

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

ORDER R5-2014-0057

CEASE AND DESIST ORDER

FOR
STEVE GIKAS
CALIFORNIA NUGGETS, INC. AND GOLDEN GATE NUT COMPANY
SAN JOAQUIN COUNTY

TO CEASE AND DESIST
FROM DISCHARGING CONTRARY TO REQUIREMENTS

The California Regional Water Quality Control Regional Board, Central Valley Region, (hereafter Central Valley Water Board) finds that:

1. On 14 June 2007, Cleanup and Abatement Order (CAO) R5-2007-0715 was issued by the Executive Officer for California Nuggets, Inc. and Golden Gate Nut Company because the Report of Waste Discharge (RWD) submitted by Steve Gikas (hereafter "Discharger") in July 2005 indicated that an existing discharge of food processing waste to land had caused unreasonable degradation of groundwater quality and the RWD did not contain enough information to develop Waste Discharge Requirements (WDRs) that would implement the applicable Basin Plan.
2. The facilities are at 23073 South Fredrick Road in Ripon (Section 23, T2S, R7E, MDB&M). California Nuggets, Inc. produces corn nuts and Golden Gate Nut Company processes almonds. The Discharger processes approximately 1,700 tons of corn and between 750 and 1,500 tons of almonds per year. The facilities are in operation and have been discharging food processing wastewater to land since approximately 2002 without regulation under WDRs until Order R5-2014-0056 was adopted on 28 March 2014 by the Central Valley Water Board.
3. Corn processing occurs year round. Dried corn kernels are soaked in a lime solution to remove skins, steeped in a citric acid solution and then rinsed before being fried in canola or safflower oil and seasoned. Almonds are processed seasonally during harvest. The almonds are blanched in hot water to remove their skins. The almonds are then cooked and/or seasoned.
4. Caustic and acid rinses of the processing equipment are performed approximately every two weeks for sanitation purposes. The waste acid and base solutions are discharged to the wastewater system.
5. The Discharger also owns HP Commodities, Inc. which recycles used cooking oil from various sources. Wastewater is generated periodically from the used cooking oil recycling process. In 2012 and the first half of 2013, an unknown portion of the wastewater separated from used oil in the refining process was discharged to the

treatment and disposal system. The Discharger states that this wastewater has been taken off-site for disposal since July 2013.

6. Nut processing rinse water, spent lime solution, blanching water, boiler blowdown, and wastewater from equipment sanitation are collected in floor drains. Process wastewater is screened and passed through a solids separator and an oil/water separator before being directed into a lined wastewater storage pond with rudimentary aeration. Effluent is discharged to a 5.2-acre land application area (LAA) by spray irrigation.
7. The facilities do not have an adequate storage capacity to manage wastewater application at hydraulic loading rates consistent with crop needs, so the land application area essentially functions as a rapid infiltration area. Between 2010 and 2012, the annual wastewater volume ranged from 16 to 28 million gallons (MG), which is greater than the water demand of 10.8 MG per year for alfalfa. During that same period, total nitrogen loading rates ranged from 1,700 to 4,500 lbs/acre per year, which is far in excess of the needs of any crop. Biochemical oxygen demand (BOD) loading rates have also been very high and there has been little or no resting period between wastewater applications.
8. Over application of wastewater has also caused gross nitrogen overloading; prolonged soil saturation with high-BOD wastewater (anaerobic conditions); and forced percolation of the excess nitrogen, salts, dissolved organic matter, and metals to shallow groundwater.
9. As discussed in detail in the Findings of Order R5-2014-0056, groundwater monitoring data show that the discharge has polluted groundwater at the site. Specifically:
 - a. The background groundwater TDS concentration is 850 mg/L and the average TDS concentrations in the downgradient wells ranged from 860 to 1,600 mg/L. Therefore, the discharge has caused exceedance of the least stringent potential water quality objective for protection of municipal beneficial uses, which is the short term secondary Maximum Contaminant Level (MCL) of 1,500 mg/L.
 - b. Background shallow groundwater is polluted with nitrate due to irrigated agriculture. The nitrate concentrations in downgradient wells are less than the primary MCL for nitrate nitrogen. However, groundwater monitoring data indicate that groundwater has been degraded by total Kjeldahl nitrogen, which is nitrate precursor. The ammonia nitrogen concentrations in some downgradient wells greatly exceed the taste and odor threshold of 1.5 mg/L. Although the current effluent nitrate level is less than the primary MCL for nitrate nitrogen, the wastewater nitrogen loading rate to the LAA has greatly exceeded the crop demand.
 - c. Dissolved iron and manganese concentrations in downgradient wells are significantly greater than that in the upgradient well and exceed the respective secondary MCLs. Although iron and manganese are not present in the facility's effluent at high concentrations, the presence of degradable organic matter in the wastewater depletes oxygen, which creates reducing conditions in the groundwater

beneath the LAA. Reducing conditions promote dissolution of iron and manganese, which are naturally present in the soil.

Enforcement History

10. CAO R5-2007-0715 was issued by the Executive Officer on 14 June 2007 to compel the Discharger to make improvements to the wastewater management system to better protect groundwater quality and provide sufficient information to complete the RWD. The CAO required the following:
 - No discharge of industrial wastewater to the on-site septic system;
 - Implementation of the Monitoring and Reporting Program (MRP) by 2 July 2007;
 - Installation of influent and effluent flow meters by 31 August 2007;
 - Submittal of a report describing the removal of ion exchange brine from the wastewater flow by 31 August 2007;
 - Submittal of an interim cropping plan by 31 August 2007;
 - Submittal of additional waste characterization report by 1 September 2008; and
 - Submittal of a RWD Addendum by 31 December 2008.

11. In May 2012, a complaint was received that alleged discharge of oil to the facility's wastewater pond. A Notice of Violation (NOV) was issued on 28 August 2012. The NOV cited the following violations of the 2007 CAO:
 - a. Failure to submit the technical reports by due dates, including the *Interim Cropping Plan*, due 31 August 2007, the *Wastewater Characterization Report*, due 1 September 2008, and the *Report of Waste Discharge*, which was due by 31 December 2008.

 - b. Failure to monitoring reports for the period of January 2012 through June 2012 (inclusive) and identified the following violations:
 - Weekly dissolved oxygen measurements for the wastewater pond for the period of January through April 2012 were not reported;
 - The Monthly Report for May 2012, which was due 1 July 2012, was received on 16 August 2012;
 - The Monthly Report for June 2012, which was due by 1 August 2012, had not been received;
 - The Second Quarter Groundwater Monitoring Report for 2012, which was due on 1 August 2012, had not been received.

The NOV required that the Discharger submit all the past due technical reports by 30 September 2012 and submit all the past due monitoring reports by 1 October 2012.

12. The *Interim Cropping Plan* was received on 1 March 2013 and the *Wastewater Characterization Report* was received on 19 November 2012. The June 2012 Monthly Report and the Second Quarter Groundwater Monitoring Report for 2012 were received on 8 October 2012.
13. The Discharger submitted a RWD Addendum on 7 March 2013. The RWD was still incomplete. On 19 August 2013, the Executive Officer issued an Order for Technical Reports pursuant to Water Code section 13267 Order (the 13267 Order) that required the Discharger to submit certain information by 15 September 2013, including:
 - a) a detailed schedule for full implementation of the proposed improvements;
 - b) a water balance demonstrating adequate wastewater storage and disposal capacity for a 100 year storm event;
 - c) a conceptual design and detailed schedule for completion of new LAAs and additional lined storage pond;
 - d) a description of the specific means of storm water management;
 - e) specific structural and operational controls to prevent wastewater runoff at the LAA; and
 - f) Notices of Determination for exemption from California Environmental Quality Act (CEQA) and underlying environmental review documents.
14. On 16 September 2013, the Discharger submitted a partial response to the 13267 Order and requested a 30-day extension of time to submit the information that was not provided. A revised 13267 Order was issued on 26 September 2013 and it extended the due date for the previously-required information and added certain new information, including:
 - a) a preliminary engineering evaluation of options for structural and operational improvements, and
 - b) definition of the volume of the existing lined wastewater pond.The Discharger submitted another RWD addendum on 16 October 2013 to comply with the 13267 Order and its revised Order.
15. From September through November 2013, complaints were received regarding the odors at the site.

Changes in the Facility and Discharge

16. Based on the 16 October 2013 RWD Addendum and a 24 October 2013 site inspection, the Discharger has implemented the following actions to reduce the threat to water quality:
 - a. The Discharger ceased the discharge of high strength oil recycling wastewater to the LAA. This wastewater is now hauled off-site for disposal.
 - b. In October 2013, the Discharger planted Sudan grass on the LAA.
 - c. The Discharger has installed fountain-type sprinkler nozzles on the LAA in order to enhance evaporation.

17. Based on the 16 October 2013 RWD Addendum, the Discharger proposes to complete the following to bring the discharge into compliance with the Basin Plan:
 - a. Alfalfa will be planted in the LAA by May 30, 2014 to maximize nutrient and water uptake.
 - b. The Discharger will plant salt cedar trees around the LAA perimeter by May 30, 2014 to improve water and salt uptake.
 - c. The Discharger will line the existing storm water pond for use as additional wastewater storage. Based on the Discharger's comments on the draft CDO, this pond will only be lined if it will be used to treat or store wastewater.
 - d. The Discharger will evaluate the condition of the existing wastewater pond liner and will repair or replace the liner system.
 - e. The Discharger will evaluate and implement treatment and/or control alternatives for the facility.

18. Based on an RWD Addendum submitted on 19 Feb 2014, the following additional changes have occurred since the Discharger submitted its 16 October 2013 RWD Addendum:
 - a. The Discharger planted 36 salt cedar trees around the parameter of the LAA in November 2013.
 - b. Beginning in January 2014, some of the corn processing wastewater is sent to an above-ground tank. The corn slurry that settles in the tank is hauled off-site for use as livestock food. Some of the remaining corn processing wastewater is hauled off-site for disposal. However, the Discharger has not provided flow or wastewater analytical data that reflect the current discharge to the pond.
 - c. The Discharger has implemented improvements that allow it to recycle one-third of the corn processing wastewater internally within the facility.

Rationale for the CDO

19. Waste Discharge Requirements Order R5-2014-0056 establishes flow limitations, groundwater limitations, effluent limitations, and operational specifications that are protective of groundwater quality. However, the Discharger cannot immediately comply with the following requirements of the WDRs:
 - a. Groundwater Limitation E.1 which states, in part: *Release of waste constituents from any portion of the facility shall not cause groundwater to... contain constituents in concentrations that exceed either the Primary or Secondary MCLs established therein.*
 - b. Groundwater Limitation E.2 which states, in part: *Release of waste constituents from any portion of the facility shall not cause groundwater to... contain taste or odor-producing constituents, toxic substances, or any other constituents in concentrations that cause nuisance or adversely affect beneficial uses.*

- c. Discharge Specification D.1 which states: *No waste constituent shall be released, discharged, or placed where it will be released or discharged, in a concentration or in a mass that causes violation of the Groundwater Limitations of this Order.*
- d. Discharge Specification D.2 which states: *The discharge shall not cause degradation of any water supply.*
- e. Discharge Specification D.3 which states: *Wastewater treatment, storage, and disposal shall not cause pollution or a nuisance as defined by Water Code section 13050.*
- f. Discharge Specification D.7 which states: *Objectionable odors shall not be perceivable beyond the limits of the property where the waste is generated, treated, and/or discharged at an intensity that creates or threatens to create nuisance conditions.*
- g. Discharge Specification D.8 which states: *As a means of discerning compliance with Discharge Specification D.7, the dissolved oxygen (DO) content in the upper one foot of any wastewater pond shall not be less than 1.0 mg/L for three consecutive weekly sampling events. If the DO in any single pond is below 1.0 mg/L for three consecutive sampling events, the Discharger shall report the findings to the Regional Water Board in writing within 10 days and shall include a specific plan to resolve the low DO results within 30 days.*
- h. Discharge Specification D.14 which states: *Wastewater contained in any unlined pond shall not have a pH less than 6.0 or greater than 9.0.*
- i. Land Application Area Specification F.3 which states: *Land application of wastewater shall be at rates consistent with actual crop water needs.*
- j. Land Application Area Specification F.6 which states that the LAA shall be designed, maintained, and operated to comply with the setback of 25 feet from the edge of LAA to the property boundary.

The Discharger must make upgrades to its facilities to meet to comply with the requirements above and ensure that the discharge does not result in exceedance of water quality objectives.

- 20. State Water Resources Control Board Resolution 68-16 (the Antidegradation Policy) prohibits the degradation of groundwater unless it has been shown that:
 - a. The degradation is consistent with the maximum benefit to the people of the state.
 - b. The degradation will not unreasonably affect present and anticipated future beneficial uses.
 - c. The degradation does not result in water quality less than that prescribed in state and regional policies, including violation of one or more water quality objectives, and

- d. The discharger employs best practicable treatment or control (BPTC) to minimize degradation.

In issuing the 2014 WDRs, the Board found that the Discharger was not employing treatment or control of the wastes in its discharge that could be considered “best practicable treatment or control” of the wastes. Additionally, the discharge is causing groundwater beneath the facilities to exceed secondary MCLs, and is therefore not in compliance with state and regional policies. It is therefore appropriate to adopt a companion CDO that sets forth a scope and schedule of work that will ensure that the discharge will not allow fixed dissolved solids, nitrogen, iron and manganese concentrations to impact the beneficial uses of groundwater, and will ensure that the discharge will be in compliance with applicable state and regional policies.

18. The *Policy for Application of Water Quality Objectives*, in Chapter IV of the Basin Plan, states that the Board is under an obligation to require that actions undertaken by Dischargers to ensure compliance with applicable water quality objectives be conducted in a timeframe that is as short as practicable.
19. Title 27 of the California Code of Regulations (hereafter Title 27) contains regulatory requirements for the treatment, storage, processing, and disposal of solid waste. However, Title 27 exempts certain activities from its provisions. The discharge could qualify for the “wastewater” exemption found in section 20090 (b) of Title 27. The exemption only applies discharge of wastewater to land is in compliance with the applicable water quality control plan. Without the improvements mandated by this CDO, the discharge would not be in compliance with the Basin Plan because the discharge is currently causing groundwater to exceed secondary MCLs. This CDO is therefore needed to ensure that the Title 27 wastewater exemption will be applicable to the facility after the upgrades mandated by this CDO are completed.

Regulatory Considerations

20. The Central Valley Water Board’s *Water Quality Control Plan for the Sacramento River and San Joaquin River Basins*, Fourth Edition, revised September 2009 (the Basin Plan), designates beneficial uses, includes water quality objectives to protect the beneficial uses, and includes implementation plans to implement the water quality objectives.
21. Local drainage is to San Joaquin River. The beneficial uses of San Joaquin River, as stated in the Basin Plan, are municipal and domestic supply; agricultural supply; industrial process and service supply; hydropower generation; water contact recreation; non-contact water recreation; warm and cold fresh water habitat; migration of aquatic organisms; spawning, reproduction, and /or early development; and wildlife habitat.

22. The beneficial uses of underlying groundwater are municipal and domestic water supply, agricultural supply, industrial service supply, and industrial process supply.

23. Water Code section 13301 states, in relevant part:

When a regional board finds that a discharge of waste is taking place or threatening to take place in violation of requirements or discharge prohibitions prescribed by the regional board or the state board, the board may issue an order to cease and desist and direct that those persons not complying with the requirements or discharge prohibitions (a) comply forthwith, (b) comply in accordance with a time schedule set by the board, or (c) in the event of a threatened violation, take appropriate remedial or preventive action. In the event of an existing or threatened violation of waste discharge requirements in the operation of a community sewer system, cease and desist orders may restrict or prohibit the volume, type, or concentration of waste that might be added to such system by discharges who did not discharge into the system prior to the issuance of the cease and desist order. Cease and desist orders may be issued directly by a board, after notice and hearing.

24. Water Code section 13267 (b) states:

In conducting an investigation specified in subdivision (a), the 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 within its region, 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.

25. The technical reports required by this Order are necessary to assure compliance with both this Order and the WDRs, and to ensure protection of public health and safety. The Discharger owns and operates the facility that discharges the waste subject to this Order.

26. Issuance of this Order is an enforcement action of a regulatory agency, and therefore, is exempt from the provisions of the California Environmental Quality Act (Pub. Resources Code § 21000 et seq.), in accordance with California Code of Regulations, title 14, section 15321(a)(2).

IT IS HEREBY ORDERED that, pursuant to Water Code sections 13301 and 13267, Steve Gikas, his agents, successors, and assigns shall implement the following measures to ensure long-term compliance with WDRs Order R5-2014-0056.

This Cease and Desist Order rescinds Cleanup and Abatement Order R5-2007-0715 except for the purpose of enforcing violations that have occurred to date.

Any person signing a document submitted to comply with this Order shall make the following certification:

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my knowledge and on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

1. **Effective immediately**, the Discharger shall comply with all requirements of WDRs Order R5-2014-0056, with the exception of the following:

- a. Groundwater Limitations E.1 and E.2;
- b. Discharge Specifications D.1, D.2, D.3, and D.14; and
- c. Land Application Area Specification F.3 and F.6

as provided in this Order below. By **30 June 2016**, the Discharger shall comply with all requirements of the WDRs.

2. By **30 June 2014**, the Discharger shall submit a *Crop Plan Implementation Report* certifying that alfalfa or other equally sustainable vegetation has been planted on the entire LAA, and salt cedar trees have been planted around the LAA perimeter as described in the 16 October 2013 RWD Addendum and Finding 17 of this Order.

3. By **30 June 2014**, the Discharger shall submit a *BPTC Workplan* that describes a technical evaluation of facility's waste treatment and disposal system to determine best practicable treatment and control for each waste constituent listed in the Groundwater Limitations. The Workplan shall contain a detailed description of the mechanical, structural and operational improvements that will be implemented to bring the discharge into full compliance with WDRs Order R5-2014-0056. The Workplan shall include:

- a. Design calculations showing that the proposed improvements will ensure compliance with the Groundwater Limitations E.1 and E.2; Discharge Specifications D.1, D.2, D.3, and D.14; and Land Application Area Specification F.3 and F.6.
- b. An evaluation of the existing storage pond liner condition including a complete leak testing report with specific recommendations for repair or replacement of the liner.

- c. A *Pond Liner Construction Quality Assurance (CQA) Plan* for the storm water pond conversion (if that pond will be used to contain wastewater) and replacement of the liner in the existing pond (as applicable). The CQA plan shall specify the final design of the liner system, including complete pond geometry, liner materials, liner thickness, seaming methods, and details of anchorage and typical penetrations. The CQA plan shall describe the specific construction quality assurance procedures and test methods that the Discharger proposes to ensure and verify that the liner subgrade preparation, installation and seaming will comply with the specifications; the entire liner is tested following installation to verify that all seams and liner penetrations are leak-free at the time of acceptance; and the entire liner is inspected for visible material defects and construction damage such as holes or tears prior to acceptance.
 - d. A description of the specific means of storm water management at the facility and how those practices will be changed to accommodate loss of the current storm water pond, if that pond will be used to contain wastewater.
 - e. Projected monthly water balances demonstrating adequate containment capacity for both the average rainfall year and the 100-year return period total annual precipitation, including consideration of at least the following:
 - i. A minimum of two feet of freeboard in each pond at all times (unless a registered civil engineer determines that a lower freeboard level will not cause overtopping or berm failure).
 - ii. Historical local evapotranspiration, pan evaporation, and lake evaporation data (monthly average values).
 - iii. Local precipitation data with the 100-year return period annual total distributed monthly in accordance with mean monthly precipitation patterns.
 - iv. Proposed land application area hydraulic loading rates distributed monthly in accordance with expected seasonal variations based on crop evapotranspiration rates.
 - v. Projected long-term percolation rates (including consideration of percolation from unlined ponds and the effects of solids plugging on all ponds).
4. If any planned improvements in the approved *BPTC Workplan* will trigger environmental review under CEQA, the Discharger shall submit a copy of the application materials submitted to the County Planning Department by **30 September 2014**.
 5. If the water balance in the approved *BPTC Workplan* shows that additional wastewater storage is needed, the Discharger shall complete the construction of Storm Water Pond liner by **31 August 2015**, and a *Construction Completion Report* shall be submitted by **31 October 2015**. The Report shall specify the final design of the liner system, including complete pond geometry, liner materials, liner thickness, seaming methods, and details of anchorage and typical penetrations. The Report shall describe the results of quality assurance inspection and testing and certify that all seams and liner

penetrations are leak-free at the time of acceptance; and the entire liners were inspected for visible material defects and construction damage such as holes or tears prior to acceptance.

6. Discharger shall complete the repair or replacement of the existing wastewater pond liner by **31 August 2015**, and a *Construction Completion Report* shall be submitted by **31 October 2015**. The Report shall specify the final design of the liner system, including complete pond geometry, liner materials, liner thickness, seaming methods, and details of anchorage and typical penetrations. The Report shall describe the results of quality assurance inspection and testing and certify that all seams and liner penetrations are leak-free at the time of acceptance; and the entire liners were inspected for visible material defects and construction damage such as holes or tears prior to acceptance. This report maybe combined with the *Construction Completion Report* for the storm water pond if desired.
7. By **30 June 2016**, the Discharger shall submit a technical report that documents full implementation of the approved *BPTC Workplan* and full compliance with the WDRs Order R5-2014-0056. If groundwater does not comply with the groundwater limitations of the WDRs, the report shall demonstrate why additional time to comply with the groundwater limitations is justified and, if needed, propose specific further treatment or control measures that will be implemented to achieve compliance.

In addition to the above, the Discharger shall comply with all applicable provisions of the Water Code that are not specifically referred to in this Order. As required by the Business and Professions Code sections 6735, 7835, and 7835.1, all technical reports shall be prepared by, or under the supervision of, a California Registered Engineer or Professional Geologist and signed/stamped by the registered professional.

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 or may issue a complaint for administrative civil liability.

Failure to comply with this Order or with the WDRs 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.

Any person aggrieved by this action of the Central Valley Water Board may petition the State Water Board to review the action in accordance with Water Code section 13320 and California Code of Regulations, title 23, sections 2050 and following. The State Water Board must receive the petition by 5:00 p.m., 30 days after the date that this Order becomes final, except that if the thirtieth day following the date that this Order becomes final 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 may be found on the Internet at

http://www.waterboards.ca.gov/public_notices/petitions/water_quality
or will be provided upon request.

I, PAMELA C. CREEDON, Executive Officer, do hereby certify that the foregoing is a full true, and correct copy of an Order adopted by the California Regional Water Quality Control Board on 28 March 2014.

Original signed by

PAMELA C. CREEDON, Executive Officer

LF: 2/19/14