

**AQUIFER PROTECTION PERMIT NO. P- 100737**  
**PLACE ID 4288, LTF 61137**  
**SIGNIFICANT AMENDMENT**

## 1.0 Authorization

In compliance with the provisions of Arizona Revised Statutes (A.R.S.) Title 49, Chapter 2, Articles 1, 2 and 3, Arizona Administrative Code (A.A.C.) Title 18, Chapter 9, Articles 1 and 2, A.A.C. Title 18, Chapter 11, Article 4 and amendments thereto, and the conditions set forth in this permit, the City of Show Low is hereby authorized to operate the Wastewater Treatment Plant Facility located at 1300 North 6<sup>th</sup> Street, Show Low, Navajo County Arizona, over groundwater of the Little Colorado River Plateau Basin in Township 10N, Range 22E, Section 17, SE¼, NW¼ 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:** Show Low Wastewater Treatment Plant

**Facility Address:** 1300 N. 6<sup>th</sup> Street  
City of Show Low, Arizona 85901

**County:** Navajo

**Permittee:** City of Show Low

**Permittee Address:** 180 N. 9<sup>th</sup> Place  
Show Low, Arizona 85901

**Facility Contact:** Ken Wilcock, Operator

**Emergency Phone No.:** (928) 523-1525

**Permitted Flow Rate:** 2,500,000 gallons per day (gpd)

**Latitude/Longitude:** 34° 15' 43"N/ 110° 02' 02" W

**Legal Description:** Township 10N, Range 22E, Section 17, SE¼, NW¼ of the Gila and Salt River Base Line and Meridian.

## 1.2 Authorizing Signature

\_\_\_\_\_  
**Trevor Baggione, Director, Water Quality Division**

Arizona Department of Environmental Quality

Signed this \_\_\_\_ day of \_\_\_\_\_, 2016

**THIS AMENDED PERMIT SUPERCEDES ALL PREVIOUS PERMITS****2.0 SPECIFIC CONDITIONS [A.R.S. §§ 49-203(4), 49-241(A)]****2.1 Facility / Site Description [A.R.S. § 49-243(K)(8)]**

The City of Show is authorized to operate the 2.5 million gallons per day (mgd), City of Show Low Main Wastewater Treatment Plant (WWTP) upon the construction of new the Biolac treatment system (New Biolac WWTP). The existing WWTP is rated at 2.46 mgd and consists of lagoon treatment system. During construction of the new Biolac treatment system, the permittee will operate an interim treatment plant by operating only one lagoon with a capacity of 1.25 mgd.

Existing Treatment Plant: The existing treatment plant has the capacity to collect and treat a maximum average monthly flow of 2.46 mgd. The existing WWTP consists of headworks, two facultative lagoons (north and south), chlorine disinfection, an effluent pump station, three wetland cells, and one polishing pond. Influent sewage is conveyed through two primary sewers to the headworks structure which includes two bar screens. Screened wastewater then flows to clay-lined facultative aerated lagoons providing primary wastewater treatment. Treated wastewater exits the aerated lagoons through a bar rack structure to an effluent pump station where it is pumped to polishing ponds for further treatment. Chlorine is added to the force main after the pump station to disinfect the effluent.

Interim Treatment Plant: During the operation of the interim WWTP, the north lagoon will be taken out of service to allow for the construction of the new Biolac WWTP. The permittee will begin operating the interim WWTP prior to the construction of the upgraded plant. The interim WWTP shall have a capacity of 1.25 mgd and will consist of the existing headworks, one facultative (south) lagoon, chlorine disinfection, an effluent pump station, three wetland cells, and one polishing pond. Effluent from the four polishing wetlands (ponds) is discharged under a valid AZPDES permit (AZ0023841) through Outfall 001 to main wetland systems #1 and #2. Under conditions where discharge effluent is in excess of consumption by main wetland systems, effluent can be diverted to Ned Lake by way of overland flow from Telephone Lake via Bullseye Marsh.

New Biolac WWTP: The new Biolac WWTP shall be constructed in the footprint of north lagoon. The new Biolac WWTP shall have the capacity to treat a maximum monthly average flow of 2.5 mgd. The treatment process includes an upgrade to the existing headworks with coarse screen, a new influent pump station, new headworks with fine screen and a grit removal system, two Biolac treatment basins with nitrification and de-nitrification capability, two new clarifiers, a new chlorination system, and the existing effluent pump station. The sludge shall be dewatered through a new screw press. The clay lined existing south lagoon shall be used to store or dewater sludge during emergencies. The Biolac basins shall be lined with 45-mil reinforced polypropylene geomembrane liner.

The effluent from the effluent pump station shall be discharged to the three existing wetland cells and one existing polishing pond located approximately two miles north of the WWTP prior to being discharged via a pipeline. Discharge to the pipeline may be sent to either main wetland systems. Under conditions where discharge effluent is in excess of consumption by these wetland systems, effluent can be diverted to Ned Lake by way of overland flow from Telephone Lake via Bullseye Marsh.

All the sludge, including screenings, grit, and scum, will be hauled to landfill for disposal in accordance with State and Federal regulations.

This permit amendment is to:

- Increase the design flow from 2.46 mgd to 2.5 mgd.
- Add the New Biolac WWTP.
- Upgrade the headworks.

The site includes the following permitted discharging facilities:

Facility	Latitude	Longitude
WWTP	34° 15' 43" N	110° 02' 02" W
Outfall 001	34° 17' 41" N	110° 02' 04" W
South Lagoon (emergency storage pond)	34° 15' 43" N	110° 02' 02" W
Polishing Pond	34° 17' 37" N	110° 02' 08" W

Wetland Cells	34° 17' 37" N	110° 02' 08" W
Telephone Lake	34° 17' 35" N	110° 02' 41" W
Redhead Marsh	34° 17' 41" N	110° 04' 22" W
Bullseye Marsh	34° 17' 21" N	110° 02' 57" W
Ned Lake	34° 17' 18" N	110° 03' 22" W
South Marsh	34° 17' 33" N	110° 01' 24" W
Pintail Marsh	34° 18' 06" N	110° 01' 21" W

**Annual Registration Fee [ARS § 49-242(D) 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 2,500,000 gallons per day (gpd). If the facility is not yet constructed or is incapable of discharge at this time, the permittee may be eligible for reduced fees under the rule. Send all correspondence requesting reduced fees to the Water Quality Division of ADEQ. Please reference the permit number, LTF number and why reduced fees are requested under the rule.

**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(C)(1). The permittee shall maintain financial capability throughout the life of the facility. The estimated dollar amount demonstrated for financial capability is \$858,000. The financial capability was demonstrated through A.A.C. R18-9-A203(B)(1) for a local government entity.

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

The WWTP shall be designed, constructed, operated, and maintained to meet the treatment performance criteria for new facilities as specified in A.A.C. R18-9-B204. The facility shall meet the performance requirement for industrial pre-treatment as per A.A.C. R18-9-B204(B)(6)(b).

**2.2.1 Engineering Design**

The new mechanical WWTP was designed as per the design report prepared, stamped, dated and signed (sealed) by Duong Do, P.E., PACE Advanced Water Engineering, dated August 2014. Subsequent submittals that served as additions to the design report are also sealed and signed by Duong Do.

**2.2.2 Site-specific Characteristics**

Not applicable.

**2.2.3 Pre-operational Requirements**

Prior to initiating use of the Biolac treatment system and upgraded headworks that were reviewed and approved under this permit amendment, the permittee shall submit a signed, dated, and sealed Engineer's Certificate of Completion in a format approved by the Department per the compliance schedule in Section 3.0. The certificate shall be submitted to the Groundwater Section and a copy shall be sent to the Water Quality Compliance Section.

**2.2.4 Operational Requirements**

1. The permittee shall maintain a copy of the up-to-date operations and maintenance manual at the WRF site at all times; 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 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 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.

**2.2.5 Reclaimed Water Classification**

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

Not applicable.

### 2.2.6 Certified Area-wide Water Quality Management Plan Conformance

#### [A.A.C. R18-9-A201(B)(6)(a)]

Facility operations must conform to the approved Certified Area-wide Water Quality Management Plan according to the 208 consistency determination in place at the time of permit issuance

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

1. The permittee is authorized to operate the WWTP with a maximum average monthly flow of 2.50 mgd.
2. The permittee shall notify all users that the materials authorized to be disposed of through the WRF are typical household sewage and pre-treated commercial wastewater and shall not include motor oil, gasoline, paints, varnishes, hazardous wastes, solvents, pesticides, fertilizers or other materials not generally associated with toilet flushing, food preparation, laundry facilities and personal hygiene.
3. The permittee shall operate and maintain all permitted facilities to prevent unauthorized discharges pursuant to A.R.S. § 49-201(12) resulting from failure or bypassing of applicable BADCT pollutant control technologies including liner failure<sup>1</sup>, uncontrollable leakage, overtopping (e.g., exceeding the maximum storage capacity, defined as a fluid level exceeding the crest elevation of a permitted impoundment), of basins, lagoons, impoundments or sludge drying beds, berm breaches, accidental spills, or other unauthorized discharges.
4. Specific discharge limitations are listed in Section 4.2, Tables IA-1, IA-2 and IA-3.

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

The POCs are established at the following designated locations:

POC#	POC Locations	Latitude	Longitude
1	Located approximately 85 feet from the northwest corner of Red head Marsh eastern pond Redhead Marsh. (Conceptual)	34°17' 49" N	110° 04' 21" W
2	Located approximately 1580 ft from the southern edge of the Polishing Pond	34°17' 17" N	110° 02' 04" W
3	Located approximately 685 ft west of Pintail Lake and approximately 1575 ft northwest of South Marsh.	34° 18' 02" N	110° 01' 35" W
4	Located approximately 120 ft northeast of the North Lagoon at the WWTP.	34° 15' 48" N	110° 01' 59" W
5	Located 200 feet to the northeast of the eastern most part of the Telephone Lake. (Conceptual)	34° 17' 45" N	110° 02' 25" W

Groundwater monitoring is required at POC wells #2, #3 and #4 according to Section 4.2, Table II. No groundwater monitoring is required at Conceptual POC wells #1 and #5. The Director may amend this permit to require the installation of a well and the initiation of groundwater monitoring at the POC, 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.

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

**2.5.1 Discharge Monitoring**

The permittee shall monitor the effluent on a routine basis according to Section 4.2, Tables IA-1, IA-2 and IA-3. Representative samples of the effluent shall be collected at the Flow meter located at the effluent pump station, and at the Inlet to the Polishing wetland

**2.5.2 Reclaimed Water Monitoring**

Not applicable.

**2.5.3 Facility / Operational Monitoring**

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

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 case of a violation or exceedance as per 2.7.3.

**2.5.4 Groundwater Monitoring and Sampling Protocols**

The permittee shall monitor the groundwater according to Section 4.2, Table II.

Static water levels shall be measured and recorded prior to sampling. Wells shall be purged of at least three borehole volumes (as calculated using the static water level) or until field parameters (pH, temperature, and 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 percent 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 SMRF.

**2.5.5 Surface Water Monitoring and Sampling Protocols**

Not applicable.

**2.5.6 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 17<sup>th</sup> 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 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. If the operational performance level set in Section 4.2, Table III has been exceeded the permittee shall:
  - a. Notify the ADEQ Water Quality Compliance Section within five days of becoming aware of the exceedance.
  - b. Submit a written report within 30 days after 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.
2. 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, Tables IA-1, IA-2 or IA-3 has been exceeded, the permittee shall immediately investigate to determine the cause of the AL exceedance. The investigation shall include the following:
  - a. Inspection, testing, and assessment of the current condition of all treatment or pollutant discharge control systems that may have contributed to the 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 wastewater for the parameters being exceeded.
2. The permittee shall initiate actions identified in the approved contingency plan referenced in Section 5.0 in the application 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 Alert Level (AL) for average monthly flow in Section 4.2, Tables IA-1, IA-2, or IA-3, has been exceeded, the permittee shall submit an application for an APP amendment to expand the WRF 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.

**2.6.2.3 Exceeding of Alert Levels in Groundwater Monitoring**

**2.6.2.3.1 Alert Levels for Indicator Parameters**

No ALs have been established for indicator parameters.

**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 4.2, Table II has been exceeded; the permittee may conduct verification sampling within five days of becoming aware of the exceedance. The permittee may use results of another sample taken between the date of the last sampling event and the date of receiving the result as verification.
2. If verification sampling confirms the AL exceedance or if the permittee opts not to perform verification sampling, then the permittee shall increase the frequency of monitoring as follows:

Specified Monitoring Frequency (Section 4.2, Table II)	Monitoring Frequency for AL Exceedance
Daily	Daily
Weekly	Daily
Monthly	Weekly
Quarterly	Monthly
Semi-annually	Quarterly
Annually	Quarterly

In addition, the permittee shall immediately initiate an investigation of the cause of the AL exceedance, 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 exceedance. To implement any other corrective action the permittee shall obtain prior approval from ADEQ according to Section 2.6.6. Alternatively, the permittee may submit a technical demonstration, subject to written approval by the Groundwater Section, that although an AL is exceeded, pollutants are not reasonably expected to cause a violation of an AQL. The demonstration may propose a revised AL or monitoring frequency for approval in writing by the Groundwater Section.
4. Within 30 days after confirmation of an AL exceedance, the permittee shall submit the laboratory results to the Water Quality Compliance Section along with a summary of the findings of the investigation, the cause of the exceedance, and actions taken to resolve the problem.
5. Upon review of the submitted report, the Department may amend the permit to require additional monitoring, increased frequency of monitoring, amendments to permit conditions or other actions.
6. The increased monitoring required as a result of an AL exceedance may be reduced to

the monitoring frequency in Section 4.2, Table II if the results of four sequential sampling events demonstrate that no parameters exceed the AL.

7. If the increased monitoring required as a result of an AL exceedance continues for more than six sequential sampling events, the permittee shall submit a second report documenting an investigation of the continued AL exceedance within 30 days of the receipt of laboratory results of the sixth sampling event.

**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.

**2.6.2.3.4 Alert Level for Groundwater Level**

Not required at time of issuance.

**2.6.3 Discharge Limitations Violations**

1. If a DL set in Section 4.2, Tables IA-1, IA-2, or IA-3 has been violated, 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 violation;
  - b. Review of recent process logs, reports, and other operational control information to identify any unusual occurrences;
  - c. If the investigation procedures indicated in (a) and (b) above fail to reveal the cause of the violation, the permittee shall sample individual waste streams composing the wastewater for the parameters in violation, as necessary to identify the cause of the violation.

The permittee 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, notification of downstream or downgradient users who may be directly affected by the discharge, 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, amendments to permit conditions, or other actions.

**2.6.4 Aquifer Quality Limit Violation**

1. If an AQL set in Section 4.2, Table II has been exceeded, the permittee may conduct verification sampling within five days of becoming aware of the exceedance. The permittee may use results of another sample taken between the date of the last sampling event and the date of receiving the result as verification.
2. If the verification sample does not confirm an AQL violation, no further action is needed under this Section.
3. If verification sampling confirms that the AQL is violated for any parameter or if the permittee opts not to perform verification sampling, then, the permittee shall increase the frequency of monitoring as follows:

Specified Monitoring Frequency (Section 4.2, Table II)	Monitoring Frequency for AQL Exceedance
Daily	Daily
Weekly	Daily
Monthly	Weekly
Quarterly	Monthly
Semi-annually	Quarterly
Annually	Quarterly

In addition, the permittee shall immediately initiate an evaluation for the cause of the violation, including inspection of all discharging units and all related pollution control devices, and review of any operational and maintenance practices that might have resulted in unexpected discharge.

The permittee also shall submit a report according to Section 2.7.3, which includes a summary of the findings of the investigation, the cause of the violation, and actions taken to resolve the problem. A verified exceedance of an AQL will be considered a violation unless the permittee demonstrates within 30 days that the exceedance was not caused or contributed to by pollutants discharged from the facility. Unless the permittee has demonstrated that the exceedance was not caused or contributed to by pollutants discharged from the facility, the permittee shall consider and ADEQ may require corrective action that may include control of the source of discharge, cleanup of affected soil, surface water or groundwater, notification of downstream or downgradient users who may be directly affected by the violation, 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 amend the permit to require additional monitoring, increased frequency of monitoring, amendments to permit conditions or other actions.

#### **2.6.5 Emergency Response and Contingency Requirements for Unauthorized Discharges pursuant to A.R.S. §49-201(12) and pursuant to A.R.S. § 49-241 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 and actions identified in the approved contingency plan referenced in Section 5.0 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 SMRFs provided by ADEQ including contact information for the person completing the Form. Submit the completed Form 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 following tables contained in Section 4.0 list the parameters to be monitored and the frequency for reporting results on the SMRFs.
  - Table IA-1 - Routine Discharge Monitoring- 2.46 mgd- Existing facility
  - Table IA-2 - Routine Discharge Monitoring- 1.25 mgd- Interim Facility
  - Table IA-3 - Routine Discharge Monitoring- 2.5 mgd- new Biolac Facility
  - Table II, Groundwater Monitoring
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
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 Inspections and Compliance Unit 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 record the information as required in Table III in the facility log book as per Section 2.7.2, and report to ADEQ any violations or exceedances as per Section 2.7.3.

The permittee shall submit the reclaimed water monitoring results and flow volumes to any of the following in accordance with A.A.C. R18-9-703(C)(2)(c):

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

#### **2.7.5 Reporting Location**

All SMRFs shall be submitted to:

Arizona Department of Environmental Quality  
 Water Quality Compliance 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 Inspections and Compliance Unit  
 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:

<b>Monitoring conducted during quarter:</b>	<b>Quarterly Report due by:</b>
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:

<b>Monitoring conducted:</b>	<b>Report due by:</b>
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 wastewater 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 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).

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

#### **2.9.2 Closure Completion**

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

shall follow the terms of post-closure stated in this permit:

1. Clean-closure cannot be achieved at the time of closure notification or within one year thereafter under a diligent schedule of closure actions;
2. Further action is necessary to keep the facility in compliance with 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 each compliance schedule item listed below, the permittee shall submit the required information, including a cover letter that lists the compliance schedule items, to the Water Permits Section. A copy of the cover letter must also be submitted to the Water Quality Compliance Section.

No.	Description	Due by:	Permit Amendment Required?
3.1	The permittee shall submit a signed, dated and sealed Engineer's Certificate of completion for the upgraded headworks.	Within 90 days of completion of the upgraded facility and prior to discharging under this permit.	No
3.2	To receive the SMRFs (Table IA-2) to monitor the 1.25 mgd interim facility; the permittee shall notify the Water Quality Compliance Section, Data Unit.	Within 15 days of commencement of operation.	No
3.3	The permittee shall submit a signed, dated and sealed Engineer's Certificate of completion and the for the new Biolac treatment plant (new headworks, influent pump station, Biolac basins, clarifiers, chlorination, sludge dewatering unit).	Prior to discharging under this permit and within 90 days of completion of construction.	No
3.4	To receive the SMRFs (Table IA-3) to monitor the 2.5 new Biolac treatment plant; the permittee shall notify the Water Quality Compliance Section, Data Unit.	Within 15 days of commencement of operation.	No

**4.0 TABLES OF MONITORING REQUIREMENTS**

**4.1 PRE-OPERATIONAL MONITORING (or CONSTRUCTION REQUIREMENTS)**

Table I Not applicable

**4.2 COMPLIANCE (or OPERATIONAL) MONITORING**

Table IA-1 - Routine Discharge Monitoring- 2.46 mgd- Existing facility

Table IA-2 - Routine Discharge Monitoring- 1.25 mgd- Interim Facility

Table IA-3 - Routine Discharge Monitoring- 2.5 mgd- new Biolac Facility

Table II- Groundwater Water Monitoring

Table III- Facility Inspection (Operational Monitoring)

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**4.0 TABLES OF MONITORING REQUIREMENTS****4.2 COMPLIANCE (or OPERATIONAL) MONITORING**

**TABLE IA-1<sup>2</sup>**  
**ROUTINE DISCHARGE MONITORING – 2.46 mgd Existing Facility**

Sampling Point Number	Sampling Point Identification			Latitude	Longitude
1	Flow meter located at the effluent pump station			34° 15' 46" N	110° 02' 02" W
Parameter	AL <sup>3</sup>	DL <sup>4</sup>	Units	Sampling Frequency	Reporting Frequency
Total Flow <sup>5</sup> : Daily <sup>6</sup>	Not Established <sup>7</sup>	Not Established	mgd <sup>8</sup>	Daily	Quarterly
Total Flow: Monthly Average <sup>9</sup>	2.34	2.46	mgd	Monthly Calculation	Quarterly
Sampling Point Number	Sampling Point Identification			Latitude	Longitude
2	The inlet to the Polishing Wetland			34° 17' 32" N	110° 02' 07" W
Fecal Coliform: Single sample maximum	Not Established	800	CFU <sup>10</sup>	Daily	Quarterly
Fecal Coliform: four (4) of seven (7) samples in a week <sup>11</sup>	Not Established	200	CFU	Monthly Calculation	Quarterly
Total Nitrogen <sup>12</sup> : Five-sample rolling geometric mean	Reserved <sup>13</sup>	Reserved	mg/l <sup>14</sup>	Monthly <sup>15</sup>	Quarterly

**4.0 TABLES OF MONITORING REQUIREMENTS****4.2 COMPLIANCE (or OPERATIONAL) MONITORING**

<sup>2</sup>The permittee shall monitor under this table (Table IA-1) until commencement of operating the 1.25 Interim facility under Table IA-2. The permittee shall notify the Water Quality Compliance Section, Data Unit, of the change in monitoring as per Section 3.2, Compliance Schedule.

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

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

<sup>5</sup>Total flow is the total flows to AZPDES

<sup>6</sup>Flow shall be measured using a continuous recording flow meter which totals the flow daily.

<sup>7</sup>Not Established = Monitoring is required but no limits are specified.

<sup>8</sup>mgd = million gallons per day

<sup>9</sup>Monthly average of daily flow values.

<sup>10</sup>CFU = Colony Forming Unit. For CFU, a value of <1 shall be considered to be absence.

<sup>11</sup>To determine the appropriate start date begin with the last date in the reporting period on the SMRF and count seven (7) days backwards.

<sup>12</sup>Total Nitrogen = Nitrate as N + Nitrite as N + Total Kjeldahl Nitrogen

<sup>13</sup>Monitoring required, but no limits have been established at the time of permit issuance.

<sup>14</sup>mg/l = milligrams per liter

<sup>15</sup>A five-month geometric mean of the results of the five (5) most recent samples

**TABLE IA-1**  
**ROUTINE DISCHARGE MONITORING - continued**

Sampling Point Number	Sampling Point Identification			Latitude	Longitude
2	The inlet to the Polishing Wetland			34° 17' 32" N	110° 02' 02" W
Parameter	AL	DL	Units	Sampling Frequency	Reporting Frequency
<b>Metals (total):</b>					
Antimony	0.0048	0.006	mg/l	Quarterly	Quarterly
Arsenic	0.04	0.05	mg/l	Quarterly	Quarterly
Barium	1.60	2.00	mg/l	Quarterly	Quarterly
Beryllium	0.0032	0.004	mg/l	Quarterly	Quarterly
Cadmium	0.004	0.005	mg/l	Quarterly	Quarterly
Chromium	0.08	0.1	mg/l	Quarterly	Quarterly
Cyanide (as free cyanide)	0.16	0.2	mg/l	Quarterly	Quarterly
Fluoride	3.2	4.0	mg/l	Quarterly	Quarterly
Lead	0.04	0.05	mg/l	Quarterly	Quarterly
Mercury	0.0016	0.002	mg/l	Quarterly	Quarterly
Nickel	0.08	0.1	mg/l	Quarterly	Quarterly
Selenium	0.04	0.05	mg/l	Quarterly	Quarterly
Thallium	0.0016	0.002	mg/l	Quarterly	Quarterly

## 4.0 TABLES OF MONITORING REQUIREMENTS

## 4.2 COMPLIANCE (or OPERATIONAL) MONITORING

**TABLE IA-1**  
**ROUTINE DISCHARGE MONITORING - continued**

Parameter	AL	DL	Units	Sampling Frequency	Reporting Frequency
<b>Volatile and Semi-Volatile Organic Compounds (VOCs and SVOCs):</b>					
Benzene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Carbon tetrachloride	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
o-Dichlorobenzene	0.48	0.6	mg/l	Semi-Annually	Semi-Annually
para-Dichlorobenzene	0.06	0.075	mg/l	Semi-Annually	Semi-Annually
1,2-Dichloroethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
1,1-Dichloroethylene	0.0056	0.007	mg/l	Semi-Annually	Semi-Annually
cis-1,2-Dichloroethylene	0.056	0.07	mg/l	Semi-Annually	Semi-Annually
trans-1,2-Dichloroethylene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Dichloromethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
1,2-Dichloropropane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Ethylbenzene	0.56	0.7	mg/l	Semi-Annually	Semi-Annually
Hexachlorobenzene	0.0008	0.001	mg/l	Semi-Annually	Semi-Annually
Hexachlorocyclopentadiene	0.04	0.05	mg/l	Semi-Annually	Semi-Annually
Monochlorobenzene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Styrene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Tetrachloroethylene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Toluene	0.8	1.0	mg/l	Semi-Annually	Semi-Annually
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****4.2 COMPLIANCE (or OPERATIONAL) MONITORING**

**TABLE IA-2<sup>16</sup>**  
**ROUTINE DISCHARGE MONITORING – 1.25 mgd Interim Facility**

Sampling Point Number	Sampling Point Identification			Latitude	Longitude
1	Flow meter located at the effluent pump station			34° 15' 46" N	110° 02' 02" W
Parameter	AL <sup>17</sup>	DL <sup>18</sup>	Units	Sampling Frequency	Reporting Frequency
Total Flow <sup>19</sup> : Daily <sup>20</sup>	Not Established <sup>21</sup>	Not Established	mgd <sup>22</sup>	Daily	Quarterly
Total Flow: Monthly Average <sup>23</sup>	1.19	1.25	mgd	Monthly Calculation	Quarterly
Sampling Point Number	Sampling Point Identification			Latitude	Longitude
2	The inlet to the Polishing Wetland			34° 17' 32" N	110° 02' 07" W
Fecal Coliform: Single sample maximum	Not Established	800	CFU <sup>24</sup>	Daily	Quarterly
Fecal Coliform: four (4) of seven (7) samples in a week <sup>25</sup>	Not Established	200	CFU	Weekly Calculation	Quarterly
Total Nitrogen <sup>26</sup> : Five-sample rolling geometric mean	Reserved <sup>27</sup>	Reserved	mg/l <sup>28</sup>	Monthly <sup>29</sup>	Quarterly

**4.0 TABLES OF MONITORING REQUIREMENTS****4.2 COMPLIANCE (or OPERATIONAL) MONITORING**

<sup>16</sup>The permittee shall begin monitor under this table (Table IA-2) upon commencement of operating the 1.25 Interim facility.

The permittee shall notify the Water Quality Compliance Section, Data Unit, of the change in monitoring as per Section 3.2, Compliance Schedule. Monitoring under Table IA-1 is no longer required upon commencement of monitoring under Table IA-2.

<sup>17</sup>AL = Alert Level

<sup>18</sup>DL = Discharge Limit

<sup>19</sup>Total flow is the total of flows to AZPDES

<sup>20</sup>Flow shall be measured using a continuous recording flow meter which totals the flow daily.

<sup>21</sup> Not Established = Monitoring is required but no limits are specified.

<sup>22</sup>mgd = million gallons per day

<sup>23</sup>Monthly average of daily flow values.

<sup>24</sup>CFU = Colony Forming Unit. For CFU, a value of <1 shall be considered to be absence.

<sup>25</sup>To determine the appropriate start date begin with the last date in the reporting period on the SMRF and count seven (7) days backwards.

<sup>26</sup>Total Nitrogen = Nitrate as N + Nitrite as N + Total Kjeldahl Nitrogen

<sup>27</sup>Monitoring required, but no limits have been established at the time of permit issuance.

<sup>28</sup>mg/l = milligrams per liter

<sup>29</sup>A five-month geometric mean of the results of the five (5) most recent samples

**TABLE IA-2**  
**ROUTINE DISCHARGE MONITORING – continued**

Sampling Point Number	Sampling Point Identification			Latitude	Longitude
2	The inlet to the Polishing Wetland			34° 17' 32" N	110° 02' 02" W
Parameter	AL	DL	Units	Sampling Frequency	Reporting Frequency
<b>Metals (total):</b>					
Antimony	0.0048	0.006	mg/l	Quarterly	Quarterly
Arsenic	0.04	0.05	mg/l	Quarterly	Quarterly
Barium	1.60	2.00	mg/l	Quarterly	Quarterly
Beryllium	0.0032	0.004	mg/l	Quarterly	Quarterly
Cadmium	0.004	0.005	mg/l	Quarterly	Quarterly
Chromium	0.08	0.1	mg/l	Quarterly	Quarterly
Cyanide (as free cyanide)	0.16	0.2	mg/l	Quarterly	Quarterly
Fluoride	3.2	4.0	mg/l	Quarterly	Quarterly
Lead	0.04	0.05	mg/l	Quarterly	Quarterly
Mercury	0.0016	0.002	mg/l	Quarterly	Quarterly
Nickel	0.08	0.1	mg/l	Quarterly	Quarterly
Selenium	0.04	0.05	mg/l	Quarterly	Quarterly
Thallium	0.0016	0.002	mg/l	Quarterly	Quarterly

## 4.0 TABLES OF MONITORING REQUIREMENTS

## 4.2 COMPLIANCE (or OPERATIONAL) MONITORING

**TABLE IA-2**  
**ROUTINE DISCHARGE MONITORING - continued**

Parameter	AL	DL	Units	Sampling Frequency	Reporting Frequency
<b>Volatile and Semi-Volatile Organic Compounds (VOCs and SVOCs):</b>					
Benzene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Carbon tetrachloride	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
o-Dichlorobenzene	0.48	0.6	mg/l	Semi-Annually	Semi-Annually
para-Dichlorobenzene	0.06	0.075	mg/l	Semi-Annually	Semi-Annually
1,2-Dichloroethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
1,1-Dichloroethylene	0.0056	0.007	mg/l	Semi-Annually	Semi-Annually
cis-1,2-Dichloroethylene	0.056	0.07	mg/l	Semi-Annually	Semi-Annually
trans-1,2-Dichloroethylene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Dichloromethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
1,2-Dichloropropane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Ethylbenzene	0.56	0.7	mg/l	Semi-Annually	Semi-Annually
Hexachlorobenzene	0.0008	0.001	mg/l	Semi-Annually	Semi-Annually
Hexachlorocyclopentadiene	0.04	0.05	mg/l	Semi-Annually	Semi-Annually
Monochlorobenzene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Styrene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Tetrachloroethylene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Toluene	0.8	1.0	mg/l	Semi-Annually	Semi-Annually
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

## 4.2 COMPLIANCE (or OPERATIONAL) MONITORING

**TABLE IA-3<sup>30</sup>**  
**ROUTINE DISCHARGE MONITORING – 2.5 mgd new Biolac Facility**

Sampling Point Number	Sampling Point Identification			Latitude	Longitude
1	Flow meter located at the effluent pump station			34° 15' 46" N	110° 02' 02" W
Parameter	AL <sup>31</sup>	DL <sup>32</sup>	Units	Sampling Frequency	Reporting Frequency
Total Flow <sup>33</sup> : Daily <sup>34</sup>	Not Established <sup>35</sup>	Not Established	mgd <sup>36</sup>	Daily	Quarterly
Total Flow: Monthly Average <sup>37</sup>	2.4	2.5	mgd	Monthly Calculation	Quarterly
Sampling Point Number	Sampling Point Identification			Latitude	Longitude
2	The inlet to the Polishing Wetland			34° 17' 32" N	110° 02' 07" W
Fecal Coliform: Single sample maximum	Not Established	23.0	CFU <sup>38</sup>	Daily	Quarterly
Fecal Coliform: four (4) of seven (7) samples in a week <sup>39</sup>	Not Established	Absence	CFU	Weekly Calculation	Quarterly
Total Nitrogen <sup>40</sup> : Five-sample rolling geometric mean	8.0	10.0	mg/l <sup>41</sup>	Monthly <sup>42</sup>	Quarterly

<sup>30</sup> The permittee shall begin monitor under this table (Table IA-3) upon commencement of operating the 2.5 new Biolac facility. The permittee shall notify the Water Quality Compliance Section, Data Unit, of the change in monitoring as per Section 3.4, Compliance Schedule. Monitoring under Table IA-2 is no longer required upon commencement of monitoring under Table IA-3.

<sup>31</sup> AL = Alert Level

<sup>32</sup> DL = Discharge Limit

<sup>33</sup> Total flow is the total of flows to AZPDES

<sup>34</sup> Flow shall be measured using a continuous recording flow meter which totals the flow daily.

<sup>35</sup> Not Established = Monitoring is required but no limits are specified.

<sup>36</sup> mgd = million gallons per day

<sup>37</sup> Monthly average of daily flow values.

<sup>38</sup> CFU = Colony Forming Unit. For CFU, a value of <1 shall be considered to be absence.

<sup>39</sup> To determine the appropriate start date begin with the last date in the reporting period on the SMRF and count seven (7) days backwards. If a minimum of four (4) samples in a seven (7) day period are non-detect (for CFU, a value of <1 is considered to be non-detect), report "yes" in the appropriate date on the SMRF (indicating that the standard has been met). 'Yes' or 'No' should be entered for every day in the reporting period.

<sup>40</sup> Total Nitrogen = Nitrate as N + Nitrite as N + Total Kjeldahl Nitrogen

<sup>41</sup> mg/l = milligrams per liter

<sup>42</sup> A five-month geometric mean of the results of the five (5) most recent samples

## 4.0 TABLES OF MONITORING REQUIREMENTS

## 4.2 COMPLIANCE (or OPERATIONAL) MONITORING

**TABLE IA-3**  
**ROUTINE DISCHARGE MONITORING – continued**

Sampling Point Number	Sampling Point Identification			Latitude	Longitude
2	The inlet to the Polishing Wetland			34° 17' 32" N	110° 02' 07" W
Parameter	AL	DL	Units	Sampling Frequency	Reporting Frequency
<b>Metals (total):</b>					
Antimony	0.0048	0.006	mg/l	Quarterly	Quarterly
Arsenic	0.04	0.05	mg/l	Quarterly	Quarterly
Barium	1.60	2.00	mg/l	Quarterly	Quarterly
Beryllium	0.0032	0.004	mg/l	Quarterly	Quarterly
Cadmium	0.004	0.005	mg/l	Quarterly	Quarterly
Chromium	0.08	0.1	mg/l	Quarterly	Quarterly
Cyanide (as free cyanide)	0.16	0.2	mg/l	Quarterly	Quarterly
Fluoride	3.2	4.0	mg/l	Quarterly	Quarterly
Lead	0.04	0.05	mg/l	Quarterly	Quarterly
Mercury	0.0016	0.002	mg/l	Quarterly	Quarterly
Nickel	0.08	0.1	mg/l	Quarterly	Quarterly
Selenium	0.04	0.05	mg/l	Quarterly	Quarterly
Thallium	0.0016	0.002	mg/l	Quarterly	Quarterly

## 4.0 TABLES OF MONITORING REQUIREMENTS

## 4.2 COMPLIANCE (or OPERATIONAL) MONITORING

**TABLE IA-3**  
**ROUTINE DISCHARGE MONITORING - continued**

<b>Parameter</b>	<b>AL</b>	<b>DL</b>	<b>Units</b>	<b>Sampling Frequency</b>	<b>Reporting Frequency</b>
<b>Volatile and Semi-Volatile Organic Compounds (VOCs and SVOCs):</b>					
Benzene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Carbon tetrachloride	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
o-Dichlorobenzene	0.48	0.6	mg/l	Semi-Annually	Semi-Annually
para-Dichlorobenzene	0.06	0.075	mg/l	Semi-Annually	Semi-Annually
1,2-Dichloroethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
1,1-Dichloroethylene	0.0056	0.007	mg/l	Semi-Annually	Semi-Annually
cis-1,2-Dichloroethylene	0.056	0.07	mg/l	Semi-Annually	Semi-Annually
trans-1,2-Dichloroethylene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Dichloromethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
1,2-Dichloropropane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Ethylbenzene	0.56	0.7	mg/l	Semi-Annually	Semi-Annually
Hexachlorobenzene	0.0008	0.001	mg/l	Semi-Annually	Semi-Annually
Hexachlorocyclopentadiene	0.04	0.05	mg/l	Semi-Annually	Semi-Annually
Monochlorobenzene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Styrene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Tetrachloroethylene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Toluene	0.8	1.0	mg/l	Semi-Annually	Semi-Annually
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

##### 4.2 COMPLIANCE (or OPERATIONAL) MONITORING

**TABLE II**  
**GROUNDWATER MONITORING**

Sampling Point Number	Sampling Point Identification			Latitude	Longitude
3	Located southern edge of the Polishing Pond			34°17' 17" N	110° 02' 04" W
4	Located northwest of South Marsh.			34°18' 02" N	110° 01' 35" W
5	Located northeast of the WWTP			34° 15' 48" N	110° 01' 59" W
Parameter	AL	AQL <sup>43</sup>	Units	Sampling Frequency	Reporting Frequency
Total Nitrogen <sup>44</sup> :	8.0	10.0	mg/l	Monthly	Quarterly
Nitrate-Nitrite as N	8.0	10.0	mg/l	Monthly	Quarterly
Total Kjeldahl Nitrogen (TKN)	Not Established <sup>45</sup>	Not Established	mg/l	Monthly	Quarterly
Fecal Coliform	Not Established	Absence <sup>46</sup>	P/A <sup>47</sup>	Monthly	Quarterly

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<sup>43</sup> AQL = Aquifer Quality Limit

<sup>44</sup> Total Nitrogen is equal to nitrate as N plus nitrite as N plus TKN.

<sup>45</sup> Not established = Monitoring required but no limits have been specified at time of permit issuance.

<sup>46</sup> Absence means a value of <1 shall be considered to be absence.

<sup>47</sup> P/A = Presence or absence of Fecal Coliform in a 100-milliliter sample.

## 4.0 TABLES OF MONITORING REQUIREMENTS

## 4.2 TABLES OF COMPLIANCE MONITORING

**TABLE II**  
**GROUNDWATER MONITORING (continued)**

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

## 4.0 TABLES OF MONITORING REQUIREMENTS

## 4.2 TABLES OF COMPLIANCE MONITORING

**TABLE II**  
**GROUNDWATER MONITORING (continued)**

Parameter	AL	DL	Units	Sampling Frequency	Reporting Frequency
<b>Volatile Organic Compounds (VOCs):</b>					
Benzene	0.004	0.005	mg/l	Annually	Annually
Carbon tetrachloride	0.004	0.005	mg/l	Annually	Annually
o-Dichlorobenzene	0.48	0.6	mg/l	Annually	Annually
para-Dichlorobenzene	0.06	0.075	mg/l	Annually	Annually
1,2-Dichloroethane	0.004	0.005	mg/l	Annually	Annually
1,1-Dichloroethylene	0.0056	0.007	mg/l	Annually	Annually
cis-1,2-Dichloroethylene	0.05	0.07	mg/l	Annually	Annually
trans-1,2-Dichloroethylene	0.08	0.1	mg/l	Annually	Annually
Dichloromethane	0.004	0.005	mg/l	Annually	Annually
1,2-Dichloropropane	0.004	0.005	mg/l	Annually	Annually
Ethylbenzene	0.56	0.7	mg/l	Annually	Annually
Hexachlorobenzene	0.0008	0.001	mg/l	Annually	Annually
Hexachlorocyclopentadiene	0.04	0.05	mg/l	Annually	Annually
Monochlorobenzene	0.08	0.1	mg/l	Annually	Annually
Styrene	0.08	0.1	mg/l	Annually	Annually
Tetrachloroethylene	0.004	0.005	mg/l	Annually	Annually
Toluene	0.8	1.0	mg/l	Annually	Annually
Trihalomethanes (total) <sup>48</sup>	0.08	0.1	mg/l	Annually	Annually
1,1,1-Trichloroethane	0.16	0.2	mg/l	Annually	Annually
1,2,4 - Trichlorobenzene	0.056	0.07	mg/l	Annually	Annually
1,1,2 - Trichloroethane	0.004	0.005	mg/l	Annually	Annually
Trichloroethylene	0.004	0.005	mg/l	Annually	Annually
Vinyl Chloride	0.0016	0.002	mg/l	Annually	Annually
Xylenes (Total)	8.0	10.0	mg/l	Annually	Annually

## 4.0 TABLES OF MONITORING REQUIREMENTS

<sup>48</sup>Total Trihalomethanes are comprised of Bromoform, Bromodichloromethane, Chloroform, and Dibromochloromethane.

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

TABLE III  
FACILITY INSPECTION (Operational Monitoring) - Log Book

<b>Pollution Control Structures/Parameter</b>	<b>Performance Levels</b>	<b>Inspection Frequency</b>	<b>Reporting Frequency</b>
Pump Integrity	Good working condition	Weekly	Quarterly
Treatment Plant Components	Good working condition	Weekly	Quarterly
Biologic Basin Liner Integrity	No cracks or leaks that would exceed a leakage rate of 550 gpd/acre	Weekly	Quarterly

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**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 27, 2014
2. Final Engineering Report, dated: March 11, 2015
3. Final Hydrologist Report, dated: December 4, 2015 (Revised)
4. Public Notice, dated:
5. Public Hearing, dated: Not applicable.
6. Responsiveness Summary, dated: Not applicable.

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**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).