

**STATE OF ARIZONA
AQUIFER PROTECTION PERMIT NO. P- 105932
PLACE ID 1424, LTF 61841**

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, the Arizona Department of Environmental Quality (ADEQ) hereby authorizes City of Tempe to operate the Johnny G Martinez Water Treatment Plant Surface Impoundment located in the City of Tempe, Maricopa County, Arizona, over groundwater of Active Management Area, in Township 1 N, Range 4 E, Section 10 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: Johnny G Martinez Water Treatment Plant Surface Impoundment
Permitted Flow Rate: 141,370 gallons per day (gpd)
Facility Address: 255 E Marigold Ln, Tempe, AZ 85281

Permittee: City of Tempe
Permittee Address: 31 E 5th Street, Tempe, AZ 85281

Facility Contact: Marilyn DeRosa, Public Works Deputy Director – Water Utilities
Emergency Phone No.: 480-350-8371

Latitude/Longitude: 33° 26' 39" N/ 111° 56' 09" W
Legal Description: Township 1N, Range 4E, Section 10, Gila & Salt River Base Line & Meridian

1.2 Authorizing Signature

Trevor Baggiore, Director, Water Quality Division
Arizona Department of Environmental Quality

Signed this ____ day of _____, 2016

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)]

JGMWTP is a 50-gmd water treatment plant owned and operated by the City of Tempe and serves parts of the City. It is located at 255 E Marigold Lane in Tempe. Surface water is delivered via the SRP Crosscut Canal to the plant through inlet gates and flumes. Dosing of alum and powder activated carbon is provided prior to delivery to the pre-sedimentation basins to aid in suspended solids and Total Organic Carbon (TOC) removal. Larger solids settle out in the pre-sedimentation basins and are collected by sedimentation collectors and removed through blowdown valves. Water from the pre-sedimentation basin decants over weirs and is delivered to the flocculation and secondary sedimentation basins. Settled out solids and floc in the secondary sedimentation basin are collected by sedimentation collectors and blowdowns. Decant water from the secondary sedimentation basins flows to the gravity filters, through a mixed media including anthracite, sand and gravel. Filtered water flows to the UV disinfection chambers before it is delivered to the finished water reservoirs.

This application is for an existing unlined surface impoundment that is located on-site and permitted under an existing 3.02 general APP. This impoundment acts as a temporary holding impoundment to allow the flexibility in operation of the plant, and is used only occasionally.

The Impoundment is contained within the southernmost portion of the JGMWTP. Water collected in the Impoundment will be retained within the Impoundment for evaporation or recycled back to the treatment process stream. Flow to the recovery basins consists of various discharges including filter backwash water, facility basins drainage (during basin operation and maintenance), and rinse water from facility basins and channel rinsing (during rinse down of facilities). The impoundment will be receiving an average flow of 141,370 gpd.

The site includes the following permitted discharging facilities:

Facility	Latitude	Longitude
Surface Impoundment	33° 26' 39" N	111° 56' 09" W

Annual Registration Fee [A.R.S. § 49-242 and A.A.C. R18-14-104]

The annual registration fee for this permit is payable to ADEQ each year. The permitted flow for fee calculation is 141,370 gallons per day (gpd).

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 closure cost is \$ \$202,901.00. The financial assurance mechanism was demonstrated through a letter from the Deputy City Manager/Chief Financial Officer of the City of Tempe.

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

The impoundment has been in operation since 1965, so the bottom of the impoundment has very low permeability and infiltration to the groundwater is insignificant. Any flow to the impoundment will be evaporated or recycled back to the treatment process. The water quality of the impoundment is of water quality that does not exceed any of the groundwater quality standards. Applicant expects that the quality of the water in the impoundment is of better quality than the aquifer under the impoundment. The impoundment is designed with sufficient capacity for the design flow while keeping a minimum of 2 feet of

freeboard plus the flows from the 100-year rain event on the surrounding area that drains into the impoundment.

2.2.1 Engineering Design

The Surface Impoundment is an existing facility and no new construction is proposed as part of this permit submittal. The permit application's documents have been prepared on July 14, 2015 by Carrie Cote, PE, Engineering and Environmental Consultants, Inc. (EEC). The permittee is expected to maintain technical capability throughout the life of the facility.

2.2.2 Site-specific Characteristics

Site-specific characteristics were not used as a component of BADCT.

2.2.3 Pre-operational Requirements

Not applicable

2.2.4 Operational Requirements

1. Permittee shall maintain a copy of the up-to-date Operations and Maintenance (O & M) Manual at the site at all times, and the manual shall be available upon request during inspections by ADEQ personnel.
2. The pollution control structures shall be inspected for the items listed in Section 4.2, Table IB - 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 materials used shall be documented in the facility log book as per Section 2.7.2 and reported to ADEQ in the event of a violation or exceedance as per 2.7.3.

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 impoundment with a maximum average monthly flow of 141,370 gpd.
2. The permittee shall operate and maintain all permitted facilities to prevent unauthorized discharges pursuant to A.R.S. § 49-201(12) resulting from failure or bypassing of applicable BADCT pollutant control technologies including 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, berm breaches, accidental spills, or other unauthorized discharges.
3. Specific discharge limitations are listed in Section 4.2, Table IA.

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

This is a conceptual well location. There is no POC well installed at this time. The POC location is determined by an analysis of the pollutant management area (surficial area on which discharge water is treated and contained) at the Water Treatment Plant site. The hazardous/non-hazardous POC for this facility is designated at the following location:

POC No.	Location	Latitude	Longitude
1(Conceptual Location)	approximately 100 feet southeast of the impoundment	33° 26' 37.20" N	111° 56' 7.39" W

The Director may amend this permit to require installation of wells and initiation of groundwater

monitoring at the POCs or 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(B) and (K)(1), A.A.C. R18-9-A206(A)]

Unless otherwise specified in this permit, all monitoring required in this permit shall continue for the duration of the permit, regardless of the status of the facility. Monitoring shall commence the first full monitoring period following permit issuance. 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. 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 impoundment water on a routine basis according to Section 4.2, Table IA, as applicable. Representative samples of the water in the impoundment shall be collected.

2.5.2 Facility / Operational Monitoring

Operational monitoring inspections shall be conducted according to Section 4.2, Table IB.

1. If any damage of the pollution control structures is identified during inspection, proper repair procedures shall be performed. All repair procedures and materials used shall be documented on the SMRF submitted semi-annually to the ADEQ Water Quality Compliance Section, Data Unit. If none of the conditions occur, the report shall say “no event” for a particular reporting period. If the facility is not in operation, the permittee shall indicate this on the SMRF.
2. The permittee shall submit data required in Section 4.2, Tables IA and IB 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

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

2.5.4 Surface Water Monitoring and Sampling Protocols

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. If all methods have detection limits higher than the applicable limit, the permittee shall follow the contingency requirements of Section 2.6 and may propose “other actions” including amending the permit to set higher limits. Analyses shall be performed by a laboratory licensed by the Arizona Department of Health Services, Office of Laboratory Licensure and Certification unless exempted under A.R.S. § 36-495.02.. 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 Water Permits Section for approval prior to installation and the permit shall be amended to include any new points.

2.6 Contingency Plan Requirements

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

2.6.1 General Contingency Plan Requirements

At least one copy of this permit and the approved contingency and emergency response plan submitted in Supplement Section 25G of 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 plan.

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

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

2.6.2 Exceeding of Alert Levels

2.6.2.1 Exceeding of Alert Levels and Performance Levels

1. For freeboard operational performance levels, the permittee shall comply with the requirements as specified in Section 4.2, Table IB (Facility Inspections) to prevent the overtopping of an impoundment or sludge drying bed. If an impoundment or sludge drying bed is overtopped, the permittee shall follow the requirements in Section 2.6.5.3 and the reporting requirements of Section 2.7.3.
2. If any other operational performance level set in Section 4.2, Table IA has been exceeded the permittee shall:
 - a. Notify the ADEQ Water Quality Compliance Section (by phone or fax, see Section 2.7.5) within five days of becoming aware of the exceedance.
 - b. Submit a written report to the ADEQ Water Quality Compliance Section within

30 days of becoming aware of the exceedance. The report shall document all of the following:

- (1) a description of the exceedance and its cause;
 - (2) the period of the exceedance, including exact date(s) and time(s), if known, and the anticipated time period during which the exceedance is expected to continue;
 - (3) any action taken or planned to mitigate the effects of the exceedance or spill, or to eliminate or prevent recurrence of the exceedance or spill;
 - (4) any monitoring activity or other information which indicates that any pollutants would be reasonably expected to cause a violation of an AWQS; and
 - (5) any malfunction or failure of pollution control devices or other equipment or process.
3. The facility is no longer on alert status once the operational indicator no longer indicates a performance level exceedance. 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 4.2, Table IA has been exceeded, the permittee shall immediately investigate to determine the cause. The investigation shall include the following:
 - a. Inspection, testing, and assessment of the current condition of all treatment or pollutant discharge control systems that may have contributed to the AL exceedance;
 - 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 discharge water for the parameters being exceeded;
2. The permittee shall initiate actions identified in the approved contingency plan referenced in Section 5.0 and specific contingency measures identified in Section 2.6 to resolve any problems identified by the investigation, which may have led to an AL exceedance. To implement any other corrective action the permittee shall obtain prior approval from ADEQ according to Section 2.6.6.
3. Within 30 days of an AL exceedance, the permittee shall submit the laboratory results to the ADEQ Water Quality Compliance Section, along with a summary of the findings of the investigation, the cause of the AL exceedance, and actions taken to resolve the problem.
4. Upon review of the submitted report, the Department may amend the permit to require additional monitoring, increased frequency of monitoring, amendments to permit conditions or other actions.

2.6.2.2.1. Exceeding Permit Flow Limit

1. If the AL for average monthly flow in Table IA has been exceeded, the permittee shall submit an application for an APP amendment to expand the Treatment System or submit a report detailing the reasons that expansion is not necessary.
2. Acceptance of the report instead of an application for expansion requires ADEQ approval.

2.6.3 Discharge Limitations Violations

1. If a DL set in Section 4.2, Table IA 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; and
 - c. Sampling of individual waste streams composing the discharge water for the parameters in violation.

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

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

2.6.4 Aquifer Quality Limit Violation

Not applicable - Groundwater monitoring is not required under this permit.

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 That Are Not Addressed Elsewhere in Section 2.6

2.6.5.1 Duty to Respond

The permittee shall act immediately to correct any condition resulting from a discharge pursuant to A.R.S. § 49-201(12) if that condition could pose an imminent and substantial endangerment to public health or the environment.

2.6.5.2 Discharge of Hazardous Substances or Toxic Pollutants

In the event of any unauthorized discharge pursuant to A.R.S. § 49-201(12) of suspected hazardous substances (A.R.S. § 49-201(19)) or toxic pollutants (A.R.S. § 49-243(I)) on the facility site, the permittee shall promptly isolate the area and attempt to identify the discharged material. The permittee shall record information, including name, nature of exposure and follow-up medical treatment, if necessary, on persons who may have been exposed during the incident. The permittee shall notify the ADEQ Water Quality Compliance Section 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 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 Compliance Section

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 reported under Sections 2.6.5.2 and 2.6.5.3 to ADEQ Water Quality Compliance Section within 30 days of the discharge or as required by subsequent ADEQ action. The report shall summarize the event, including any human exposure, and facility response activities and include all information specified in Section 2.7.3. If a notice is issued by ADEQ subsequent to the discharge notification, any additional information requested in the notice shall also be submitted within the time frame specified in 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 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 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; and/or
5. Mitigation to limit the impact of pollutants on existing uses of the aquifer.

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

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

2.7.1 Self-monitoring Report Form

1. The permittee shall complete the Self-monitoring Report Form (SMRF) in a format provided by ADEQ, and submit the completed report to the Water Quality Compliance Data and Enforcement 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 reporting period, the permittee shall enter "not required" on the Form and include an explanation, and submit the Form to the Water Quality Compliance Data and Enforcement Unit.
3. The tables contained in Section 4.0 list the monitoring parameters and the frequencies for reporting results on the SMRF:
 - Table IA, Discharge Monitoring

The parameters listed in the above identified table from Section 4.0 are the only parameters for which SMRF reporting is required.

4. In addition to the SMRF, the information contained in A.A.C. R18-9-A206(B)(1) shall be included for exceeding an AL or violation of an AQL, DL, or any other permit condition being reported in the current reporting period.

2.7.2 Operation Inspection / Log Book Recordkeeping

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

1. Name of inspector;
2. Date and shift inspection was conducted;
3. Condition of applicable facility components;
4. Any damage or malfunction, and the date and time any repairs were performed;
5. Documentation of sampling date and time;
6. Any other information required by this permit to be entered in the log book; and

Monitoring records for each measurement shall comply with R18-9 A206(B)(2).

2.7.3 Permit Violation and Alert Level Status Reporting

1. The permittee shall notify the Water Quality Compliance Section in writing within 5 days (except as provided in Section 2.6.5) of becoming aware of a violation of any permit condition, discharge limitation or of an AL exceedance.
2. The permittee shall submit a written report to the Water Quality Compliance Section 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 AWQS;
 - e. Proposed changes to the monitoring which include changes in constituents or increased frequency of monitoring; and
 - f. Description of any malfunction or failure of pollution control devices or other equipment or processes.

2.7.4 Operational, Other or Miscellaneous Reporting

The permittee shall complete the SMRF provided by the Department to reflect facility inspection requirements designated in Section 4.2, Table III and submit to the ADEQ Water Quality Compliance Section, Data Unit quarterly along with other reports required by this permit. Facility inspection reports shall be submitted no less frequently than quarterly, regardless of operational status.

2.7.5 Reporting Location

All SMRFs shall be submitted to:

Arizona Department of Environmental Quality
Water Quality Compliance Data and Enforcement 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
Mail Code: 5415B-1
1110 W. Washington Street
Phoenix, AZ 85007
Phone (602) 771-4497

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

The following table lists the semi-annual and annual report due dates:

Monitoring conducted:	Report due by:
Semi-annual: January-June	July 30
Semi-annual: July-December	January 30
Annual: January-December	January 30

2.7.7 Changes to Facility Information in Section 1.0

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

1. If applicable, direct the discharge water flows from the facility to another state-approved wastewater treatment facility;
2. Correct the problem that caused the temporary cessation of the facility; and
3. Notify the ADEQ Water Quality Compliance Section with a monthly facility status report describing the activities conducted on the treatment facility to correct the problem.

At the time of notification the permittee shall submit for ADEQ approval a plan for maintenance of discharge control systems and for monitoring during the period of temporary cessation. Immediately following ADEQ's approval, the permittee shall implement the approved plan. If necessary, ADEQ shall amend permit conditions to incorporate conditions to address temporary cessation. During the period of temporary cessation, the permittee shall provide written notice to the Water Quality Compliance Section of the operational status of the facility every three years. If the permittee intends to permanently cease operation of any facility, the permittee shall submit closure notification, as set forth in Section 2.9 below.

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

For a facility addressed under this permit, the permittee shall give written notice of closure to the Water Quality Compliance Section of the permittee's intent to cease operation without resuming activity for which the facility was designed or operated.

2.9.1 Closure Plan

Within 90 days following notification of closure, the permittee shall submit for approval to the Water Permits Section, a Closure Plan which meets the requirements of A.R.S. § 49-252 and A.A.C. R18-9-A209(B)(3). Furthermore, the plan shall include the following specific activities:

If the closure plan achieves clean closure immediately, ADEQ shall issue a letter of approval to the permittee. If the closure plan contains a schedule for bringing the facility to a clean closure configuration at a future date, ADEQ may incorporate any part of the schedule as an amendment to this permit.

2.9.2 Closure Completion

Upon completion of closure activities, the permittee shall give written notice to the Water Permits Section indicating that the approved Closure Plan has been implemented fully and providing supporting documentation to demonstrate that clean closure has been achieved (soil sample results, verification sampling results, groundwater data, as applicable). If clean closure has been achieved, ADEQ shall issue a letter of approval to the permittee at that time. If any of the following conditions apply, the permittee shall follow the terms of post-closure stated in this permit:

1. Clean closure cannot be achieved at the time of closure notification or within 1 year thereafter under a diligent schedule of closure actions;
2. Further action is necessary to keep the facility in compliance with AWQS at the applicable POC;
3. Continued action is required to verify that the closure design has eliminated discharge to the

- extent intended;
4. Remediation or mitigation measures are necessary to achieve compliance with Title 49, Ch. 2; and/or
 5. Further action is necessary to meet property use restrictions.

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

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

In the event clean closure cannot be achieved pursuant to A.R.S. § 49-252, the permittee shall submit for approval to the Water Permits Section a Post-closure Plan that addresses post-closure maintenance and monitoring actions at the facility. The Post-closure Plan shall meet all requirements of A.R.S. §§ 49-201(30) and 49-252 and A.A.C. R18-9-A209(C). Upon approval of the Post-closure Plan, this permit shall be amended or a new permit shall be issued to incorporate all post-closure controls and monitoring activities of the Post-closure Plan.

2.10.1 Post-closure Plan

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

2.10.2 Post-closure Completion

Not required at the time of permit issuance.

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

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

Item No.	Description	Completion/Submittal Date	Comments
1	Discharge Characterization (liquids and solids fraction) Sampling Report.	Within 90 days of first flow to the impoundment after permit issuance	

4.0 TABLES OF MONITORING REQUIREMENTS

4.1 PRE-OPERATIONAL MONITORING (OR CONSTRUCTION REQUIREMENTS)

Not applicable.

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

**TABLE IA
ROUTINE DISCHARGE MONITORING**

Sampling Point Number	Sampling Point Identification			Latitude	Longitude
1	Point of Discharge to the Impoundment			33° 26' 39" N	111° 56' 09" W
Parameter	AL ¹	DL ²	Units	Sampling Frequency	Reporting Frequency
Flow to the impoundment	NE ³	NE	mgd ⁴	Daily ⁵	Semi-annual
Flow out of the impoundment	NE	NE	mgd	Daily ⁵	Semi-annual
Fecal Coliform: Single sample maximum	NE	NE	CFU ⁶	Semi-annual	Semi-annual
Total Nitrogen	8.0	10.0	mg/l ⁷	Semi-annual	Semi-annual

¹AL = Alert Level

²DL = Discharge Limit

³NE = monitoring is required but no limits are specified.

⁴mgd = million gallons per day

⁵ Daily means each day that flow is discharged to the impoundment

⁶CFU = Colony Forming Units / 100 ml sample.

⁷mg/l = milligrams per liter

4.0 TABLES OF MONITORING REQUIREMENTS

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

**TABLE IA
ROUTINE DISCHARGE MONITORING (Continued)**

Sampling Point Number	Sampling Point Identification	Latitude	Longitude
1	Point of Discharge to the Impoundment	33° 26' 39" N	111° 56' 09" W
Parameter	Units	Sampling Frequency	Reporting Frequency
Nitrate	mg/l	Semi-annual	Semi-annual
Nitrite	mg/l	Semi-annual	Semi-annual
Metals (dissolved):			
Aluminum	mg/l	Semi-annual	Semi-annual
Antimony	mg/l	Semi-annual	Semi-annual
Arsenic	mg/l	Semi-annual	Semi-annual
Barium	mg/l	Semi-annual	Semi-annual
Beryllium	mg/l	Semi-annual	Semi-annual
Boron	mg/l	Semi-annual	Semi-annual
Cadmium	mg/l	Semi-annual	Semi-annual
Chromium	mg/l	Semi-annual	Semi-annual
Cyanide (as free cyanide)	mg/l	Semi-annual	Semi-annual
Fluoride	mg/l	Semi-annual	Semi-annual
Lead	mg/l	Semi-annual	Semi-annual
Copper	mg/l	Semi-annual	Semi-annual
Mercury	mg/l	Semi-annual	Semi-annual
Nickel	mg/l	Semi-annual	Semi-annual
Selenium	mg/l	Semi-annual	Semi-annual
Silver	mg/l	Semi-annual	Semi-annual
Thallium	mg/l	Semi-annual	Semi-annual
Zinc	mg/l	Semi-annual	Semi-annual

4.0 TABLES OF MONITORING REQUIREMENTS

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

**TABLE IA
ROUTINE DISCHARGE MONITORING (Continued)**

Sampling Point Number	Sampling Point Identification	Latitude	Longitude
1	Point of Discharge to the Impoundment	33° 26' 39" N	111° 56' 09" W
Parameter	Units	Sampling Frequency	Reporting Frequency
Indicator Parameters/Major Cations and Anions			
Ph	S.U.	Semi-annual	Semi-annual
Iron	mg/l	Semi-annual	Semi-annual
Manganese	mg/l	Semi-annual	Semi-annual
Total Organic Carbon	mg/l	Semi-annual	Semi-annual
Total Dissolved Solids	mg/l	Semi-annual	Semi-annual
Sodium	mg/l	Semi-annual	Semi-annual
Potassium	mg/l	Semi-annual	Semi-annual
Calcium	mg/l	Semi-annual	Semi-annual
Magnesium	mg/l	Semi-annual	Semi-annual
Chloride	mg/l	Semi-annual	Semi-annual
Sulfate	mg/l	Semi-annual	Semi-annual
Total Alkalinity	mg/l	Semi-annual	Semi-annual
Specific Conductivity	µmhos/cm	Semi-annual	Semi-annual
Radionuclides			
Gross Alpha ⁸	pCi/L	Semi-annual	Semi-annual
Radium 226+ Radium 228	pCi/L	Semi-annual	Semi-annual
Uranium -total	µg/l	Semi-annual	Semi-annual
Uranium Isotopes ⁹	pCi/L	Semi-annual	Semi-annual

⁸ The adjusted gross alpha particle activity is the gross alpha particle activity, including radium 226, and any other alpha emitters, if present in the water sample, minus radon and total uranium (the sum of uranium 238, uranium 235 and uranium 234 isotopes). The gross alpha analytical procedure (evaporation technique: EPA Method 900.0) drives off radon gas in the water samples. Therefore, the Adjusted Gross Alpha should be calculated using the following formula: (Laboratory Reported Gross Alpha MINUS Sum of the Uranium Isotopes).

⁹ Uranium Isotope activity results must be used for calculating Adjusted Gross Alpha.

TABLE IA
ROUTINE DISCHARGE MONITORING (continued)

Parameter	AL	DL	Units	Sampling Frequency	Reporting Frequency
Volatile and Semi-Volatile Organic Compounds (VOCs and SVOCs):					
Benzene	NE	NE	mg/l	Semi-Annually	Semi-Annually
Carbon tetrachloride	NE	NE	mg/l	Semi-Annually	Semi-Annually
o-Dichlorobenzene	NE	NE	mg/l	Semi-Annually	Semi-Annually
para-Dichlorobenzene	NE	NE	mg/l	Semi-Annually	Semi-Annually
1,2-Dichloroethane	NE	NE	mg/l	Semi-Annually	Semi-Annually
1,1-Dichloroethylene	NE	NE	mg/l	Semi-Annually	Semi-Annually
cis-1,2-Dichloroethylene	NE	NE	mg/l	Semi-Annually	Semi-Annually
trans-1,2-Dichloroethylene	NE	NE	mg/l	Semi-Annually	Semi-Annually
Dichloromethane	NE	NE	mg/l	Semi-Annually	Semi-Annually
1,2-Dichloropropane	NE	NE	mg/l	Semi-Annually	Semi-Annually
Ethylbenzene	NE	NE	mg/l	Semi-Annually	Semi-Annually
Hexachlorobenzene	NE	NE	mg/l	Semi-Annually	Semi-Annually
Hexachlorocyclopentadiene	NE	NE	mg/l	Semi-Annually	Semi-Annually
Monochlorobenzene	NE	NE	mg/l	Semi-Annually	Semi-Annually
Styrene	NE	NE	mg/l	Semi-Annually	Semi-Annually
Tetrachloroethylene	NE	NE	mg/l	Semi-Annually	Semi-Annually
Toluene	NE	NE	mg/l	Semi-Annually	Semi-Annually
Trihalomethanes (total) ¹⁰	NE	NE	mg/l	Semi-Annually	Semi-Annually
1,1,1-Trichloroethane	NE	NE	mg/l	Semi-Annually	Semi-Annually
1,2,4 - Trichlorobenzene	NE	NE	mg/l	Semi-Annually	Semi-Annually
1,1,2 - Trichloroethane	NE	NE	mg/l	Semi-Annually	Semi-Annually
Trichloroethylene	NE	NE	mg/l	Semi-Annually	Semi-Annually
Vinyl Chloride	NE	NE	mg/l	Semi-Annually	Semi-Annually
Xylenes (Total)	NE	NE	mg/l	Semi-Annually	Semi-Annually

¹⁰Total Trihalomethanes are comprised of Bromoform, Bromodichloromethane, Chloroform, and Dibromochloromethane.

4.0 TABLES OF MONITORING REQUIREMENTS

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

TABLE IB
FACILITY INSPECTION (Operational Monitoring) - LOG BOOK¹¹

Pollution Control Structures/Parameter	Performance Levels	Inspection Frequency
Impoundment Berm Integrity	No visible structural damage, breach, or erosion of embankments.	Weekly
General Condition of the Impoundment	No cracks or leaks	Weekly
Freeboard	Minimum of 2 feet	Weekly

¹¹The permittee shall record the inspection performance levels in a log book as per Section 2.7.2, and report any violations or exceedance as per Section 2.7.3. In the case of an exceedance, identify which structure exceeds the performance level in the log book.

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 August 12, 2015
2. Public Notice dated [REDACTED].
3. Public Hearing dated [REDACTED].
4. Responsiveness Summary dated [REDACTED].

6.0 NOTIFICATION PROVISIONS

6.1 Annual Registration Fees

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

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

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. §§ 41-1009, 49-203(B) and 49-243(K)(8)]

In accordance with A.R.S. §§ 41-1009 and 49-203(B), the permittee shall allow the Director, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to enter and inspect the facility as reasonably necessary to ensure compliance with Title 49, Chapter 2, Article 3 of the Arizona Revised Statutes, and Title 18, Chapter 9, Articles 1 through 4 of the Arizona Administrative Code and the terms and conditions of this permit.

6.9 Duty to Modify [A.R.S. § 49-243(K)(8) and A.A.C. R18-9-A211]

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

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).