8 March 2023

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Comments— Tentative WDRs for Azteca Milling, L.P. dba Valley Grain Products, Azteca Madera Masa Plant, Madera County

This letter presents my comments on and recommendations for the subject tentative order and accompanying monitoring and reporting program (MRP) issued 6 January 2023. I am a California registered civil engineer and worked in the Central Valley Regional Water Quality Control Board's Fresno office (1998-2010), mostly in the WDR Program.

The tentative order proposes to rescind and replace waste discharge requirements (WDRs) established in 1970 – the same year the California Environmental Quality Act was enacted. A regulatory relic, Resolution No. 70-208 (current order) for Valley Grain Drier, Inc. establishes two waste discharge requirements, now considered prohibitions, regarding pollution and nuisance. It does not prescribe specifications for waste treatment or control, not even a discharge flow limit or discharge monitoring. It does, however, require the discharger to "report promptly to the [Board] any material change in the waste treatment facilities or the conditions associated with the waste discharge."

The current order incorporates by reference an Explanation of Requirements that characterizes the discharge in 1970. It discusses the use of calcium hydroxide to raise the cooking water pH to about 11 and characterizes the Plant's design processing capacity as about 21,000 pounds per day (lbs/day). It describes its discharge as "cooking and rinse waters together with washdown waters," and estimates the discharge "design flow" at 21,000 gallons per day. It states that untreated wastewater is "mixed with well water used to irrigate all or a portion of 183 [adjacent] acres." And, it mentions the construction of a 300' x 500' x 5' "holding-oxidation-percolation pond … near the northerly boundary of the property and adjacent to the Dry Creek Channel," and states it is not in use "at the present."

The tentative order is issued to Azteca Milling, L.P. dba Valley Grain Products (Azteca), the Plant's owner since 1996. It does not identify the discharger(s) after Valley Grain Drier, Inc. and before Azteca. According to information on the California Secretary of State website, in 1976, Valley Grain Drier, Inc. merged with Valley Grain Products, Inc. In 1995, Valley Grain Products, Inc. merged out to ADM Milling, Inc. and became a California-registered limited partnership with Gruma-ADM, Inc. listed as general partner. Gruma is a multinational company based in Mexico that is the world's largest corn flour and tortilla manufacturing company (Wikipedia).

The tentative order does not mention that Azteca is one of many companies within Gruma's international enterprise. Azteca was founded in 1977 and "is the largest 'nixtamal' corn producer in the United States, and a significant competitor in grits and corn flour in Europe" (https://www.gruma.com/en/our-brands/companies/azteca-milling-lp.aspx).

Please consider revising the tentative order to disclose the business connection between Azteca and Gruma, or at least acknowledge the connection in the Response to Comments.

Finding 79 states that the "these WDRs only authorize flows reflecting existing operations…at an existing facility, with negligible or no expansion of its existing use" and concludes the Order's issuance is exempt from the procedural requirements of the California Environmental Quality Act (CEQA), Public Resources Code section 21000 et seq., pursuant to CEQA Guidelines (California Code of Regulations, title 14, section 15301).

The current discharge is materially different from that which existed in 1970. First, discharge flows have increased ten-fold. Second, the current 123-acre land application area (LAA-1) is 30 percent smaller than the original 183 acres available for wastewater disposal. Third, no attempt was made by Azteca to beneficially reuse wastewater to grow and harvest crops. Fourth, because of literally "spotty" coverage provided by the current center-pivot sprinkler system, wastewater is applied to only about 60% of LAA-1 at best, judging from Google Earth aerial imagery.

The tentative order does not disclose whether the case file contains any reports by Azteca or prior discharger(s) notifying the Board of increased discharge flows. In the absence of this evidence, it appears that the ten-fold increase in discharge flows since 1970, as well as changes for the worse in waste disposal practices, occurred without the benefit of an evaluation under CEQA or, until recently, a report of waste discharge pursuant to California Water Code section 13260.

Please explain why the Board does not consider the current discharge as materially changed from the discharge first authorized in 1970. Specifically, why doesn't the ten-fold increase in discharge flow over 1970 levels, construction of two new wastewater surface impoundments, and addition of a 227-acre land application area (LAA-2) trigger an evaluation under CEQA? Is it because the statute of limitations has expired for non-compliance with CEQA and with California Water Code section 13260? Is it a case of a regulatory horse that has left the barn?

Please revise the tentative order to summarize the changes in Plant ownership since 1970 and to identify: (1) when the Plant was expanded to its current capacity (400,000 lbs/day), (2) when the current center-pivot sprinkler irrigation system was installed, and (3) the name(s) of the discharger(s) responsible for expanding the Plant and for installing the current irrigation system.

Finding 25 acknowledges that the continued "wastewater disposal practices pose a significant threat to groundwater quality" and that changes "are necessary to ensure the

[discharge] is protective of underlying groundwater." The tentative order addresses these deficiencies and is more-or-less comparable to other recently-adopted WDR orders for similarly-situated food processors with cropped land application areas. Kudos to staff for ushering this discharge into the 21st century.

Finding 14 describes Azteca's proposal to construct a three-acre, 30-foot-deep, double-lined pond within the footprint of the existing 5-foot-deep unlined pond. The proposed pond's design is contained in a November 2021 technical report, "Tier 1 Pond Design Report." The title implies that the pond's construction is similar to a "Tier 1" dairy wastewater retention pond defined in WDR Order R5-2017-0058 (Bovine General Order): a 60-mil HDPE double liner with a leachate collection and recovery system.

The tentative order includes two provisions (I.9 and I.10) that set a one-year deadline for Azteca to complete construction of the pond as proposed in the November 2021 Tier 1 Pond Design Report, and to submit a Post-Construction Report, certification that the pond was constructed as proposed, and a Pond Operation and Maintenance Plan.

Provision I.10 states, in part, that the Pond Operation and Maintenance Plan "shall discuss what procedures the Discharger will follow to ensure odor conditions do not occur and, if odors are detected, what procedures the Discharger will follow to resolve the odor issue." The tentative order's description of the pond does not mention the type of aeration system(s) that will be installed and operated maintain aerobic conditions at a depth of one foot (a standard odor nuisance prevention measure). Perhaps it was an oversight by staff not to mention such an aeration system. Or, perhaps staff views pond aeration as a minor detail that can deferred until one year after order adoption in the Pond Operation and Maintenance Plan.

Finding 34 indicates that, when empty, the new 17.3-million-gallon-capacity, double-lined pond will provide up to 78 days of wet weather storage for the "maximum volume of water stored for the 100-year water balance." Presumably, the water balance reflects current conditions and applies only to the six active fields comprising LAA-1. The water balance cited in Finding 34 and the 74 million gallons (MG) of supplemental groundwater required annually for crop irrigation cited in Finding 28 appears to only pertain to LAA-1, as the net annual hydraulic loading is almost four feet. However, Finding 28 refers to "LAAs," suggesting the water balance includes LAA-2.

Please confirm that the water balance cited in Finding 34 applies only to LAA-1, and the 74 MG of supplemental well water identified in Finding 28 reflects an amount required only for LAA-1.

Besides providing long-term wet weather storage, the tentative order does not describe how the pond will be operated year-round. Will it contain wastewater for most of the year? Will it need to be empty by 1 October each year to ensure compliance with the tentative order's land application area specifications? How much and how quickly will its depth vary during the irrigation season? This is relevant because pond depth influences the type of

bacterial decomposition that occurs during storage. The deeper the pond, the higher the potential for anaerobic conditions to develop and for the pond to mimic an aerobic lagoon. Anaerobic conditions, in turn, can create objectionable odors emanating from the pond itself and whenever putrescent pond discharge is applied to land.

Please respond to the questions above, and estimate, if possible, the range of detention times (in days) and water depth fluctuations (in feet) anticipated during the irrigation season.

Odor Nuisance Potential. The tentative order uses the term "effluent" to refer to corn processing wastewater following solids separation by hydro-sieve and pH adjustment by acid addition; it calls the proposed surface impoundment an "effluent storage pond." Finding 22 summarizes a limited, recently-obtained data set that shows effluent contained concentrations of 5-day biochemical oxygen demand (BOD_5) ranging from 620 to 4,300 mg/L and averaging 2,844 mg/L. For comparison, raw municipal sewage typically contains 200 to 300 mg/L BOD_5. Effluent from municipal sewage treatment plants typically contains BOD_5 in concentrations of 40 mg/L or less, often much less.

Some amount of BOD_5 decomposition (and removal) will occur while effluent is impounded. The more removal the longer the detention period (expressed as days and calculated from working pond volume, MG, divided by daily flow rate, mgd). Given the anticipated detention times resulting from pond operation, the effluent storage pond will act as de facto treatment pond. Accordingly, the effluent following pond treatment will likely contain lower concentrations of BOD_5 and possibly nitrogen and even FDS.

To obtain representative samples of effluent discharged to the LAAs, the MRP should also require monitoring of the pond's discharge (discussed later).

The tentative order authorizes the sprinkler application of effluent following storage for unspecified durations to land immediately adjacent to Highway 99 and within a mile of Madera Acres. As mentioned, the tentative order does not indicate whether the Discharger will provide aeration to the pond. Without aeration, the rate at which oxygen enters the pond is limited to that provided by nature (oxygen from the atmosphere and from algae). The BOD_5 loading to municipal sewage treatment ponds relying on natural aeration is about 100 lbs/acre/day. In contrast, the BOD_5 loading to the 3-acre pond at a discharge flow of 0.21 mgd containing an average BOD_5 concentration of 2,800 mg/L is 1,600 lbs/acre/day. This loading is more comparable to that of an anerobic lagoon.

Without aeration to supplement natural sources of oxygen, how can the Board be sure that the pond and sprinkler discharge will not be the cause of numerous nuisance odor complaints from Highway 99 commuters and Madera Acres residents? The tentative order should be revised to identify the pond aeration system(s) that will be installed and operated to maintain aerobic conditions and otherwise comply with the tentative order's minimum 1 mg/L pond dissolved oxygen requirement. The Board should not adopt the tentative order without the Discharger's commitment to provide aeration to the pond.

The Second Pond. Finding 37 indicates staff learned of the potential need for a second pond during an October 2022 facility inspection when "the Discharger indicated another lined pond would likely be required as an equalization pond to adequately irrigate the recently acquired LAA-2." The tentative order does not provide technical justification for the second pond, or include pond specifications and/or provisions to ensure that the construction of second pond will be comparable to that described in the first pond's November 2021 Tier 1 Pond Design Report. Instead, the tentative order's Provision I.7 sets a six-month deadline for Azteca to submit a work plan (Updated Wastewater Nutrient Management Plan for LAA-2) that includes "the location and construction details of any additional effluent retention ponds if warranted."

It appears that a second pond may not be necessary. A second pond represents a concentrated source of waste constituents that, if not properly contained, could unreasonably degrade groundwater. Given the uncertainty of the need for a second pond and the potential threat it poses to groundwater if not properly constructed and operated, please consider revising the tentative order to authorize only the pond described in the November 2021 Tier 1 Pond Design Report.

Edit references to effluent storage ponds, plural, in the tentative order and MRP accordingly. And revise Provision I.7 to read:

> The work plan will evaluate the type of irrigation system proposed and the ~~location and construction details of any additional effluent retention ponds if warranted~~ ***amount of and source of supplemental irrigation water required to successfully manage and farm LAA-2. To obtain authorization for the construction of additional effluent storage ponds in LAA-2, the Discharger shall file a report of waste discharge pursuant to California Water Code section 13260. If warranted, the Board will consider amending the Order to authorize construction and use of proposed additional ponds.***

However, if it is the intent of the tentative order to authorize a second pond of unspecified design in an unspecified location within LAA-2, please consider inserting a new provision after Provision I.11 that requires the Discharger to submit:

> (1) an Effluent Storage Pond Expansion Proposal that provides technical justification for additional storage capacity;
>
> (2) a written report identifying applicable state and local permits and CEQA compliance requirements for new pond construction;
>
> (3) a Pond Design Report; and
>
> (4) a Post-Construction Report

Page 15 contains recommended language for this provision, adapted from the Bovine General Order.

Specific Comments and Recommendations

Finding 18 indicates about 1.5 tons of wet solids are generated daily and sold offsite as animal feed.

Please describe where this storage occurs and what measures are employed to ensure leachate is collected and returned to the Plant's wastewater collection system.

Finding 21 states, "a new lined pond … will allow for the even and agronomic application of wastewater to the LAA." While effluent storage pond does provide flow equalization, it is the design and especially the operation of the irrigation system that is primarily responsible for ensuring wastewater is applied evenly at reasonable agronomic rates.

Finding 24 discusses the deficiencies of the current effluent delivery system and states that a "new or updated system…is needed to irrigate existing LAA-1 evenly and agronomically." Finding 27 identifies pivot or linear sprinkler irrigation as systems capable of complying with this requirement. Because adequate coverage has been an issue in the past, the tentative order should include a specification requiring that the irrigation system be operated to ensure effluent is delivered evenly and agronomically.

Please consider revising Land Application Area Specification F.4 to read:

> Hydraulic loading of wastewater and irrigation water shall be at reasonable agronomic rates designed to ***maximize the areal coverage provided by the irrigation system and to*** minimize the percolation of wastewater and irrigation water below the root zone (i.e., deep percolation).

Finding 28 indicates the source for the 74 MG of supplemental irrigation water supply needed to successfully manage and farm LAA-1 is a groundwater well in the northeast corner of LAA-1.

Are there any construction details or water quality data available for this well? If so, please provide in tentative order or Response to Comments.

Finding 30 estimates the discharge's annual estimated rates of nitrogen loading and crop nitrogen uptake. Decades of conducting the discharge without cropping has likely led to the accumulation in soils of plant available nitrogen (nitrate and ammonia), and an accumulation of organic nitrogen that, over time, will decompose to ammonia and nitrate. The MRP's annual nitrogen mass balance analyses do not require the Discharger to factor in amount of plant available and organic nitrogen in LAA-1 soils.

The MRP wisely requires soil monitoring, a once-common requirement that has now been glaringly absent in recently-adopted WDRs for food processors and wineries.

What is lacking, though, is a nexus between soil monitoring results and annual nitrogen mass balance analyses. For example, if the past discharge has left a legacy of excessive nitrogen in LAA-1 soils, then soil nitrogen should be accounted for in the annual nitrogen mass balance analysis. This accounting may indicate that annual nitrogen loading should be reduced until soil nitrogen levels approximate background levels (hence, the importance of representative background soil monitoring locations).

Please consider requiring Fourth Quarter Monitoring Reports to include the following requirement after 2.a:

> ***Discussion of an evaluation of soil monitoring data collected over the reporting period to estimate the concentrations in the upper six feet of LAA soils of Nitrate-N, Ammonia-N and TKN in units of lbs/acre. The discussion shall propose how soil nitrogen concentrations will be considered as a nitrogen source for crops grown the following year.***

Finding 63(b) discusses the Performance-Based Effluent Limitation for fixed dissolved solids (FDS) of 1,900 mg/L (Effluent Limitation D), and how compliance will be determined once yearly from monthly effluent FDS monitoring. It states that the limit applies to "the discharge of wastewater and/or wastewater blended with irrigation water and sent to the LAA."

The FDS Performance-Based Effluent Limitation applies to the effluent discharge ***before*** it is mixed with lower FDS groundwater and applied to land. To monitor the Discharger's implementation of performance-based salinity control measures, the annual effluent FDS average should be determined monthly as a 12-month rolling average, a calculated value already required in quarterly monitoring reports (Reporting Requirement III.A.2.b).

Please revise this finding to read:

Sets a Performance-Based Effluent Limitation of 1,900 mg/L for FDS, calculated as an annual ***12-month rolling*** average on the discharge of wastewater ~~and/or wastewater blended with irrigation water sent~~ to the LAA.

Add to the end of Table 10's footnote 1:

> ***Compliance shall be determined monthly using an annual 12-month rolling average of monthly effluent FDS data.***

Revise IS.3, 3rd paragraph, 2nd sentence to read:

> …a Performance-Based Effluent limitation of 1,900 mg/L for FDS (as an annual ***12-month rolling*** average)…"

Revise Reporting Requirement III.A.2.b to read:

Calculation of the 12-month rolling average FDS of the discharge for each month of the quarter using the FDS value for that month averaged with the FDS values for the previous 11 months. ***Include a comparison of the annual a 12-month rolling average discharge FDS concentration to the Performance-Based Effluent Limitation specified in the WDRs.***

Delete the now redundant Reporting Requirement III.B.4

Alternatively, please explain why limiting the assessment of the Discharger's compliance with the Performance-Based Effluent FDS Limitation of 1,900 mg/L to once yearly is sufficient to assess the effectiveness of the Discharger's salinity control measures.

The following recommendation will result in a WDR Order that is easier to use for Board staff, the Discharger, and Plant staff responsible for managing the discharge.

Regarding the tentative order's Discharge Specifications, please consider moving Discharge Specifications E.1, 2, 3, and 4 to a new "General Specifications" section, and Discharge Specifications E.5, 6, 7, 8, 9, and 10 to a new "Pond Specifications" section that begins with four new specifications:

1. ***For the purposes of this Order, the term "ponds" refers to effluent storage ponds.***

2. ***Ponds shall be designed, constructed, operated, and maintained in a manner that ensures compliance with Groundwater Limitations G.1 and G.2.***

3. ***To ensure compliance with Pond Specification X.2 and consistency with State Water Board Resolution 68-16, ponds shall be designed to consist, at a minimum, of a double liner constructed with 60-mil high density polyethylene or material of equivalent durability with a leachate collection and removal system between the two liners constructed in accordance with California Code of Regulations, title 17, section 20340.***

4. ***Waste shall not be placed into a new pond until the Discharger receives written approval by the Executive Officer of its Post-Construction Report.***

Further, if the discharge operation requires the pond to be empty prior to 1 October, as implied by the 100-year water balance, then please consider adding a pond specification for this, for example:

> ***On or about 1 October of each year, available pond storage capacity shall be at least equal the volume necessary to comply with Land Application Area Specifications F.4 (reasonable agronomic rates) and F.8 (no discharge to saturated soils).***

As discussed above, the specifics on the location and especially the construction of the second pond should be disclosed to the Board and public prior to order adoption. The tentative order does not specify prescriptive standards that must be met by second pond. Why should the Board and public assume that the Discharger will propose a second pond that is comparable to the first one? How will the Board and public know if the second pond's construction and operation will comparable to the first pond? Inclusion of the attached provision language in the tentative order assures the Board (and public) that the second pond will be as equally protective of groundwater as the first pond.

My recommended provision language page 13 refers to a leachate collection and return system constructed between the liners in accordance with California Code of Regulations, title 27, section 20340 (17 CCR 20340). For consistency with 17 CCR 20340(c), the tentative order should specify design and operating conditions "to ensure there is no buildup of hydraulic head on the liner."

Accordingly, please consider including a specification for the pond's leachate collection and return system that prescribes an Action Leakage Rate of 1,000 gallons per acre per day and requirements for efficient pump operation, and establishes specific consequences when the ALR is exceeded. For example (adapted from WDR Order R5-2021-0058):

> ***Leachate generation by a pond Leachate Collection and Return system (LCRS) shall not exceed an Action Leakage Rate (ALR) of 1,000 gallons per acre per day. The ALR is based on recommendations in the 1992 USEPA guidance document Action Leakage Rate for Leak Detection Systems. If leachate generation exceeds this rate and/or if the depth of the fluid in an LCRS exceeds the minimum needed for safe pump operation, then the Discharger shall immediately cease the discharge of waste, excluding leachate, to the pond and shall notify the Board in writing within seven days. Notification shall include a timetable for remedial action to repair the upper liner of the pond or other action necessary.***

The tentative order prescribes groundwater limitations, but does not require groundwater monitoring. The Bovine General Order waives groundwater monitoring requirements for dischargers using Tier 1 ponds. The tentative order characterizes a future discharge that appears reasonable with respect to loadings of wastewater, nitrogen, and salts, etc. Improvements in disposal practices required by the tentative order should lessen the discharge's future impact on groundwater. However, the discharge has been ongoing for over 50 years under deficient waste disposal practices that may have already unreasonably degraded groundwater.

To evaluate the Azteca's compliance with groundwater limitations, the Board should require the Discharge to characterize the extent to which, if any, the discharge has already affected groundwater. Once characterized, continued groundwater monitoring is necessary to evaluate the extent to which, if any, improved waste disposal practices eventually lead to improved groundwater quality.

Please revise the tentative order to require the Discharger to implement a groundwater monitoring and reporting program within two years of order adoption. The monitoring program should be comparable to other similarly-situated food processing WDRs with quarterly groundwater monitoring requirements (e.g., WDR Order R5-2019-0073 for Tomatek, Inc. and City of Firebaugh, Tomato Processing Facility, Fresno County). It should require at least three shallow groundwater monitoring wells, one upgradient from the discharge and two along the downgradient perimeter of LAA-1. Please also include quarterly monitoring for total organic carbon, as TOC is a useful constituent for assessing if the discharge's organic loading is excessive.

Alternatively, please revise the tentative order to indicate groundwater monitoring may be required in the event monitoring data reveals soils impacted by the discharge contain waste constituents in concentrations that may threaten groundwater quality (e.g., soil nitrate concentrations far exceeding annual crop demands). If groundwater monitoring is deemed necessary, the MRP can be revised to include requirements for the groundwater monitoring well network installation and, once installed, for quarterly monitoring and reporting.

Solids Disposal Specification H.1 defines residual solids as that "removed during the screening of wastewater." Finding 18 indicates residual wet solids are sold offsite for animal feed. What about sludge formed during effluent storage? From my experience at the Board, the periodic removal of sludge from ponds treating or otherwise storing food processing wastewater can, if not performed properly, create conditions conducive not only for objectional odors to develop, but also for vector breeding. Recall that the pond is less than 1,000 feet away from Highway 99.

Does the Tier 1 Pond Design Report discuss pond sludge accumulation and removal, and identify possible methods for dewatering and disposing of this waste?

Please consider revising Provision I.10 to require the Pond Operation Plan to address pond sludge removal and disposal. The example language below is adapted from WDR Order R5-2019-0056 for Campbell Soup Supply Company, LLC, Dixon Facility, Solano County.

> ***Additionally, the Plan shall include a detailed plan for pond sludge removal, treatment (dewatering and/or stabilization), and disposal. If sludge is proposed to be dried onsite, the Plan shall specifically describe measures to be used to control odors, flies and other vectors, and runoff or leachate from the sludge as it is drying.***

Solids Disposal Specification H.2 mentions "ponds" as a receptacle for residual solids. Since residual solids are supposedly removed by screening prior to pond discharge, the reference to "ponds" does not appear to be appropriate here.

Provision I.13 refers to discharge flow increases and typically applies to municipal discharges, not industrial discharges.

I.18 Provision regarding change of ownership refers to "WWTF" and is not appropriate for this industrial wastewater discharge. Recommend replacing WWTF with:

> ***"Facility and/or property containing the Facility and its associated land application areas and effluent storage ponds."***

Attachment D – Azteca Madera Masa Plant Flow Schematic depicts the sampling locations for source water, "Influent 1 (INF-01)" prior to pH adjustment and hydro-sieve treatment, and "Effluent 2 (EFF-02)" at two locations, one at the discharge from Temporary Storage (two 10,000-gallon tanks) and the other at the discharge of the "Proposed Lined Effluent Storage Pond(s)."

The MRP identifies EFF-01 as "Location where a representative sample of the effluent following screening and pH adjustment and prior to discharge to the LAAs/storage ponds." For accurate characterization of the discharge to the LAA, the MRP should require monitoring of the discharge immediately prior to land application (i.e., ***from*** the pond). After the pond is in use, it may be appropriate to revise the MRP to migrate many of the waste constituents and parameters specified for EFF-01 to a table for effluent discharged from the pond (i.e., EFF-02), as identified in Attachment D.

Please revise the MRP's EFF-001 definition to read:

> Location where a representative sample of the effluent following screening and pH adjustment and prior to discharge to the ***LAAs and, once built, the effluent storage ponds.*** ~~LAAs/storage ponds~~.

And, please include a second effluent monitoring location,

> ***EFF-002 – Location where a representative sample of the effluent following pond storage and prior to discharge to the LAAs.***

And, include another table in the Effluent Monitoring for EFF-02 that specifies twice monthly grab sample monitoring for BOD_5, nitrate (as N), Ammonia (as N), TKN, and Total Nitrogen. To reflect actual loadings of BOD_5 and Nitrogen to the LAAs during pond operation, revise the instructions for BOD_5 and Nitrogen loading to employ BOD_5 and nitrogen monitoring results from EFF-02.

The MRP's pond monitoring requirements should include monitoring of leachate collected in the pond's leachate collection and return system (LCRS). This is necessary to evaluate whether hydraulic head between the two liners is increasing to unsafe levels.

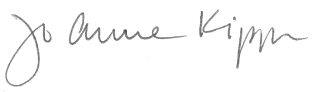
Please consider revising POND MONITORING (PND-01, ETC) to insert prior to the last sentence:

> ***The Discharger shall operate and maintain leachate collection and removal system (LCRS) sumps, and conduct monitoring of any detected leachate seeps per the table below.***
>
> ***And, add a row to Table 4 – Effluent Storage Monitoring for total monthly leachate flow (gallons) and monthly leachate flow rate (gallons/acre/day). Add a footnote for Leachate: The Discharger shall notify Central Valley Water Board staff within seven days if the rate of fluid generation in any LCRS sump exceeds the discharge capacity of the sump pump to resulting in fluid head buildup on the secondary liner***

The MRP's soil monitoring requirements specify at least two background soil locations, but does not cite a minimum number of soil sample locations within the LAAs. Because the tentative order does not require groundwater monitoring, soil monitoring will have to suffice as an early indicator of the discharge's potential to unreasonably degrade groundwater. And to serve as an effective "canary in the coal mine," the number and placement of sampling locations should cover or otherwise be representative of each distinctly-managed field (e.g., Fields 1 through 6 in LAA-1).

Please consider requiring a minimum of three soil sample locations in each distinctly-managed field, and for LAA-1 fields 1 through 6, require a minimum of two soil sample locations in areas that have historically received the highest loadings of wastewater, and at least one sample collected beyond the area covered by the current sprinkler system.

Thank you for your time and consideration.



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12. **Second Proposed Pond.** The following provision applies in the event the Discharger requests authorization to construct a second pond.

    a. The Discharger shall submit an Effluent Storage Expansion Proposal that complies with Provision I.4 and provides technical justification for the requested additional storage. The report shall include 100-year and average-year water balance calculations.

    b. Following receipt of the Executive's written approval of the Effluent Storage Expansion Proposal, the Discharger shall submit a written report identifying the proposed pond location(s) and a summary of the Discharger's contact with appropriate state and local agencies to identify what construction and land use permits may be required and whether the pond construction triggers the need for a CEQA evaluation (e.g., by Madera County).

    c. Prior to the construction of the second pond, the Discharger shall submit a design report that complies with Provision I.4 and includes the following:

        i. Design calculations demonstrating that adequate containment will be achieved,

        ii. Details on the liner and leachate collection and removal system materials, and gas venting system (if included),

        iii. A construction quality assurance plan describing testing and observations needed to document construction of the pond in accordance with the design and California Code of Regulations, title 27, sections 20323 and 20324, and

        iv. An operation and maintenance plan for the pond.

        Construction of the new pond shall not begin until the Executive Officer notifies the Discharger in writing that the design report is acceptable.

    d. Prior to the placement of waste in the second pond, the Discharger shall submit a post-construction report that complies with Provision I.4 and includes:

        i. verification that the pond meets the requirements of this Order including documentation of the results of the construction quality assurance testing and observations;

        ii. certification that the pond was constructed as designed; and

        iii. as-built diagrams.