

**STATE OF ARIZONA
AQUIFER PROTECTION PERMIT NO. P-100381
PLACE ID 873, LTF 65263
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, Frito-Lay, Inc. is hereby authorized to operate the industrial wastewater treatment system (IWTS) facility located west of the city limits of Casa Grande, Pinal County, Arizona, over groundwater of the Pinal Active Management Area (AMA) in Township 6S, Range 5E, Section 14 of the Gila and Salt River Base Line and Meridian.

This amendment replaces the original permit and all previous amendments listed in Section 5.0 and 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: Frito-Lay, Inc. - Casa Grande Facility

Permittee: Frito-Lay, Inc.

Mailing Address: 1450 West Maricopa Highway
Casa Grande, Arizona 85122

Facility Street Address: 1450 West Maricopa Highway
Casa Grande, Arizona 85122

Facility Contact: Bryan Jacewicz, Technical Director (520) 316-7513

Emergency Telephone Number: (520) 206-3160

Latitude: 32° 54' 20" North **Longitude:** 111° 47' 40" West

Legal Description: Township 6S, Range 5E, Section 14 of the Gila and Salt River Baseline and Meridian

1.2 AUTHORIZING SIGNATURE

**Trevor Baggio, Director, Water Quality Division
Arizona Department of Environmental Quality**

Signed this _____ day of _____, 2017

THIS AMENDMENT SUPERSEDES ALL PREVIOUS AMENDMENTS

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)]

Frito-Lay, Inc. (Frito-Lay) owns and operates a snack food manufacturing facility in Casa Grande, Arizona. The facility has been in operation since 1984 and manufactures potato chips and corn chips. Frito-Lay uses ingredients that include proprietary potatoes patented by Frito-Lay, whole kernel corn and wheat in selected products. Frito-Lay operates a newly constructed industrial wastewater treatment system (IWTS) at the facility to treat process wastewater. The IWTS consists of primary clarification, nitrification and denitrification systems, and activated sludge treatment utilizing a membrane bioreactor (MBR), and may receive further treatment by a low-pressure reverse osmosis (LPRO) membrane process. Process wastewater treated by the new IWTS is of high quality and is ideally recycled back into the manufacturing facility. Recycling of the high quality effluent from the new IWTS will enable Frito-Lay to reduce water demand by 80 percent. The APP provides Frito-Lay with ultimate flexibility to discharge MBR and/or LPRO effluent to the North Branch of the Santa Cruz Wash (NBSCW) during times when the treated water cannot be recycled back into the manufacturing facility. Treated water from the MBR and the MBR in combination with the LPRO shall meet the AWQS prior to discharge to the permitted Arizona Pollutant Discharge Elimination System (AZPDES) Outfall 001.

Process wastewater treated at the IWTS includes water used to clean the potatoes, cook and clean the corn, discharge from starch recovery operations, oily wastewater, and battery neutralization tank overflow. Wastewater generated at the facility consists of 10,000 gallons per day (gpd) of domestic wastewater and 590,000 gpd of industrial wastewater. Sanitary wastewater, LPRO reject, and all other emergency discharges shall be discharged to the City of Casa Grande Publicly Owned Treatment Works (POTW) facility. Laboratory wastewater shall be disposed of off-site at a licensed facility.

Prior to operation of the ITWS, Frito-Lay discharged process and sanitary wastewater to the Land Disposal Area (LDA). The LDA consists of 95 acres of irrigated cropland. The entire LDA is bermed to contain a 10-year, 24-hour storm event. Waste activated sludge generated by the MBR shall not be disposed of by discharge to the LDA.

The site includes the following permitted discharging facilities:

Facility	Latitude	Longitude
Land Disposal Area (LDA)	32° 54' 13" North	111° 47' 43" West
AZPDES Outfall (AZ0025798)	32° 54' 11.68" North	111° 47' 30.36" West
Package Plant	32° 54' 09" North	111° 47' 32" West

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

The annual registration fee for this permit is payable to ADEQ each year. The permitted flow for fee calculation is 692,000 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. The permittee shall maintain financial capability throughout the life of the facility. The estimated closure and post-closure cost is \$520,100. The financial assurance mechanism was demonstrated through a Letter of

Credit per A.A.C. R18-9-A203(B) and (C)(5).

2.2 Best Available Demonstrated Control Technology

[A.R.S. § 49-243(B) and A.A.C. R18-9-A202(A)(5)]

The IWTS has been designed to meet AWQS prior to discharge to the AZPDES permitted outfall Permit No. AZ0025798. Sanitary wastewater, LPRO reject, and all other emergency discharges shall be discharged to the City of Casa Grande POTW. Laboratory wastewater shall be disposed of off-site at a licensed facility. The wastewater management systems and operational methods are included as part of the BADCT design. All quality assurance and control procedures applicable to construction and operation of the treatment components, as approved by the ADEQ, shall be followed.

2.2.1 Engineering Design

Process wastewater generated by the plant shall be treated by the IWTS that will consist of a primary clarifier, denitrification system, and MBR, and may receive further treatment by LPRO. The process wastewater treated at the IWTS shall only include water used to clean the potatoes, clean and cook the corn, discharge from starch recovery operations, oily wastewater, and battery neutralization tank overflow. Treated water from the MBR and the MBR in combination with the LPRO shall meet AWQS prior to discharge to the NBSCW. The maximum allowable discharge volume to the NBSCW under the AZPDES permit shall not exceed 692,187 gpd.

2.2.2 Site-specific Characteristics

Not applicable

2.2.3 Pre-operational Requirements

Not applicable

2.2.4 Operational Requirements

2.2.4.1 General Operational Requirements

The permittee shall maintain a copy of the up-to-date Operation and Maintenance (O & M) Manual at the IWTS site at all times and shall be available upon request during inspections by ADEQ personnel. The permittee shall comply with all operational and monitoring requirements described in Section 4.2, Table 3. If damage is identified during an inspection that could cause or contribute to a discharge, proper repairs shall be promptly performed.

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 IWTS with a maximum average monthly flow of 0.692 million gallons per day (mgd). The permittee shall operate and maintain all permitted facilities to prevent unauthorized discharges pursuant to A.R.S. § 49-201(12) resulting from failure or bypassing of BADCT pollutant control technologies. Specific discharge limitations are listed in Section 4.2, Table1 for the AZPDES outfall.

2.4 Points of Compliance [A.R.S. § 49-244]

The POCs are established by the following monitoring locations.

POC Locations	Latitude	Longitude	ADWR 55-	Screened Interval (ft bgs)
MW-1b (Contingency well paired with MW-1c)	32° 54' 25.59" N	111° 48' 17.57" W	209086	18-38
MW-1c (Contingency well paired with MW-1b)	32° 54' 25.59" N	111° 48' 17.57" W	916399	30-50

MW-2 (Paired with MW-2b) AZPDES Discharge to the North Bank of the Santa Cruz Wash	32° 54' 30.79" N	111° 48' 15.9" W	912009	19-39
MW-2b (Paired with MW-2) AZPDES Discharge to the North Bank of the Santa Cruz Wash	32° 54' 30.79" N	111° 48' 15.9" W	916397	30-59
MW-7 (Near former LDA Pivot 3)	32° 54' 08.00759" N	111° 47' 48.89381" W	912146	31-51
Monitoring Well at the edge of the PMA for the NBSCW (Location only, no well)	32° 55' 55.55" N	111° 52' 57.14" W	N/A	N/A

Monitoring requirements for the POCs are listed in Section 4.2, Tables 2B and 2C. The Director may amend this permit to designate additional POCs, if information on groundwater gradients or groundwater usage indicates the need.

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

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 Routine Discharge Monitoring

Routine discharge quality monitoring and daily flow monitoring shall be performed for the discharge from the MBR to the AZPDES outfall. Daily flow monitoring and discharge quality shall be monitored for the operational life of the facility. The permittee shall collect representative samples from the AZPDES outfall according to Section 4.2, Table 1.

Identification	Latitude	Longitude
AZPDES Outfall 001	32° 54' 11.68" North	111° 47' 30.36" West

2.5.2 Facility / Operational Monitoring

The permittee shall monitor the structures listed in Section 4.2, Table 3. A log of these inspections shall be kept at the facility for 10 years from the date of each inspection, available for review by ADEQ personnel upon request or site inspection.

2.5.3 Groundwater Monitoring and Sampling Protocols

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

Groundwater monitoring shall be conducted at onsite monitor wells. For quarterly groundwater

monitoring, the permittee shall analyze groundwater samples for parameters listed in Section 4.2, Tables 2A, 2D, 2E, 2F and 2G.

2.5.3.1 Compliance Groundwater Quality Monitoring for POC Wells

Groundwater monitoring shall be conducted at the POC wells, which are identified in Section 2.4. For quarterly compliance monitoring, the permittee shall analyze groundwater samples for the parameters listed in Section 4.2, Table 2B and 2C.

2.5.3.2 POC Well Replacement

In the event that one or more of the designated POC wells should become unusable or inaccessible due to damage, exceedance of alert level (AL) for water level as required by Section 2.6.2.3.4, or any other event, a replacement POC well shall be constructed and installed upon approval by ADEQ. If the replacement well is 50 feet or less from the original well, the ALs and/or aquifer quality limits (AQLs) calculated for the designated POC well shall apply to the replacement well.

2.5.3.3 Ambient Groundwater Quality Monitoring for Point of Compliance Wells

A minimum of eight (8) and a maximum of twelve (12) rounds of groundwater sampling are required to establish ambient groundwater quality at the POC well MW-7 listed in Section 2.4. Groundwater samples shall be obtained quarterly. Each ambient sample shall be analyzed for the parameters listed in Section 4.2, Table 2C. Alert levels and aquifer quality limits shall be established as required in Sections 2.5.3.4 and 2.5.3.5.

2.5.3.4 Alert Levels for Point of Compliance Wells

ALs shall be calculated for all contaminants with an established numeric AWQS for POC well MW-7, listed in Section 4.2, Table 2C. For any new or replacement POC wells, ALs shall be calculated for all contaminants with an established numeric AWQS, as described below.

Within 90 days of the receipt of the laboratory analyses for the final month of the ambient groundwater monitoring period for each POC well referenced in Section 4.0, Table 4.1.3 the permittee shall submit the ambient groundwater data in tabulated form to the Groundwater Section for review. Copies of all laboratory analytical reports, field notes, and the Quality Assurance/Quality Control (QA/QC) procedures used in collection and analyses of the samples for all parameters listed in Section 4.2, Table 2C to be established for POC well MW-7, shall be submitted to the Groundwater Section. The permittee may submit a report with the calculations for each AL and AQL included in the permit for review and approval by ADEQ, or the permittee may defer calculation of the ALs and AQLs by the Groundwater Section. The ALs shall be established and calculated by the following formula, or another valid statistical method submitted to Groundwater Section in writing and approved for this permit by the Groundwater Section:

$$AL = M + KS$$

Where M = mean, S = standard deviation, and K = one-sided normal tolerance interval with a 95% confidence level (Lieberman, G.J. (1958) Tables for One-sided Statistical Tolerance Limits: Industrial Quality Control, Vol XIV, No. 10). Obvious outliers should be excluded from the data used in the AL calculation.

The following criteria shall be met in establishing ALs in the permit:

1. The AL shall be calculated for a parameter using the analyses from a minimum of eight samples.
2. Any data where the laboratory Practical Quantitation Limit (PQL) exceeds 80% of the AWQS shall not be included in the AL calculation.
3. If a parameter is below the detection limit, the permittee must report the value as “less than” the numeric value for the PQL or detection limit for the parameter, not just as “non-detect”. For those parameters, the permittee shall use a value of one-half the reported detection limit for the AL calculation.
4. If the analytical results from more than 50% of the samples for a specific parameter are non-detect, then the AL shall be set at 80% of the AWQS.
5. If the calculated AL for a specific constituent and well is less than 80% of the AWQS, the AL shall be set at 80% of the AWQS for that constituent in that well.

2.5.3.5 Aquifer Quality Limits for POC Wells

For each of the monitored analytes for which a numeric AWQS has been adopted, the AQL shall be established as follows:

1. If the calculated AL is less than the AWQS, then the AQL shall be set equal to the AWQS.
2. If the calculated AL is greater than the AWQS, then the AQL shall be set equal to the calculated AL value, and no AL shall be set for that constituent at that monitoring point.

2.5.4 Surface Water Monitoring and Sampling Protocols

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

2.5.5 Analytical Methodology

All samples collected for compliance monitoring shall be analyzed using Arizona state approved methods. If no state approved method exists, then any appropriate EPA approved method shall be used. Regardless of the method used, the detection limits must be sufficient to determine compliance with the regulatory limits of the parameters specified in this permit. Analyses shall be performed by a laboratory licensed by the Arizona Department of Health Services, Office of Laboratory Licensure and Certification, 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 Groundwater Section for approval prior to installation and the permit shall be amended to include any new points.

2.6 Contingency Plan Requirements

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

2.6.1 General Contingency Plan Requirements

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

Any 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.

2.6.1.2 Contingency Plan for POC Wells MW-1b/1c

If groundwater flow direction resumes an east to west direction for four consecutive quarters, the contingency POC wells (MW-1b and MW-1c) shall resume compliance monitoring using Section 4.2, Table 2A. Compliance schedule item No. 7 in Section 3.0 is required in order to initiate SMRF reporting.

2.6.2 Exceeding of Alert Levels

2.6.2.1 Exceeding of Performance Standard Set for Operational Conditions

1. If a performance standard set in Section 4.2, Table 3, has been exceeded the permittee shall take the necessary steps to return to good working condition.
2. The facility is no longer on alert status once the performance standard is no longer being exceeded. The permittee shall, however, complete all tasks necessary to return the facility to its pre-alert operating condition.

2.6.2.2 Exceeding of Alert Levels Set for Discharge Monitoring

1. If an AL set in Section 4.2, Table 1, 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.
2. The permittee shall initiate actions identified in the approved contingency plan and specific contingency measures identified in Section 2.6 to resolve any problems identified by the investigation that 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 after confirmation of an AL being exceeded, the permittee shall submit

the laboratory results to the ADEQ Groundwater 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.

2.6.2.3 Exceeding of Alert Levels in Groundwater Monitoring

2.6.2.3.1 Alert Levels for Indicator Parameters

Not applicable

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 2B or 2C has an exceedance, the permittee may conduct verification sampling within 5 days of receiving the final laboratory report indicating an AL exceedance. The permittee may use the 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, the permittee shall increase the frequency of monitoring to monthly. 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 and specific contingency measures identified in Section 2.6 to resolve any problems identified by the investigation that may have led to an AL being exceeded. To implement any other corrective action the permittee shall obtain prior approval from ADEQ according to Section 2.6.6. Alternatively, the permittee may submit a technical demonstration, subject to written approval by the Groundwater Section, that although an AL is exceeded, pollutants are not reasonably expected to cause a violation of an AQL. The demonstration may propose a revised AL or monitoring frequency for approval in writing by the Groundwater Section.
4. Within 30 days of confirmation of an AL exceedance, the permittee shall submit the laboratory results to the Groundwater Section along with a summary of the findings of the investigation, the cause of the AL 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, or other actions.
6. The increased monitoring required as a result of an AL exceedance may be reduced to the frequency identified in Table 2, 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 applicable

2.6.2.3.4 Alert Level for Groundwater Level

1. If the groundwater level is not within the allowable range established by the Alert Level in Section 4.2, Tables 2A – 2G, the permittee shall submit a written report within 180 days after becoming aware of the exceedance. The report shall document the following:

- a. the as-built configuration of the well including the screened interval;
- b. all groundwater level measurements available for the well;
- c. a discussion and analysis of any trends or seasonal variations in the groundwater level measurements;
- d. information on groundwater recharge, withdrawal or other hydrologic conditions in the vicinity of the well; and
- e. and any other pertinent information obtained by the permittee.

2. If the groundwater level is not within the allowable range established by the Alert Level in Section 4.2, Table IIB for more than six (6) sequential sampling events, the permittee shall submit a second report that evaluates the cause(s) of the exceedance and recommends whether the well should be replaced pursuant to Section 2.5.3.2. The report shall discuss and demonstrate whether samples representative of the water quality of the relevant aquifer can be practicably obtained from the well.

3. Upon review of the submitted report, the Department may amend the permit to require replacement of the well, require additional permit conditions or other actions.

2.6.3 Discharge Limitations Violations

1. If a DL set in Section 4.2, Table 1, 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 wastewater for the parameters in violation.

2. 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 be specifically identified in this permit, included in an ADEQ approved contingency plan, or separately approved according to Section 2.6.6.

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

other actions.

4. The permittee shall notify any downstream or downgradient users who may be directly affected by the discharge.

2.6.4 Aquifer Quality Limit Violation

1. If an AQL set in Section 4.2, Table 2B or 2C has been exceeded, the permittee may conduct verification sampling within 5 days becoming aware of an AQL being exceeded, except for total coliform. The AWQS for microbiological contaminants is based upon the presence or absence of total coliforms in a 100-milliliter sample. If a sample is total coliform-positive, a 100-milliliter repeat sample shall be taken within two weeks of the time the sample results are reported. Any total coliform-positive repeat sample following a total coliform-positive sample constitutes a violation of the aquifer water quality standard for microbiological contaminants. The permittee may use the results of another sample taken between the date of the last sampling event and the date of receiving the result as verification.
2. If verification sampling confirms that the AQL is violated for any parameter or if the permittee opts not to perform verification sampling, then the permittee shall increase the frequency of monitoring to monthly. 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 the 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. A verified exceedance of an AQL will be considered a violation unless the permittee demonstrates within 30 days that the exceedance was not caused or contributed to by pollutants discharged from the facility. Unless the permittee has demonstrated that the exceedance was not caused or contributed to by pollutants discharged from the facility, the permittee shall consider and ADEQ may require corrective action that may include control of the source of discharge, cleanup of affected soil, surface water or groundwater, and mitigation of the impact of pollutants on existing uses of the aquifer. Corrective actions shall be specifically identified in this permit, included in an ADEQ approved contingency plan, or separately approved according to Section 2.6.6.
3. Upon review of the submitted report, the Department may amend the permit to require additional monitoring, increased frequency of monitoring, or other actions.
4. The permittee shall notify any downstream or downgradient users of the aquifer who may be directly affected by the discharge.

2.6.5 Emergency Response and Contingency Requirements for Unauthorized Discharges [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 (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 (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 Groundwater Section within 24-hours upon discovering the discharge of 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.

2.6.5.3 Discharge of Non-hazardous Materials

In the event of any unauthorized discharge (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 Groundwater 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 in Sections 2.6.5.2 and 2.6.5.3 to the ADEQ Groundwater 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 amend the permit to require additional monitoring or corrective actions.

2.6.6 Corrective Actions

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

With the exception of emergency response actions taken under Section 2.6.5, the permittee shall obtain written approval from the Groundwater Section prior to implementing a corrective action to accomplish any of the following goals in response to 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 Groundwater 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. When submitting hard copy, the permittee shall complete the Self-monitoring Report Form (SMRF) provided by ADEQ including contact information for the person completing the Form. Submit the completed Form to the Groundwater Section.
2. The permittee shall complete the SMRF to the extent that the information reported may be entered on the form. If no information is required during a quarter, the permittee shall enter "not required" on the SMRF and submit the report to ADEQ. The permittee shall use the format devised by ADEQ.
3. The tables contained in Section 4.0 list the monitoring parameters and frequencies for reporting

results for compliance monitoring in Section 4.0, Tables 1, 2B and 2C.

4. In addition to the SMRF, the information contained A.A.C. R18-9-A206(B)(1) shall be included for exceeding an alert level (AL) or violation of an Aquifer Quality Limit (AQL), discharge limit (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 10 years from the date of each inspection, and upon request, the permit and the log book shall be made immediately available for review by ADEQ personnel. The information in the log book shall include, but not be limited to, the following information as applicable:

1. Name of inspector;
2. Date and time 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 Groundwater 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 Groundwater 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 that indicates that any pollutants would be reasonably expected to cause a violation of an AWQS;
 - e. Proposed changes to the monitoring that 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

2.7.4.1 Annual Groundwater Report

The permittee shall submit an annual report in narrative and/or tabular form to the ADEQ Groundwater Section that briefly summarizes the status of compliance under this permit. The report shall identify any contingency actions taken, violations of this permit, any alert levels or discharge limitations that have been exceeded, or trends identified in POC wells. The report shall also include analysis of any groundwater flow direction changes that may impact sampling from POC locations as identified in Section 2.6.1.2. Data supplied in the

annual report from wells identified in Section 4.2, Tables 2A – 2G shall include quarterly groundwater contour maps with tables of depth to water and groundwater elevation, tabular and graphical results of nitrate-nitrite for each well, and any other information specifically requested by permit condition to be submitted in the annual report. The annual report is to be submitted by January 30 of each year to cover activities from January 1 through December 31 of the previous year.

2.7.4.2 Ambient Groundwater Monitoring Report

The permittee shall submit an ambient groundwater monitoring report of the data and calculations required in Sections 2.5.3.3, 2.5.3.4, and 2.5.3.5 and compliance schedule item numbers 4 and 5 in Section 3.0.

The report shall include copies of all laboratory analytical reports, field notes, the QA/QC limits used in collection and analysis of the samples and the statistical calculations of ALs and AQLs for POC well MW-7 in Section 4.2, Table 2C.

2.7.4.3 Well Installation Report

A well installation report shall be submitted to the Groundwater Section within sixty (60) days after the completion of new well installations in accordance with Sections 2.5.3.2, 2.5.6 and CSI No. 10 in Section 3.0. Each well installation report shall be completed in accordance with A.A.C. R12-15-801 et seq. and consist of the following

- Copies of Arizona Dept. of Water Resources (ADWR) Notice of Intent and all related submittals to ADWR;
- Boring log and well as-built diagram;
- Total depth of well measured after installation;
- Top of well casing or sounding tube (whichever is used as the fixed reference measuring point) and ground surface elevation;
- Depth to groundwater;
- Geophysical logging reports and subsurface sampling results, if any;
- Description of well drilling method;
- Description of well development method;
- If dedicated sampling equipment installed, details on the equipment and at what depth the equipment was installed;
- Summary of analytical results for initial groundwater sample collected after installation;
- Corresponding analytical data sheets; and
- GPS coordinates for each new well.

2.7.5 Reporting Location

All SMRFs shall be submitted to:

Arizona Department of Environmental Quality
Groundwater Section Mail Code: 5415B-3
1110 W. Washington Street
Phoenix, AZ 85007
Phone (602) 771-4681

Or

Through the myDEQ portal accessible on the ADEQ website at:

<http://www.azdeq.gov/welcome-mydeq>

All documents required by this permit to be submitted to the Groundwater Section shall be directed to:

Arizona Department of Environmental Quality
 Groundwater Section
 Mail Code: 5415B-3
 1110 W. Washington Street
 Phoenix, AZ 85007
 Phone (602) 771-4999

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 annual report due date:

Monitoring conducted during the year:	Annual Report due by:
January 1 – December 31	January 30

2.7.7 Changes to Facility Information in Section 1.0

The Groundwater Section shall be notified within 15 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 Groundwater 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:

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 Groundwater 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 letter within 10 days, as set forth in Section

2.9 below. Submittal of Self-Monitoring Report Forms (SMRFs) is still required; report “temporary cessation” in the comment section.

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 Groundwater Section of the permittee’s intent to cease operation without resuming activity for which the facility was designed or operated. Submittal of SMRFs is still required; report “closure in process” in the comment section.

2.9.1 Closure Plan

The permittee shall submit for approval to the Groundwater Section, a Closure Plan which meets the requirements of A.R.S. § 49-252 and A.A.C. R18-9-A209(B)(3).

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

2.9.2 Closure Completion

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

1. Clean closure cannot be achieved at the time of closure notification or within one year thereafter under a diligent schedule of closure actions;
2. Further action is necessary to keep the facility in compliance with AWQS at the applicable POC;
3. Continued action is required to verify that the closure design has eliminated discharge to the extent intended;
4. Remedial or mitigative measures are necessary to achieve compliance with Title 49, Ch. 2; and/or
5. Further action is necessary to meet property use restrictions.
6. SMRF submittals are still required until Clean Closure is issued.

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

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

In the event clean closure cannot be achieved pursuant to A.R.S. § 49-252, the permittee shall submit for approval to the Groundwater Section a Post-closure Plan that addresses post-closure maintenance and monitoring actions at the facility. The Post-closure Plan shall meet all requirements of A.R.S. §§ 49-201(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.

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

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

No.	Required Action	Description	Due Date	Permit Amendment Required?
1	Closure Plan Submittal	The permittee shall submit a closure plan for the land disposal area (LDA) in accordance with A.A.C. R18-9-A209(B)(3)	September 5, 2017	No
2	Financial Assurance Demonstration	The permittee shall submit a demonstration that the financial assurance mechanism listed in Section 2.1, Financial Capability, is being maintained as per A.R.S. 49-243.N.4 and A.A.C. R18-9-A203(H) for all estimated closure and post-closure costs including updated costs submitted under Section 3.0, No. 3 below. The demonstration shall include a statement that the closure and post-closure strategy has not changed, the discharging facilities listed in the permit have not been altered in a manner that would affect the closure and post-closure costs, and discharging facilities have not been added. The demonstration shall also include information in support of a letter of credit as required in A.A.C. R18-9-A203(C)(5).	September 5, 2017 and every six years thereafter	No
3	Cost Estimate Update	The permittee shall submit updated cost estimates for facility closure and post-closure, as per A.A.C. R18-9-A201(B)(5) and A.R.S. 49-243.N.2.a.	September 5, 2017 and every six years thereafter.	Yes
4	Ambient Groundwater Quality Monitoring for POC Well MW-7	Permittee shall initiate ambient water quality monitoring for POC well MW-7. POC well MW-7 shall be sampled for all constituents listed in Section 4.2, Table 2C. The POC well shall be sampled for eight consecutive quarters.	Initiate ambient sampling by the 4 th quarter 2017.	No
5	Ambient Groundwater Monitoring Report for POC Well MW-7	The permittee shall submit a monitoring report for the previous eight quarters sampling for nutrients, metals, and major cation & anions found in Section 4.2, Table 2C. The report shall contain all analytical data for these parameters in tabular form and shall also contain a discussion of possible data trends. The permittee shall also submit Alert Levels and Aquifer Quality Limits for MW-7 in accordance with Section 2.5.3.4 and Section 2.5.3.5 of the permit.	April 6, 2020	Yes
6	Compliance Monitoring at POC Well MW-7	The permittee shall initiate compliance monitoring at POC well MW-7. Samples shall be analyzed for the constituents indicated	Initiate compliance monitoring by	No

		in Section 4.2, Table 2C for quarterly sampling events. Following the completion of each compliance monitoring event, submit copies of all laboratory analytical reports, field notes, and the QA/QC procedures used in collection and analysis of the samples according to the schedule in Section 2.7.6, along with the applicable SMRF.	the 4th quarter 2019.	
7	Initiate Compliance Monitoring for Contingency POC Well MW-1b/1c	The permittee shall notify ADEQ and initiate compliance groundwater monitoring at MW-1b/1c if results of groundwater level sampling determine an east to west groundwater flow direction change in accordance to Section 2.6.1.2.	Within 30 days of the 4 th consecutive quarter of groundwater flow direction change.	No
8	POC Well MW-1b and MW-1c Amendment	The permittee shall submit an amendment to change MW-1b and MW-1c from contingency wells to compliance POC wells.	Within 60 days of notification required by CSI No. 7.	Yes
9	Annual Groundwater Monitoring Report	The permittee shall submit an annual report in accordance with Section 2.7.4.1. The annual report is to be submitted by January 30 of each year to cover activities from January 1 through December 31 of the previous year.	January 30 th of each year.	No
10	Re-drill Dry Monitoring Well MW-6	The permittee shall re-drill dry monitoring well MW-6.	October 16, 2017	
11	Monitoring Well MW-6 Installation Report	The permittee shall submit a copy of the well installation report as required in Section 2.7.4.3 for MW-6.	Within 60 days after the completion of well installation.	No
12	New Monitoring Well Installation	The permittee shall install a new monitoring well that will be located on the southeast corner of Frito-Lay property.	October 16, 2017	No
13	Well Completion Report for New Monitoring Well	The permittee shall submit a copy of the well installation report as required in Section 2.7.4.3 for the new monitoring well that will be located on the southeast corner of Frito-Lay property.	Within 60 days after the completion of well installation.	No
14	Groundwater Monitoring for New Monitoring Well	The permittee shall initiate groundwater monitoring at the new monitoring well location. Samples shall be analyzed for quarterly Nitrate-Nitrite as N sampling. Quarterly groundwater levels and results of nitrate sampling shall be incorporated into annual report in accordance with Section 2.7.4.1.	Initiate groundwater monitoring by the 4th quarter 2017.	No

4.0 TABLES OF MONITORING REQUIREMENTS

4.1 PRE-OPERATIONAL MONITORING (or CONSTRUCTION REQUIREMENTS)

Not Applicable

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

Table 1 Routine Discharge Monitoring

Table 2A Compliance Groundwater Monitoring (Contingency POC Location)

Table 2B Compliance Groundwater Monitoring

Table 2C Compliance Groundwater Monitoring

Table 2D Groundwater Monitoring

Table 2E Groundwater Monitoring

Table 2F Groundwater Monitoring

Table 2G Groundwater Monitoring

Table 3 Facility Monitoring

4.3 CONTINGENCY MONITORING

Not Applicable

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

TABLE 1
ROUTINE DISCHARGE MONITORING

Sampling Point Number	Identification	Latitude	Longitude
1	AZPDES Outfall 001	32° 54' 11" North	111° 47' 31" West

Parameter	AL	DL	Units	Sampling Frequency	Reporting Frequency
Flow to AZPDES outfall	N/A	Monitor ¹	mgd ²	Daily	Quarterly
Flow	Monitor	0.692	mgd	Calculated ³ Monthly	Quarterly
Nutrients:					
Total Nitrogen ⁴	8	10	mg/l ⁵	Quarterly	Quarterly
Nitrate-Nitrite as N	8	10	mg/l	Quarterly	Quarterly
Total Kjeldahl Nitrogen (TKN)	Monitor	Monitor	mg/l	Quarterly	Quarterly

¹ Monitoring is required, but no limit is established.

² mgd = million gallons per day

³ Flow of 0.600 MGD is calculated monthly and is based on the average daily flow for that month.

⁴ Total Nitrogen is the sum of total Kjeldahl nitrogen (TKN) + nitrate (as N) + nitrite (as N).

⁵ mg/l = milligrams per liter

Parameter	AL	DL	Units	Sampling Frequency	Reporting Frequency
Metals (Total):					
Antimony	0.0048	0.006	mg/l	Quarterly	Quarterly
Arsenic	0.04	0.05	mg/l	Quarterly	Quarterly
Barium	1.60	2.00	mg/l	Quarterly	Quarterly
Beryllium	0.0032	0.004	mg/l	Quarterly	Quarterly
Cadmium	0.008	0.010	mg/l	Quarterly	Quarterly
Chromium	0.08	0.10	mg/l	Quarterly	Quarterly
Cyanide (free)	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
Selenium	0.04	0.05	mg/l	Quarterly	Quarterly
Thallium	0.0016	0.002	mg/l	Quarterly	Quarterly
Copper	Monitor	Monitor	mg/l	Quarterly	Quarterly
Zinc	Monitor	Monitor	mg/l	Quarterly	Quarterly

Parameter	AL	DL	Units	Sampling Frequency	Reporting Frequency
Indicator Parameters / Major Cations and Anions:					
pH (field)	Monitor ⁶	Monitor	S.U.	Quarterly	Quarterly
Iron	Monitor	Monitor	mg/l	Quarterly	Quarterly
Manganese	Monitor	Monitor	mg/l	Quarterly	Quarterly
Total Organic Carbon	Monitor	Monitor	mg/l	Quarterly	Quarterly
Total Dissolved Solids	Monitor	Monitor	mg/l	Quarterly	Quarterly
Sodium	Monitor	Monitor	mg/l	Quarterly	Quarterly
Potassium	Monitor	Monitor	mg/l	Quarterly	Quarterly
Calcium	Monitor	Monitor	mg/l	Quarterly	Quarterly
Magnesium	Monitor	Monitor	mg/l	Quarterly	Quarterly
Chloride	Monitor	Monitor	mg/l	Quarterly	Quarterly
Sulfate	Monitor	Monitor	mg/l	Quarterly	Quarterly
Alkalinity	Monitor	Monitor	mg/l	Quarterly	Quarterly

⁶ Monitoring required, but no limits established.

Specific Conductivity (field)	Monitor	Monitor	μmhos/cm	Quarterly	Quarterly
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TABLE 2A
COMPLIANCE GROUNDWATER MONITORING (CONTINGENCY POC WELL 1b & MW-1c)⁷

Sampling Point Number	Identification	Latitude	Longitude
2	MW-1b/MW-1c	32° 54' 25.59" N	111°48' 17.57" W

Parameter	AL	AQL	Units	Sampling Frequency ⁸	Reporting Frequency ⁹
Nutrients & Total Coliform:					
Total Nitrogen ¹⁰	Monitor ¹¹	21.4	mg/l ¹²	Quarterly	Quarterly
Nitrate-Nitrite as N	Monitor	21.4	mg/l	Quarterly	Quarterly
Total Kjeldahl Nitrogen (TKN)	3.79	Monitor	mg/l	Quarterly	Quarterly
Minimum Depth to Water (feet below ground surface)	18	N/A	ft. bgs	Quarterly	Quarterly
Maximum Depth to Water (feet below ground surface)	50	N/A	ft. bgs	Quarterly	Quarterly

⁷ Not reported on SMRFs unless contingency plan is required per Section 2.6.1.2 and CSI No. 7 & 8.

⁸ Quarterly sampling only required for Nitrate-Nitrite as N and groundwater level (depth to water). Compliance groundwater monitoring shall resume only if contingency plan is required per Section 2.6.1.2.

⁹ Only sampling results for Nitrate-Nitrite as N and groundwater level (depth to water) to be included in annual report. Compliance groundwater monitoring shall resume only if contingency plan is required per Section 2.6.1.2.

¹⁰ Total Nitrogen is the sum of total Kjeldahl nitrogen (TKN) + nitrate (as N) + nitrite (as N).

¹¹ Monitoring required, but no limits established.

¹² mg/l = milligrams per liter

Indicator Parameters & Metals (Total):					
Antimony	0.0048	0.006	mg/l	Quarterly	Quarterly
Arsenic	Monitor ¹³	0.27	mg/l	Quarterly	Quarterly
Barium	1.60	2.00	mg/l	Quarterly	Quarterly
Beryllium	0.0032	0.004	mg/l	Quarterly	Quarterly
Cadmium	0.008	0.010	mg/l	Quarterly	Quarterly
Chromium	0.08	0.10	mg/l	Quarterly	Quarterly
Cyanide (free)	0.16	0.2	mg/l	Quarterly	Quarterly
Fluoride	Monitor	14.0	mg/l	Quarterly	Quarterly
Lead	0.04	0.05	mg/l	Quarterly	Quarterly
Mercury	0.0016	0.002	mg/l	Quarterly	Quarterly
Selenium	0.04	0.05	mg/l	Quarterly	Quarterly
Thallium	0.0016	0.002	mg/l	Quarterly	Quarterly

Parameter	AL	DL	Units	Sampling Frequency	Reporting Frequency
Indicator Parameters / Major Cations and Anions:					
pH (field)	Monitor	Monitor	S.U.	Quarterly	Quarterly
Iron	Monitor	Monitor	mg/l	Quarterly	Quarterly
Manganese	Monitor	Monitor	mg/l	Quarterly	Quarterly
Total Organic Carbon	Monitor	Monitor	mg/l	Quarterly	Quarterly
Total Dissolved Solids	Monitor	Monitor	mg/l	Quarterly	Quarterly
Sodium	Monitor	Monitor	mg/l	Quarterly	Quarterly
Potassium	Monitor	Monitor	mg/l	Quarterly	Quarterly
Calcium	Monitor	Monitor	mg/l	Quarterly	Quarterly
Magnesium	Monitor	Monitor	mg/l	Quarterly	Quarterly
Chloride	Monitor	Monitor	mg/l	Quarterly	Quarterly
Sulfate	Monitor	Monitor	mg/l	Quarterly	Quarterly
Alkalinity	Monitor	Monitor	mg/l	Quarterly	Quarterly
Specific Conductivity (field)	Monitor	Monitor	µmhos/cm	Quarterly	Quarterly

¹³ Monitoring required, but no limits established.

TABLE 2B
COMPLIANCE GROUNDWATER MONITORING (POC Well MW-2 & MW-2b)

Sampling Point Number	Identification	Latitude	Longitude
3	MW-2/MW-2b	32° 54' 30.79" N	111° 48' 15.9" W

Parameter	AL	AQL	Units	Sampling Frequency	Reporting Frequency
Nutrients:					
Total Nitrogen ¹⁴	Monitor ¹⁵	Monitor	mg/l ¹⁶	Quarterly	Quarterly
Nitrate-Nitrite as N	10	Monitor	mg/l	Quarterly	Quarterly
Total Kjeldahl Nitrogen (TKN)	Monitor	Monitor	mg/l	Quarterly	Quarterly
Minimum Depth to Water (feet below ground surface)	19	N/A	ft. bgs	Quarterly	Quarterly
Maximum Depth to Water (feet below ground surface)	59	N/A	ft. bgs	Quarterly	Quarterly

¹⁴ Total Nitrogen is the sum of total Kjeldahl nitrogen (TKN) + nitrate (as N) + nitrite (as N).

¹⁵ Monitoring required, but no limits established.

¹⁶ mg/l = milligrams per liter

Parameter	AL	AQL	Units	Sampling Frequency	Reporting Frequency
Indicator Parameters & Metals (Total):					
Antimony	0.0048	0.006	mg/l	Quarterly	Quarterly
Arsenic	Monitor ¹⁷	0.25	mg/l	Quarterly	Quarterly
Barium	1.6	2.0	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 (free)	0.16	0.2	mg/l	Quarterly	Quarterly
Fluoride	Monitor	6.5	mg/l	Quarterly	Quarterly
Lead	0.04	0.05	mg/l	Quarterly	Quarterly
Mercury	0.0016	0.002	mg/l	Quarterly	Quarterly
Selenium	0.04	0.05	mg/l	Quarterly	Quarterly
Thallium	0.0016	0.002	mg/l	Quarterly	Quarterly

Parameter	AL	DL	Units	Sampling Frequency	Reporting Frequency
Indicator Parameters / Major Cations and Anions:					
pH (field)	Monitor	Monitor	S.U.	Quarterly	Quarterly
Iron	Monitor	Monitor	mg/l	Quarterly	Quarterly
Manganese	Monitor	Monitor	mg/l	Quarterly	Quarterly
Total Organic Carbon	Monitor	Monitor	mg/l	Quarterly	Quarterly
Total Dissolved Solids	Monitor	Monitor	mg/l	Quarterly	Quarterly
Sodium	Monitor	Monitor	mg/l	Quarterly	Quarterly
Potassium	Monitor	Monitor	mg/l	Quarterly	Quarterly
Calcium	Monitor	Monitor	mg/l	Quarterly	Quarterly
Magnesium	Monitor	Monitor	mg/l	Quarterly	Quarterly
Chloride	Monitor	Monitor	mg/l	Quarterly	Quarterly
Sulfate	Monitor	Monitor	mg/l	Quarterly	Quarterly
Alkalinity	Monitor	Monitor	mg/l	Quarterly	Quarterly
Specific Conductivity (field)	Monitor	Monitor	µmhos/cm	Quarterly	Quarterly

¹⁷ Monitoring required, but no limits established.

**TABLE 2C
COMPLIANCE GROUNDWATER MONITORING (POC Well MW-7)**

Sampling Point Number	Identification	Latitude	Longitude
4	MW-7	32° 54' 30.79" N	111° 48' 15.9" W

Parameter	AL	AQL	Units	Sampling Frequency	Reporting Frequency
Nutrients:					
Total Nitrogen ¹⁸	Reserved ¹⁹	Reserved	mg/l ²⁰	Quarterly	Quarterly
Nitrate-Nitrite as N	Reserved	Reserved	mg/l	Quarterly	Quarterly
Total Kjeldahl Nitrogen (TKN)	Monitor ²¹	Monitor	mg/l	Quarterly	Quarterly
Minimum Depth to Water (feet below ground surface)	31	Monitor	ft. bgs	Quarterly	Quarterly
Maximum Depth to Water (feet below ground surface)	51	Monitor	ft. bgs	Quarterly	Quarterly

¹⁸ Total Nitrogen is the sum of total Kjeldahl nitrogen (TKN) + nitrate (as N) + nitrite (as N).

¹⁹ Ambient monitoring for minimum of eight quarters and maximum of twelve quarters in order to calculate AL/AQL.

²⁰ mg/l = milligrams per liter

²¹ Monitoring required, but no limits established.

Parameter	AL	AQL	Units	Sampling Frequency	Reporting Frequency
Indicator Parameters & Metals (Total):					
Antimony	Reserved	Reserved	mg/l	Quarterly	Quarterly
Arsenic	Reserved	Reserved	mg/l	Quarterly	Quarterly
Barium	Reserved	Reserved	mg/l	Quarterly	Quarterly
Beryllium	Reserved	Reserved	mg/l	Quarterly	Quarterly
Cadmium	Reserved	Reserved	mg/l	Quarterly	Quarterly
Chromium	Reserved	Reserved	mg/l	Quarterly	Quarterly
Cyanide (free)	Reserved	Reserved	mg/l	Quarterly	Quarterly
Fluoride	Reserved	Reserved	mg/l	Quarterly	Quarterly
Lead	Reserved	Reserved	mg/l	Quarterly	Quarterly
Mercury	Reserved	Reserved	mg/l	Quarterly	Quarterly
Selenium	Reserved	Reserved	mg/l	Quarterly	Quarterly
Thallium	Reserved	Reserved	mg/l	Quarterly	Quarterly

Parameter	AL	DL	Units	Sampling Frequency	Reporting Frequency
Indicator Parameters / Major Cations and Anions:					
pH (field)	Monitor	Monitor	S.U.	Quarterly	Quarterly
Iron	Monitor	Monitor	mg/l	Quarterly	Quarterly
Manganese	Monitor	Monitor	mg/l	Quarterly	Quarterly
Total Organic Carbon	Monitor	Monitor	mg/l	Quarterly	Quarterly
Total Dissolved Solids	Monitor	Monitor	mg/l	Quarterly	Quarterly
Sodium	Monitor	Monitor	mg/l	Quarterly	Quarterly
Potassium	Monitor	Monitor	mg/l	Quarterly	Quarterly
Calcium	Monitor	Monitor	mg/l	Quarterly	Quarterly
Magnesium	Monitor	Monitor	mg/l	Quarterly	Quarterly
Chloride	Monitor	Monitor	mg/l	Quarterly	Quarterly
Sulfate	Monitor	Monitor	mg/l	Quarterly	Quarterly
Alkalinity	Monitor	Monitor	mg/l	Quarterly	Quarterly
Specific Conductivity (field)	Monitor	Monitor	µmhos/cm	Quarterly	Quarterly

TABLE 2D
GROUNDWATER MONITORING (MW-4/4b)²²

Sampling Point Number	Identification	Latitude	Longitude	ADWR 55-
5	MW-4	32° 54' 28.6" N	111° 43' 30.8" W	912011
	MW-4b	32° 54' 28.31" N	111° 43' 2.23" W	916400

Parameter	AL	AQL	Units	Sampling Frequency	Reporting Frequency
Nutrients:					
Nitrate-Nitrite as N	Monitor ²³	Monitor	mg/l	Quarterly	Annually
Minimum Depth to Water (feet below ground surface)	20	N/A	ft. bgs	Quarterly	Annually
Maximum Depth to Water (feet below ground surface)	59	N/A	ft. bgs	Quarterly	Annually

TABLE 2E
GROUNDWATER MONITORING (MW-5b)²⁵

Sampling Point Number	Identification	Latitude	Longitude	ADWR 55-
6	MW-5b	32° 54' 29.4" N	111° 47' 53.3" W	913478

Parameter	AL	AQL	Units	Sampling Frequency	Reporting Frequency
Nutrients:					
Nitrate-Nitrite as N	Monitor ²⁶	Monitor	mg/l	Quarterly	Annually
Minimum Depth to Water (feet below ground surface)	25	N/A	ft. bgs	Quarterly	Annually
Maximum Depth to Water (feet below ground surface)	50	N/A	ft. bgs	Quarterly	Annually

²² Sampling results to be included in annual report and not reported on SMRFs.

²³ Monitoring required, but no limits established.

TABLE 2F
GROUNDWATER MONITORING (MW-6)²⁴

Sampling Point Number	Identification	Latitude	Longitude	ADWR 55-
7	MW-6	32° 54' 15.4" N	111° 47' 30.7" W	912145

Parameter	AL	AQL	Units	Sampling Frequency	Reporting Frequency
Nutrients:					
Nitrate-Nitrite as N	Monitor ²⁵	Monitor	mg/l	Quarterly	Annually
Minimum Depth to Water (feet below ground surface)	32	N/A	ft. bgs	Quarterly	Annually
Maximum Depth to Water (feet below ground surface)	52	N/A	ft. bgs	Quarterly	Annually

TABLE 2G
GROUNDWATER MONITORING (New Monitoring Well on Southeast Corner of Frito-Lay Property)²⁷

Sampling Point Number	Identification	Latitude	Longitude	ADWR 55-
8	TBD ²⁶	TBD	TBD	TBD

Parameter	AL	AQL	Units	Sampling Frequency	Reporting Frequency
Nutrients:					
Nitrate-Nitrite as N	Monitor ²⁸	Monitor	mg/l	Quarterly	Annually
Minimum Depth to Water (feet below ground surface)	TBD	N/A	ft. bgs	Quarterly	Annually
Maximum Depth to Water (feet below ground surface)	TBD	N/A	ft. bgs	Quarterly	Annually

²⁴ Sampling results to be included in annual report and not reported on SMRFs.

²⁵ Monitoring required, but no limits established.

²⁶ To be determined following monitoring well installation schedule referenced in Section 3.0, CSI No. 12, 13 & 14.

TABLE 3
FACILITY INSPECTION – Log Book

Parameter	Performance Standard	Inspection Frequency	Reporting Frequency
Treatment Plant Components	Good Working Condition	Daily	Quarterly
Pump System Integrity	Good Working Condition	Daily	Quarterly

5.0 REFERENCES AND PERTINENT INFORMATION

The terms and conditions set forth in this permit have been developed based upon the information contained in the following, which are on file with the Department:

1. **Significant Amendment APP Application dated** December 20, 2016
2. **Public Notice dated**
3. **Public Hearing dated**
4. **Responsiveness Summary dated**

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

7.0 ADDITIONAL PERMIT CONDITIONS

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

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

7.2 Severability

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

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby. The filing of a request by the permittee for a permit action does not stay or suspend the effectiveness of any existing permit condition.

7.3 Permit Transfer

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