to Comply [A.R.S. §§ 49-221 through 263]

The permittee is notified of the obligation to comply with all conditions of this permit and all applicable provisions of Title 49, Chapter 2, Articles 1, 2 and 3 of the Arizona Revised Statutes, Title 18, Chapter 9, Articles 1 through 4, and Title 18, Chapter 11, Article 4 of the Arizona Administrative Code. Any permit non-compliance constitutes a violation and is grounds for an enforcement action pursuant to Title 49, Chapter 2, Article 4 or permit amendment, suspension, or revocation.

6.3 Duty to Provide Information [A.R.S. §§ 49-243(K)(2) and 49-243(K)(8)]

The permittee shall furnish to the Director, or an authorized representative, within a time specified, any information which the Director may request to determine whether cause exists for amending or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Director, upon request, copies of records required to be kept by this permit.

6.4 Severability [A.R.S. § 49-243(K)(8)]

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

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

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

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

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

6.7 Technical and Financial Capability [A.R.S. §§ 49-243(K)(8) and 49-243(N) and A.A.C. R18-9-A202(B) and R18-9-A203(E) and (F)]

The permittee shall have and maintain the technical and financial capability necessary to fully carry out the terms and conditions of this permit. Any bond, insurance policy, trust fund, or other financial assurance mechanism provided as a demonstration of financial capability in

the permit application, pursuant to A.A.C. R18-9-A203(D), shall be in effect prior to any discharge authorized by this permit and shall remain in effect for the duration of the permit.

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

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

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

6.9 Monitoring and Records [A.R.S. § 49-243(K)(8) and A.A.C. R18-9-A206]

The permittee shall conduct any monitoring activity necessary to assure compliance with this permit, with the applicable water quality standards established pursuant to A.R.S. §§ 49-221 and 49-223 and §§ 49-241 through 49-252.

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

6.10 Other Information [A.R.S. § 49-243(K)(8)]

Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, the permittee shall promptly submit the correct facts or information.

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

The permittee shall allow the Director, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to enter and inspect the facility

as reasonably necessary to ensure compliance with Title 49, Chapter 2, Article 3 of the Arizona Revised Statutes, and Title 18, Chapter 9, Articles 1 through 4 of the Arizona Administrative Code and the terms and conditions of this permit. In so doing, the Department representative may:

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

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

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

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

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

6.13.1 Permit Reopen

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

6.13.2 Permit Transfer

This permit may not be transferred to any other person except after notice to and approval of the transfer by the Department. No transfer will be approved until the applicant complies with all transfer requirements as specified in A.A.C. R18-9-A212(B) and (C).

The permittee shall notify the Water Permits Section in writing within 15 days after any change in the owner or operator of the facility. The notification shall state the permit number, the name of the facility, the date of property transfer, and the name, address, and phone number where the new owner or operator can be reached. The operator shall advise the new owner or operators of the terms of this permit and the need for permit transfer in accordance with the rules.