

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

Fresno Office
1685 "E" St.
Fresno, CA 93706-2007

Sacramento Office (Main)
11020 Sun Center Dr. #200
Rancho Cordova, CA
95670-6114

Redding Office
364 Knollcrest Dr. #205
Redding, CA 96002

[Regional Board Website](https://www.waterboards.ca.gov/centralvalley) (<https://www.waterboards.ca.gov/centralvalley>)

**[TENTATIVE] WASTE DISCHARGE REQUIREMENTS ORDER
R5-2026-XXXX**



ORDER INFORMATION

Order Type(s):	Waste Discharge Requirements (WDRs)
Status:	Tentative
Program:	Groundwater Quality Protection Program
Region 5 Office:	Fresno
Discharger(s):	Azteca Milling, L.P.
Facility:	Azteca Madera Masa Plant
Address:	23865 Avenue 18, Madera, CA 93683
County:	Madera County
Parcel Nos.:	029-280-054, 029-290-011, and 029-290-014
CIWQS Place ID:	270057
Prior Order(s):	R5-2023-0007, 70-208

CERTIFICATION

I, PATRICK PULUPA, Executive Officer, hereby certify that the following is a full, true, and correct copy of the order adopted by the California Regional Water Quality Control Board, Central Valley Region, on _____ October 2026.

PATRICK PULUPA,
Executive Officer

TABLE OF CONTENTS

TABLE OF CONTENTS.....	i
TABLE INDEX	iii
GLOSSARY	iv
FINDINGS	1
Introduction	1
Facility and Discharge.....	3
Land Application Area and Wastewater Loading	7
2023 Updated Wastewater Nutrient Management Plan.....	8
Hydraulic Loading.....	9
Nitrogen Loading	9
Salt Loading.....	10
Organic Loading	10
Site-Specific Conditions	11
Topography, Climate, and Land Use	11
Soil Conditions.....	12
Groundwater and Subsurface Conditions	15
Statutory Authority	16
Basin Plan Implementation	17
Beneficial Uses of Water	17
Water Quality Objectives	18
Salt and Nitrate Control Programs.....	19
Special Considerations for High Strength Waste	20
Antidegradation Policy	22
California Environmental Quality Act.....	25
Other Regulatory Considerations.....	26
Water Code Section 13149.2.....	26
Human Right to Water	27
Threat-Complexity Rating	27

Azteca Milling, L.P.

Azteca Madera Masa Plant

Madera County

Table of Contents

Title 27 Exemption.....	28
Stormwater	28
Scope of Order.....	28
Procedural Matters.....	28
REQUIREMENTS	29
A. Standard Provisions	29
B. Discharge Prohibitions.....	29
C. Conditional Discharge Prohibitions.....	30
D. Flow Limitation.....	30
E. Performance-Based Salinity Limit.....	30
F. Discharge Specifications	31
H. Land Application Area Specifications	34
I. Groundwater Limitations.....	36
J. Solids Disposal Specifications	36
K. Provisions.....	37
ENFORCEMENT.....	41
ADMINISTRATIVE REVIEW.....	41
Attachment A — Project Location Map	A
Attachment B — Site Vicinity Map	B
Attachment C — Aerial Photo of Facility and LAAs	C
Attachment D — Facility Wastewater Flow Schematic	D
INFORMATION SHEET	IS.1

Azteca Milling, L.P.

Azteca Madera Masa Plant

Madera County

Table Index

TABLE INDEX

Table 1 - Projected Reduction.....	5
Table 2 - Main Storage Pond Dimensions.....	6
Table 3 - Projected Effluent Quality.....	6
Table 4 - Proposed LAA Irrigation Fields.....	7
Table 7 - Projected Nitrogen Loading Rates	10
Table 8 - Projected Salt (as FDS) Loading.....	10
Table 9 - Potential Cycle Average BOD Loading Rates	11
Table 10 - Average Soil Monitoring Data (Spring 2024 - Spring 2025)	13
Table 11 - Average Soil Monitoring Data (Fall 2023 - Fall 2025).....	14
Table 12 – Source Water Quality	15
Table 13 – Regional Groundwater Results.....	16
Table 14 - Constituents with Potential for Degradation	23
Table 15 - Flow Limitations	30

Azteca Milling, L.P.

Azteca Madera Masa Plant

Madera County

Glossary

GLOSSARY

ALR	Action Leakage Rate
Antidegradation Policy.....	Statement of Policy with Respect to Maintaining High Quality Waters in California, State Water Board Resolution 68-16
Basin Plan	Water Quality Control Plan for Sacramento and San Joaquin River Basins
bgs	Below Ground Surface
BOD _[5]	[Five-Day] Biochemical Oxygen Demand at 20°Celsius
BIDA.....	Biofilter Dynamic Aerobic
BPTC.....	Best Practicable Treatment and Control
CEQA	California Environmental Quality Act, Public Resources Code section 21000 et seq.
CEQA Guidelines	California Code of Regulations, Title 14, section 15000 et seq.
C.F.R.....	Code of Federal Regulations
COC[s]	Constituent[s] of Concern
DO.....	Dissolved Oxygen
DWR.....	California Department of Water Resources
EC	Electrical Conductivity
FDS	Fixed Dissolved Solids
FEMA	Federal Emergency Management Agency
gpd	Gallons per Day
gpm	Gallons per Minute
HDPE	High-Density Polyethylene
HCl	Hydrochloric Acid
LAA	Land Application Area

Azteca Milling, L.P.

Azteca Madera Masa Plant

Madera County

Glossary

LCRS..... Leachate Collection and Removal System

lbs/ac/day Pounds per Acre per Day

µmhos/cm..... Micromhos per Centimeter

MG Million Gallons

mgd Million Gallons per Day

mg/L Milligrams per Liter

msl..... Mean Sea Level

MRP Monitoring and Reporting Program

MW..... Monitoring Well

MCL..... Maximum Contaminant Level per Title 22

MND Mitigated Negative Declaration

N..... Nitrogen

ND Non-Detect

NM..... Not Monitored

R[O]WD..... Report of Waste Discharge

RCRA..... Resource Conservation and Recovery Act

SPRRs Standard Provisions and Reporting Requirements

TDS Total Dissolved Solids

Title 22 California Code of Regulations, Title 22

Title 23 California Code of Regulations, Title 23

Title 27 California Code of Regulations, Title 27

TKN..... Total Kjeldahl Nitrogen

Unified Guidance..... Statistical Analysis of Groundwater Monitoring Data at
RCRA Facilities, Unified Guidance (USEPA, 2009)

Azteca Milling, L.P.

Azteca Madera Masa Plant

Madera County

Glossary

USEPA..... United States Environmental Protection Agency

WDRs..... Waste Discharge Requirements

WQO[s] Water Quality Objective[s]

Azteca Milling, L.P.
Madera Masa Plant
Madera County

FINDINGS

The Central Valley Regional Water Quality Control Board (Central Valley Water Board) hereby finds as follows:

Introduction

1. Azteca Milling L.P. (Discharger) operates an industrial food processing plant (referred to as Madera Masa Plant or Facility) that produces corn masa. The Facility is located at 23865 Avenue 18 in Madera County. According to its website, the Discharger is the largest “nixtamal” corn producer in the United States. The Facility location is depicted on the Project Location Map in **Attachment A**, and the Facility and the adjacent properties are depicted on the Site Vicinity Map in **Attachment B**.
2. The Discharger has owned and operated the Facility since 1996. The Facility was originally regulated by Waste Discharge Requirements (WDRs) Order 70-208, which was issued to Valley Grain Drier, Inc. in June 1970. In 1976, Valley Grain Dryer, Inc. merged with Valley Grain Products, Inc., and in 1995, Valley Grain Products, Inc. merged with ADM Milling, Inc. (ADM). In 1996, ADM and Gruma Corporation, a multinational food corporation, formed Azteca Milling L.P. as a joint venture. Later, in 2012, Gruma acquired all ownership stakes in the limited partnership making Azteca Milling L.P. its subsidiary. On 27 April 2023, the Central Valley Water Board adopted revised WDRs Order R5-2023-0007, which authorized the discharge of food processing wastewater from the Facility up to 0.21 million gallons per day (mgd) to an unlined storage pond and 355 acres of land application area (LAAs).
3. On 5 August 2025, the Central Valley Water Board received a Report of Waste Discharge (RWD) for proposed improvements at the Facility, including the operation of a new wastewater treatment system. The proposed improvements include installation of a centrifuge to enhance solids separation, implementation of a BioFiltro® Biofilter Dynamic Aerobic (BIDA) treatment system, construction of a double-lined high-density polyethylene (HDPE) main storage pond, upgrades to the sprinkler irrigation system and other irrigation infrastructure at the LAAs, and installation of ancillary equipment necessary to support operation of the treatment, storage, and land application systems. The Discharger anticipates that the improvements will be completed by December 2026.
4. In addition to the August 2025 RWD, Provost and Pritchard Consulting Group submitted a Tier 1 Pond Design Report on 7 August 2025, on behalf of the Discharger, for the proposed lined main storage pond. The purpose of the proposed double-lined main storage pond is to provide seasonal storage of process wastewater. As such, the RWD proposes an annual flow influent limit of

76.6 million gallons per year, based on an average flow of 0.21 million gallons per day (MGD).

5. An updated RWD, submitted on 17 October 2025, included additional information, such as biochemical oxygen demand loading rates, inclusion of a water balance, and a revised Form 200.
6. The Facility, the associated LAAs, and the main storage pond are within portions of Sections 33 and 34, Township 10 S, Range 17 E, Mount Diablo Base and Meridian (MDB&M). The Facility and LAA-1 are within 181.6-acre Madera County Assessor Parcel Number (APN) 029-280-054. LAA-2 is 227 acres and is comprised of two Madera County parcels (APN 029-290-011 and 029-290-014). The Facility and LAAs, including individual LAA fields and blocks, are shown on the aerial photo provided as **Attachment C**.
7. The Discharger, as owner and operator of the Facility, is responsible for compliance with the WDRs prescribed herein.
8. The following materials are attached and incorporated as part of this Order:
 - a. Attachment A – Project Location Map
 - b. Attachment B – Site Vicinity Map
 - c. Attachment C – Aerial Photo of Facility and LAAs
 - d. Attachment D – Facility Wastewater Flow Schematic
 - e. Standard Provisions & Reporting Requirements dated 1 March 1991 (SPRRs).
 - f. Information Sheet
9. Also attached is **Monitoring and Reporting Program (MRP) Order R5-2026-XXXX**, which requires monitoring and reporting for discharges regulated under these WDRs.
10. Wastewater treatment systems at the Facility are proposed to be modified, which will change wastewater operations at the Facility. The proposed modifications to treatment system, including installation of a new centrifuge for increased solids separation and the Biofiltro® worm beds, are not reflected in WDRs Order R5-2023-0007. The revised WDRs herein are necessary to reflect proposed operations at the Facility and ensure the discharge meets the requirements of current water quality plans and policies.

Facility and Discharge

11. The Facility operates approximately 360 days per year and processes about 400,000 pounds of raw corn kernels daily to produce approximately 350,000 pounds of corn masa. Wastewater generated during the masa production process is currently discharged to an existing land application area, LAA-1. In 2022, the Discharger purchased approximately 227 acres of agricultural land, currently planted with almonds, for development as an additional land application area (LAA-2). The previous 2023 WDRs Order authorized discharge to LAA-2; however, the irrigation infrastructure for wastewater application has yet to be installed in this portion of the LAA. An abandoned, unlined storage pond was located near the center of LAA-1, but the Discharger has confirmed that the unlined pond had not been used since Azteca acquired the Facility.
12. Corn is delivered to the Facility by railcar and processed in 10,000-gallon cook tubs. Process wastewater generated from cooking, product rinsing, and equipment-cleaning operations will be sent to the upgraded treatment system at the Facility. Domestic wastewater from the Facility is managed by an onsite septic tank leach field system regulated by Madera County.
13. The cooking operation generates approximately 90 to 95 percent of the process wastewater at the Facility, while the remaining 5 to 10 percent is produced during cleaning of the processing equipment. Calcium hydroxide addition to the cooking water is needed to increase the pH to approximately 11.0 standard units (s.u.) for the masa process. Up to 48 batches of corn can be processed per 24-hour period, with each batch using approximately 3,500 gallons of water.
14. After cooking, the corn is conveyed through a wash auger, dewatered using a hydro-sieve, and fed via a cross auger into wet stone grinders, where it is processed into masa dough. The masa dough is then flash-dried in suspension dryers and packaged in either 50-pound bags or 2,200-pound totes. A process flow schematic is provided in Attachment D.
15. Influent wastewater generated from the masa production process and equipment cleaning activities is conveyed to a pretreatment system located outside the facility (monitoring location INF-001, as identified in the MRP). Because calcium hydroxide is used during the masa cooking process, the influent wastewater can exhibit elevated pH levels.
16. To reduce scaling within the treatment system, wastewater is treated with a solution of hydrochloric acid (HCl) prior to solids removal. HCl is stored onsite in a 1,550-gallon double-walled storage tank and is used primarily as a cleaning agent, while also providing pH adjustment. By lowering the influent pH, HCl helps dissolve calcium deposits and maintain the efficiency of the hydro-sieve.

17. Following HCl addition, wastewater passes through a hydro-sieve for solids removal and is then temporarily stored in a 5,000-gallon polyethylene tank. A flow meter equipped with a totalizer is located downstream of this tank and is used to measure influent flow volumes. Solids removed by the hydro-sieve are conveyed through a screw press to reduce moisture content before being deposited into bins and transferred to onsite trailers. These solids are subsequently sold for beneficial reuse as animal feed or applied within the LAAs. Wastewater from the screw press is returned to the centrifuge for further treatment.
18. Historically, wastewater was then pumped through subsurface piping to two 5,000-gallon above ground polyethylene storage tanks located in LAA-1. A discharge pump, controlled by tank level sensors, conveyed wastewater through a solid-set sprinkler system for irrigation. Sprinkler valves were manually operated by Azteca Milling personnel to ensure uniform wastewater application across LAA-1.
19. As part of the upgraded treatment process, wastewater will undergo enhanced solids separation using a new centrifuge system that discharges dewatered solids directly into a truck trailer positioned beneath the unit. The centrifuge solids will be collected and either hauled offsite for disposal or applied to the LAA.
20. Following solids separation, wastewater will be conveyed to the new BioFiltro® BIDA treatment system, which provides biological treatment using vermiculture. The BIDA system is a worm bed filtration system that utilizes earthworms, microorganisms, and filter media to remove organic contaminants from wastewater. According to the RWD, the purpose of the BIDA system is to mitigate odors from the wastewater that will be stored in a new lined main storage pond (more details included in findings below). The Discharger is proposing to construct two worm beds, each with an approximate surface area of 33,000 square feet.
21. To meet the new system's operating requirements, influent wastewater must have a temperature below 100°F and a pH between 6 and 9. To achieve the required temperature, wastewater from the new centrifuge will first pass through a closed-loop evaporative cooling system. The wastewater will remain isolated from the cooling water, and only minimal freshwater makeup will be required because the cooling water is continuously recirculated within the system.
22. After cooling, wastewater will flow to the equalization (EQ) tank, where pH adjustments can be made as necessary to maintain the operating range required for downstream treatment.
23. While the primary purpose of the BIDA system is biological treatment, the system is also expected to significantly improve effluent quality by reducing concentrations of other constituents of concern. Based on pilot testing conducted

by BioFiltro at the Facility, the following average constituent concentration reductions are anticipated as a result of the treatment system upgrades:

Table 1 - Projected Reduction

Constituent of Concern	Potential Percent Reduction (%)
Biochemical Oxygen Demand (BOD)	81
Total Suspended Solids (TSS)	93
Total Dissolved Solids (TDS)	40
Fixed Dissolved Solids (FDS)	28
Total Nitrogen (TN)	83

24. According to the Tier 1 Design Report, the worm bed liner is designed as a single layer HDPE system sloped at three percent toward the outer edges, where concrete curbing is installed along the full length of each side. In addition, the beds are sloped at half of a percent toward the center for drainage. The Tier 1 Design Report further states that the design principle is based on the concept used in secondary containment liner systems, where proper construction oversight, adequate slope, and drainage to a sump eliminate sustained hydraulic head. In the absence of any hydraulic head, there is no driving force to promote liquid migration through potential defects in the liner, thereby minimizing the potential for leakage to groundwater.
25. Effluent from the BIDA system will be discharged to a reinforced concrete weir pit prior to being stored in a new double-lined HDPE main storage pond. After which, effluent is discharged to 1,440-cubic foot, or about 10,800-gallon, reinforced concrete irrigation pit, where irrigation water can be mixed prior to irrigation at the 353-acre LAAs for irrigation. According to the RWD, LAA-1 will be irrigated with a sprinkler irrigation system, and LAA-2 will be irrigated with a combination of surface, micro-irrigation, or sprinklers. There are individual flow meters for each of the LAAs.
26. The new proposed double-lined main storage pond will be approximately 700 ft long, 220 ft wide, and 30 ft deep. At three feet of freeboard, the total usable volume in the main storage pond will be approximately 20 million gallons (MG). Stormwater generated at the Facility is collected and conveyed to the proposed main storage pond, where it commingles with wastewater prior to discharge to the LAAs.

Table 2 - Main Storage Pond Dimensions

Length (ft)	Width (ft)	Surface Area (ac)	Depth (ft)	Slope (H:V)	Freeboard (ft)	Total Volume with Freeboard (MG)	Depth to Groundwater under Pond (ft)
700	220	3.5	30	2	3	20	180-290

27. According to the Tier 1 Design Report, the proposed main storage pond will be constructed with a double-liner system consisting of two HDPE liner layers separated by a geonet leak collection and removal system (LCRS). The pond floor is designed with slopes in two directions to promote drainage toward the LCRS sump. The pond will have a minimum floor slope of one and a half percent to prevent liner wrinkling (whaling).
28. The LCRS sump was designed and will be constructed in accordance with Section 20340 of Title 27 of the California Code of Regulations (CCR). In addition, a pan lysimeter will be installed beneath the LCRS sump to monitor for potential leakage through the secondary liner in the area where standing liquid is most likely to accumulate during operation. The minimum LCRS removal rate was determined to be approximately 8 gallons per minute (GPM), and the Tier 1 Design Report indicates that a submersible pump exceeding the minimum removal rate will be used.
29. MRP R5-2023-0007 required the Discharger to monitor treated wastewater discharged from the unlined storage pond prior to application at the LAAs and before any blending. The Discharger utilized the 75th percentile of effluent quality sampled between 2023 through 2024 and the projected performance of the BIDA system from pilot testing (see Table 1 above) to estimate the anticipated effluent quality following the proposed upgrades, which are summarized in Table 3 below. Results presented are in units of mg/L, unless otherwise specified.

Table 3 - Projected Effluent Quality

Parameters	2023-2024 Effluent Quality	Projected Effluent Quality
pH (S.U.)	8.7	6-9
Electrical Conductivity (µmhos/cm)	2,025	1,215
TDS	4,825	2,790

Parameters	2023-2024 Effluent Quality	Projected Effluent Quality
FDS	1,425	954
TSS	2,925	187
BOD ₅	3,800	703
Chemical Oxygen Demand	8,200	1,425
Nitrite as nitrogen	1	0.2
Nitrate as nitrogen	6.8	1.1
Ammonia as nitrogen	1	0.2
Total Kjeldahl nitrogen	110	18
Total nitrogen	109	19

Land Application Area and Wastewater Loading

30. The Discharger has split the LAAs into two designations (LAA-1 and LAA-2). LAA-1 consists of two fields totaling approximately 127 acres that are planted with forage crops such as corn, Sudan grass, and winter forage. LAA-2 consists of six separate blocks planted with almond orchards totaling approximately 226 acres. In total, the LAAs consist of approximately 353 acres of farmable acres. The table below summarizes field level information for the LAAs.

Table 4 - Proposed LAA Irrigation Fields

Field ID	Discharger Field ID	LAA Farmable Acres	APNs	Existing Field?
LAA 1-1	1	39.06	029-280-054	Yes
LAA 1-2	2	88.03	029-280-054	Yes
LAA 2-1	Block 1	38.13	029-290-014	Yes
LAA 2-2	Block 2	20.44	029-290-014	Yes
LAA 2-3	Block 3	39.05	029-290-014	Yes
LAA 2-4	Block 4	50.97	029-290-014	Yes
LAA 2-5	Block 5	39.44	029-290-014	Yes
LAA 2-6	Block 6	38.11	029-290-011	Yes
	Total Acreage	353.23		

31. Stored effluent will be applied to LAA-1 via two pivot irrigation systems. Corn silage is cultivated during the summer months and harvested once per season. Sudan grass silage, also a summer crop, is typically harvested up to three times per season. Winter forage crops, including triticale, wheat, oats, and barley, are

grown from fall through spring (generally October through May) and are harvested once per season. LAA-2 uses surface, sprinkler, or micro-irrigation, and almonds are harvested once per year, typically from early August to late September.

32. Additional crops, such as alfalfa, may be incorporated into the LAA in the future; however, alfalfa has not been grown on the site to date.

2023 Updated Wastewater Nutrient Management Plan

33. WDRs Order R5-2023-0007 required the Discharger to submit a Wastewater and Nutrient Management Plan (NMP) to update its previous 2021 NMP. The 2023 NMP was submitted on 27 October 2023 and described the continued use of the existing 123-acre LAA-1 and expansion of wastewater applications operations to LAA-2.
34. The NMP discussed how the main storage pond would support wastewater management for both LAAs, and upgraded irrigation systems (such as center pivots or comparable improvements) at LAA-1 to optimize distribution uniformity and maintain agronomic loading rates. The NMP notes that substantial supplemental freshwater will be required to successfully manage soil salinity and meet crop water demands across both LAAs.
35. The 2023 NMP provided loading estimates for both LAA-1 and LAA-2 using a design flow of 0.21 mgd and total annual effluent flow of approximately 76.6 MG, with total monthly flows ranging from about 5.9 to 6.5 MG. Nitrogen, salt, and BOD loading calculations were updated using updated effluent data up to May 2023. The Discharger's estimates assume an ammonia volatilization rate of 10 percent and a nitrate-nitrogen denitrification rate of 5 percent.
36. The 2023 NMP nitrogen balance indicated a net negative balance after crop uptake, meaning the discharge alone will not satisfy crop nutrient requirements and occasional fertilizer supplementation may be required. Salt loading estimates using updated fixed dissolved solids (FDS) concentrations indicate annual salt additions remain below suggested non-nutrient loading thresholds. BOD loading calculations for both LAA-1 and LAA-2 indicate daily BOD loadings generally range from 15 to 224 lbs/ac/day. Cycle average BOD loading rates remain well below the recommended 100 lbs/ac cycle average limit, and the 2023 NMP concludes that "a broad range of total cycle days (irrigation + rest) and depth of effluent applied are possible while maintaining appropriate BOD cycle average loading rates."
37. Incorporation of LAA-2 significantly increases overall land application capacity and therefore reduces nitrogen, salt, and BOD loading rates per acre compared to the 2021 NMP. The loading estimates presented in the 2023 NMP considered 123 acres of LAA-1 and the additional 226 acres of LAA-2 (though actual irrigable

acreage is slightly less due to access roads and infrastructure). The 2023 NMP concluded that the expanded acreage allows for substantially improved nutrient, salt, and hydraulic management while maintaining compliance with the previous WDR requirements.

38. The proposed addition of the new treatment system at the Facility is expected to significantly improve the quality of wastewater applied to the LAA, resulting in constituent loading estimates even less than those presented in the 2023 NMP. The following sections discuss staff evaluations of hydraulic, nutrient, salt, and organic loads resulting from Facility upgrades proposed since the submission of the 2023 NMP and outlined in the October 2025 RWD.

Hydraulic Loading

39. Based on the proposed maximum daily estimated wastewater flow of 0.21 mgd, total annual effluent flow to the LAA was estimated at 76.6 MG, and the RWD indicates that total monthly flows will range from 0.5 to 7 MG. A soil-water balance provided for the LAAs notes that wastewater from the Facility will provide about 31 and 9 percent of the annual hydraulic crop demand for LAA-1 and LAA-2, respectively. About 306 million gallons of additional supplemental freshwater will be required to successfully manage and farm the LAAs, which will be supplied from an irrigation well located in the northeast corner of LAA-1.

Nitrogen Loading

40. To evaluate LAA performance with regard to nitrogen, the Discharger assessed both the nitrogen balance (A-R) and the ratio of applied nitrogen to removed nitrogen (A/R) at the LAAs. LAA capacity is considered balanced when the amount of nitrogen applied is approximately equal to the amount removed through crop harvest. For the A-R metric, a balanced system is represented by a net nitrogen balance of approximately 0 lbs/ac. A negative nitrogen balance indicates that more nitrogen was removed through crop harvest than was applied, whereas a positive balance indicates that more nitrogen was applied than removed. For the A/R metric, a balanced system is represented by a ratio of approximately 1.00. Ratios less than 1.00 indicate that nitrogen removal exceeded nitrogen application, while ratios greater than 1.00 indicate that nitrogen application exceeded nitrogen removal.
41. The Discharger's LAA performance assessment considered the maximum proposed wastewater flow to the LAAs, the projected nitrogen wastewater quality of 19 mg/L, an ammonia volatilization rate of 10 percent and a denitrification rate for nitrate-nitrogen of 5 percent. As shown in Table 7, the nitrogen balances for both LAA-1 and LAA-2 indicate a net negative balance after crop uptake. As such, the discharge from wastewater alone will not provide enough nitrogen to meet crop needs and additional fertilizer will be needed. Nitrogen removal rates were

based on a comprehensive literature review conducted by Dr. Daniel Geisseler. The study was funded by the California Department of Food and Agriculture Fertilizer Research and Education Program (CDFA FREP), originally published in 2016, and subsequently updated in 2021.

Table 5 - Projected Nitrogen Loading Rates

Parameter	LAA-1 (Forage)	LAA-2 (Almonds)	Unit
Applied	98	17	lb/ac/yr
Removal	510	204	lb/ac/yr
A-R	-412	-187	lb/ac/yr
A/R	0.19	0.08	---

Salt Loading

42. Similarly, the Discharger estimated annual salt loading to the LAA from wastewater and supplemental fresh irrigation water. Wastewater contribution of FDS is based on the total proposed annual flow to the LAAs and the projected FDS wastewater concentration of 954 mg/L. Supplemental fresh irrigation water FDS load considers source water well quality for FDS (200 mg/L) and the remaining hydraulic crop demand for each crop; about 96 MG for LAA-1, and 245 MG for LAA-2. The RWD notes that the proposed wastewater discharge to the LAAs will result in salt loadings (as FDS) of about 3,700 pounds per acre per year (lbs/ac/yr) to LAA-1, and about 1,000 lbs/ac/yr to LAA-2, as summarized in Table 8.

Table 6 - Projected Salt (as FDS) Loading

FDS Load	LAA-1 Forage (lbs/ac/yr)	LAA-2 Almonds (lbs/ac/yr)
Wastewater	3,699	984
Freshwater	1,255	1,810
Total	4,954	2,794

Organic Loading

43. The Discharger presented a range of potential irrigation cycle lengths and application rate scenarios in the RWD. A single, fixed irrigation cycle or application rate was not anticipated because effluent irrigation from the main storage pond will be managed seasonally based on crop water demand, soil available water-holding capacity, and storage pond freeboard requirements. As a result, irrigation frequency and application depths will vary throughout the year. This operational flexibility allows the Discharger to meet agronomic and

wastewater management objectives at the LAA while meeting applicable cycle average BOD loading limits.

44. A broad range of total cycle days (irrigation and rest) and depth of effluent applied are possible while maintaining a cycle average BOD loading of 100 lbs/ac/day or less. The RWD included a matrix of potential cycle average loading rates based on the depth of applied irrigation, in inches, per event and the number of cycle days. The matrix indicates that there are numerous scenarios in which the Discharger could achieve a cycle average BOD load less than 50 lbs/ac/day. For instance, in a scenario during which the Discharger applied the current maximum daily flow of 0.21 mg to about half of the LAA (about 150 ac) for seven days, the resulting irrigation depth would be about 0.36 inches, which corresponds to a matrix cycle average load of 9 lbs/ac/day or less, depending on the number of rest days following irrigation. Cycle average BOD loadings were estimated in the RWD and are presented in Table 9 below. Scenarios resulting in cycle-average BOD loading rates greater than 100 lbs/ac/day are not shown, as these combinations of cycle length and application depth would be avoided in practice.

Table 7 - Potential Cycle Average BOD Loading Rates

Total Cycle Days (Irrigation and Rest)	Depth Applied Per Effluent Irrigation Event (inches)				
	0.3	1	2	3	5
1	49	---	---	---	---
3	16	55	---	---	---
5	10	33	65	98	---
7	7	23	47	70	---
14	4	12	23	35	58

Site-Specific Conditions

Topography, Climate, and Land Use

45. The ground surface elevation at the Facility is about 250 feet above mean sea level and the natural land surface slopes gradually to the west. The nearest surface water is Dry Creek, which borders the northern property line of the Facility. Dry Creek is shown as an intermittent water body that would discharge into the Fresno River about 8 miles southwest of the facility. The Fresno River is about 3 miles south of the Facility.
46. The region is characterized by hot dry summers and mild winters. The rainy season generally extends from November through March. Occasional rains occur during the spring and fall months, but summer months are dry. Average annual precipitation is about 12.3 inches. The region has an annual evapotranspiration of 53.4 inches with monthly averages ranging from 0.93 inches in December to

8.1 inches in July (California Irrigation Management Information System, Reference Evapotranspiration Zones, Zone 12).

47. The Facility is within Federal Emergency Management Agency (FEMA) flood map 06039C0900E. According to the flood map, the Facility, LAA-1, and all but a small portion at the southeast corner of LAA-2 is within a 100-year flood zone special hazards area indicating the potential flood depth of 1 foot. Process wastewater applied via sprinkler irrigation to a crop reduces the potential for ponding on the ground surface and irrigation is not authorized during rainfall events, so impact from a flood covering the LAAs would be minimal once the lined main storage pond is installed. Additionally, the Azteca property (Facility and LAAs) has an earthen 12 to 18-inch berm surrounding it and the proposed main storage pond will be constructed with a four-foot above grade berm that will protect the pond from inundation of flood waters.
48. Land usage surrounding the Facility is a mixture of agricultural, light industrial, and rural residential. The Southern Pacific railway and Highway 99 form the western property line of the Facility and LAA-1. The Facility and LAA-1 are bordered by agricultural properties to the north, east (by LAA-2), and south. LAA-2 is bounded to the north by agriculture. Rural residences are present to the south and west of LAA-2. According to the California Department of Water Resources Land Use Viewer, typical crops grown in the area include deciduous fruits, nuts, and grapes.

Soil Conditions

49. According to the Web Soil Survey published by the United States Department of Agriculture, Natural Resources Conservation Service, soils in LAA-1 consist primarily of San Joaquin sandy loam (over 80 percent) with lesser amounts of Greenfield coarse sandy loam and Delhi sand. Soils in LAA-2 also consist primarily of the San Joaquin sandy loam (about 50 percent) but include Atwater sandy loam, Madera loam, and the Tujunga sandy loam in addition to the Greenfield coarse sandy loam. The San Joaquin sandy loam is a Class 4s soil that has very severe limitations that reduce the choice of plants or that require very careful management, or both. The "s" subclass indicates the soil is limited mainly because it is shallow, droughty, or stony. The San Joaquin sandy loam is described as moderately well drained with a very low capacity to transmit water.
50. Salts in soil affect plant growth through osmotic stress, specific ion toxicity, and soil dispersion caused by high sodium and low overall salinity. As salinity in the root zone increases, plants expend more energy on osmotic adjustment to access water, leaving less energy for growth. When growth reduction is due to elevated concentrations of individual ions rather than osmotic effects alone, it is considered specific ion toxicity; sodium, chloride, and boron are the primary ions of concern in

wastewater. High sodium can also degrade soil structure by reducing permeability, causing surface crusting, and leading to shallow infiltration issues. In clay-rich soils, excess sodium relative to calcium and magnesium can cause deflocculation and swelling of clay particles, reducing permeability and concentrating salts near the surface. The sodium adsorption ratio (SAR) is used to predict infiltration problems by comparing sodium levels to calcium and magnesium in water. SAR values of 10 or less are generally acceptable for soils with about 15 percent clay, while soils with lower clay content or non-swelling clays can tolerate SAR values up to 20. Soil SAR can be reduced through gypsum or other calcium amendments, which displace sodium on soil exchange sites and allow it to be leached below the root zone.

51. Monitoring and Reporting Program (MRP) R5-2023-0007 required soil monitoring from each field/management unit within LAA-1 and LAA-2. According to data submitted by the Discharger between Fall 2023 through Fall 2025, samples were collected from two background locations (BG1 and BG2) as well as 12 individual sampling locations (Soil-01 thru Soil-12) within three fields in LAA-1. The fields are labeled Field 1 through Field 3, and four locations are sampled in each. BG1 is in a currently unutilized field (Field 4) that is in the middle of LAA-1. BG2 is located on the northeast corner of LAA-1 near the Discharger's primary source water well (SW-1) and Dry Creek. The samples are collected from the ground surface and depths of 0.5 , 2, 4, and 6 feet bgs for soil pH, sodium, chloride, nitrate as nitrogen, and total Kjeldahl nitrogen on a bi-annual basis. Average reported soil monitoring data from spring 2024 through fall 2025 are presented in the tables below. Empty cells in the tables indicate that the sampler encountered refusal at the respective depth.

Table 8 - Average Soil Monitoring Data (Spring 2024 - Spring 2025)

Sample Location	Depth (ft)	pH (S.U)	Na (meq/L)	Cl (meq/L)	NO ₃ -N (mg/kg)	TKN (mg/kg)	Calculated Soil NO ₃ -N (lbs/ac)
BG1	0 - 0.5	6.2	0.7	0.6	2.5	1440	5.0
BG1	0.5 - 2	5.9	0.9	0.9	2.0	1310	4.0
BG1	2 - 4	---	---	---	---	---	---
BG1	4 - 6	---	---	---	---	---	---
BG2	0 - 0.5	6.5	1.4	4.1	118	5840	236
BG2	0.5 - 2	7.2	6.1	13.7	87.5	489.5	525
BG2	2 - 4	6.8	9.3	20.7	111.5	412.5	343
BG2	4 - 6	---	---	---	---	---	---
Field 1	0 - 0.5	7.5	2.0	3.3	36.3	5008.8	72.5
Field 1	0.5 - 2	7.9	2.6	3.4	7.9	497.8	34.8
Field 1	2 - 4	7.7	2.3	3.3	11.1	398.6	67.7

Azteca Milling, L.P.
Madera Masa Plant
Madera County

Sample Location	Depth (ft)	pH (S.U)	Na (meq/L)	Cl (meq/L)	NO ₃ -N (mg/kg)	TKN (mg/kg)	Calculated Soil NO ₃ -N (lbs/ac)
Field 1	4 - 6	7.9	1.7	1.8	13.3	282.0	38.7
Field 2	0 - 0.5	6.7	2.1	3.1	28.4	5798.8	56.8
Field 2	0.5 - 2	7.2	2.6	4.3	18.0	568.8	71.5
Field 2	2 - 4	7.1	2.6	3.8	24.2	364.0	92.8
Field 2	4 - 6	7.0	1.5	1.8	15.0	287.3	39.0
Field 3	0 - 0.5	7.6	2.0	2.9	32.6	5636.3	65.3
Field 3	0.5 - 2	7.8	1.8	2.1	9.8	804.8	49.5
Field 3	2 - 4	7.6	1.9	2.3	19.0	476.0	80.0
Field 3	4 - 6	7.6	1.8	2.9	23.0	773.0	92.0

Table 9 - Average Soil Monitoring Data (Fall 2023 - Fall 2025)

Sample Location	Depth (ft)	pH (S.U.)	Na (meq/L)	Cl (meq/L)	NO ₃ -N (mg/kg)	TKN (mg/kg)	Calculated Soil NO ₃ -N (lbs/ac)
BG1	0 - 0.5	6.0	0.8	0.7	43.7	1180	87.3
BG1	0.5 - 2	6.8	1.3	0.5	45	659.7	266
BG1	2 - 4	7.0	1.1	1.0	49	364	392
BG1	4 - 6	7.4	0.8	1.0	19	144	152
BG2	0 - 0.5	6.1	4.2	12.2	268	3396.7	536
BG2	0.5 - 2	6.9	2.6	5.5	57.3	632	296
BG2	2 - 4	6.8	4.3	9.0	56.5	462.5	263
BG2	4 - 6	7.5	3.0	6.6	33	121	264
Field 1	0 - 0.5	7.1	3.8	6.1	143.4	4650.8	286.8
Field 1	0.5 - 2	7.5	3.0	4.7	37.5	682.2	178.3
Field 1	2 - 4	7.6	1.9	3.4	17.5	445.9	113.2
Field 1	4 - 6	7.6	1.4	1.8	15.8	343	92.3
Field 2	0 - 0.5	7.2	2.3	3.0	50.9	3803.3	101.8
Field 2	0.5 - 2	7.2	3.3	5.2	29.8	860.4	144.2
Field 2	2 - 4	7.3	2.3	2.9	21.5	368.2	109.6
Field 2	4 - 6	7.2	0.7	1.1	8.5	209.8	29
Field 3	0 - 0.5	7.4	3.3	5.2	67.8	3350.8	135.7
Field 3	0.5 - 2	7.7	2.3	4.0	24.2	523.7	127.7
Field 3	2 - 4	7.8	2.1	2.8	13.4	354.6	67.4
Field 3	4 - 6	7.8	2.3	3.3	15	152.7	98

52. Based on the average soil monitoring data for spring and fall, pH ranges from slightly acidic (pH of 6) to slightly alkaline (around 7.9) but is generally near a neutral pH (pH of 7). Soil salinity (sodium and chloride) and nitrogen (nitrate as nitrogen and total kjeldahl nitrogen) concentrations overall appear to be higher in

soil sampling locations at each depth interval when compared to BG1. However, results from BG2, which is located near Dry Creek, are higher than samples collected at both BG1 and from each field.

Groundwater and Subsurface Conditions

53. Source water is supplied to the Facility by two onsite wells. The depth to water in the two onsite source water wells in February 2017 was 234 and 253 feet bgs in Wells 1 and 2, respectively. Average results of the two monitoring wells from January 2017 to October 2024 are presented in Table 13. Values in parentheses represent the range of results, while the value in the bracket is the total number of samples collected during the sampling period.

Table 10 – Source Water Quality

Constituent	Units	Well 1	Well 2
TDS	mg/L	152 (81-230) [12]	225 (210-240) [2]
FDS	mg/L	175 (170-180) [2]	195 (190-200) [2]
EC	µmhos/cm	255 (175-461) [16]	312 (228-419) [6]
Nitrate as N	mg/L	3.6 (0.2-13) [12]	3.1 (3.1) [2]
pH	s.u.	7.3 (7-7.6) [6]	7.3 (7-7.9) [6]

Regional Groundwater Occurrence and Quality

54. There are no monitoring wells at the Facility, but WDRs Order 70-208 noted the that the depth to the unconfined groundwater table in the area ranged between 70 and 80 feet bgs and that groundwater samples from the area were collected in 1965 and 1966 and the EC of the groundwater ranged from 150 to 462 µmhos/cm. Depth to groundwater information and groundwater elevation maps are available from the [California Department of Water Resources \(DWR\) SGMA Data Viewer](https://sgma.water.ca.gov/webgis/?appid=SGMADataViewer) (https://sgma.water.ca.gov/webgis/?appid=SGMADataViewer) database. Groundwater elevations for spring 2025 show that the predominant flow direction is to the southwest near the location of the Facility, and the depth to water was between about 300 and 330 feet bgs.

55. A review of the State Water Board Groundwater Ambient Monitoring and Assessment (GAMA) database shows three domestic wells (AGW080017006, AGW080017007, AGW080018696) within a half mile of the Facility and cross-gradient from the LAAs. Each well has only one available sampling result analyzed for nitrate plus nitrite collected between 2020 and 2021 and results ranged from 2.9 to 7.0 mg/L.
56. The GAMA website also shows the presence of three individual municipal wells in the vicinity of the Facility. Well CA2000682-003 is onsite near the southeast corner of the Facility property. It provides water to the Azteca Office, but not to the Facility. Well CA2000682-002 is located southeast of the intersection of Avenue 18 and Road 24 and is listed as being 295 feet in depth with a 125-foot screened interval. Well CA2000370-002 is located about 0.5 mile southwest, downgradient and west of Highway 99. Available average and range of groundwater quality results for these three wells are shown in Table 14. Generally, results indicate that the groundwater near the facility is of good quality, since no exceedances of applicable WQOs have been observed from these wells.

Table 11 – Regional Groundwater Results

Constituent	Units	CA2000682-003 (See 1 below)	CA2000682-002 (See 2 below))	CA2000370-002 (See 3 below)
Calcium	mg/L	62 (14 – 106)	27 (23 – 32)	13 (9 - 16)
Sodium	mg/L	30.6 (21 – 40.4)	24 (22 – 27)	23 (20 – 28)
Nitrate as N	mg/L	3.0 (0.4 – 4.8)	2.3 (0.8 – 3.1)	2.0 (0.2 – 4.3)
EC	µmhos/cm	350 (130 – 953)	245 (200 – 306)	217 (190 – 250)
TDS	mg/L	381 (190 – 570)	220	202 (192 – 220)
pH	s.u.	7.2	7.4	7.4

1. Data is from one (pH) to nine samples collected from May 2008 through March 2025.
2. Data is from one (TDS and pH) to 21 samples collected from May 2008 through January 2026.
3. Data is from 3 to 29 samples collected from October 2001 through January 2026.

Statutory Authority

57. The ability to discharge waste is a privilege, not a right, and adoption of this Order shall not be construed as creating a vested right to continue discharging waste. (Wat. Code, § 13263, subd. (g).)

58. This Order and its associated MRP are adopted pursuant to Water Code section 13267, subdivision (b)(1), which provides as follows:

[T]he regional board may require that any person who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste ... shall furnish, under penalty of perjury, technical or monitoring program reports which the regional board requires. The burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports. In requiring those reports, the regional board shall provide the person with a written explanation with regard to the need for the reports and shall identify the evidence that supports requiring that person to provide the reports.

The reports required under this Order, as well as under the separately issued MRP, are necessary to verify and ensure compliance with WDRs. The burden associated with such reports is reasonable relative to the need for their submission.

59. This Order is adopted pursuant to Water Code section 13263, subdivision (a), which provides in pertinent part as follows:

The regional board, after any necessary hearing, shall prescribe requirements as to the nature of any proposed discharge, existing discharge, or material change in an existing discharge..., with relation to the conditions existing in the disposal area or receiving waters upon, or into which, the discharge is made or proposed. The requirements shall implement any relevant water quality control plans that have been adopted, and shall take into consideration the beneficial uses to be protected, the water quality objectives reasonably required for that purpose, other waste discharges, the need to prevent nuisance, and the provisions of [Water Code] Section 13241.

60. Compliance with section 13263, subdivision (a), including implementation of applicable water quality control plans, is discussed in the findings below.

Basin Plan Implementation

Beneficial Uses of Water

61. This Order implements the Central Valley Water Board's Water Quality Control Plan for the Sacramento River Basin and the San Joaquin River Basin (Basin Plan), which designates beneficial uses for surface water and groundwater and establishes water quality objectives (WQOs) necessary to preserve such beneficial uses. (See Wat. Code, § 13241 et seq.).

Azteca Milling, L.P.
Madera Masa Plant
Madera County

62. The Facility is in the San Joaquin Valley Floor hydrologic unit, Madera groundwater hydrologic area (No. 545.20), as depicted on interagency hydrologic maps prepared by the State Water Board. Local drainage is to Dry Creek, a tributary of the Fresno River. Per the Basin Plan, beneficial uses of underlying groundwater at the Facility are municipal and domestic supply (MUN); agricultural supply (AGR); industrial service supply (IND); and industrial process supply (PRO).

Water Quality Objectives

63. The Basin Plan establishes a numeric WQO for total coliform organisms in groundwater and narrative WQOs for chemical constituents, tastes and odors, and toxicity in groundwater.
64. The numeric WQO for bacteria is expressed as the most probable number (MPN) of coliform organisms per 100 mL of water. For MUN-designated groundwater, the objective is an MPN of 2.2 organisms over any seven-day period.
65. The narrative WQO for chemical constituents in groundwater generally provides that groundwater shall not contain constituents in concentrations adversely affecting beneficial uses. For MUN-designated waters, the Basin Plan further provides that water, at a minimum, meet the primary and secondary maximum contaminant levels (MCLs) specified in California Code of Regulations, title 22 (Title 22), sections 64431, 64444, and 64449. The Central Valley Water Board may apply limits more stringent than MCLs to ensure that waters do not contain chemical constituents in concentrations that adversely affect beneficial uses.
66. The narrative WQO for tastes and odors in groundwater provides that groundwater shall not contain taste- or odor-producing substances in concentrations that cause nuisance or adversely affect beneficial uses.
67. The narrative WQO for toxicity provides that groundwater shall be maintained free of toxic substances in concentrations producing detrimental physiological responses in human, animal, plant or aquatic life associated with designated beneficial uses.
68. To the extent necessary, narrative WQOs are quantified, on a site-specific basis, as numeric limits for constituents with potential to adversely impacted designated uses. In determining a site-specific numeric limit, the Central Valley Water Board considers relevant published criteria. Quantifying a narrative WQO requires a site-specific evaluation of those constituents that have the potential to impact water quality and beneficial uses. The Basin Plan states that when compliance with a narrative objective is required to protect specific beneficial uses, the Central Valley Water Board will, on a case-by-case basis, adopt numeric limitations to implement the narrative objective. In establishing a specific numeric interpretation

of a narrative WQO, the Basin Plan methodology is to consider any relevant published criteria.

Salt and Nitrate Control Programs

69. The Central Valley Water Board adopted Basin Plan amendments incorporating new programs for addressing ongoing salt and nitrate accumulation in the Central Valley at its 31 May 2018 Board Meeting (Resolution R5-2018-0034). The Basin Plan amendments became effective on 17 January 2020 and were revised by the Central Valley Water Board in 2020 with [Resolution R5-2020-0057](https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/resolutions/r5-2020-0057_res.pdf) (https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/resolutions/r5-2020-0057_res.pdf).
70. Under the Salt Control Program, dischargers that are unable to comply with stringent salinity requirements will instead need to meet performance-based requirements and participate in a basin-wide effort known as the Prioritization and Optimization Study (P&O Study) to develop a long-term salinity strategy for the Central Valley. The Discharger was issued an identification number for the Salt Control Program (CV-SALTS ID 2595). On 28 June 2021, the Discharger elected to participate in the P&O Study (Alternative Approach) and is currently in good standing with the program. This Order carries over the previously established Performance-Based annual effluent FDS limitation of 1,900 mg/L (calculated as an annual average) until the proposed upgrades are completed. However, once the upgrades are complete, this Order sets a Performance-Based Salinity Limit for FDS of 1,250 mg/L (as an annual average) for the effluent prior to any blending with supplemental irrigation water. The updated Performance-Based Salinity limit considers the projected average FDS concentration in the discharge of approximately 1,000 mg/L and includes a 25 percent contingency to account for drought conditions and water conservation efforts.
71. The Nitrate Control Program is a prioritized program. The Facility is within Groundwater Basin 5-022.06 (San Joaquin Valley – Madera), which is a Priority 2 Basin. Notices to Comply were issued to dischargers in Priority 2 Basins in December 2023 and dischargers had until February 2025 to respond to the notice. These notices provided dischargers with a choice to participate in an individual permitting approach (Pathway A) or in a collective permitting approach (Pathway B). The Discharger selected Pathway B to comply with the Nitrate Control Program and is an active member of the Valley Water Collaborative. Under the collective approach, dischargers jointly form “Management Zones” that fulfill the requirements of the Nitrate Control Program.
72. Under the Nitrate Control Program, dischargers that cause or contribute to nitrate pollution in groundwater may apply, individually or collectively, for a limited term “exception” from meeting nitrate limits. Compliance time schedules must be as short as practicable and are not to exceed 35 years. The Central Valley Water

Board will only grant exceptions upon finding that all elements of the Board's Exceptions Policy are met. For nitrate, the Exceptions Policy dictates that exceptions will not be considered unless an adequate supply of clean, safe, reliable and affordable drinking water is available for those who have been adversely affected by the non-compliant discharge.

73. A Preliminary Management Zone Proposal for the Madera Management Zone was submitted in December 2024, and the Central Valley Water Board provided comments for consideration during development of a Final Management Zone Proposal (FMZP). The FMZP was submitted to the Central Valley Water Board on 16 February 2026.
74. Management Zones in Priority 2 Basins are required to submit Management Zone Implementation Plans (MZIPs) six months after the Final Management Zone Proposal (FMZP) is accepted by the Central Valley Water Board's Executive Officer. The MZIP is required to include a proposal for how dischargers within the Madera Management Zone will meet requirements of the Nitrate Control Plan and the Exceptions Policy. The MZIP will serve as the basis for permit amendments for all dischargers in the Management Zone. The Board may propose to consider a package of permit amendments for all dischargers in the Management Zone in a single permitting action, where the Board will also make findings as to whether the requirements of the Exception Policy are met by the proposals in the MZIP.
75. As these strategies are implemented, the Central Valley Water Board may find it necessary to modify the requirements of these WDRs to ensure the goals of the Salt and Nitrate Control Programs are met. As such, this Order may be amended or modified to incorporate any newly applicable requirements. More information regarding this regulatory planning process can be found on the [Central Valley Water Board's CV-SALTS website](https://www.waterboards.ca.gov/centralvalley/water_issues/salinity) (https://www.waterboards.ca.gov/centralvalley/water_issues/salinity).

Special Considerations for High Strength Waste

76. For the purpose of this Order, "high strength waste" is defined as wastewater that contains concentrations of readily degradable organic matter that exceed typical concentrations for domestic sewage. Such wastes contain greater than 500 mg/L BOD₅. Typical high strength wastewaters include septage, some food processing wastes (e.g., slaughterhouse), winery wastes, and rendering plant wastes.
77. Excessive application of high organic strength wastewater to land can create objectionable odors, soil conditions that are harmful to crops, and degradation of underlying groundwater with nitrogen species and metals, as discussed below. Such groundwater degradation can be prevented or minimized through implementation of best practicable treatment or control (BPTC) for BOD removal prior to land application, as well as best management practices such as planting

crops to take up plant nutrients and maximizing oxidation of BOD to prevent nuisance conditions.

78. Regarding BOD, excessive application can deplete oxygen in the vadose zone and lead to anoxic conditions. At the ground surface, this can result in nuisance odors and fly breeding. When insufficient oxygen is present, anaerobic decay of the organic matter can create reducing conditions that convert metals that are naturally present in the soil as relatively insoluble (oxidized) forms to more soluble reduced forms. This condition can be exacerbated by acidic soils and/or acidic wastewater. If the reducing conditions do not reverse as the percolate travels through the vadose zone, these dissolved metals (primarily iron, manganese, and arsenic) can degrade shallow groundwater quality. Some aquifers contain large vadose (unsaturated) zones with sufficient dissolved oxygen to significantly oxidize or attenuate dissolved metals prior to reaching groundwater, but excessive BOD loading over extended periods may cause degradation and beneficial use impacts associated with these metals.
79. Typically, irrigation with high strength wastewater results in high loading on the day of application. It is reasonable to expect some oxidation of BOD at the ground surface, within the evapotranspiration zone and below the root zone within the vadose zone. The maximum BOD loading rate that can be applied to land without creating nuisance conditions or leaching of metals can vary significantly depending on soil conditions and operation of the land application system.
80. *Pollution Abatement in the Fruit and Vegetable Industry*, published by the United States Environmental Protection Agency, cites BOD loading rates in the range of 36 to 600 lbs/acre-day to prevent nuisance, but indicates the loading rates can be even higher under certain conditions. The studies that supported this report did not evaluate actual or potential groundwater degradation associated with those rates. There are few studies that have attempted to determine maximum BOD loading rates for protection of groundwater quality. Those that have been done are not readily adapted to the varying soil, groundwater, and climate conditions that are prevalent throughout the Central Valley region.
81. The California League of Food Processors' *Manual of Good Practice for Land Application of Food Processing/Rinse Water* (Manual of Good Practice) proposes risk categories associated with particular BOD loading rate ranges as follows:
 - a. Risk Category 1: (less than 50 lbs/ac/day; depth to groundwater greater than 5 feet) Indistinguishable from good farming operations with good distribution important.
 - b. Risk Category 2: (less than 100 lbs/ac/day; depth to groundwater greater than 5 feet). Minimal risk of unreasonable groundwater degradation with good distribution more important.

- c. Risk Category 3: (greater than 100 lbs/ac/day; depth to groundwater greater than 2 feet) Requires detailed planning and good operation with good distribution very important to prevent unreasonable degradation, as well as use of oxygen transfer design equations that consider site-specific application cycles and soil properties and special monitoring.

The Manual of Good Practice recommends allowing a 50 percent increase in the BOD loading rates in cases where sprinkler irrigation is used but recommends that additional safety factors be used for sites with heavy and/or compacted soils.

- 82. The Manual of Good Practice was revised in February 2024. As part of the 2024 update, the California League of Food Processors conducted a peer-review process by contracting with scientists, professors, and engineers from California Polytechnic State University, San Luis Obispo, and the University of California, Davis. The Manual of Good Practice provides science-based guidance for BOD loading rates that, if fully implemented, are considered a best management practice to prevent groundwater degradation due to reduced metals. Projected BOD loading rates to the LAAs are less than 50 lbs/ac/day, as discussed in previous findings. These WDRs establish a BOD cycle average loading rate limit of 50 lbs/ac/day after the treatment system upgrades are installed and the system is operational to prevent odor conditions from occurring and to prevent groundwater degradation due to reduced metals. Until upgrades are complete, this Order carries over the BOD cycle average loading limit of 100 lbs/ac/day from WDRs Order R5-2023-0007.

Antidegradation Policy

- 83. State Water Board Resolution 68-16, Statement of Policy with Respect to Maintaining High Quality Waters of the State (Antidegradation Policy), which is incorporated as part of the Basin Plan, prohibits the Central Valley Water Board from authorizing degradation of "high quality waters" unless it is shown that such degradation will be consistent with the maximum benefit to the people of California; will not unreasonably affect present and anticipated future beneficial uses; and will not result in water quality worse than as prescribed in applicable policies. Resolution 68-16 further requires that any discharge to high quality waters be required to meet WDRs that will result in the BPTC of the discharge necessary to assure that pollution and/or nuisance will not occur and that the highest water quality consistent with the maximum benefit to the people of the State will be maintained.
- 84. The Antidegradation Policy applies when the Central Valley Water Board authorizes an activity that will result in discharges of waste to high-quality waters that will degrade the quality of those waters. "High quality waters" are those waters where water quality is more than sufficient to support beneficial uses designated in the Basin Plan. Whether a water is high-quality water is established

on a constituent-by-constituent basis, which means that an aquifer can be considered a high-quality water with respect to one constituent, but not for others (State Water Board Order WQ 91-10). If the activity will not result in the degradation of high-quality waters, the Antidegradation Policy does not apply, and the discharger needs to demonstrate that it will use "best efforts" to control the discharge of waste. A best efforts approach should consider the effluent quality achieved by other similarly situated dischargers, the good faith efforts of the discharger to limit the discharge of the constituent, and the measures necessary to achieve compliance (State Water Board Order WQ 81-5)."

85. Groundwater monitoring wells are not present at the Facility or LAAs. Given the limited availability of historic groundwater quality information, compliance with the Antidegradation Policy will be determined based on reported source water data, as well as available groundwater quality data near the Facility and LAAs as discussed in the previous findings.
86. For the purposes of this Order, constituents/parameters in effluent with the potential to degrade groundwater and/or affect beneficial uses include nitrate/nitrogen, salts (EC, FDS, TDS, etc.), and BOD₅. The table below provides a comparison of average concentrations of these constituents of concern in effluent, groundwater monitoring wells, and source water supply wells. The table also includes applicable WQOs for comparison. Water quality concerns associated with this Facility include nitrate/total nitrogen, salts, and BOD₅ as summarized below.

Table 12 - Constituents with Potential for Degradation

Parameters (see 1 below)	Source Water	Current Effluent	Projected Effluent	Regional Groundwater	WQO (reference)
BOD	---	3,800	703	---	---
TDS	190	4,825	2,790	268	500 1000 1,600 (sMCLs)
FDS	185	1,425	954	---	---
EC (µmhos/cm)	285	2,025	1,215	285	900 (sMCL)
Nitrate as N	3.4	6.8	1.2	2.4	10 (MCL)
Total Nitrogen	---	109	19	6	---

1. Units are in mg/L unless otherwise specified.

- a. **Salinity.** The limited nearby available groundwater data for the site shows groundwater is high quality with regards to salinity constituents. The Facility's process wastewater electrical conductivity (EC) concentrations exceed applicable water quality objectives and, therefore, if not properly stored and discharged could significantly degrade underlying groundwater for salt. However, the installation of the BIDA system is expected to significantly reduce the salts in the wastewater and associated loading to the LAAs, and installation of a double-lined main storage pond will prevent leaching of high-strength process wastewater during storage. This Order requires the Discharger to apply process wastewater to land at agronomic rates and the submittal of an updated Wastewater Nutrient Management Plan. The Discharger implements best management practices to minimize impacts from salts including blending with irrigation water.

Furthermore, the Discharger is an active member of the P&O Study for the Salt Control Program, and this Order includes an updated Performance-based Effluent Limit of 1,250 mg/L for FDS to ensure the Facility's effluent salinity concentrations do not increase. Lastly, the MRP requires the Discharger to regularly monitor the Facility's discharge for salinity constituents as well as calculate salinity loading rates on the land application areas. Given the above, the discharge is not expected to degrade groundwater with respect to salinity.

- b. **Nitrate.** Based on the limited available groundwater data for the site, groundwater is good quality with regard to nitrate. Total nitrogen levels in the proposed effluent will be significantly reduced from the previously permitted discharge from 71 mg/L to 19 mg/L; however, the total nitrogen concentration in the wastewater, even reduced, has the potential to degrade underlying groundwater.

As discussed in previous findings, nitrogen loading to the LAAs will be at well below the agronomic rates, and the Discharger has proposed (and is required by this Order) to implement various measures to reduce the Facility's potential impact on underlying groundwater, including lining the Facility's main storage pond to prevent wastewater leaching. In addition, this Order requires the Discharger to comply with the Nitrate Control Program, and the Discharger is a participating member of the Valley Water Collaborative. Accordingly, the Facility upgrades, together with participation in the Madera Management Zone, will help mitigate the discharge's impact on underlying groundwater, particularly with respect to nitrate.

- c. **Organics and metals.** The current Facility's effluent shows that the wastewater is considered high strength in regard to BOD₅; however, the new BIDA system will significantly reduce effluent BOD₅ concentrations by approximately 81% to around 700 mg/L. While this is still considered

high-strength, the new lined main storage pond will prevent the potential from mobilizing metals under reducing conditions from storage. Additionally, the Discharger has shown that BOD loading to the LAA may be managed under various irrigation scenarios to achieve cycle average loading rates around 10 lbs/ac/day. As such, this Order prescribes a cycle average BOD loading limit of 50 lbs/ac/day. Given the relatively low amount of BOD loading to the LAAs, it is not anticipated that wastewater applications to the LAAs will result in reducing conditions that would mobilize metal constituents and impact groundwater.

87. This Order requires the Discharger to implement the following measures, which the Central Valley Water Board has determined constitutes BPTC. These measures will minimize the extent of water quality degradation resulting from the Facility's continued operation:
- a. Comprehensive wastewater/effluent monitoring;
 - b. Treatment and long-term effluent storage in lined containment structures;
 - c. Wastewater application at agronomic rates;
 - d. Compliance with a BOD cycle average loading rate of 50 lbs/acre/day upon installation of the new treatment system;
 - e. Compliance with the Salt and Nitrate Control Programs;
 - f. Compliance with a Performance-Based Effluent Limit of 1,250 mg/L for FDS upon installation of the new treatment system;
 - g. Preparation and implementation of an updated Wastewater and Nutrient Management Plan.
88. The discharge authorized by this Order is consistent with the maximum benefit to the people of the state. In 2022, Azteca employed about 105 full-time and about 20 temporary employees at the Facility. The Facility contributes to the economic prosperity of the region by providing a necessary service and employment for the local community; by providing incomes for numerous aligned businesses; and by providing a tax base for local and county governments.
89. Based on the foregoing, the adoption of this Order is consistent with the State Water Board's Antidegradation Policy.

California Environmental Quality Act

90. Madera County as lead agency filed a Notice of Determination in compliance with Section 21108 or 21152 of the Public Resources Code and approved a mitigated negative declaration (MND) (SCH: 2025091405) for the proposed project on 12 November 2025 in accordance with the California Environmental Quality Act

(CEQA) (Public Resources Code Section 21000, et seq.) and the State CEQA Guidelines.

91. The MND project description included the potential construction of two additional facultative ponds for additional wastewater treatment. According to the Discharger, these ponds were incorporated into the MND's scope to allow for possible future construction by Azteca without triggering additional CEQA review. However, the facultative ponds are not currently included in the RWD and are considered a future phase of the project. This Order does not authorize discharge to facultative ponds described in the MND. If Azteca elects to proceed with construction of the facultative ponds, an updated RWD must be submitted and revised WDRs would be needed to authorize their addition.
92. The Central Valley Water Board, as a "responsible agency" under CEQA, was consulted in the lead agency's adoption of the MND. The issuance of this Order, which prescribes requirements and monitoring of waste discharges at an existing facility, with negligible or no expansion of its existing use, is exempt from the procedural requirements of CEQA, Public Resources Code section 21000 et seq., pursuant to California Code of Regulations, title 14, section 15301.

Other Regulatory Considerations

Water Code Section 13149.2

93. These WDRs regulate a facility that may impact a disadvantaged community and/or tribal community and includes an alternative compliance path that allows the Discharger time to come into compliance with certain WQOs (i.e., salinity and nitrate). The Discharger has selected the Alternative Salinity Permitting Approach for the Salt Control Program, which provides an alternative approach for compliance with salinity limits through implementation of specific requirements (i.e., support facilitation and completion of the Salinity P&O Study). The Discharger has also selected the Management Zone Approach for the Nitrate Control Program, which provides an alternative approach for compliance with the WQO for nitrate. The Central Valley Water Board has satisfied the outreach requirements set forth in Water Code section 189.7 by conducting outreach in affected disadvantaged and tribal communities through its notice and comment procedures. Additionally, the Central Valley Water Board sent a 3 June 2026 letter to potentially impacted disadvantaged and tribal communities for planned program actions, including preparation of this Order, to solicit consultation. Pursuant to Water Code section 13149.2, and as discussed in the following finding, the Central Valley Water Board reviewed readily available information and information raised to the Board by interested persons concerning anticipated water quality impacts in disadvantaged or tribal communities resulting from adoption of these WDRs. The Board also considered environmental justice concerns within the

Board's authority previously raised by interested persons with regard to those impacts.

94. The Central Valley Water Board anticipates that the issuance of these WDRs will result in water quality impacts within the scope of the Board's authority. Specifically, these WDRs authorize the continued discharge of wastewater with salinity concentrations above applicable water quality objectives. The BPTC measures required by this Order, as described above, are intended to minimize and, in the longer term, mitigate the impacts of the Facilities' discharges to nearby disadvantaged communities in Madera County. Although this Order may result in limited increases to salinity concentrations in groundwater in the near-term, the Salt Control Program is intended to achieve long-term balance and restoration, where possible, of salt-impacted groundwater basins across the region.

Human Right to Water

95. Pursuant to Water Code section 106.3, subdivision (a), it is "the established policy of the state that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes." Although this Order is not subject to Water Code section 106.3, as it does not revise, adopt, or establish a policy, regulation, or grant criterion (see § 106.3, subd. (b)), it nevertheless promotes the policy by requiring discharges to meet MCLs for drinking water (excluding salinity and nitrate), which are designed to protect human health and ensure that water is safe for domestic use. For salinity and nitrate, this Order requires compliance with the SCP and NCP, respectively. Although the Basin Plans' Exceptions Policy for Salinity, Nitrate, and/or Boron allows participants in these Programs to obtain limited-term exceptions from MCLs for salinity, nitrate, and/or boron, these Programs are consistent with the Human Right to Water Policy because their over-arching management goals and priorities include short-term provision of safe drinking water to impacted users and long-term restoration of impacted groundwater basins and sub-basins where reasonable, feasible, and practicable.

Threat-Complexity Rating

96. For the purposes of California Code of Regulations, title 23 (Title 23), section 2200, the Facility has a threat-complexity rating of **2-B**.
- a. Threat Category "2" reflects waste discharges that can impair receiving water beneficial uses, cause short-term water quality objective violations, cause secondary drinking water standard violations, and cause nuisances.
 - b. Complexity Category "B" reflects any discharger not included in Category A, with either (1) physical, chemical or biological treatment systems (except

for septic systems with subsurface disposal), or (2) any Class II or Class III WMUs.

Title 27 Exemption

97. This Order, which prescribes WDRs for discharges of nonhazardous process wastewater to land, is exempt from the prescriptive requirements of California Code of Regulations, title 27 (Title 27), section 20005 et seq. (See Cal. Code Regs., tit. 27, § 20090, subd. (b).)

Stormwater

98. State Water Board Order 2014-0057-DWQ (NPDES General Permit CAS000001) specifies WDRs for discharges of storm water associated with industrial activities and requires submittal of a Notice of Intent from all affected industrial dischargers. Stormwater captured within the primary facility processing area and treatment system will ultimately be conveyed to the main storage pond. Because all stormwater at the Facility is collected and disposed of onsite, the Discharger is not required to obtain coverage under NPDES General Permit CAS000001 at this time.

Scope of Order

99. This Order is strictly limited in scope to those waste discharges, activities and processes described and expressly authorized herein. This Order is also strictly limited in applicability to those individuals and/or entities specifically designated herein as “Dischargers.”
100. Pursuant to Water Code section 13264, subdivision (a), the Dischargers are prohibited from initiating the discharge of new wastes (i.e., other than those described herein), or making material changes to the character, volume, and timing of waste discharges authorized herein, without filing a new RWD per Water Code section 13260.
101. Failure to file a new RWD before initiating material changes to the character, volume or timing of discharges authorized herein, shall constitute an independent violation of these WDRs.

Procedural Matters

102. All of the above information, as well as the information contained in the attached Information Sheet (incorporated herein), was considered by the Central Valley Water Board in prescribing the WDRs set forth below.
103. The Discharger, interested agencies and other interested persons were notified of the Central Valley Water Board’s intent to prescribe the WDRs in this Order, and

provided an opportunity to submit their written views and recommendations at a public hearing. (See Wat. Code, § 13167.5.)

104. At a public meeting, the Central Valley Water Board heard and considered all comments pertaining to the discharges regulated under this Order.
105. The Central Valley Water Board will review and revise the WDRs in this Order as necessary.

REQUIREMENTS

It is Hereby Ordered, pursuant to Water Code sections 13263 and 13267, that WDRs Order R5-2023-0007 is rescinded (except for enforcement purposes); and that the Discharger and their agents, employees and successors shall comply with the following.

A. Standard Provisions

Except as expressly provided herein, the Dischargers shall comply with the Standard Provisions and Reporting Requirements dated 1 March 1991 (SPRRs), which are incorporated herein.

B. Discharge Prohibitions

1. Discharge of wastes to surface waters or surface water drainage courses is prohibited.
2. Waste classified as “hazardous” (per Cal. Code Regs., tit. 22, §66261.1 et seq.), shall not be discharged at the Facility under any circumstance.
3. Treatment system bypass or overflow of untreated or partially treated waste is prohibited.
4. Discharge of waste at a location or in a manner different from that described in the findings is prohibited.
5. Waste constituents shall not be discharged or otherwise released from the Facility (including during treatment and storage activities) in a manner that results in:
 - a. Violations of the Groundwater Limitations of this Order; or
 - b. Conditions of “nuisance” or “pollution,” as defined per Water Code section 13050.
6. Discharge of process wastewater to the onsite septic systems is prohibited.

Azteca Milling, L.P.

Azteca Madera Masa Plant

Madera County

Attachment B

7. Discharge of domestic wastewater to the wastewater treatment system, storage pond(s), stormwater pond(s), or LAA is prohibited.

C. Conditional Discharge Prohibitions

1. During Phase I of the Salt Control Program, the Discharger is prohibited from discharging salts at concentrations exceeding the salinity numeric value of 700 $\mu\text{mhos/cm}$ (as a monthly average) and 900 $\mu\text{mhos/cm}$ (as an annual average) unless the Discharger is implementing the Phase I requirements of the Salt Control Programs Alternative Permitting Approach (i.e., full participation in the P&O Study).
2. The Discharger is prohibited from discharging nitrate and other forms of nitrogen speciation (e.g., total inorganic nitrogen and total Kjeldahl nitrogen) unless the Discharger implements the requirements of the Nitrate Control Program Management Zone Approach.

D. Flow Limitation

1. The discharge of process wastewater from the Facility to the main storage pond (monitored at INF-001 in the MRP) shall not exceed the following:

Table 135 - Flow Limitations

Flow Measurement	Flow Limit
Monthly Average Daily Flow	0.21 mgd
Total Annual Flow (1 January through 31 December)	76.6 MGY

E. Performance-Based Salinity Limit

1. To comply with the Salt Control Program, the Dischargers have selected the Alternative Salinity Permitting Approach (i.e., Path 2, participation in the P&O Study). This order establishes the following performance-based salinity limits for FDS:

[TENTATIVE] Waste Discharge Requirements Order [TENTATIVE] Waste Discharge
Requirements Order R5-2026-XXXX B.31

Azteca Milling, L.P.

Azteca Madera Masa Plant

Madera County

Attachment B

- a. Until treatment system upgrades are complete (i.e., prior to submittal of the Final Completion Report required by Provision K.8), this Order carries over the previously established performance-based annual effluent FDS limitation of 1,900 mg/L (calculated as an annual average) monitored at EFF-001 (as defined in the MRP).
- b. Upon completion of the treatment system upgrades (i.e., upon submittal of the Final Completion Report per Provision K.8), the Performance-Based annual effluent FDS limitation shall be reduced to 1,250 mg/L (calculated as an annual average) monitored at EFF-001 (as defined in the MRP).

As required per the MRP, the Dischargers shall evaluate the annual average effluent FDS concentration in the discharge with this performance-based salinity limit.

F. Discharge Specifications

1. Waste discharges shall remain within the LAAs and lined main storage pond(s) and authorized waste treatment and/or containment structures.
2. All treatment systems and equipment shall be operated to optimize discharge quality.
3. All conveyance, treatment, storage, and disposal systems shall be designed, constructed, operated, and maintained to prevent inundation or washout due to floods with a 100-year return frequency.
4. All wastewater and solids shall be contained in or stored on an engineered lined surface with a hydraulic conductivity standard of 1.0×10^{-6} centimeters per second or less using one of the following:
 - a. A compacted clay liner, with a minimum clay thickness of two feet.
 - b. A Portland cement concrete liner, designed to minimize cracking and infiltration.
 - c. A synthetic liner, consisting of a 40 thousandths of an inch (mil) synthetic geomembrane or a 60-mil high-density polyethylene liner installed over a prepared base or a secondary clay or concrete liner.

Azteca Milling, L.P.

Azteca Madera Masa Plant

Madera County

Attachment B

- d. An equivalent engineered alternative.

The Discharger shall regularly inspect the condition of the engineered liner(s) to ensure the integrity of the liner is maintained and leakage is minimized. Necessary repairs shall be completed within a reasonable timeframe consistent with the severity of the impairment and potential impact to water quality.

- 5. The proposed lined main storage pond will contain a Leachate Collection and Removal System (LCRS). This order includes an Action Leakage Rate (ALR) for the LCRS of 8 gallons per minute. The ALR is based on the Discharger's Tier 1 Pond Design Report. If leachate generated in the LCRS exceeds the ALR, the Discharger is required to take actions to inspect and repair the primary liner system consistent with Discharge Specification F.4.
- 6. Objectionable odors shall not be perceivable beyond the limits of the Facility property where the waste is generated, treated, and/or discharged at an intensity that creates or threatens to create nuisance conditions. As a means of ensuring compliance with this specification the Discharger shall comply with the following:
 - a. The dissolved oxygen (DO) content in the upper one foot of any wastewater treatment or storage pond shall not be less than 1.0 mg/L for three consecutive sampling events. Notwithstanding the DO monitoring frequency specified in the monitoring and reporting program, if the DO in the pond(s) is below 1.0 mg/L for any single sampling event, the Discharger shall implement daily DO monitoring of that pond until the minimum DO concentration is achieved for at least three consecutive days. If the DO in the pond is below 1.0 mg/L for three consecutive days, the Discharger shall report the findings to the Central Valley Water Board in accordance with Section B.1 of the SPRRs. The written notification shall include a specific plan to resolve the low DO results within 30 days of the first date of violation.
- 7. All ponds and open containment structures shall be managed to prevent breeding of mosquitoes. Specifically:

[TENTATIVE] Waste Discharge Requirements Order [TENTATIVE] Waste Discharge
Requirements Order R5-2026-XXXX B.33

Azteca Milling, L.P.

Azteca Madera Masa Plant

Madera County

Attachment B

- a. An erosion control program shall be implemented to ensure that small coves and irregularities are not created around the perimeter of the water surface.
 - b. Weeds shall be minimized through control of water depth, harvesting, or herbicides.
 - c. Dead algae, vegetation, and debris shall not accumulate on the water surface.
 - d. The Discharger shall consult and coordinate with the local Mosquito Abatement District to minimize the potential for mosquito breeding as needed to supplement the above measures.
8. The Discharger shall design, construct, operate, and maintain all ponds sufficiently to protect the integrity of containment dams and berms and prevent overtopping and/or structural failure. Unless a California-registered civil engineer certifies (based on design, construction, and conditions of operation and maintenance) that less freeboard is adequate, the operating freeboard in any pond shall never be less than two feet (measured vertically from the lowest possible point of overflow). As a means of management and to discern compliance with this requirement, the Discharger shall install and maintain in each pond a permanent staff gauge with calibration marks that clearly show the water level at design capacity and enable determination of available operational freeboard.
 9. Wastewater treatment, storage, and disposal ponds or structures shall have sufficient capacity to accommodate allowable wastewater flow, design seasonal precipitation, and ancillary inflow and infiltration during the winter while ensuring compliance with all requirements of this Order. Design seasonal precipitation shall be based on total annual precipitation using a return period of 100 years, distributed monthly in accordance with historical rainfall patterns.
 10. On or about 1 October of each year, available capacity shall at least equal the volume necessary to comply with Discharge Specifications F.8 and F.9.
 11. The Discharger shall monitor residual solids accumulation from the ponds annually and shall periodically remove residual solids as necessary to maintain adequate storage capacity.

Azteca Milling, L.P.

Azteca Madera Masa Plant

Madera County

Attachment B

12. Newly constructed or rehabilitated berms or levees (excluding internal berms that separate ponds or control the flow of water within a pond) shall be designed and constructed under the supervision of a California registered civil engineer.

H. Land Application Area Specifications

For the purposes of this Order, “land application area” or “LAAs” refers to the discharge areas described in the findings (i.e., LAA-1 and LAA-2) and shown in Attachment B.

1. Crops shall be grown on the LAAs. Crops shall be selected based on nutrient uptake, consumptive use of water, and irrigation requirements to maximize uptake of nutrients.
2. The perimeter of the LAAs shall be graded to prevent ponding along public roads or other public areas and prevent runoff or overspray onto adjacent properties not owned or controlled by the Discharger.
3. Application of liquid and solid waste constituents to the LAAs shall be at reasonable agronomic rates to preclude creation of a nuisance or unreasonable degradation of groundwater, considering crop, soil, climate and irrigation management system. The annual nutritive loading of the LAAs, including nutritive value of organic and chemical fertilizers, supplemental irrigation water, process solids, and process wastewater, shall not exceed the annual crop demand.
4. Hydraulic loading of combined wastewater, supplemental irrigation water, and waste solids shall be managed to:
 - a. Provide water only when water is needed and in amounts consistent with crop needs.
 - b. Maximize crop nutrient uptake.
 - c. Maximize breakdown of organic waste constituents in the root zone; and
 - d. Minimize the percolation of waste constituents below the root zone.

[TENTATIVE] Waste Discharge Requirements Order [TENTATIVE] Waste Discharge
Requirements Order R5-2026-XXXX B.35

Azteca Milling, L.P.

Azteca Madera Masa Plant

Madera County

Attachment B

The Central Valley Water Board recognizes that some leaching of salts is necessary to manage salt in the root zone of the crops. Leaching shall be managed to minimize degradation and maintain or reduce, to the extent practicable, concentrations of saline constituents and nitrate (and other forms of nitrogen speciation) in receiving waters.

5. Prior to completion of the treatment system upgrades (i.e., prior to submittal of the Final Completion Report required by Provision K.8), the BOD loading to the LAAs, calculated as a cycle average as determined by the methods described in the attached MRP, shall not exceed **100 pounds per acre per day**. Once the upgrades to the facility are completed (i.e., following submittal of the Final Completion Report required by Provision K.8), the BOD cycle average loading rate as determined by the methods described in the attached MRP, shall not exceed **50 pounds per acre per day**.
6. The resulting effect of the discharge on soil pH shall not exceed the buffering capacity of the soil profile.
7. Land application of wastewater shall be managed to minimize erosion.
8. The Discharger shall not discharge process wastewater to the LAA when soils are saturated (e.g., during or after significant precipitation).
9. Any irrigation runoff (i.e., tailwater) shall be confined to the LAA, captured in a tailwater pond and recycled to the LAA, or returned to the process wastewater treatment system, and shall not enter any surface water drainage course or storm water drainage system.
10. The LAA shall be managed to prevent breeding of mosquitoes. More specifically:
 - a. All applied irrigation water must infiltrate completely within 48 hours;
 - b. Ditches not serving as wildlife habitat shall be maintained free of emergent marginal, and floating vegetation; and
 - c. Low-pressure and unpressurized pipeline and ditches accessible to mosquitos shall not be used to store process wastewater.

[TENTATIVE] Waste Discharge Requirements Order [TENTATIVE] Waste Discharge
Requirements Order R5-2026-XXXX B.36
Azteca Milling, L.P.
Azteca Madera Masa Plant
Madera County
Attachment B

11. Irrigation of the LAAs shall occur only when appropriately trained personnel are on duty.
12. Any irrigation runoff (i.e., tailwater) shall be confined to the LAA, captured and recycled to the LAA or returned to the process wastewater treatment system, and shall not enter any surface water or surface water drainage course.
13. LAAs shall be inspected periodically to determine compliance with the requirements of this Order. If an inspection reveals noncompliance or threat of noncompliance with this Order, the Discharger shall temporarily stop land application use immediately and implement corrective actions to ensure compliance with this Order.

I. Groundwater Limitations

1. Release of waste constituents from any treatment unit, storage unit, delivery system or disposal location associated with the Facility and process wastewater discharge shall not cause or contribute to groundwater containing constituent concentrations in excess of the concentrations specified below or in excess of background groundwater quality, whichever is greater:
 - a. Concentrations that exceed either the Primary or Secondary MCLs established in California Code of Regulations, title 22, sections 64431, 64444, and 64449, excluding salinity provided the Discharger complies with the Salt Control Program (see Conditional Prohibitions C.1).
 - b. Contain taste or odor-producing constituents, toxic substances, or any other constituents in concentrations that cause nuisance or adversely affect beneficial uses (e.g., by creating off-tastes and/or odor, producing detrimental physiological responses in human, plant, animal, or aquatic life [i.e., toxicity]).

J. Solids Disposal Specifications

1. For the purpose of this Order, residual solids include the solid, semisolid, and liquid organic matter removed during the screening of wastewater.
2. Residual solids shall be removed from screens, and vaults as needed to ensure optimal operation, prevent nuisance conditions, and maintain adequate storage capacity.

[TENTATIVE] Waste Discharge Requirements Order [TENTATIVE] Waste Discharge
Requirements Order R5-2026-XXXX B.37

Azteca Milling, L.P.

Azteca Madera Masa Plant

Madera County

Attachment B

3. Any handling and storage of residual solids shall be temporary and controlled and contained in a manner that minimizes leachate formation and precludes infiltration of waste constituents into soils in a mass or concentration that will violate the groundwater limitations of this Order.
4. If removed from the site, residual solids shall be disposed of in a manner approved by the Executive Officer and consistent with Title 27, division 2. Removal for reuse as animal feed, biofuel feedstock, or land disposal at facilities (i.e., landfills, composting facilities, soil amendment sites operated in accordance with valid waste discharge requirements issued by a Regional Water Board) will satisfy this specification.
5. Any proposed change in solids use or disposal practice shall be reported in writing to the Executive Officer at least 90 days in advance of the change.

K. Provisions

1. The Discharger shall comply with the separately issued **Monitoring and Reporting Program (MRP) R5-2026-XXXX**, and any revisions thereto as ordered by the Executive Officer. The submittal dates of Discharger self-monitoring reports shall be no later than the submittal date specified in the MRP.
2. A copy of this Order (including Information Sheet, Attachments and SPRRs) and the MRP, shall be kept at the Facility for reference by operating personnel. Key operating personnel shall be familiar with their contents.
3. The Discharger shall comply with the applicable provisions of the Salt and Nitrate Control Programs adopted in Resolution R5-2018-0034 (as revised per Resolution R5-2020-0057) as part of the Central Valley Salinity Alternatives for Long-Term Sustainability (CV-SALTS) initiative, to address ongoing salt and nitrate accumulation in the Central Valley.
4. The Discharger shall participate in the Madera Management Zone Nitrate Control Program activities. This includes collaborating with the Management Zone to collect the necessary monitoring data to refine the MZIP preliminary nitrogen load estimate and support development of the Management Zone Groundwater Protection Values and Groundwater Protection Targets.

Azteca Milling, L.P.

Azteca Madera Masa Plant

Madera County

Attachment B

5. In accordance with California Business and Professions Code sections 6735, 7835, and 7835.1, engineering and geologic evaluations and judgments shall be performed by or under the direction of registered professionals competent and proficient in the fields pertinent to the required activities. All technical reports specified herein that contain workplans for investigations and studies, that describe the conduct of investigations and studies, or that contain technical conclusions and recommendations concerning engineering and geology shall be prepared by or under the direction of appropriately qualified professional(s), even if not explicitly stated. Each technical report submitted by the Discharger shall bear the professional's signature and stamp.
6. **By 23 December 2026**, the Discharger shall submit an **Updated Wastewater Nutrient Management Plan** that describes how the Discharger will apply wastewater to the LAAs in accordance with these WDRs considering the post-upgrade effluent quality. At a minimum, the Wastewater and Nutrient Management Plan must include the following:
 - a. Procedures for monitoring Facility operations and discharge.
 - b. Practicable measures to ensure reasonable even application of wastewater. The Plan shall also detail how the Facility will not discharge wastewater to the LAA when soils are saturated (e.g., during and after significant precipitation events)
 - c. An action plan to deal with objectionable odors and/or nuisance conditions.
 - d. Details on how wastewater and irrigation water will be blended (if applicable).
 - e. A detailed map of the LAA fields to be used each year to facilitate tracking annual wastewater application and nutrient release to the land.
 - f. Management practices that will ensure that wastewater, irrigation water, and fertilizers, compost, or other amendments are applied at agronomic rates to the LAA including but not limited to adjusting wastewater application and spreading based on consideration of soil available nutrients and/or plant tissue sampling results.

[TENTATIVE] Waste Discharge Requirements Order [TENTATIVE] Waste Discharge
Requirements Order R5-2026-XXXX B.39

Azteca Milling, L.P.

Azteca Madera Masa Plant

Madera County

Attachment B

7. **By 29 January 2027**, the Discharger shall certify that wastewater irrigation infrastructure has been installed so that LAA-2 may receive process wastewater in a manner compliant with these WDRs and per the Updated Nutrient Management Plan. The confirmation shall accurately describe the irrigation system used to deliver wastewater and irrigation water to LAA-2 and confirm the crops being grown on LAA-2 can provide sufficient nutrient uptake for the application of the Facility's process wastewater.
8. **By 29 January 2027**, the Discharger shall have completed wastewater treatment system and main storage pond upgrades at the Facility and shall submit a **Final Completion Report**. For purposes of this requirement, "completion" shall mean the date upon which all construction activities associated with the authorized upgrades are substantially complete, all major equipment has been installed and is operational, and the upgraded treatment processes can function as designed. The Final Completion Report shall include the following:
 - a. A summary of all upgraded components installed.
 - b. Written certification signed and stamped by a California-licensed Professional Engineer attesting that the upgrades were constructed in accordance with the approved plans and specifications.
 - c. Record drawings (as-built drawings) reflecting final constructed conditions.
 - d. Calibration records for monitoring and control instrumentation installed as part of the upgrades.
 - e. Photographs of the completed improvements.
9. The Discharger shall submit the technical reports and work plans required by this Order for consideration by the Executive Officer and incorporate comments the Executive Officer may have in a timely manner, as appropriate. Unless expressly stated otherwise in this Order, the Discharger shall proceed with all work required by the foregoing provisions by the due dates specified.

[TENTATIVE] Waste Discharge Requirements Order [TENTATIVE] Waste Discharge
Requirements Order R5-2026-XXXX B.40

Azteca Milling, L.P.

Azteca Madera Masa Plant

Madera County

Attachment B

10. The Discharger shall comply with all conditions of this Order, including timely submittal of technical and monitoring reports. On or before each report due date, the Discharger shall submit the specified document to the Central Valley Water Board or, if appropriate, a written report detailing compliance or noncompliance with the specific schedule date and task. If noncompliance is being reported, then the Discharger shall state the reasons for such noncompliance and provide an estimate of the date when the Discharger will be in compliance. The Discharger shall notify the Central Valley Water Board in writing when it returns to compliance with the time schedule. Violations may result in enforcement action, including Central Valley Water Board or court orders requiring corrective action or imposing civil monetary liability, or in revision or rescission of this Order.
11. The Discharger shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) that are installed or used by the Discharger to achieve compliance with the conditions of this Order. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems that are installed by the Discharger when the operation is necessary to achieve compliance with the conditions of this Order.
12. The Discharger shall use the best practicable cost-effective control technique(s) including proper operation and maintenance, to comply with this Order.
13. As described in the SPRRs, the Discharger shall report promptly to the Central Valley Water Board any material change or proposed change in the character, location, or volume of the discharge.
14. In the event of any change in control or ownership of the Facility or the LAA, the Discharger must notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be immediately forwarded to the Central Valley Water Board.
15. To assume operation as Discharger under this Order, the succeeding owner or operator must apply in writing to the Executive Officer requesting transfer of the Order. The request must contain the requesting entity's full

[TENTATIVE] Waste Discharge Requirements Order [TENTATIVE] Waste Discharge
Requirements Order R5-2026-XXXX B.41

Azteca Milling, L.P.

Azteca Madera Masa Plant

Madera County

Attachment B

legal name, the state of incorporation if a corporation, the name and address and telephone number of the persons responsible for contact with the Central Valley Water Board, and a statement. The statement shall comply with the signatory paragraph of Standard Provision B.3 and state that the new owner or operator assumes full responsibility for compliance with this Order. Failure to submit the request shall be considered a discharge without requirements, a violation of the Water Code. If approved by the Executive Officer, the transfer request will be submitted to the Central Valley Water Board for its consideration of transferring the ownership of this Order at one of its regularly scheduled meetings.

16. The Central Valley Water Board will review this Order periodically and will revise requirements when necessary.

ENFORCEMENT

If, in the opinion of the Executive Officer, the Discharger fails to comply with the provisions of this Order, the Executive Officer may refer this matter to the Attorney General for judicial enforcement, may issue a complaint for administrative civil liability, or may take other enforcement actions. Failure to comply with this Order may result in the assessment of Administrative Civil Liability of up to \$10,000 per violation, per day, depending on the violation, pursuant to the Water Code, including sections 13268, 13350 and 13385. The Central Valley Water Board reserves its right to take any enforcement actions authorized by law.

ADMINISTRATIVE REVIEW

Any person aggrieved by this Central Valley Water Board action may petition the State Water Board for review in accordance with Water Code section 13320 and California Code of Regulations, title 23, section 2050 et seq. The State Water Board must receive the petition by 5:00 p.m. on the 30th day after the date of this Order; if the 30th day falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Board by 5:00 p.m. on the next business day. Copies of [the law and regulations applicable to filing petitions](#) are available on the Internet (at the address below) and will be provided upon request.

(http://www.waterboards.ca.gov/public_notices/petitions/water_quality)

[TENTATIVE] Waste Discharge Requirements Order [TENTATIVE] Waste Discharge
Requirements Order R5-2026-XXXX B.42

Azteca Milling, L.P.

Azteca Madera Masa Plant

Madera County

Attachment B

ATTACHMENTS

Attachment A — Project Location Map

Attachment B — Site Vicinity Map

Attachment C — Aerial Photo of Facility and LAAs

Attachment D – Facility Wastewater Flow Schematic

Standard Provisions & Reporting Requirements

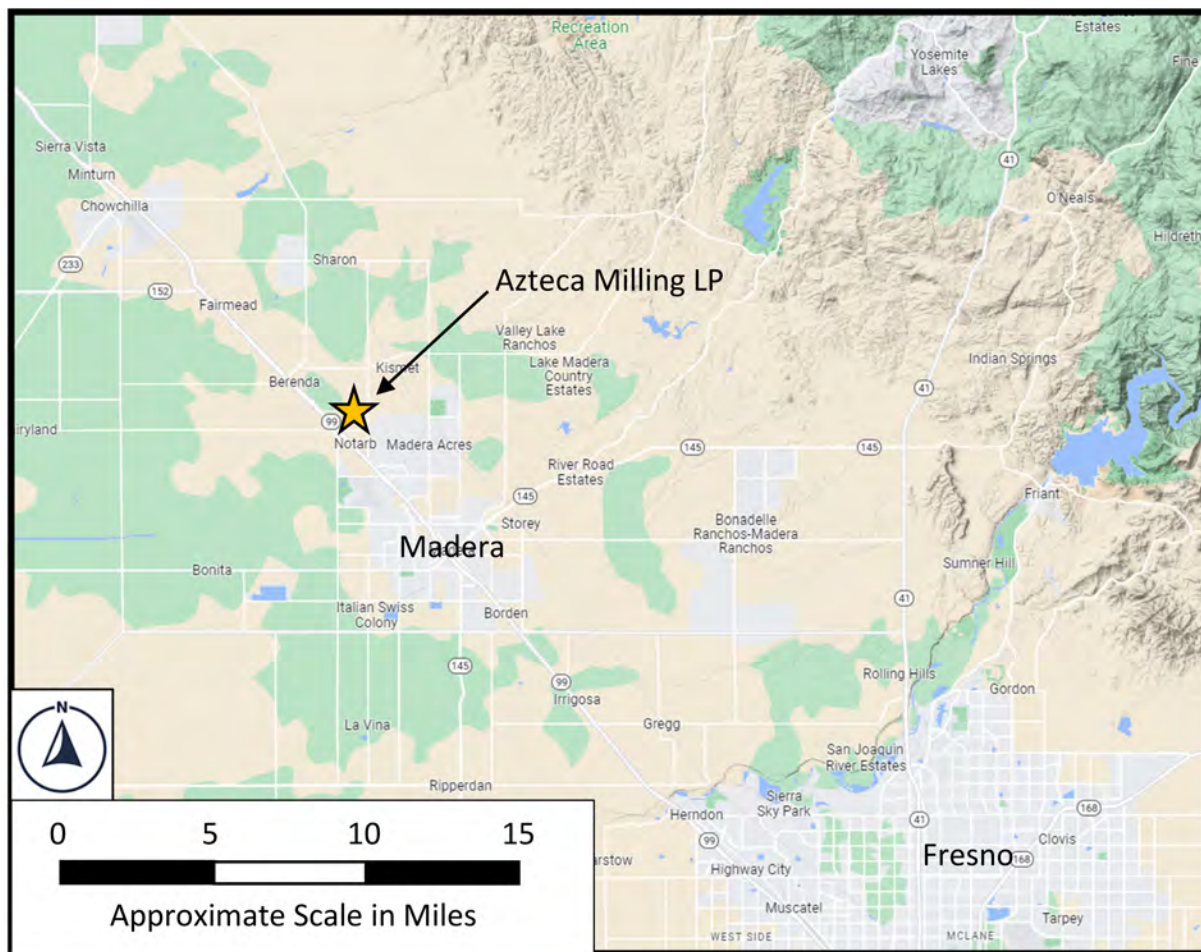
Information Sheet

Monitoring and Reporting Program R5-2026-XXXX

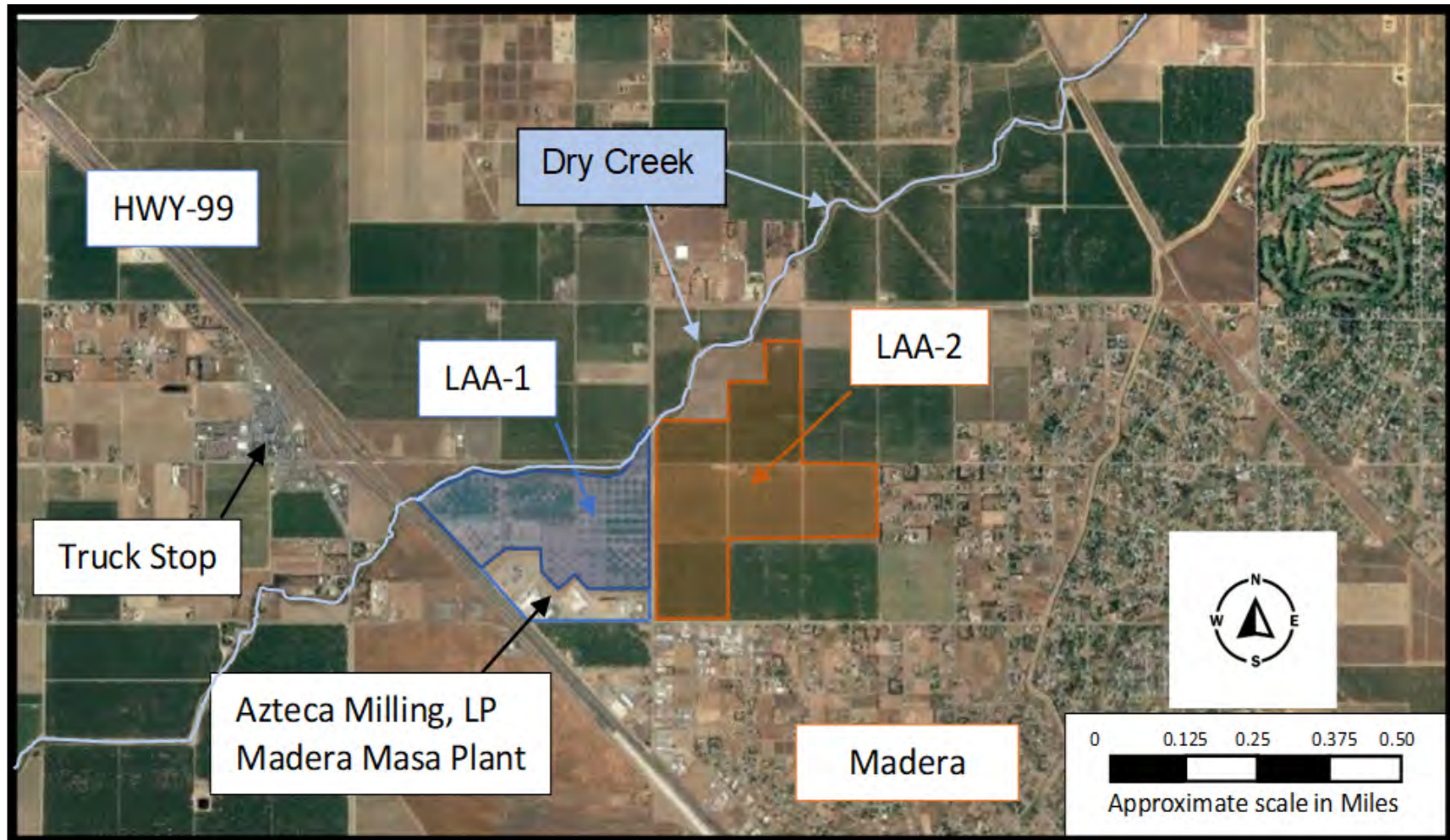
A

Azteca Milling, L.P.
Azteca Madera Masa Plant
Madera County

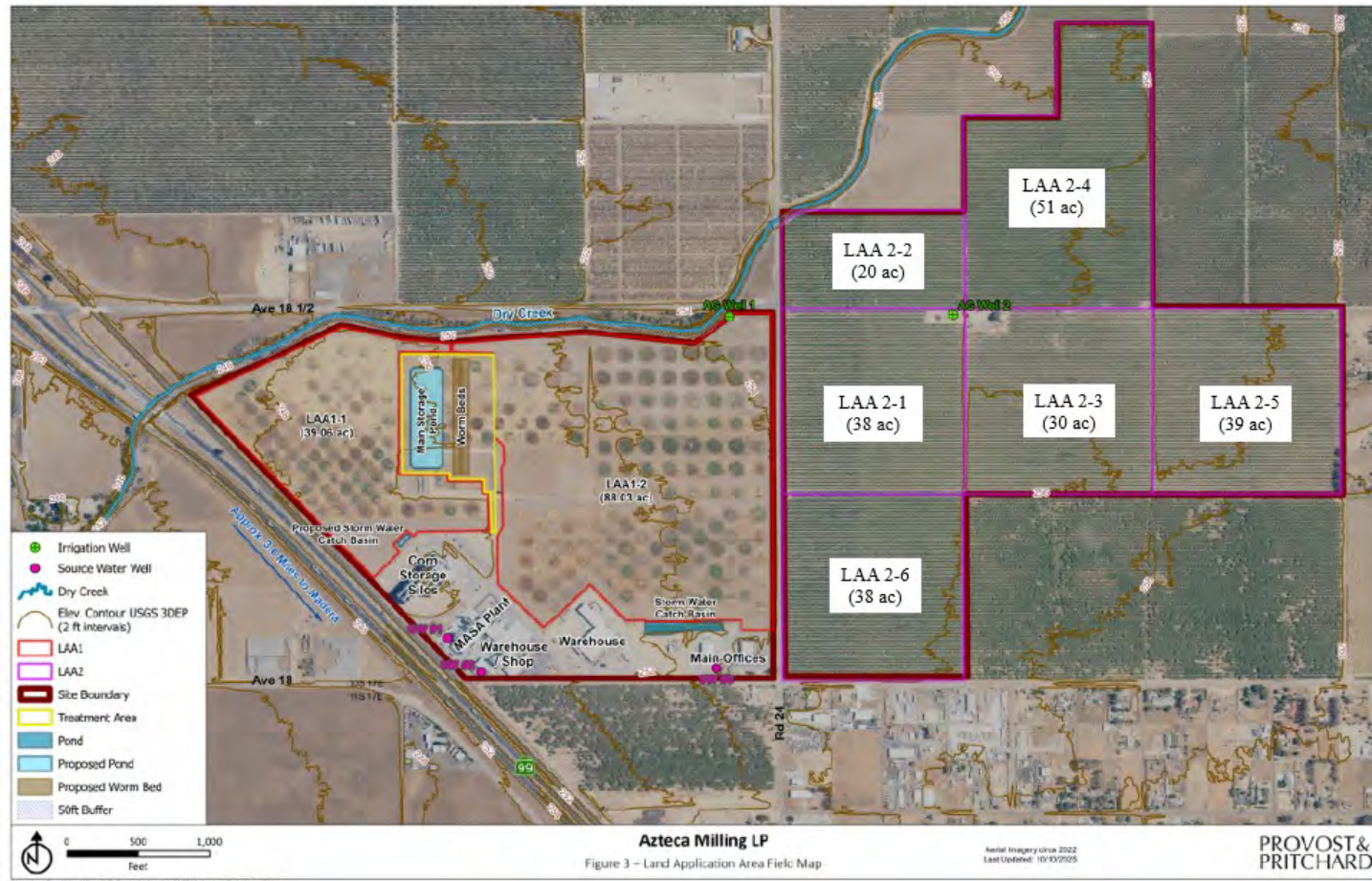
Attachment A — Project Location Map



Attachment B — Site Vicinity Map



Attachment C — Aerial Photo of Facility and LAAs



Source: October 2025 RWD

D

Source: October 2025 RWD

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

[TENTATIVE] WASTE DISCHARGE REQUIREMENTS ORDER R5-2026-XXXX
FOR
AZTECA MILLING, L.P. DBA VALLEY GRAIN PRODUCTS,
AZTECA MADERA MASA PLANT
MADERA COUNTY

INFORMATION SHEET

BACKGROUND

Azteca Milling L.P. (hereinafter referred to as Azteca or Discharger) is an industrial food processor that produces corn masa at its Madera Masa Processing Plant (Facility). Azteca has owned and operated the Facility at 23865 Avenue 18 just northwest of Madera since 1996. The Facility was previously regulated under Waste Discharge Requirements (WDRs) Order R5-2023-0007, which authorized a monthly average maximum daily flow limit of 0.21 mgd for the Facility's discharge to 355 acres of land application areas (LAA-1 and LAA-2), specified a Performance-Based Effluent Limit of 1,900 mg/L for FDS (as an annual average), required the submittal of a Salinity Evaluation and Minimization Plan, submittal of an updated Nutrient Management Plan, and construction of a lined main storage pond.

On 5 August 2025, the Central Valley Water Resources Control Board (Central Valley Water Board) received a Report of Waste Discharge (RWD) for the proposed operation of a new wastewater treatment system at the Facility and proposed changes to the irrigable acreage at the LAAs. The RWD included a Form 200 and technical report. The Form 200 lists Azteca as the operator and owner of the facility and land. However, WDRs Order R5-2023-0007 lists Azteca Milling dba Valley Grain Products as the operator and owner of the facility and land. The technical report was signed and stamped by Donald T. Ikemiya (RCE 56630) and Kirk Jacobson (PG 9094) with Provost and Pritchard Consulting Group. The August 2025 RWD includes proposed changes to the Facility's treatment system, irrigable acres, and the addition of a double-lined main storage pond with a leachate collection and removal system.

On 2 September 2025, Central Valley Water Board staff sent a letter notifying the Discharger that the RWD contained sufficient information to draft revised WDRs; however, additional information and clarifications were needed such as biochemical oxygen demand loading rates, inclusion of a water balance, and a revised Form 200. The additional requested information was addressed in a revised 17 October 2025 RWD.

WASTEWATER GENERATION AND DISPOSAL

Wastewater generated from masa production activities and equipment cleaning is collected and directed to the facility's pretreatment system. The use of calcium hydroxide during the cooking process can result in elevated influent pH levels and the

Azteca Milling, L.P.

Azteca Madera Masa Plant

INFORMATION SHEET

formation of calcium scale. To minimize scaling and maintain efficient operation of the hydro-sieve, hydrochloric acid (HCl) is added upstream of the screening process. HCl is stored onsite in a 1,550-gallon double-walled storage tank and serves both as a cleaning agent and a means of reducing wastewater pH. Lowering the pH helps dissolve calcium deposits and prevents excessive buildup on treatment equipment.

Following pH adjustment, wastewater flows through a hydro-sieve where suspended solids are removed. The screened wastewater is then transferred to a 5,000-gallon polyethylene storage tank. A downstream flow meter equipped with a totalizer records influent flow volumes for monitoring purposes. Solids captured by the hydro-sieve are conveyed to a screw press for dewatering before being discharged into collection bins and loaded into onsite trailers. The dewatered solids are either marketed for beneficial reuse as animal feed or applied to the facility's land application areas. Historically, screened wastewater was pumped through subsurface PVC piping to two 5,000-gallon aboveground storage tanks located within LAA-1. Wastewater was then distributed to crops through a solid-set sprinkler irrigation system. Pump operation was controlled automatically by tank level sensors, while sprinkler valves were manually adjusted by facility personnel to achieve uniform application throughout the land application area.

The proposed upgraded treatment system would incorporate a new centrifuge to improve solids removal from the wastewater stream. Dewatered solids produced by the centrifuge will be discharged directly into a truck trailer positioned beneath the unit for collection. The solids will then be transported offsite for beneficial reuse or applied within the facility's LAAs.

Following solids separation, the wastewater will be directed to the BIDA treatment system. Prior to entering the BIDA process, the wastewater must satisfy specific operating conditions, including a temperature below 100°F and a pH range of 6 to 9. To achieve the required temperature, the wastewater is routed through a closed-loop evaporative cooling system. The cooling process occurs without direct contact between the wastewater and the recirculating cooling water, minimizing freshwater demand and limiting makeup water requirements.

After cooling, the wastewater will enter an equalization (EQ) tank, allowing flow balancing and pH adjustment when necessary. From the EQ tank, wastewater will be conveyed to the BIDA treatment system for further treatment. The construction and integration of the BIDA treatment system significantly reduces concentrations of constituents of concern in the process wastewater generated from the masa production activities. Specifically, concentrations of biochemical oxygen demand (BOD) and total nitrogen will be reduced by approximately 80 percent, while fixed dissolved solids and total dissolved solids will be reduced by 30 and 40 percent, respectively.

After treatment in the BIDA system, the wastewater will be transferred to the new lined main storage pond for temporary storage prior to land application. The main storage pond is sized to provide operational flexibility, allowing irrigation to be scheduled in

Azteca Milling, L.P.

Azteca Madera Masa Plant

INFORMATION SHEET

accordance with crop water demands and agronomic loading rates while reducing the potential for over-application and deep percolation. The treated wastewater contained in the main storage pond represents the facility's final effluent and serves as the source water for irrigation within both land application areas. LAA-1, located adjacent to the treatment facilities, is expected to be irrigated using a sprinkler system. LAA-2, located east of Road 24, may utilize a combination of surface irrigation, micro-irrigation, and sprinkler systems depending on crop type, field conditions, and operational needs.

The RWD included a water balance demonstrating that the main storage pond volume can be managed to maintain a freeboard of three feet while providing irrigation to the LAAs at agronomic rates. Monthly pond inputs included direct precipitation onto the pond, stormwater runoff from roofed, concrete, and unsurfaced drainage areas, and Facility process wastewater. Direct pond precipitation and stormwater contributions were calculated using the 100-year return precipitation depth and contributing drainage areas. Facility process water influent was based on a flow rate of 0.21 mgd. Pond outputs considered in the water balance consisted of irrigation to the LAA, and pond evaporation and percolation. Effluent applied to the LAA was derived from the soil-water balance in the RWD and equaled the total annual pond input (84.4 MG) minus pond evaporation (4.5 MG), resulting in approximately 81 MG available for land application. Percolation from the main storage pond was assumed to be zero given its proposed double lined construction. Pond evaporation was estimated using average reference evapotranspiration, an open-water crop coefficient of 1.1, the pond surface area, and a reduction factor of 0.8 to account for periods when the pond was not full.

In 2023, the Discharger proposed plant tissue testing to accurately determine the nutrient needs of crops grown on LAA-1 and LAA-2. As a result, MRP R5-2023-0007 included plant tissue monitoring from each LAA for crop type, date planted, and seed cultivator at a frequency of once per crop. For each cutting, the Discharger is required to monitor the crop harvest date, crop yield, and crop removal analysis including at least moisture, total nitrogen, phosphorus, potassium, and ash content. The 2023 NMP describes the plant tissue testing methodology as sampling the whole plant, the top three to four leaves, or the flag leaf depending on the growth stage. Approximately 50 to 100 tissue samples are collected for each analysis in the same area soil samples are collected. The results of plant tissue monitoring from 2023 through 2025 are summarized in Tables 5 and 6 below.

[TENTATIVE] Waste Discharge Requirements Order R5-2026-XXXX
Azteca Milling, L.P.
Azteca Madera Masa Plant
INFORMATION SHEET

IS.4

Table 1 - 2023-2025 Plant Tissue Monitoring (Wet)

Sample Date	Crop	Moisture	Nitrogen	Phosphorus	Protein	Potassium
7/12/2023	Sudangrass - Hay	4.5%	2.0%	0.3%	---	2.1%
7/12/2023	Sudangrass - Hay	4.0%	2.2%	0.3%	---	2.7%
8/17/2023	Sudangrass - Hay	5.2%	1.8%	0.3%	---	2.2%
8/17/2023	Sudangrass - Hay	4.8%	1.8%	0.3%	---	2.2%
10/12/2023	Sudangrass - Hay	6.6%	1.9%	0.3%	---	2.8%
10/12/2023	Sudangrass - Hay	6.6%	1.9%	0.3%	---	2.8%
11/9/2023	Sudangrass - Hay	7.3%	1.8%	0.3%	---	2.2%
4/23/2024	Triticale	72.3%	0.5%	0.1%	3.3%	1.0%
4/23/2024	Triticale	72.9%	0.5%	0.1%	3.2%	1.1%
5/14/2024	Triticale	70.7%	0.4%	0.09%	2.7%	1.0%
12/9/2024	Sudangrass	44.6%	1.2%	0.28%	7.7%	0.9%
5/19/2025	Triticale - Silage	34.59%	1.17%	0.26%	7.3%	1.98%
5/19/2025	Triticale - Silage	65.72%	0.57%	0.11%	3.6%	0.96%
5/19/2025	Triticale - Silage	48.20%	0.66%	0.15%	4.1%	1.35%
10/30/2025	Triticale - Silage	65.42%	1.00%	0.10%	6.3%	0.60%

Table 2 - 2023-2025 Plant Tissue Monitoring (Dry)

Sample Date	Crop & Harvest Method	Moist ure	Nitrogen	Phosphorus	Protein	Potassium
7/12/2023	Sudangrass - Hay	2.0%	0.3%	---	2.2%	24.4%
7/12/2023	Sudangrass - Hay	2.3%	0.4%	---	2.8%	23.6%
8/17/2023	Sudangrass - Hay	1.9%	0.4%	---	2.4%	22.8%
8/17/2023	Sudangrass - Hay	1.9%	0.4%	---	2.4%	22.5%
10/12/2023	Sudangrass - Hay	2.0%	0.3%	---	2.9%	14.1%
10/12/2023	Sudangrass - Hay	2.0%	0.3%	---	2.9%	14.1%
11/9/2023	Sudangrass - Hay	2.0%	0.3%	---	2.4%	15.6%
4/23/2024	Triticale	1.9%	0.3%	12.1%	3.5%	11.8%
4/23/2024	Triticale	1.9%	0.4%	11.9%	3.9%	12.9%
5/14/2024	Triticale	1.5%	0.3%	9.1%	3.3%	12.2%
12/9/2024	Sudangrass	2.2%	0.5%	13.9%	1.6%	15.5%
5/19/2025	Triticale - Silage	1.8%	0.39%	11.2%	3.02%	9.6%
5/19/2025	Triticale - Silage	1.7%	0.32%	10.4%	2.79%	10.8%
5/19/2025	Triticale - Silage	1.3%	0.30%	8.0%	2.60%	9.3%

Azteca Milling, L.P.

Azteca Madera Masa Plant

INFORMATION SHEET

Sample Date	Crop & Harvest Method	Moisture	Nitrogen	Phosphorus	Protein	Potassium
10/30/2025	Triticale - Silage	2.9%	0.30%	18.1%	1.74%	8.1%

Sudan grass hay samples from 2023 consistently had low moisture (4 to 7 percent) and relatively stable nutrient concentrations, with dry basis nitrogen ranging from 1.9 to 2.3 percent, phosphorus around 0.3 to 0.4 percent, potassium from 2.2 to 2.9 percent, and ash content decreasing from approximately 24 percent in summer to 14 to 16 percent by fall. Triticale samples (wet basis) collected in 2024 and 2025 showed much higher moisture levels (35 to 73 percent), with a dry basis protein ranging from 8.0 to 18.1 percent, nitrogen from 1.3 to 2.9 percent, phosphorus from 0.30 to 0.40 percent, potassium from 1.7 to 3.9 percent, and ash content generally between 8 to 13 percent.

GROUNDWATER CONSIDERATIONS

Groundwater conditions are discussed in Findings 59 to 62 of the Order.

ANTIDegradation

Antidegradation analysis and conclusions are discussed in Findings 89 to 95 of the Order.

DISCHARGE PROHIBITIONS, EFFLUENT LIMITATIONS, DISCHARGE SPECIFICATIONS, AND PROVISIONS

The Order sets a monthly average maximum daily flow limit of 0.21 mgd and annual flow limit of 76.6 million gallons per year for the Facility's influent, and cycle average BOD loading limits of 100 and 50 lbs/ac/day before and after upgrades are completed, respectively. Since the Discharger selected to participate in the Salt Control Program's P&O Study, this Order also specifies a Performance-Based Effluent Limit of 1,900 mg/L for FDS (annual average) prior to system upgrades, and 1,250 mg/L once the upgrades are completed.

This Order also contains the following provisions including:

Provision K.6 requires the Discharger to submit an updated Nutrient Management Plan that describes how process wastewater will be applied to the LAAs in accordance to these WDRs.

Provision K.7 requires the Discharger to certify that LAA-2 is being farmed and may receive process wastewater in a manner compliant with these WDRs and per the Updated Nutrient Management Plan.

Azteca Milling, L.P.

Azteca Madera Masa Plant

INFORMATION SHEET

Provision K.8 requires the Discharger to submit a Final Completion Report certifying that the Facility upgrades are complete and the double-lined main storage pond was constructed as proposed.

Groundwater limitations establish that the release of waste constituents from any portion of the Facilities shall not cause or contribute to the exceedance of water quality objectives (WQOs) in the receiving water. If the Facility's discharge contains waste at a level greater than a WQO but the groundwater receiving the waste remains below the WQO, the limitation would not be violated. However, if the same discharge contains waste at a level greater than the WQO and causes the receiving water to exceed a WQO, the groundwater limitation would be violated. Similarly, if the same discharge contains waste above the WQO and the receiving water is above the objective, the Facility's discharge would be contributing to an exceedance of the WQO and would be violating the receiving water limitation, if the receiving water natural background concentration is less than the WQO.

In the scenario where the level of waste in the Facility's discharge is below the WQO and the receiving water exceeds the WQO, the limitation would not be violated. Where natural background conditions exceed the WQO, compliance would be evaluated considering the established natural background concentration instead of the WQO. Only discharges causing or contributing to the exceedance of the WQO or natural background concentration (if greater than the WQO) in the groundwater would be in violation of the limitation.

The Basin Plan contains the following in Section 3 Water Quality Objectives:

The objectives contained in this plan, and any State or Federally promulgated objectives applicable to the basins covered by the plan, are intended to govern the levels of constituents and characteristics in the main water mass unless otherwise designated...

Any analysis of the above factors to determine exceedances of groundwater limitations would consider this and other guidance from the Basin Plan (e.g., hydrogeologic and background characterization studies, regional groundwater flow and dilution, etc.).

MONITORING REQUIREMENTS

Section 13267 of the California Water Code authorizes the Central Valley Water Board to require monitoring and technical reports as necessary to investigate the impact of waste discharges on waters of the State. Water Code Section 13268 authorizes assessment of civil administrative liability where appropriate. The Order includes influent, effluent, pond, source water supply, land application area, plant tissue, soil, supplemental irrigation water, and solids monitoring requirements. This monitoring is necessary to characterize the discharge and evaluate compliance with the requirements and specifications in the Order.

Azteca Milling, L.P.

Azteca Madera Masa Plant

INFORMATION SHEET**SALT AND NITRATE CONTROL PROGRAMS REGULATORY CONSIDERATIONS**

As part of the Central Valley Salinity Alternatives for Long-Term Sustainability (CV-SALTS) initiative, the Central Valley Water Board adopted Basin Plan amendments (Resolution R5-2018-0034) incorporating new programs for addressing ongoing salt and nitrate accumulation in the Central Valley at its 31 May 2018 Board Meeting. On 16 October 2019, the State Water Resources Control Board adopted Resolution No. 2019-0057 approving the Central Valley Water Board Basin Plan amendments and also directed the Central Valley Water Board to make targeted revisions to the Basin Plan amendments within one year from the approval of the Basin Plan amendments by the Office of Administrative Law. The Office of Administrative Law approved the Basin Plan amendments on 15 January 2020 (OAL Matter No. 2019-1203-03) and were revised by the Central Valley Water Board in 2020 with [Resolution R5-2020-0057](https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/resolutions/r5-2020-0057_res.pdf) (https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/resolutions/r5-2020-0057_res.pdf).

For the Salt Control Program, a Notice to Comply for the Salt Control Program was issued to Azteca Milling, L.P. (CV-SALTS ID 2595) on 5 January 2021. On 28 June 2021, the Discharger submitted the required fee payment to comply with the Salt Control Program by joining the P&O Study.

The Facility is within Groundwater Basin 5-022.06 (San Joaquin Valley – Madera), which is a Priority 2 Basin. On 29 December 2023, Central Valley Water Board staff sent the Discharger a NTC for the Nitrate Control Program. The Facility is in the San Joaquin Valley - Madera Basin which is a Priority 2 Basin. The RWD indicated that the Discharger selected Pathway B, and Central Valley Water Board records indicate that the Discharger is a current participant in good standing with the Valley Water Collaborative.

REOPENER

The conditions of discharge in the Order were developed based on currently available technical information and applicable water quality laws, regulations, policies, and plans, and are intended to assure conformance with them. The Order sets limitations based on the information provided thus far. If applicable laws and regulations change, or once new information is obtained that will change the overall discharge and its potential to impact groundwater, it may be appropriate to reopen the Order.

LEGAL EFFECT OF RESCISSION OF PRIOR WDRS OR ORDERS ON EXISTING VIOLATIONS

The Central Valley Water Board's rescission of prior waste discharge requirements and/or monitoring and reporting orders does not extinguish any violations that may have occurred during the time those waste discharge requirements or orders were in effect. The Central Valley Water Board reserves the right to take enforcement actions to address violations of prior prohibitions, limitations, specifications, requirements, or provisions of rescinded waste discharge requirements or orders as allowed by law.