ADEQ Arizona Department of Environmental Quality

DRAFT FACT SHEET

ARIZONA POLLUTANT DISCHARGE ELIMINATION SYSTEM (AZPDES)

This document gives pertinent information concerning the reissuance of the AZPDES permit listed below. This facility is a salty snack foods manufacturing plant and is considered a minor facility under the NPDES program. The effluent limitations contained in this permit will maintain the Water Quality Standards listed in Arizona Administrative Code (A.A.C.) R18-11-101 et. seq. This permit is proposed to be issued for a period of 5 years.

I. PERMITTEE INFORMATION	
Permittee's Name:	Frito-Lay, Inc.
Permittee's Mailing Address:	1450 West Maricopa Highway Casa Grande, Arizona 85222
Facility Name:	Frito-Lay Casa Grande Facility
Facility Address or Location:	1450 West Maricopa Highway Casa Grande, Arizona 85222
County:	Pinal
Contact Person(s): Phone/e-mail address	Bryan Jacewicz, Maintenance/Engineering Cell: (520) 316-7513, Office: (520) 426-6286, E: Bryan.Jacewicz@pepsico.com
AZPDES Permit Number:	AZ0025798
Inventory Number:	100381
LTF Number:	76768

II. STATUS OF PERMIT(s)	
AZPDES permit applied for:	Renewal
Date application received:	May 10, 2019
Date application was determined administratively complete:	May 22, 2019
Previous permit number (if different):	N/A
Previous permit expiration date:	November 11, 2019

208 Consistency:

In accordance with A.A.C. R18-9-A903(6), a permit cannot be issued for any discharge inconsistent with a plan or plan amendment approved under section 208(b) of the Clean Water Act.

II. STATUS OF PERMIT(s)		
208 Plan consistency is not required for industrial facilities.		
Frito-Lay, Inc. has the following permits issued by ADEQ applicable to the Frito-Lay Casa Grande Facility:		
Type of Permit		
Aquifer Protection Permit (APP)	P-100381	Regulates discharges to the local aquifer

III. GENERAL FACILITY INFORMATION	
Type of Facility:	Industrial Facility – Manufacturer of Salty Snack Foods
Facility Location Description:	The facility is located on the north side of the Maricopa Highway, approximately 0.7 mile south of the North Branch of the Santa Cruz Wash.
Design Capacity:	0.69 mgd
Treatment Processes :	Primary clarifier and a membrane bioreactor (MBR) followed by a low-pressure reverse osmosis (LPRO).
Nature of facility discharge:	Treated process wastewater from a chip manufacturing facility.
Average flow per discharge:	<10,000 gallons
Continuous or intermittent discharge:	Intermittent discharge: According to a phone conversation with the permittee on July 19, 2019, the average frequency of discharge is 10 days per month; the duration of the flow is 1-2 days on an average basis. The average discharge volume is <10,000 gallons.
Discharge pattern summary:	The discharge will not be on a daily or routine basis, but only under conditions when the plant's LPRO is off-line (not operating), replacing granular activated carbon (GAC), completing preventative maintenances (PMs) on LPRO arrays, and producing more water than needed or under other emergency situations.

Frito-Lay, Inc. owns and operates a salty snack food manufacturing facility in Casa Grande, Arizona. Process wastewater is currently pre-treated by screening to remove large solids and then discharged to a transfer sump; solids generated from the pretreatment screening process are hauled off site. Oily wastewater from the fryer boilouts flows to the oil/water separator, where a skimmer belt removes oil, and then to the transfer sump. Starch water from the potato slice washer overflow is treated by starch removal system. Food-grade defoamer, such as Hydrite Chemical Company's Suppressor 3579S, is used to control the foam during starch recovery process. The clarified low starch wastewater is then discharged to the transfer sump.

Process wastewater from the facility is treated in an advanced wastewater treatment system as described above. This wastewater can be recycled into the manufacturing facility as well as agricultural irrigation.

All on-site sanitary wastewater and the LPRO reject stream is discharged to the City of Casa Grande Wastewater Treatment Plant via sewer line, this accounts for approximately 85% of the facilities effluent.

IV. RECEIVING WATER	
The State of Arizona has adopted water quality standards to protect the designated uses of its surface waters. Streams have been divided into segments and designated uses assigned to these segments. The water quality standards vary by designated use depending on the level of protection required to maintain that use.	
Receiving Water:	Effluent enters the San Carlos Irrigation District Canal. The canal directly discharges to an unnamed wash that is a tributary to the North Branch of the Santa Cruz
River Basin:	Santa Cruz River Basin
Outfall Location(s):	Outfall 001: Township 6S, Range 5E, Section 14 Latitude 32° 54' 20" N, Longitude 111° 47' 40" W
The outfall discharges to, or the discharge may reach, a surface water listed in Appendix B of A.A.C. Title 18, Chapter 11, Article 1.	
Designated uses for the receiving water listed above:	Aquatic and Wildlife ephemeral water (A&We) Partial Body Contact (PBC)
Per A.A.C. R18-11-113(D), the water quality standards that apply to effluent-dependent waters (EDWs) will be applied to derive discharge limitations for any point source discharge of wastewater to an ephemeral water. The draft AZPDES permit includes discharge limitations and monitoring requirements designed to achieve compliance with A&Wedw standards. Therefore, the following uses are being applied to the receiving water: • Aquatic and Wildlife effluent dependent water (A&Wedw) • Partial Body Contact (PBC)	
Is the receiving water on the 303(d) list?	No, and there are no TMDL issues associated.
Given the uses stated above, the applicable narrative water quality standards are described in A.A.C. R18-11-108, and the applicable numeric water quality standards are listed in A.A.C. R18-11-109 and in Appendix A thereof. There are two standards for the Aquatic and Wildlife uses, acute and chronic. In developing AZPDES permits, the standards for all applicable designated uses are compared and limits that will protect for all applicable designated uses are developed based on the standards.	

V. DESCRIPTION OF DISCHARGE		
Because the facility is in operation and discharges have occurred, effluent monitoring data are available. The following is the measured effluent quality reported in the application.		
Parameters	**Units**	**Maximum Daily Discharge Concentration**
Biochemical Oxygen Demand (BOD)	mg/L	5.5
Total Suspended Solids (TSS)	mg/L	<10
Total Organic Carbon (TOC)	mg/L	6.3
Temperature (winter)	°C	27
Temperature (summer)	°C	34
pH	S.U.	8.4

VI. STATUS OF COMPLIANCE WITH THE EXISTING AZPDES PERMIT	
Date of most recent inspection:	12/14/2018; no potential violations were noted as a result of this inspection.
DMR files reviewed:	11/2014 through 08/2019
Lab reports reviewed:	11/2014 through 07/2019
DMR Exceedances:	Selenium (June 2017). No other exceedances were noted.
NOVs issued:	None
NOVs closed:	N/A
Compliance orders:	None

VII. PROPOSED PERMIT CHANGES			
The following table lists the major changes from the previous permit in this draft permit.			
Parameter	**Existing Permit**	**Proposed permit**	**Reason for change**
Reporting Location	Mail in hard copies of DMRs and other attachments	DMRs and other reports to be submitted electronically through myDEQ portal	Language added to support the NPDES electronic DMR reporting rule that became effective on December 21, 2015.
Outfall 001 Latitude and Longitude	Inaccurate Lat/Long provide	Corrected Lat/Long Errors	Typographical error
Permit Effluent Limits Table	Permit contains two tables for effluent limits; Table 1a for chronic discharges and Table 1b for acute only discharges for existing permit.	Table 1b for acute only discharges removed.	Facility routinely discharges so chronic standards apply.

VII. PROPOSED PERMIT CHANGES

The following table lists the major changes from the previous permit in this draft permit.

Parameter	Existing Permit	Proposed permit	Reason for change
Antimony, Arsenic, Cadmium, Nickel, Silver, and Thallium	Assessment level	Monitoring Required for Discharge Characterization	No reasonable potential for an exceedance of a water quality standard.
Ammonia	Limit	Discharge Characterization	No reasonable potential for an exceedance of a water quality standard.
Lead and Zinc	Assessment level	Limit is Set	Reasonable potential for an exceedance of a water quality standard exists.

Anti-backsliding considerations – "Anti-backsliding" refers to statutory (Section 402(o) of the Clean Water Act) and regulatory (40 CFR 122.44(l)) requirements that prohibit the renewal, reissuance, or modification of an existing NPDES permit that contains effluent limits for Ammonia, permit conditions, or standards that are less stringent than those established in the previous permit. The rules and statutes do identify exceptions to these circumstances where backsliding is acceptable. This permit has been reviewed and drafted with consideration of anti-backsliding concerns. Limits for the following parameter have been removed from the permit because evaluation of current data allows the conclusion that no reasonable potential (RP) for an exceedance of a standard exists:

This is considered allowable backsliding under 303(d)(4). The effluent limitations in the current permit for these two parameters were based on state standards, the respective receiving waters are in attainment for these parameters, and the revisions are consistent with antidegradation requirements. See Section XII for information regarding antidegradation requirements.

VIII. DETERMINATION OF DISCHARGE LIMITATIONS and ASSESSMENT LEVELS

When determining what parameters need monitoring and/or limits included in the draft permit, both technology-based and water quality-based criteria were compared and the more stringent criteria applied.

Technology-based Limitations: There are no promulgated technology-based limits for a salty snack food manufacturing facility with an advanced water treatment system such as the Frito-Lay Casa Grande Facility. However, it has been demonstrated that this technology allows for efficient removal of potato and com solids, starch recovery operations byproducts, and oily wastewater. Based on a review of the data submitted by the applicant and using best professional judgment (BPJ), technology-based effluent limitations (TBEL) have been re-established in the permit based on secondary treatment standards for wastewater treatment plants for BOD, TSS, and pH. Additionally, oil & grease will be monitored with a TBEL based on BPJ. The average monthly limit of 10 mg/L and daily maximum of 15 mg/L are commonly accepted values that can be achieved by properly operated and maintained wastewater treatment plants. This level is also considered protective of the narrative standard at A.A.C. R1 8-11-108(B).

Numeric Water Quality Standards: As outlined in A.A.C. R18-11-109 and Appendix A:
Per 40 CFR 122.44(d)(1)(ii), (iii) and (iv), discharge limits must be included in the permit for parameters with "reasonable potential" (RP), that is, those known to be or expected to be present in the effluent at a level that could potentially cause any applicable numeric water quality standard to be exceeded. RP refers to the possibility, based on the statistical calculations using the data submitted, or consideration of other factors to determine whether the discharge may exceed the Water Quality Standards. The procedures used to determine RP are outlined in the *Technical Support Document for Water Quality-based Toxics Control (TSD)* (EPA/505/2-90-001). In most cases, the highest reported value for a parameter is multiplied by a factor (determined from the variability of the data and number of samples) to determine a "highest estimated value". This value is then compared to the lowest applicable

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Water Quality Standard for the receiving water. If the value is greater than the standard, RP exists and a water quality-based effluent limitation (WQBEL) is required in the permit for that parameter. RP may also be determined from BPJ based on knowledge of the treatment facilities and other factors. The basis for the RP determination for each parameter with a WQBEL is shown in the table below.

The proposed permit limits were established using a methodology developed by EPA. Long Term Averages (LTA) were calculated for each designated use and the lowest LTA was used to calculate the average monthly limit (AML) and maximum daily limit (MDL) necessary to protect all uses. This methodology takes into account criteria, effluent variability, and the number of observations taken to determine compliance with the limit and is described in Chapter 5 of the TSD. Limits based on A&W criteria were developed using the "two-value steady state wasteload allocation" described on page 99 of the TSD. When the limit is based on human health criteria, the monthly average was set at the level of the applicable standard and a daily maximum limit was determined as specified in Section 5.4.4 of the TSD.

Mixing Zone

Arizona water quality rules require that water quality standards be achieved without mixing zones unless the permittee applies and is approved for a mixing zone. Since the receiving stream for this discharge is ephemeral prior to the discharge, no water is available for a mixing zone and all water quality criteria are applied at end-of pipe. This means that the effluent concentration must meet stream standards.

Assessment Levels (ALs)

ALs are listed in Part I.B of the permit. An AL differs from a discharge limit in that an exceedance of an AL is not a permit violation. Instead, ALs serve as triggers, alerting the permitting authority when there is cause for re-evaluation of RP for exceeding a water quality standard, which may result in new permit limitations. The AL numeric values also serve to advise the permittee of the analytical sensitivity needed for meaningful data collection. Trace substance monitoring is required when there is uncertain RP (based on non-detect values or limited datasets) or a need to collect additional data or monitor treatment efficacy on some minimal basis. A reopener clause is included in the draft permit should future monitoring data indicate water quality standards are being exceeded.

The requirement to monitor for these parameters is included in the draft permit according to A.A.C. R18-11-104(C) and Appendix A. ALs listed for each parameter were calculated in the same manner that a limit would have been calculated (see Numeric Water Quality Standards Section above).

Hardness

The permittee is required to sample hardness as $CaCO_3$ at the same time the trace metals are sampled because the water quality standards for some metals are calculated using the water hardness values. The hardness value of 189 mg/L (the average hardness of the discharge as supplied in the application) was used to calculate the applicable water quality standards and any assessment levels or limits for the hardness dependent metals (cadmium, chromium III, copper, lead, nickel, silver and zinc).

Whole Effluent Toxicity (WET)

WET testing is required in the draft permit (Parts I.C and IV) to evaluate the discharge according to the narrative toxic standard in A.A.C. R18-11-108(A)(5), as well as whether the discharge has RP for WET per 40 CFR 122.44(d)(iv).

WET testing for chronic and/or acute toxicity is required. The requirement to conduct chronic toxicity testing is contingent upon the frequency or duration of discharges. Since completion of the chronic WET test requires a minimum of three samples be taken for renewals, the chronic WET test is not required during any given monitoring period in which the discharge does not occur over seven consecutive calendar days and is not repeated more frequently than every thirty days.

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WET testing for chronic / acute toxicity shall be conducted using the following three surrogate species:

- *Ceriodaphnia dubia* (water flea) – for evaluating toxicity to invertebrates
- *Pimephales promelas* (fathead minnow) – for evaluating toxicity to vertebrates
- *Pseudokirchneriella subcapitata* (formerly known as *Selenastrum capricornutum or Raphidocelis subcapitata)* (a green alga) – for evaluating toxicity to plant life

ADEQ does not have a numeric standard for Whole Effluent Toxicity. However, ADEQ adopted the EPA recommended chronic toxicity benchmark of 1.0 TUc for a four day exposure period. Using this benchmark, the limitations and/or action levels for WET included in the draft permit were calculated in accordance with the methods specified in the *TSD*. The species chosen for WET testing are as recommended in the *TSD* and in *Regions 9 & 10 Guidance for Implementing Whole Effluent Toxicity Testing Programs*.

An exceedance of a limit or action level will trigger follow-up testing to determine if effluent toxicity is persistent. If toxicity above a limit or action level is found in a follow-up test, the permittee will be required to conduct a Toxicity Reduction Evaluation (TRE) and possibly a Toxicity Identification Evaluation (TIE) to identify the source of toxicity and reduce toxicity. These conditions are required to ensure that toxicants are not discharged in amounts that are toxic to organisms [A.A.C. R18-11-108(A)(5)]. A reopener clause is included in accordance with 40 CFR Parts 122 and 124 and AAC R18-9-B906.

The draft permit requires 24-hour composite samples be collected for WET testing. WET sampling must coincide with testing for all the parameters in Parts I.A and B of the draft permit, when testing of those parameters is required, to aid in the determination of the cause of toxicity if toxicity is detected. Additional procedural requirements for the WET test are included in the proposed permit.

The required WET monitoring frequency for this facility is consistent with the WET testing frequency required for facilities with a similar design flow. The draft permit requires WET test results to be reported on discharge monitoring reports and submittal of the full WET lab report to ADEQ.

Discharge Characterization (DC)

In addition to monitoring for parameters assigned either a limit or an AL, sampling is required to assess the presence of pollutants in the discharge at certain minimum frequencies for additional suites of parameters, whether the facility is discharging or not. This monitoring is specified in Tables 4.a. through 4.b., *Discharge Characterization Testing,* as follows:

- Table 4.a. – General Chemistry and Microbiology: ammonia, BOD-5, *E. coli*, total residual chlorine (TRC), dissolved oxygen, total Kjeldahl nitrogen (TKN), nitrate/nitrite, oil and grease, pH, phosphorus, temperature, total dissolved solids (TDS), and total suspended solids (TSS)
- Table 4.b. – Selected Metals, Hardness, Cyanide, and WET

NOTE: Some parameters listed in Tables 4.a. and 4.b. are also listed in Tables 1 or 2. In this case, the data from monitoring under Tables 1 or 2 may be used to satisfy the requirements of Tables 4.a. and / or 4.b., provided the specified sample types are the same. In the event the facility does not discharge to a water of the U.S. during the life of the permit, EC monitoring of representative samples of the effluent is still required.

The purpose of EC monitoring is to characterize the effluent and determine if the parameters of concern are present in the discharge and at what levels. This monitoring will be used to assess RP per 40 CFR 122.44(d)(1)(iii)). EC monitoring is required in accordance with 40 CFR 122.43(a), 40 CFR 122.44(i), and 40 CFR 122.48(b) as well as A.R.S. §49-203(A)(7). If pollutants are noted at levels of concern during the permit term, this permit may also be reopened to add related limits or conditions.

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Permit Limitations and Monitoring Requirements

The table that follows summarizes the parameters that are limited in the permit and the rationale for that decision. Also included are the parameters that require monitoring without any limitations or that have not been included in the permit at all and the basis for those decisions. The corresponding monitoring requirements are shown for each parameter. In general, the regulatory basis for monitoring requirements is per 40 CFR §122.44(i) *Monitoring requirements,* and 40 CFR §122.48(b), *Required monitoring*; all of which have been adopted by reference in A.A.C. R18-9-A905, *AZPDES Program Standards*.

Parameter	Lowest Standard / Designated Use	Maximum Reported Daily Value	No. of Samples	Estimated Maximum Value	RP Determination	Proposed Monitoring Requirement/ Rationale (1)
Flow	- - -	- - -	- - -	- - -	- - -	Discharge flow is to be monitored on a continual basis using a flow meter.
Biological Oxygen Demand (BOD) and Total Suspended Solids (TSS)	30 mg/L 30-day average 45 mg/L 7-day average/ BPJ Technology-based limits	BOD: 5.5 mg/L TSS: <10 mg/L	BOD: 7 TSS: 4	N/A	TBELs for BOD and TSS are included based on BPJ.	Monitoring for influent and effluent BOD and TSS to be conducted using composite samples of the influent and the effluent. The sample type required was chosen to be representative of the discharge. The requirement to monitor influent BOD and suspended solids is included to assess compliance with the 85% removal requirement in this permit. At least one sample must coincide with WET testing to aid in the determination of the cause of toxicity, if toxicity is detected.
Chlorine, Total Residual (TRC)	11 µg/L/ A&Wedw chronic	N/A	No Data	N/A	No RP (BPJ)	Monitoring is not required. The discharge is from a food processing facility and is not expected to contain TRC.
E. coli	30-day geometric mean: 126 cfu /100 mL (4 sample minimum) Single sample maximum: 575 cfu /100 mL/ PBC	N/A	No Data	N/A	No RP (BPJ)	Monitoring is not required.
pH	Minimum: 6.5 Maximum: 9.0 A&Wedw and PBC A.A.C. R18-11-109(B) Minimum: 6.0 Maximum: 9.0 BPJ Technology-based limits	8.4	14	N/A	WQBEL or TBEL is always applicable to WWTPs.	pH is to be monitored using a discrete sample of the effluent and a WQBEL is set. 40 CFR Part 136 specifies that grab samples must be collected for pH. At least one sample must coincide with WET testing to aid in the determination of the cause of toxicity if toxicity is detected. pH sampling must also coincide with ammonia sampling when required.
Temperature	No applicable numeric standard	34ºC	15	N/A	N/A	Effluent temperature is to be monitored for effluent characterization by discrete sample. 40 CFR Part 136 specifies that discrete samples must be collected for temperature. Temperature sampling must also coincide with ammonia sampling when required.
Ammonia	Standard varies with temperature and pH	1 mg/L (< WQS)	55	N/A	No RP	Monitoring required for discharge characterization.
Nutrients (Total Nitrogen and Total Phosphorus)	No applicable standards	N/A	N/A	N/A	N/A	Monitoring required for discharge characterization.
Oil & Grease	BPJ Technology-Based Level of 10 mg/L monthly average and 15 mg/L daily maximum	40 mg/L	18	N/A	RP Exists	Monitoring required and a limit remains in the permit.

Parameter	Lowest Standard / Designated Use	Maximum Reported Daily Value	No. of Samples	Estimated Maximum Value	RP Determination	Proposed Monitoring Requirement/ Rationale (1)
Antimony	600 µg/L/ A&Wedw chronic	0.12 µg/L	16	0.3 µg/L	No RP	Monitoring required for discharge characterization.
Arsenic	150 µg/L/ A&Wedw chronic	1 µg/L	16	2.5 µg/L	No RP	Monitoring required for discharge characterization.
Beryllium	5.3 µg/L/ A&Wedw chronic	<5 µg/L	16	N/A	No RP	Monitoring required for discharge characterization.
Cadmium (2)	3.6 µg/L/ A&Wedw chronic	0.37 µg/L	16	0.93 µg/L	No RP	Monitoring required for discharge characterization.
Chromium (Total)	100 µg/L/ PBC	7.3 µg/L	16	18.3 µg/L	No RP	Monitoring required as an indicator parameter for Chromium VI.
Chromium VI	11 µg/L/ A&Wedw chronic	<2.5 µg/L	7	N/A	No RP	Monitoring required for discharge characterization.
Copper (2)	15 µg/L/ A&Wedw chronic	110 µg/L	24	242 µg/L	RP Exists	Monitoring is required and a WQBEL remains.
Cyanide	9.7 µg/L/ A&Wedw chronic	<25 µg/L	21	N/A	No RP	Monitoring required for discharge characterization.
Hardness (5)	No applicable standard. Hardness is used to determine standards for specific metal parameters.	370 mg/L	30	N/A	N/A	A&W standards for cadmium, chromium III, copper, lead, nickel, silver and zinc used for RP determinations were based on the average discharge hardness value of 189 mg/L. Monitoring for hardness is required whenever monitoring for hardness dependent metals is required.
Hydrogen Sulfide	2 µg/L/ A&Wedw chronic	<500 µg/L	2	N/A	RP Indeterminate (High LOQ)	Monitoring is required for sulfides as an indicator parameter for hydrogen sulfide. If sulfides are detected, monitoring for hydrogen sulfide is required for the remainder of the permit term.
Iron	1,000 ug/L / A&Wedw chronic	250 µg/L	2	575 µg/L	No RP	Monitoring is required for discharge characterization.
Lead (2)	5.0 µg/L / A&Wedw chronic	4.2 µg/L	22	9.2 µg/L	RP Exists	Monitoring is required and a WQBEL is set.
Mercury	0.01 µg/L/ A&Wedw chronic	<0.1 µg/L	21	N/A	RP Indeterminate (High LOQ)	Monitoring required and an assessment level remains in the permit.
Nickel (2)	89 µg/L/ A&Wedw chronic	4.8 µg/L	6	18.3 µg/L	No RP	Monitoring required for discharge characterization.
Selenium	2 µg/L/ A&Wedw chronic	1.1 µg/L	23	2.4 µg/L	RP Exists	Monitoring required and a WQBEL remains in the permit.
Silver (2)	9.6 µg/L/ A&Wedw acute	<0.2 µg/L	6	N/A	No RP	Monitoring required for discharge characterization.

Parameter	Lowest Standard / Designated Use		Maximum Reported Daily Value	No. of Samples	Estimated Maximum Value	RP Determination	Proposed Monitoring Requirement/ Rationale (1)
Sulfides	100 µg/L/ A&Wedw acute		<25 µg/L	9	N/A	N/A	Indicator parameter for hydrogen sulfide. Monitoring required. If sulfides are detected, monitoring for hydrogen sulfide is required for the remainder of the permit term.
Thallium	75 µg/L/ PBC		0.55 µg/L	22	1.2 µg/L	No RP	Monitoring required for discharge characterization.
Zinc (2)	202 µg/L/ A&Wedw acute and chronic		1,200 µg/L	17	2,880 µg/L	RP Exists	Monitoring required and a WQBEL is set.
Whole Effluent Toxicity (WET)	No toxicity (A.A.C. R18-11-108(A)(6)	*Pseudo-kirchneriella subcapitata (3)*	1 TUc	3	N/A	RP Indeterminate	Monitoring required and an action level remains in the permit.
		Pimephales promelas	1 TUc	3	N/A	RP Indeterminate	Monitoring required and an action level remains in the permit.
		Ceriodaphnia dubia	1 TUc	3	N/A	RP Indeterminate	Monitoring required and an action level remains in the permit.

Footnotes:
(1) The monitoring frequencies are as specified in the permit.
(2) Hardness-dependent metal - the standard is for this parameter is based on the average hardness value of the effluent or receiving water as indicated above.
(3) Formerly known as *Selenastrum capricornutum or Raphidocelis subcapitata.*
(4) An AIR will be calculated by dividing effluent ammonia concentration by the applicable standard using the receiving water pH and temperature.
(5) Data also considers previous term data to calculate average hardness.

VIII. NARRATIVE WATER QUALITY STANDARDS

All narrative limitations in A.A.C. R18-11-108 that are applicable to the receiving water are included in Part I, Sections E and F of the draft permit.

IX. MONITORING AND REPORTING REQUIREMENTS (Part II of Permit)

Section 308 of the Clean Water Act and 40 CFR Part 122.44(i) require that monitoring be included in permits to determine compliance with effluent limitations. Additionally, monitoring may be required to gather data for future effluent limitations or to monitor effluent impacts on receiving water quality.

Monitoring frequencies are based on the nature and effect of the pollutant, as well as a determination of the minimum sampling necessary to adequately monitor the facility's performance. Monitoring frequencies for some parameters may be reduced in subsequent permits if all monitoring requirements have been met and the limits or ALs for those parameters have not been exceeded during the first permit term.

For the purposes of this permit, a "24-hour composite" sample has been defined as a flow-proportioned mixture of not less than three discrete samples (aliquots) obtained at equal time intervals over a 24-hour period. The volume of each aliquot shall be directly proportional to the discharge flow rate at the time of sampling.

These criteria for composite sampling are included in order to obtain samples that are representative of the discharge given the potential variability in the duration, frequency and magnitude of discharges from this facility.

Discrete (i.e., grab) samples are specified in the permit for parameters that for varying reasons are not amenable to compositing.

Monitoring locations are specified in the permit (Part I.A and Part II.A.1) in order to ensure that representative samples of the influent and effluent are consistently obtained.

The requirements in the permit pertaining to Part II, Monitoring and Reporting, are included to ensure that the monitoring data submitted under this permit is accurate in accordance with 40 CFR 122.41(e). The permittee has the responsibility to determine that all data collected for purposes of this permit meet the requirements specified in this permit and is collected, analyzed, and properly reported to ADEQ.

The permit (Part II.A.3) requires the permittee to keep a Quality Assurance (QA) manual at the facility, describing sample collection and analysis processes; the required elements of the QA manual are outlined.

Reporting requirements for monitoring results are detailed in Part II, Sections B.1 and 2 of the permit, including completion and submittal of Discharge Monitoring Reports (DMRs), Ammonia Data Logs, and AZPDES Flow Record forms.

The permittee is responsible for conducting all required monitoring and reporting the results to ADEQ on DMRs or as otherwise specified in the permit.

Electronic reporting

The US EPA has published a final regulation that requires electronic reporting and sharing of Clean Water Act National Pollutant Discharge Elimination System (NPDES) program information instead of the current paper-based reporting (Federal Register, Vol. 80, No. 204, October 22, 2015). Beginning December 21, 2016 (one year after the effective date of the regulation), the Federal rule required permittees to make electronic submittals of any monitoring reports and forms called for in their permits. ADEQ has created an online portal called myDEQ that allows users to submit their discharge monitoring reports and other applicable reports required in the permit.

IX. MONITORING AND REPORTING REQUIREMENTS (Part II of Permit)

The permit also requires annual submittal of an Ammonia Data Log that records the results for temperature, pH, and ammonia samples and date of sampling (Part II.B.3). Because the ammonia standards in 18 A.A.C. 11, Article 1, Appendix A are contingent upon the pH and temperature at the time of sampling for ammonia, the permittee must determine the applicable ammonia standard using the ammonia criteria table(s) and calculate the Ammonia Impact Ratio for that ammonia sample result. The AIR is recorded on the DMR.

Requirements for retention of monitoring records are detailed in Part III.C.3 of the permit.

X. BIOSOLIDS REQUIREMENTS (Part III in Permit)

Biosolids not applicable

XI. SPECIAL CONDITIONS (Part V in Permit)

Permit Reopener

This permit may be modified based on newly available information; to add conditions or limits to address demonstrated effluent toxicity; to implement any EPA-approved new Arizona water quality standard; or to re-evaluate reasonable potential (RP), if assessment levels in this permit are exceeded [A.A.C. R18-9-B906 and 40 CFR Part 122.62 (a) and (b)].

XII. ANTIDEGRADATION

Antidegradation rules have been established under A.A.C. R18-11-107 to ensure that existing surface water quality is maintained and protected. The discharge from the Frito-Lay Casa Grande Facility will be to an ephemeral wash which will become (for purposes of this permit) an effluent-dependent water. Except for flows resulting from rain events, the only water in the wash will be the effluent. Therefore, the discharge and the receiving water will normally be one and the same. Discharge quality limitations and monitoring requirements have been established under the proposed permit to ensure that the discharge will meet the applicable water quality standards. As long as the permittee maintains consistent compliance with these provisions, the designated uses of the receiving water will be presumed protected, and the facility will be deemed to meet currently applicable antidegradation requirements under A.A.C. R18-11-107.

XIII. STANDARD CONDITIONS

Conditions applicable to all NPDES permits in accordance with 40 CFR, Part 122 are attached as an appendix to this permit.

XIV. ADMINISTRATIVE INFORMATION

Public Notice (A.A.C. R18-9-A907)

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

XIV. ADMINISTRATIVE INFORMATION

Public Comment Period (A.A.C. R18-9-A908)

Rules require that permits be public noticed in a newspaper of general circulation within the area affected by the facility or activity and provide a minimum of 30 calendar days for interested parties to respond in writing to ADEQ. After the closing of the public comment period, ADEQ is required to respond to all significant comments at the time a final permit decision is reached or at the same time a final permit is actually issued.

Public Hearing (A.A.C R18-9-A908(B))

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

EPA Review (A.A.C. R18-9-A908(C)

A copy of this draft permit and any revisions made to this draft as a result of public comments received will be sent to EPA Region 9 for review. If EPA objects to a provision of the draft, ADEQ will not issue the permit until the objection is resolved.

XV. ADDITIONAL INFORMATION

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

Arizona Department of Environmental Quality
Water Quality Division – Surface Water Permits Unit
Attn: Jessica Kohls
1110 West Washington Street
Phoenix, Arizona 85007

Or by contacting Jessica Kohls at (602) 771 – 0391 or by e-mail at kohls.jessica@azdeq.gov.

XVI. INFORMATION SOURCES

While developing effluent limitations, monitoring requirements, and special conditions for the draft permit, the following information sources were used:

1. AZPDES Permit Application Forms 1 and 2C, received May 10, 2019, along with supporting data, facility diagram, and maps submitted by the applicant with the application forms.
2. Supplemental information to the application received by ADEQ on July 19, 2019 via phone conference.
3. ADEQ files on Frito-Lay Casa Grande WWTP.
4. ADEQ Geographic Information System (GIS) Web site*, Enforcement and Compliance History Online (ECHO) EPA Database, and documents submitted via the MyDEQ Electronic Portal.*
5. Information provided to ADEQ staff during a site visit to the facility location on December 14, 2018.
6. Arizona Administrative Code (AAC) Title 18, Chapter 11, Article 1, *Water Quality Standards for Surface Waters,* adopted December 31, 2016.

XVI. INFORMATION SOURCES

7. A.A.C. Title 18, Chapter 9, Article 9. *Arizona Pollutant Discharge Elimination System* rules.

8. Code of Federal Regulations (CFR) Title 40:
   Part 122, *EPA Administered Permit Programs: The National Pollutant Discharge Elimination System.*
   Part 124, *Procedures for Decision Making*.
   Part 133. *Secondary Treatment Regulation.*
   Part 503. *Standards for the Use or Disposal of Sewage Sludge*.

9. EPA Technical Support Document for Water Quality-based Toxics Control dated March 1991.

10. *Regions 9 & 10 Guidance for Implementing Whole Effluent Toxicity Testing Programs*, US EPA, May 31, 1996.

11. *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms* (EPA /821-R-02-013).

12. U.S. EPA NPDES Permit Writers' Manual, September 2010.