CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION

ORDER R7-2018-0025

WASTE DISCHARGE REQUIREMENTS
FOR
OWB PACKERS, LLC, OWNER/OPERATOR
BRAWLEY BEEF PLANT WASTEWATER TREATMENT FACILITY
AND RECLAMATION AREA
Brawley–Imperial County

The California Regional Water Quality Control Board, Colorado River Basin Region (Colorado River Basin Water Board) finds that:

1. OWB Packers, LLC (OWBP or Discharger) owns a beef processing plant (Facility) located in Imperial County at the address 57 Shank Road, Brawley, CA 92227. The Facility is assigned GeoTracker Identification No. WDR100039599 and Waste Discharge Identification (WDID) No. 7A135008001.

2. The Facility has an existing onsite wastewater treatment facility (WWTF) that consists of primary screens, two Dissolved Air Flotation (DAF) units, an anaerobic digester (Pond 1), an intermediate DAF unit, an aerobic activated sludge pond (Pond 2), a suspended air flotation (SAF) unit, a polishing pond (Pond 3), and a belt filter press for dewatering solids. All three ponds are unlined. The Facility also includes an unlined storm water pond onsite that is not considered part of the WWTF.

3. On January 14, 2016, the Colorado River Basin Water Board adopted Waste Discharge Requirements (WDRs) Order R7-2016-0007 to regulate the discharge from the Facility to the unlined ponds. It also adopted Time Schedule Order (TSO) R7-2016-0008, which in relevant part provides the Discharger with a time schedule to implement onsite wastewater treatment improvements and three alternatives to comply with state regulations relating to discharges of waste to land. TSO R7-2016-0008 was amended by Special Order R7-2016-0031, which extended the deadlines of the TSO by five months.

4. On January 19, 2017, the Colorado River Basin Water Board adopted WDRs Order R7-2017-0001 to regulate the Discharger's proposed discharge of up to 238,000 gallons per day (gpd) of disinfected effluent from a BioFiltro® treatment system for irrigation of 140 acres planted with Bermuda grass (Reclamation Area). The proposed discharge is assigned WDID No. 7A130138001. The Discharger had intended to build the BioFiltro® system last year and abandon its pond-based treatment system to bring its discharge of wastes in compliance with all applicable regulations for discharges of wastes to land (TSO Alternative 3). However, the Discharger has not built the BioFiltro® system.

5. The Discharger submitted a Report of Waste Discharge (ROWD) dated March 14, 2018 and applied for revised WDRs for its proposed discharge to the 140 acres (i.e., to the Reclamation Area). It submitted additional information titled "Documentation in Support of Report of Waste Discharge for Revised Waste Discharge Requirements; One World Beef Packers, Brawley Beef Harvesting Plant," which completed the ROWD on May 15, 2018.

6. The ROWD states that the Discharger has experienced significant delays and incurred significant expense in obtaining a construction permit for the BioFiltro® system. Additionally, the Discharger indicates that, due to operation and maintenance improvements it has implemented for the WWTF, the WWTF can consistently produce effluent of the same or better quality than the effluent quality projected for the BioFiltro®. Consequently, the Discharger now proposes to: (1) not build the BioFiltro® system at this time and (2) instead add disinfection to its existing WWTF and then discharge disinfected WWTF effluent to the Reclamation Area.

7. The Discharger is not abandoning the construction of the BioFiltro® system, but intends to make the BioFiltro® system part of its long-term wastewater management strategy due to potential operation-and-maintenance cost savings from the system. In the interim, however, the Discharger has requested and this Order provides revised WDRs to allow the discharge of up to 238,000 gpd from the WWTF to the Reclamation Area.

8. Accordingly, this Order supersedes Orders WDRs Order R7-2016-0007, TSO R7-2016-0008, Special Order R7-2016-0031 (regulating current WWTF operations) and WDRs Order R7-2017-0001 (regulating the potential discharge of disinfected effluent from the BioFiltro® to the 140 acres), except for enforcement purposes.

Background and Site Description

9. The Facility is located on land in the City of Brawley near State Route (SR) 111. (Assessor's Parcel Numbers [APN] 047-010-029, 047-020-015, 047-020-016, and 047-020-017, T13S, R14E, Sections 27 and 28, San Bernardino Base and Meridian (SBB&M).) A map depicting the general location of the Facility is found in **Attachment A** and incorporated herein by reference.

10. Facility operations that generate wastewater discharged to the WWTF are: (a) beef harvesting (kill floor), (b) fabrication (where carcasses are broken down into wholesale beef cuts), (c) beef grinding (to produce ground beef), (d) cleaning and sanitation of production areas, (e) utilities (boilers, heaters, cooling towers), and (f) cattle pens. The Facility also has a rendering plant, but the Discharger is not proposing to operate the rendering plant at this time. However, the Discharger may operate the rendering plant once it increases production. Salt hiding operations are conducted in a closed loop system and have no associated discharges.

11. All discharges of wastewater from the Facility—totaling approximately 300,000 gpd—are currently made into the City of Brawley's wastewater treatment plant, a publicly owned treatment works (POTW) regulated under WDRs Order R7-2015-0004 (NPDES Permit No. CA0104523[1]). Pursuant to 40 Code of Federal Regulations section 403.8 et seq., the city currently implements an approved pretreatment program to properly handle, treat, and dispose of pollutants from industrial users (IUs), which could pass through or interfere with the operation of the POTW. The City of Brawley's plant has treatment capacity for 5.9 million gallons per day (MGD), and the Discharger currently has authorization from the city to discharge up to 1,000,000 gpd into the POTW.

12. The Discharger proposes to grow Bermuda grass or other fodder crops for cattle feed on the 140 acres (i.e., the Reclamation Area). The proposed Reclamation Area consists of: (1) 20 acres, which are within the Facility and are owned by the Discharger; and (2) 120 acres (APNs 047-020-015, 047-020-016, and 047-020-017), which are immediately to the east of the Facility and leased by the Discharger from Highway 111, LLC. A map depicting the general location of the Reclamation Area is also found in **Attachment A** of this Order.

13. The Discharger proposes to operate and maintain the Reclamation Area and irrigate the area with effluent from its existing WWTF to grow Bermuda grass for cattle feed. As noted above, the Discharger plans to add disinfection to its existing WWTF and then discharge disinfected WWTF effluent to the Reclamation Area. **Attachment B** of this Order shows a diagram of the WWTF with the proposed disinfection treatment unit.

14. Since it began operations in March 2016, the Discharger has made operational changes at Facility that have resulted in a significant reduction of the volume of wastewater generated by the beef processing plant. The Discharger also made improvements to the WWTF pursuant to the TSO and the Special Order, including by replacing rotary drum screens and wastewater pumps, overhauling DAF units, and adding supplemental aeration in Pond 2. The changes have resulted in less water used by the Facility and less wastewater discharged from the Facility to areal groundwater and to the city POTW than originally projected by the Discharger in 2016. The WWTF improvements are yielding an improved and consistent effluent quality (see Finding 20, below).

15. The Facility was previously owned by National Beef California, L.P. (NBC). When NBC operated the Facility, NBC estimated that Pond 1 was incidentally percolating approximately 8,000-12,000 gpd of wastewater based on a hydrological investigation. With the changes made by the Discharger, Colorado River Basin

[1] The City of Brawley's plant discharges its effluent via Discharge Point 001 into the New River, which is tributary to the Salton Sea. The New River and the Salton Sea are waters of the United States.

Water Board staff estimates that Pond 1 is now only incidentally percolating approximately 1000-2000 gpd of wastewater.

16. Accordingly, due to the material improvement in effluent quality and the reduced volume of discharge coming from Pond 1, Colorado River Basin Water Board staff believes the discharge of wastewater from the Facility poses a much lower threat to the beneficial uses of areal groundwater than originally anticipated and is not a "designated waste" under title 27 of the California Code of Regulations.

Existing and Proposed WWTF and Reclamation Operations

17. The Discharger plans to continue to use Pond 1, the two DAFs units, the intermediate DAF unit, Pond 2, the SAF unit, and a belt filter press for dewatering solids. The Discharger will also continue to use Pond 3 for polishing and storing treated wastewater, and it will disinfect the effluent prior to discharge to the Reclamation Area.

18. The Discharger proposes to disinfect the WWTF effluent using Paracetic Acid (PAA) prior to discharging to the Reclamation Area. PAA is an alternative to chlorine disinfection that does not form harmful disinfection byproducts. The equipment for the PAA disinfection system includes two chemical feed pumps to pump 12% PAA solution from a 300-gallon tote and a 12,000-gallon reaction tank with a mixing system. This type of disinfection is not expected to result in any residual contaminants of concern in the discharge.

19. Current effluent wastewater flows at the WWTF average approximately 300,000 gpd. The Discharger proposes to increase plant operations, which will require additional water from the City of Brawley and generate additional wastewater. The current Industrial User Permit for the Discharger limits the discharge to the city's POTW at 1,000,000 gpd. Table 1, below, shows the Discharger's projected increases in operations, water use, and wastewater generation for the next 5 years:

Table 1. Projected Wastewater Flows

Parameter	2018	2019	2020	2021	2022
Heads/Week (annual avg.)	2,000	2,840	3,340	4,000	6,000
Gallons/Head	1,022	1,000	1,000	1,000	1,000
Weekly Discharge to City POTW (gallons)	2,044,808	2,840,000	3,340,000	4,000,000	6,000,000

Parameter	2018	2019	2020	2021	2022
Daily Discharge to City POTW (gpd)	292,115	405,714	477,143	571,429	857,143
Discharge to Land (gpd)	238,000	238,000	238,000	238,000	238,000

20. Table 2, below, summarizes the existing WWTF's effluent quality for constituents of concern for the last 14 months.

Table 2. WWTF Effluent Quality for January 2017 through March 2018

Month/Year	BOD (mg/L)	TSS (mg/L)	Total Nitrogen (mg/L)	TDS (mg/L)	Oil and Grease (mg/L)	pH (--)	Dissolved Oxygen (mg/L)
Mar 2017	209.5	41.3	62.3	1154	0.0	7.8	8.74
Apr 2017	59.9	66.8	29.6	1330	0.0	8.1	8.72
May 2017	85.4	47.8	17.4	1390	0.0	8.17	8.25
Jun 2017	51.31	40.08	4.83	1163	3.40	8.58	7.4
Jul 2017	41.03	33.64	3.85	1136	0.0	7.74	8.3
Aug 2017	59.32	31.73	7.03	1143	1.42	8.23	8.4
Sept 2017	47.86	36.83	12.18	1265	3.62	8.22	9.6
Oct 2017	44.04	63.11	11.39	1601	1.91	8.31	8.3
Nov 2017	49.03	49.58	12.54	1250	1.83	7.9	7.58
Dec 2017	32.08	36.90	6.83	1330	1.34	6.83	9.11
Jan 2018	41.30	43.91	14.37	1396	1.92	8.08	10.03
Feb 2018	65.98	57.04	9.76	1347	1.47	7.78	9.15
Mar 2018	60.7	52.45	8.90	1482	1.60	7.56	8.43

21. With the ROWD, the Discharger provided a monthly water balance for the use of treated effluent onto the 140 acres. The water balance shows that the Reclamation Area can accommodate up to 238,000 gpd. Currently, Imperial Irrigation District (IID) delivers Colorado River water to the 120-acre site via the Oakley Canal, which is planted with Bermuda grass. The 20-acre onsite parcel has not been under cultivation during the last 20 years.

22. Monthly average evapotranspiration (ET) rates for Bermuda grass in the Imperial Valley vary from 1.102 inches in December to as high as 7.076 inches in July.[2] The monthly water balance accounts for average monthly precipitation data for the Brawley area, gross crop water demand, evaporation, irrigation efficiency, and soil types. It shows that the 238,000 gpd of treated wastewater generated would constitute only 26% of the total average annual water demand to grow Bermuda grass on the 140 acres of the Reclamation Area. The Discharger proposes to use IID water to meet the additional water demand of the Reclamation Area. More specifically, the Discharger proposes to use effluent exclusively from the WWTF to irrigate the Reclamation Area from October through February, and to use both WWTF effluent and IID water to irrigate from March through September.

23. The Discharger also provided monthly Nitrogen, Biochemical Oxygen Demand (BOD), and Total Dissolved Solids (TDS) mass balances for the Reclamation Area. Nitrogen, BOD, and TDS are constituents that can limit crop growth and yield. Nitrogen is essential for plant growth, but can also be toxic to plants at high doses. TDS can also change the physical conditions of soils and make them toxic for plants. In this case, BOD is not only a crop-limiting factor, but it is also used as an indicator of the nuisance potential that irrigation with treated wastewater may have.

24. The Western Fertilizer Handbook, 7th Edition (Table 4-1, p. 63) recommends a total Nitrogen loading rate of 225 lbs/acre/year for Bermuda grass. The monthly mass balance for Nitrogen shows that the total nutritive value of the WWTF effluent should be 221 lbs/acre/year, which is essentially the total annual Nitrogen demand of Bermuda grass. Under this scenario, there should not be a need to apply any additional commercial Nitrogen fertilizer to the Reclamation Area.

25. High BOD loading rates in the Reclamation Area can lead to crop failure because high rates induce anaerobic conditions in the soil. High rates can also clog upper soils with solids and trigger nuisance conditions. The Discharger's mass balance for BOD shows that the average monthly BOD loading rate is 1.4 lbs/acre/day, which is well below the maximum 100 lbs/acre/day loading rate recommended by the United States Environmental Protection Agency (USEPA) in its *Pollution Abatement in the Fruit and Vegetable Industry: Wastewater Treatment* manual (Table IV.3, p. 66). As such, the Discharger will likely get natural, incidental BOD removal in the Reclamation Area.

26. Bermuda grass is considered a salt-tolerant crop.[3,4] The critical salt loading rate for crop viability will occur when the Discharger irrigates exclusively with WWTF

[2] Based on ETs for alfalfa.
[3] Maas, E.V. and S.R. Grattan. 1999. Crop yields as affected by salinity. In R.W. Skaggs and J. van Schilfgaarde (eds) Agricultural Drainage. Agron. Mongr. 38. pp. 55-108.
[4] Grieve, C.M., S.R. Grattan, and E.V. Maas. 2012. Plant salt tolerance. In W.W. Wallender and K.K. Tanji (eds). ASCE Manual and Reports on Engineering Practice No. 71, Agricultural Salinity Assessment and Management (2nd edition). pp. 405-459.

effluent (from October through February). The TDS of the WWTF effluent is equivalent to an Electrical Conductivity of approximately 3.4 dS/m, which is significantly below the EC threshold of 6.9 dS/m for Bermuda grass.[5]

27. Salts can also accumulate in the upper soils (e.g., within the root zone) of the Reclamation Area to such an extent that the soil can be toxic to Bermuda grass. The mass balance for salts indicates that the Fixed Dissolved Solids (FDS[6]) in the WWTF effluent should be approximately 1,225 mg/l. On an annual basis, using effluent and IID water to irrigate as proposed by the Discharger would be as if the Discharger is irrigating with water that has an average TDS concentration of 975 mg/L, which is only 125 mg/L higher than the average TDS concentration of IID water. Therefore, the additional amount of TDS that will need to be leached from the soils in the Reclamation Area due to the FDS of the effluent should not be significant.

28. Typical irrigation practices in the Imperial Valley involve the use of flood irrigation for cattle feed crops. Water from an irrigation canal is released at the head end of the field and is allowed to flow with the gradient toward the tail end of the field. Tailwater is irrigation water that does not percolate into the soil and exits the lower end of the field into a drain. Tilewater is water that has percolated through the soil, but is not absorbed by crops. Tilewater also flushes salts from the soil matrix and discharges them into a drain.

29. The relatively higher salt loading rate proposed by the Discharger for the Reclamation Area is acceptable because: (1) the Discharger proposes to grow a relatively salt-tolerant crop; (2) the Discharger will use typical Imperial Valley irrigation practices to sustain the viability of farmland and maintain crop growth and acceptable crop yields; and (3) the amount of TDS that need to be leached from soils in the Reclamation Area should not be significantly different that the amount of TDS leached by similar farming operations that rely exclusively on IID water.

30. The Discharger will continue to monitor constituents of concern in groundwater. The Facility has twelve (12) existing groundwater monitoring wells (MW-1, MW-2, MW-3, MW-4, MW-5S, MW-6, MW-7S, MW-8, MW-9S, MW-10, and MW-11) that were installed by NBC to characterize background groundwater quality and the impacts from its disposal operations, in response to a June 27, 2013 Technical Order issued by the Executive Officer pursuant to Water Code section 13267. The Discharger proposes to use MW-1, MW-5S, MW-7S, MW-7D, and MW-9S to monitor the potential impacts of its discharge from the ponds on groundwater; and abandon MW-2, MW-3, MW-4, MW-6, MW-8, MW-10, and MW-11.

[5] Hanson, B.R., S.R. Grattan, and A. Fulton. 2006. Agricultural Salinity and Drainage. Division of Agric. and Natural Res. Pub. No. 3396, University of California, Davis. p. 18.
[6] FDS = Inorganic Dissolved Solids = (Total Dissolved Solids) – (Organic Dissolved Solids).

Hydrogeologic Conditions

31. The average annual precipitation in the Imperial Valley is about 3 inches per year. The average annual evapotranspiration rate is about 71 inches per year.

32. Soil units represented in the location of the beef plant are the Imperial-Glenbar-silty clay and Imperial-silty clay to sandy silt. The shallow hydrogeologic profile includes surficial confining silty clay over sandy clayey silt, with an upper confined/semi-confined aquifer. The surficial confining unit consists of very stiff clay extending from 0 to 20 feet. Below that, at 20-25 feet below ground surface (bgs), is a medium-dense sandy clayey silt. The local upper aquifer is approximately 9-21 feet bgs. Soils in the 140-acre reclamation area are classified as Imperial-silty clay.

33. ***The closest surface waters to the Facility and Reclamation Area are the Oakley Canal and the McNeal Drain.*** IID's Oakley Canal borders the Facility on the east and delivers IID water to the 120-acre reclamation site. The McNeal Drain runs northerly between the Facility and the 120-acre site.

34. There are no domestic or municipal wells within 500 feet of the WWTF. Groundwater flow in the area is to the northwest toward the Salton Sea.

35. The City of Brawley provides water to the Facility, and the water has a TDS concentration of approximately 850 mg/L. The city receives its water from IID.

Basin Plan, Beneficial Uses, and Related Regulatory Considerations

36. The Water Quality Control Plan for the Colorado River Basin (Basin Plan), which was adopted on November 17, 1993 and amended on March 7, 2017, designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the plan. Pursuant to section 13263, subdivision (a) of the Water Code, waste discharge requirements must implement the Basin Plan and take into consideration the beneficial uses to be protected of the receiving waters, 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.

37. The Facility and Reclamation Area are located within the Imperial Hydrologic Unit designated in the Basin Plan. The beneficial uses of groundwater in the Imperial Hydrologic Unit are:

    a. Municipal supply (MUN), and

    b. Industrial supply (IND).

However, first-encountered groundwater beneath the site is not currently used for municipal supply purposes because of its relatively high salt concentrations, as discussed further below.

38. State Water Board Resolution 88-63 (as revised by Resolution 2006-0008), also known as the "Sources of Drinking Water" Policy, recognizes that Basin Plans do not always provide sufficient detail in waterbodies designated for "Municipal" use to judge clearly what is, or is not, a source of drinking water for various purposes. Accordingly, it exempts a waterbody from such designation if the TDS in the waterbody exceeds 3,000 mg/L and the waterbody is not reasonably expected by the regional water board to supply a public water system. The Basin Plan incorporates the Sources of Drinking Water Policy by reference.

39. First-encountered groundwater beneath the Facility and the 120-acre site is not currently used for municipal purposes and not reasonably expected to supply a public water system because of its high salt concentrations (TDS > 5,000 mg/L). Therefore, effluent limitations that would be protective of a municipal beneficial use as prescribed in title 22 of the California Code of Regulations for Nitrogen and TDS are not necessary for the incidental discharge from Pond 1 and for the proposed discharge to the Reclamation Area.

40. ***Surface waters in the area of the Facility consist of the IID irrigation canals and surface drains (Imperial Valley Drains). The beneficial uses of the Imperial Valley Drains are:***

    a. ***Fresh Water replenishment of Salton Sea (FRSH),***

    b. ***Non-contact Water Recreation (REC II),***

    c. ***Warm Water Habitat (WARM),***

    d. ***Wildlife Habitat (WILD), and***

    e. ***Preservation of Endangered or Threatened Species (END).***

41. This Order establishes waste discharge requirements (WDRs) pursuant to division 7, chapter 4, article 4 of the Water Code (for discharges that are not subject to regulation under section 402 of the Clean Water Act (33 U.S.C. § 1342)). These WDRs implement numeric and narrative water quality objectives for ground and surface waters established by the Basin Plan.

42. The discharge authorized by this Order, except for discharges of residual sludge and solid waste, are exempt from the solid waste requirements of California Code of Regulations, title 27, section 20005 et seq. This exemption is based on section 20090, subdivision (b) of title 27 of the California Code of Regulations, which

provides that discharges of wastewater to land, including but not limited to evaporation ponds, percolation ponds, or subsurface leachfields are not subject to the requirements of title 27 if the following exemption conditions are met:

a. The applicable regional water board has issued WDRs, reclamation requirements, or waived such issuance;

b. The discharge is in compliance with the applicable water quality control plan; and

c. The wastewater does not need to be managed according to chapter 11, division 4.5, title 22 of the California Code of Regulations as a "hazardous waste."

43. The discharge of wastes authorized by these WDRs satisfies the conditions to be exempted from the requirements of title 27 of the California Code of Regulations, because (1) the discharge is regulated by these WDRs; (2) these WDRs will ensure the discharge complies with the Basin Plan; and (3) the discharge will not be of a "hazardous waste."

44. State policy promotes the use of recycled water to the maximum extent in order to supplement existing surface water and groundwater supplies to help meet water needs. (Water Code, §§ 13510-13512). One of the primary conditions on the use of recycled water is protection of public health. (Water Code, §§ 13521, 13550, subd. (a)(3)). This Order is consistent with the policy contained in the Water Code and protective of public health. Effluent from the WWTF that will be used for surface irrigation meets the requirements for disinfected secondary recycled water found in the California Code of Regulations, title 22, section 60301.225.[7]

45. Section 13267 of the Water Code authorizes the Colorado River Basin Water Board to require technical and monitoring reports. The monitoring and reporting requirements in Monitoring and Reporting Program (MRP) R7-2018-0025 are necessary to determine compliance with this Order. The State Water Resources Control Board's (State Water Board) electronic database, GeoTracker Information Systems, facilitates the submittal and review of Facility documents. The burden, including costs, of this MRP bears a reasonable relationship to the need for that information and the benefits to be obtained from that information.

46. Pursuant to Water Code Section 13263, subdivision (g), the discharge of waste is a privilege, not a right, and adoption of this Order does not create a vested right to continue the discharge.

[7] However, the discharge is not required to meet the standards in the California Code of Regulations, title 22, chapter 3 because it does not involve the recycled use of domestic wastewater.

Antidegradation Analysis

47. State Water Board Resolution 68-16, entitled *Statement of Policy with Respect to Maintaining High Quality Waters in California* (Resolution 68-16), generally prohibits the Colorado River Basin Water Board from authorizing discharges that will result in the degradation of high-quality waters, unless it is demonstrated that any change in water quality will (a) be consistent with maximum benefit to the people of the state, (b) not unreasonably affect beneficial uses, and (c) not result in water quality less than that prescribed in state and regional policies (e.g., the violation of one or more water quality objectives). The discharger must also employ best practicable treatment or control (BPTC) to minimize the degradation of high quality waters.

48. When receiving water body quality exceeds or just meets the applicable water quality objective due to naturally-occurring conditions or to prior Board-authorized activities, it is not a high-quality water and not subject to the requirements of Resolution 68-16. However, the Discharger is still required to use "best efforts" to control the discharge of waste.

49. Resolution 68-16 does not apply to discharges to groundwater authorized in this Order. First-encountered groundwater beneath the Facility is of poor quality that historically has not supported beneficial uses. A 1975 report prepared by the United State Geological Survey[8] indicates that shallow groundwater in the central portion of the Imperial Valley, including the Brawley area, was rather saline due to the widespread waterlogging from many years of repeated irrigations whose only drainage was the slow seepage into the Alamo and New Rivers (i.e., before tiledrains began to be installed in the valley in the late 1930s). Specifically, the 1975 report found that groundwater quality at or below 120 feet bgs in the area of the Facility was also very poor, with TDS of 10,300 mg/L, as early as 1962.

50. More current data also indicates that groundwater is of poor quality in the vicinity of the Facility. Groundwater monitoring conducted for the Facility indicates that background TDS concentrations in groundwater range from 8,510 to 11,100 mg/L. Background groundwater was also found to have sulfate at concentrations ranging from 1310 to 1,760, nitrates from 60.6 to 92.7 mg/L, and chloride from 5,680 to 8,150 mg/L.[9]

51. Constituents of concern (COCs) in the Facility's discharge that have the potential to degrade groundwater include organics, nutrients, salts, and bacteria. This Order establishes terms and conditions of discharge to ensure that Facility discharges do

[8] Loetlz, O.J. et al. 1975. Geological Reconnaissance of the Imperial Valley, California. United States Department of the Interior. United States Printing Office, Washington, DC.
[9] Green, H.R. September 2013. Groundwater Study, Wastewater Pre-treatment System, National Beef, Brawley, California.

not unreasonably affect present and anticipated uses of groundwater. This Order also finds that the Discharger is using “best efforts” to control the discharge of waste.

52. To the extent some incidental discharge from the ponds may percolate into the unconfined aquifer, the Colorado River Basin Water Board does not expect the discharge to cause or contribute to an exceedance of applicable water quality objectives. This Order requires ongoing groundwater monitoring to ensure that no violation of water quality objectives occurs.

53. With respect to the Reclamation Area, the potential COCs should not cause groundwater degradation because:

    a. **BOD.** The BOD loading rate is projected to be approximately 1.4 lbs/acre/day, which is significantly below the USEPA recommended rate of 100 lbs/acre/day. Therefore, no degradation due to organic loading should occur.

    b. **Nitrogen.** The Nitrogen loading rate to the Reclamation Area is projected to be 221 lbs/acre/year, which is essentially the annual Nitrogen demand of Bermuda grass and irrigation will take place at agronomic rates that factor in the water demand of Bermuda grass (i.e. ETo rates);

    c. **Total Dissolved Solids.** Background TDS concentrations in groundwater are greater than 5,000 mg/L, and as stated in Finding 29, the amount of TDS that needs to be leached from soils in the Reclamation Area should not be significantly different than the amount of TDS leached by similar farming operations that rely exclusively on IID water; and

    d. **Bacteria.** The Discharger will be disinfecting the WWTF effluent prior to discharging it to land. Therefore, there should be no degradation of groundwater as indicated by pathogen-indicator bacteria.

54. Resolution 68-16 may apply to discharges to surface water authorized under this Order. Potential constituents of concern include nutrients, salts, pesticides, and selenium. However, the discharge will likely not degrade the beneficial uses of surface water, because this Order prohibits the discharge of tailwater associated with irrigation of treated wastewater from the WWTF. This Order also requires the Discharger to apply reclaimed water used for irrigation at agronomic rates to properly manage COCs and prevent COCs from showing up in tilewater at concentrations that threaten water quality.

55. Additionally, this Order mandates that the Discharger implement management practices for pesticides consistent with the Conditional Waiver of WDRs for Agricultural Wastewater Discharges and Discharges of Wastes from Drain Operation and Maintenance Activities in the Imperial Valley, adopted by the

Colorado River Basin Water Board on January 15, 2015. The Order requires, in substantive part, that Imperial Valley farmers/growers implement management practices to address and prevent adverse water quality impacts from tailwater and tilewater discharges of wastes, including management practices for silt/sediment, nutrients, and pesticides. **Attachment C**, which incorporated herein and a part of this Order by reference, has a list of management practices for pesticides.

56. Besides nutrients, salts, and pesticides, tilewater in the Imperial Valley may contain selenium concentrations that adversely impact the beneficial uses of surface water in the Imperial Valley. The water transfer between IID and San Diego County Water Authority from the Quantification Settlement Agreement is projected to cause increases in selenium in the Imperial Valley agricultural drains and in the Alamo and New Rivers. IID is conducting a valley-wide investigation on practices that affect selenium concentrations in agricultural drains within the southern portion of the Salton Sea watershed. IID expects to complete and submit to the State Water Board and Regional Water Board the results of its investigation and recommendations to address the selenium impacts in 2020.

57. This Order establishes a monitoring and reporting program to ensure, in relevant part, that: (1) subsurface drainage from the Reclamation Area (i.e., tilewater) does not contain COCs exclusively associated with the beef plant in concentrations that threaten surface water quality; (2) treated wastewater reclamation is taking place at agronomic rates and in a manner that prevents nuisance; and (3) the overall irrigation of the Reclamation Area is also taking place in a manner that prevents adverse water quality impacts.

Stormwater

58. Federal regulations for stormwater discharges were promulgated by USEPA on November 16, 1990 (40 C.F.R. parts 122, 123, and 124) to implement the Clean Water Act's stormwater program set forth in Clean Water Act section 402(p) (33 U.S.C. § 1342(p)). In relevant part, the regulations require specific categories of facilities that discharge stormwater associated with industrial activity to "waters of the United States" to obtain NPDES permits and to require control of such pollutant discharges using Best Available Technology Economically Achievable (BAT) and Best Conventional Pollutant Control Technology (BCT) to prevent and reduce pollutants and any more stringent controls necessary to meet water quality standards.

59. The Facility has coverage for stormwater under the State Water Board's General Permit for Storm Water Discharges Associated with Industrial Activities Order 2014-0057-DWQ (NPDES No. CAS000001) and is assigned SMARTS (Stormwater Multiple Application and Reporting Tracking Systems) Identification No. 713I026564. No changes are proposed to the existing stormwater management facilities.

CEQA and Public Participation

60. In October 2016, the Colorado River Basin Water Board, acting as lead agency under the California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21000 et seq.), prepared an Initial Study/Mitigated Negative Declaration (IS/MND) (State Clearing House [SCH] No. 2016101034) for the construction, operation, and maintenance of the BioFiltro® wastewater treatment system and the discharge of treated effluent to the Reclamation Area.

61. The Colorado River Basin Water Board adopted the IS/MND on November 17, 2016 and WDRs Order R7-2017-0001 on January 19, 2017. A Notice of Determination (NOD) was filed with the SCH on January 31, 2017. The Colorado River Basin Water Board also developed and adopted a mitigation monitoring and reporting program (MMRP) to implement all mitigation measures identified in the IS/MND as necessary to mitigate or avoid significant environmental effects.

62. Pursuant to CEQA Guidelines (Cal. Code Regs., tit. 14, §§ 15003 et seq.) section 15164, the Colorado River Basin Water Board prepared an Addendum to the IS/MND on August 6, 2018. The Addendum analyzes proposed changes to the project; namely, the proposed use of effluent from OWBP's existing WWTF instead of effluent from the BioFiltro® system to irrigate the Reclamation Area. The Addendum concludes that the potentially-significant impacts found in the IS/MND and that were reduced to less-than-significant impacts with mitigation remain the same for the revised project.

63. The Regional Water Board has notified the Discharger and all known interested agencies and persons of its intent to draft WDRs for this discharge, and has provided them with an opportunity for a public meeting and an opportunity to submit comments.

64. The Regional Water Board, in a public meeting, heard and considered all comments pertaining to this discharge.

IT IS HEREBY ORDERED, that in order to meet the provisions contained in division 7 of the Water Code and regulations adopted thereunder, WDRs Order R7-2016-0007, TSO R7-2016-0008, Special Order R7-2016-0031, and WDRs Order R7-2017-0001 are rescinded, except for enforcement purposes, and the Discharger shall comply with the following:

A. Discharge Prohibitions

1. Discharge of waste classified as "hazardous," as defined in California Code of Regulations, title 27, section 20164, or "designated," as defined in Water Code section 13173 and California Code of Regulations, title 27, section 20164, is prohibited.

2. Discharge of wastewater from the WWTF into the City of Brawley's POTW is prohibited except as permitted by the City of Brawley**.**

3. Discharge into Ponds 1, 2, and 3 and the Reclamation Area in a manner different than described in this Order is prohibited.

4. Application of treated wastewater to the Reclamation Area other than for irrigation of livestock feed crops is prohibited.

5. Application of treated wastewater to the Reclamation Area in excess of agronomic rates is prohibited.

6. The discharge of tailwater comprised of treated wastewater or blended treated wastewater and IID water from the Reclamation Area to any surface waters or surface drainage courses is prohibited.

7. Application of treated wastewater from the WWTF to the Reclamation Area during a precipitation event, when the precipitation event is forecasted 12 hours prior to the scheduled application, or when the soils are saturated after a precipitation event, is prohibited.

8. Bypass or overflow of untreated or partially-treated waste is prohibited, except as provided in Standard Provision I.12, below.

9. The storage, treatment, or disposal of wastes from the Facility shall not cause contamination, pollution, or nuisance as defined in section 13050, subdivisions (k), (l), and (m) of the Water Code.

B. Effluent Limitations

1. The monthly average discharge from the WWTF into the Reclamation Area shall not exceed 238,000 gpd.

2. Discharge to the Reclamation Area shall not exceed the following limits**:**

Fecal Coliforms	Geometric Mean[10]	200 MPN[11]/100 ml
	Maximum	400 MPN/100 ml
Fixed Dissolved Solids	Maximum	1500 mg/L

[10] Based on a minimum of five samples equally spaced over a 30-day period.
[11] No more than 10 percent of the total samples during a 30-day period shall exceed the maximum.

Oil and Grease	Maximum	30 mg/L
pH	Minimum	6.0
	Maximum	9.0

C. Pond Specifications

1. A minimum depth of two (2) feet of freeboard shall be maintained at all times in Ponds 2 and 3.

2. Ponds 2 and 3 shall be maintained so they will be kept in aerobic conditions at all times. The dissolved oxygen content in the upper zone (one foot) of the ponds shall not be less than 1.0 mg/L.

3. Ponds 2 and 3 shall have sufficient capacity to accommodate allowable wastewater flow, design seasonal precipitation, ancillary inflow, and infiltration. 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.

4. All ponds shall be designed, constructed, operated, and maintained to prevent inundation or washout due to floods with a 100-year return frequency.

5. Objectionable odors originating at the WWTF shall not be perceivable beyond the limits of the Facility.

6. Public contact with wastewater shall be precluded through such means as fences, signs, and other acceptable alternatives.

7. Ponds 2 and 3 shall be managed to prevent breeding of mosquitoes, in particular:

    a. An erosion control program should 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; and

    c. Dead algae, vegetation, and debris shall not accumulate on the water surface.

D. Reclamation Specifications

1. The total overall nitrogen loading of the Reclamation Area shall not exceed 225 lb/acre/year.

2. The total BOD loading rate to the Reclamation Area shall not exceed a daily average of 4.0 lbs/acre/day and a monthly average of 2.0 lbs/acre/day.

3. The perimeters of the Reclamation Area shall be graded to prevent ponding and runoff onto adjacent properties.

4. Hydraulic loading of treated wastewater and IID water shall be at reasonable agronomic rates designed to minimize the percolation of wastewater and irrigation water below the root zone (i.e., deep percolation), considering the crop, soil, climate, and irrigation management system.

5. Irrigation with treated wastewater shall be performed in a manner to preclude runoff of wastewater from the land application area to adjacent property during saturated conditions.

6. The Reclamation Area shall be managed to prevent breeding of mosquitoes and other nuisance conditions. More specifically:

    a. All applied water shall infiltrate completely within a 48-hour period;

    b. Ditches not serving as wildlife habitat shall be maintained free of emergent, marginal, and floating vegetation; and

    c. Low-pressure and unpressurized pipelines and ditches accessible to mosquitoes shall not be used to store treated wastewater.

7. The slope of Reclamation Area shall be maintained and leveled periodically to (a) avoid excessive slopes that trigger soil erosion and low spots that can pond/pool applied water throughout the Reclamation Area; and (b) enhance uniform irrigation and irrigation efficiency.

8. The Discharger shall implement pesticide management practices (MPs) to avoid adverse water quality impacts. Suggested pesticide MPs are shown in **Attachment C**.

9. Objectionable odors originating in the Reclamation Area shall not be perceivable beyond the limits of the Reclamation Area.

E. Tilewater Limitations

1. Tilewater from the Reclamation Area shall not contain pollutants in concentrations that degrade surface water quality.

2. Tilewater from the Reclamation Area shall not contain residual nutrients in concentrations that promote aquatic growths to the extent that such growths cause nuisance or adversely affect beneficial uses.

3. Tilewater from the Reclamation Area shall not cause the Dissolved Oxygen in the receiving water to fall below 5.0 mg/L.

F. Sludge and Solids Limitations

1. Disposal of oil and grease, biosolids, screenings, and other solids collected from liquid wastes (Sludge and Solids) shall be pursuant to title 27 of the California Code of Regulations. Disposal of Sludge and Solids may not begin prior to review and approval of the Sludge and Solids work plan by the Colorado River Basin Water Board's Executive Officer in accordance with Section G.4 of this Order.

2. Use and disposal of Sludge and Solids shall comply with federal and state laws and regulations, including but not limited to permitting requirements and technical standards in 40 Code of Federal Regulations part 257.

3. The Discharger shall maintain a permanent log of all solids hauled away from the treatment facility for use/disposal elsewhere and shall provide a summary of the volume, type (screenings, grit, raw sludge, digested sludge), and the destination in accordance with the MRP of this Order. Sludge that is stockpiled at the treatment facility shall be sampled and analyzed for those constituents listed in the sludge monitoring section of the MRP of this Order and as required by 40 Code of Federal Regulations part 257. The results of the analyses shall be submitted to the Colorado River Basin Water Board as part of the MRP.

G. Technical Reports

1. **By November 30, 2018**, the Discharger shall submit a technical report in the form of a work plan for review and approval by the Colorado River Basin Water Board Executive Officer to properly decommission MW-2, MW-3, MW-4, MW-6, MW-8, MW-10, and MW-11. The work plan shall include a time schedule for implementation to complete the decommission of the wells by **May 15, 2019**.

2. **By January 30, 2019**, the Discharger shall submit a technical report in the form of final Irrigation Management Plan (FIMP) for the Reclamation Area for review and approval by the Colorado River Basin Water Board Executive Officer. The Executive Officer may grant the Discharger up to a six-month time extension for submittal of the FIMP should there be delays with the preparation of the necessary infrastructure to use WWTF effluent on the Reclamations Area. The FIMP shall at a minimum include:

    a. A monthly irrigation water balance and Nitrogen, BOD, and TDS mass balances for each of the reclamation areas based on WWTF effluent data:

        i. The water balance shall clearly identify the months when each of the reclamation areas will be irrigated exclusively with WWTF effluent, with IID water, and with both;

        ii. Include the corresponding projected calculations for Nitrogen, BOD, and TDS; and

        iii. TDS loading calculations for the reclamation areas shall be based on the actual FDS of the effluent from the WWTF and the TDS of IID water, and include the amount of salts that would be leached from the root zone on monthly and annual bases;

    b. A map to scale (1 inch = 200 feet or better) that shows the pumping and distribution system for applying effluent from the WWTF and IID water;

    c. A description of the irrigation system cited in Item “b,” above, and identification of areas and facilities where effluent from the WWTF and IID water blend and/or mix if any;

    d. A map to scale (1 inch = 200 feet or better) showing areal tile drains, tailwater box(es), tilewater pipe(s), discharge point(s) of tailwater box(es) and tilewater pipe(s), and the receiving surface water(s);

    e. The name and contact information of the person(s) responsible for implementing the FIMP and their qualifications to operate and maintain the reclamation areas;

    f. An organizational chart and contact information for all personnel involved in the WWTF and Reclamation Area; and

g. A description of all of the management practices, including practices for nutrient and pesticide management, to be implemented in the reclamation areas to prevent adverse water quality impacts and nuisance conditions.

3. **Thirty days prior to discharge of any WWTF effluent to the Reclamation Area,** the Discharger shall provide a copy of the Operation and Maintenance Manual and "as-built" drawings for the PAA disinfection facility. The Executive Officer may grant the Discharger up to a six-month time extension for submittal of the Operation and Maintenance Manual and "as-built" drawings for the PAA disinfection facility should there be delays with the construction and operation of the disinfection facility.

4. **Thirty days prior to disposal of sludge from the WWTF,** the Discharger shall provide a technical report in the form of a work plan that addresses the proposed disposal of Sludge and Solids in a manner that is consistent with all state and federal laws and regulations, including 40 Code of Federal Regulations part 257. The report shall be subject to the approval of the Colorado River Basin Water Board's Executive Officer.

H. Public Outreach

1. The Discharger shall have a designated Public Liaison to investigate and respond to odor nuisance complaints about the WWTF and Reclamation Area.

2. Copies of the complaints received by the Public Liaison shall be forwarded to the Colorado River Basin Water Board at (760) 352-1464 and (760) 553-6839, within 15 minutes of receipt of the complaint.

3. The Public Liaison's logbook shall be available to the Colorado River Basin Water Board for inspection and copying as necessary.

I. Standard Provisions

1. **Noncompliance.** The Discharger shall comply with all of the terms, requirements, and conditions of this Order and Monitoring and Reporting Program R7-2018-0022. Noncompliance is a violation of the Porter-Cologne Water Quality Control Act (Water Code, § 13000 et seq.) and grounds for: (1) an enforcement action; (2) termination, revocation and reissuance, or

modification of these waste discharge requirements; or (3) denial of an Order renewal application.[12]

2. **Enforcement.** The Colorado River Basin Water Board reserves the right to take any enforcement action authorized by law. Accordingly, failure to timely comply with any provisions of this Order may subject the Discharger to enforcement action. Such actions include, but are not limited to, the assessment of administrative civil liability pursuant to Water Code sections 13323, 13268, and 13350, a TSO issued pursuant to Water Code section 13308, or referral to the California Attorney General for recovery of judicial civil liability.

3. **Proper Operation and Maintenance.** The Discharger shall at all times properly operate and maintain all systems and components of collection, treatment, and control, installed or used by the Discharger to achieve compliance with this Order. Proper operation and maintenance includes, but is not limited to, effective performance, adequate process controls, and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities/systems when necessary to achieve compliance with this Order. All systems in service or reserved shall be inspected and maintained on a regular basis. Records of inspections and maintenance shall be retained, and made available to the Colorado River Basin Water Board on request.

4. **Reporting of Noncompliance.** The Discharger shall report any noncompliance that may endanger human health or the environment. Information shall be provided orally to the Colorado River Basin Water Board office and the Office of Emergency Services within twenty-four (24) hours of when the Discharger becomes aware of the incident. If noncompliance occurs outside of business hours, Discharger shall leave a message on the Colorado River Basin Water Board's office voicemail. A written report shall also be provided within five (5) business days of the time the Discharger becomes aware of the incident. The written report shall contain a description of the noncompliance and its cause, the period of noncompliance, the anticipated time to achieve full compliance, and the steps taken or planned, to reduce, eliminate, and prevent recurrence of the noncompliance.

5. **Duty to Mitigate.** The Discharger shall take all reasonable steps to minimize or prevent any discharge in violation of this Order that has a reasonable likelihood of adversely affecting human health or the environment.

[12] The property owner for the 120 acres, Highway 111, LLC and/or its successor in interest, also remains responsible for the condition of the land and any wastes discharged at its property.

6. **Material Changes.** Prior to any modifications which would result in any material change in the quality or quantity of wastewater treated or discharged, or any material change in the location of discharge, the Discharger shall report all pertinent information in writing to the Colorado River Basin Water Board, and if required by the Colorado River Basin Water Board, obtain revised requirements before any modifications are implemented.

7. **Operational Personnel.** The WWTF shall be supervised and operated by persons possessing the necessary expertise in the operation and maintenance of industrial wastewater treatment facilities.

8. **Familiarity with Order.** The Discharger shall ensure that all site-operating personnel are familiar with the content of this Order, and shall maintain a copy of this Order at the site.

9. **Inspection and Entry.** The Discharger shall allow the Colorado River Basin Water Board, or an authorized representative, upon presentation of credentials and other documents as may be required by law, to:

    a. Enter the premises regulated by this Order, or the place where records are kept under the conditions of this Order;

    b. Have access to and copy, at reasonable times, records kept under the conditions of this Order;

    c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order; and

    d. Sample or monitor at reasonable times, for the purpose of assuring compliance with this Order or as otherwise authorized by the Water Code, any substances or parameters at this location.

10. **Records Retention.** The Discharger shall retain copies of all reports required by this Order and the associated MRP. Records shall be maintained for a minimum of five years from the date of the sample, measurement, report, or application. Records may be maintained electronically.

11. **Change in Ownership.** This Order is not transferable to any person without written approval by the Colorado River Basin Water Board's Executive Officer. Prior to any change in ownership of this operation, the Discharger shall notify the Colorado River Basin Water Board's Executive Officer in writing at least 30 days in advance. The notice must include a

written transfer agreement between the existing owner and the new owner. At a minimum, the transfer agreement must contain a specific date for transfer of responsibility for compliance with this Order and an acknowledgment that the new owner or operator is liable for compliance with this Order from the date of transfer. The Colorado River Basin Water Board may require modification or revocation and reissuance of this Order to change the name of the Discharger and incorporate other requirements as may be necessary under the Water Code.

12. **Bypass.** Bypass (i.e., the intentional diversion of waste streams from any portion of the treatment facilities, except diversions designed to meet variable effluent limits) is prohibited. The Colorado River Basin Water Board may take enforcement action against the Discharger for bypass unless:

    a. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage. Severe property damage means substantial physical damage to property, damage to the treatment facilities that causes them to be inoperable, or substantial and permanent loss of natural resources reasonably expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production; and

    b. There were no feasible alternatives to bypass, such as the use of auxiliary treatment facilities or retention of untreated waste. This condition is not satisfied if adequate back-up equipment was not installed to prevent bypass occurring during equipment downtime, or preventive maintenance; or

    c. Bypass is (1) required for essential maintenance to ensure efficient operation; (2) neither effluent nor receiving water limitations are exceeded; and (3) the Discharger notifies the Regional Water Board ten (10) days in advance.

    In the event of an unanticipated bypass, the Discharger shall immediately report the incident to the Colorado River Basin Water Board. During non-business hours, the Discharger shall leave a message on the Colorado River Basin Water Board's office voicemail. A written report shall be provided within five (5) business days the Discharger is aware of the incident. The written report shall include a description of the bypass, any noncompliance, the cause, period of noncompliance, anticipated time to achieve full compliance, and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.

13. **Format of Technical Reports.** The Discharger shall furnish, under penalty of perjury, technical monitoring program reports, and such reports shall be submitted in accordance with chapter 30, division 3, title 23 of the California Code of Regulations, as groundwater raw data uploads electronically over the internet into the State Water Board's GeoTracker database, found at: https://geotracker.waterboards.ca.gov/. Documents that are normally mailed by the Discharger, such as regulatory documents, narrative technical monitoring program reports, and such reports submissions, materials, data, and correspondence, to the Colorado River Basin Water Board shall also be uploaded into GeoTracker in the appropriate Microsoft software application, such as word, excel, or an Adobe Portable Document Format (PDF) file. Large documents are to be split into manageable file sizes appropriately labelled and uploaded into GeoTracker. The Facility is assigned GeoTracker Global Identification No. WDR100039599.

14. **Qualified Professionals.** In accordance with 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 California registered professionals (i.e., civil engineer, engineering geologist, geologist, etc.) competent and proficient in the fields pertinent to the required activities. All technical reports required under this Order that contain work plans, 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 contain a statement of qualifications of the responsible licensed professional(s) as well as the professional's signature and/or stamp of the seal. Additionally, all field activities are to be conducted under the direct supervision of one or more of these professionals.

15. **Certification Under Penalty of Perjury.** All technical reports required in conjunction with this Order shall include a statement by the Discharger, or an authorized representative of the Discharger, certifying under penalty of perjury under the laws of the state of California, that the reports were prepared under his or her supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluated the information submitted, and that based on his or her inquiry of the person or persons who manage the system, the information submitted is, to the best of his or her knowledge and belief, true, complete, and accurate.

16. **Violation of Law.** This Order does not authorize violation of any federal, state, or local laws or regulations.

17. **Property Rights.** This Order does not convey property rights of any sort, or exclusive privileges, nor does it authorize injury to private property or invasion of personal rights, or infringement of federal, state, or local laws or regulations.

18. **Modification, Revocation, Termination.** This Order may be modified, revoked and reissued, or terminated for cause. The filing of a request by the Discharger for an Order modification, rescission, or reissuance, or the Discharger's notification of planned changes or anticipated noncompliance, does not stay any Order condition. Causes for modification include, but are not limited to, the violation of any term or condition contained in this Order, a material change in the character, location, or volume of discharge, a change in land application plans or sludge use/disposal practices, or the adoption of new regulations by the State Water Board, Colorado River Basin Water Board (including revisions to the Basin Plan), or federal government.

19. **Severability.** The provisions of this Order are severable. If any provision of this Order is found invalid, the remainder of these requirements shall not be affected.

I, Paula Rasmussen, Acting Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Colorado River Basin Region, on September 20, 2018.

Original signed by

_____

Paula Rasmussen,

Acting Executive Officer

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION

MONITORING AND REPORTING PROGRAM R7-2018-0025
FOR
OWB PACKERS, LLC, OWNER/OPERATOR
BRAWLEY BEEF PLANT WASTEWATER TREATMENT FACILITY
AND RECLAMATION AREA
Brawley–Imperial County

Location of Wastewater Treatment Facilities and Discharges:
T13S, R14E, Sections 27 and 28, SBB&M

A. General Monitoring Provisions

1. This Monitoring and Reporting Program (MRP) is issued pursuant to Water Code section 13267 and describes requirements for monitoring the relevant wastewater system and groundwater quality. The Discharger shall not implement any changes to this MRP unless and until a revised MRP is issued by the Colorado River Basin Water Board or its Executive Officer.

2. The Discharger owns and operates the wastewater system that is subject to Waste Discharge Requirements (WDRs) Order R7-2018-0022. The reports are necessary to ensure that the Discharger complies with the Order. Pursuant to Water Code section 13267, the Discharger shall implement the MRP and shall submit the monitoring reports described herein.

3. The collection, preservation, and holding times of all samples shall be in accordance with United States Environmental Protection Agency (USEPA)-approved procedures. Unless otherwise approved by the Colorado River Basin Water Board's Executive Officer, all analyses shall be conducted by a laboratory certified by the State Water Board, Division of Drinking Water's Environmental Laboratory Accreditation Program (ELAP). All analyses shall be conducted in accordance with the latest edition of the *Guidelines Establishing Test Procedures for Analysis of Pollutants* (40 C.F.R. part 136), promulgated by the USEPA.

4. All monitoring instruments and devices used by the Discharger to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary to ensure their continued accuracy. In the event that continuous monitoring equipment is out of service for period greater than 24-hours, the Discharger shall obtain representative grab samples each day the equipment is out of service. The Discharger shall correct the cause(s) of failure of the continuous monitoring equipment as soon as practicable. The Discharger shall report the period(s) during which the equipment was out of service and if the problem has not been corrected, shall identify the steps which the Discharger is

taking or proposes to take to bring the equipment back into service and the schedule for these actions.

5. Samples shall be collected at locations approved by the Regional Water Board's Executive Officer. If no location is specified, sampling shall be conducted at the most representative sampling point available.

6. Given the monitoring frequency prescribed by MRP R7-2018-0025, if only one sample is available for a given reporting period, compliance with monthly average, or weekly average Discharge Specifications, will be determined from that sample.

7. The Discharger shall comply with the following:

    a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

    b. The Discharger shall retain records of all monitoring information, copies of all reports required by this Order, and records of all data used to complete the application for this Order, for a period of at least 5 years from the date of the sample, measurement, report or application.

    c. Records of monitoring information shall include:

        i. The date, exact place, and time of sampling or measurements.

        ii. The individual(s) who performed the sampling or measurements.

        iii. The date(s) analyses were performed.

        iv. The individual(s) who performed the analyses.

        v. The analytical techniques or methods used; and

        vi. The results of such analyses.

8. If the Facility is not in operation, or there is no discharge during a required reporting period, the Discharger shall forward a letter to the Colorado River Basin Water Board indicating that there has been no activity during the required reporting period.

B. Source Water Monitoring

1. The Discharger's Facility supply water shall be monitored for the following:

Constituent/Parameter	Units	Type of Sample	Sampling Frequency	Reporting Frequency
General Minerals[1]	mg/L	Grab	Annually	Annual

C. Storage Pond Monitoring

1. The wastewater in the storage pond shall be monitored for the following constituents and according to the following schedule:

Constituent/Parameter	Units	Type of Sample	Sampling Frequency	Reporting Frequency
Freeboard	Feet	Observation	Weekly	Monthly
pH	pH units	Grab	Daily	Monthly
Dissolved oxygen[2]	mg/L	Grab	Daily	Monthly
Pond in use	Pond Number	Observation	Daily	Monthly
Wastewater color	--	Observation	Daily	Monthly

D. Groundwater Monitoring

1. The Discharger shall monitor groundwater wells MW-1, MW-5S, MW-7S, MW-7D, and MW-9S according to the following schedule (report in Geotracker in Electronic Data Format [EDF]):

Constituent	Units	Type of Sample	Sampling Frequency	Reporting Frequency
Total Dissolved Solids	mg/L	Grab	Quarterly	Quarterly
Total Nitrogen	mg/L	Grab	Quarterly	Quarterly
Total Coliform Organisms	MPN/100 mL	Grab	Quarterly	Quarterly
BOD	mg/L	Grab	Quarterly	Quarterly
Major Anions (Cl, SO4,	mg/L	Grab	Quarterly	Quarterly

[1] General Minerals shall include at least Alkalinity (as $CaCO_3$), Carbonate (as $CaCO_3$), Bicarbonate (as $CaCO_3$), Hardness (as $CaCO_3$), TDS, Boron, Chloride, Potassium, Calcium, Sodium, Sulfate, and Magnesium.
[2] Dissolved oxygen to be measured between 8 and 9 am.

HCO3, CO3)				
Major Cations (Ca, Mg, Na, K)	mg/L	Grab	Quarterly	Quarterly
Groundwater elevation (MSL)[3]	0.01 ft	Calculated	Quarterly	Quarterly
Depth to Groundwater (bgs)[4]	0.01 ft	Measurement	Quarterly	Quarterly
Flow Gradient	Feet/foot	Calculated	Quarterly	Quarterly
Flow Direction	degrees	Calculated	Quarterly	Quarterly

E. Effluent Monitoring

1. The Discharger shall:

   a. **By October 15, 2018**, install a flow meter before or right after its disinfection system to continuously measure the effluent discharged into the into the Reclamation Area; and establish a sampling station to collect representative samples of the effluent discharged to the Reclamation Area. The location of the sampling station shall be clearly identified onsite;

   b. **By October 30, 2018,** submit a technical report in the form of a letter certifying that it has installed the flow meter and established the above-mentioned sampling station for the pond. The letter shall describe the meter specifications and the location of the sampling station.

2. Effluent shall be monitored for the following constituents and according to the following schedule:

Constituent	Units	Type of Sample	Sampling Frequency[5]	Reporting Frequency

[3] Groundwater elevation shall be based on depth-to-water using a surveyed measuring point elevation above Mean Sea Level.
[4] bgs=below ground surface
[5] While there is a discharge to the Reclamation Area.

Flow	gpd[6]	Flow Measurement	Daily[7]	Monthly
20ºC BOD[8]	mg/L[9]	Grab	Weekly	Monthly
Total Suspended Solids	mg/L	Grab	Weekly	Monthly
Inorganic TDS[10]	mg/L	Grab	Weekly	Monthly
EC	µmhos/cm	Grab	Weekly	Monthly
Total Kjeldahl Nitrogen	mg/L	Grab	Weekly	Monthly
Ammonia (NH_3) as N	mg/L	Grab	Weekly	Monthly
Nitrate (as NO3)	mg/L	Grab	Weekly	Monthly
Total Nitrogen	mg/L	Grab	Weekly	Monthly
pH	pH Units	Grab	Weekly	Monthly
Oil and Grease	mg/L	Grab	Monthly	Monthly
Fecal Coliforms	MPN[11]/100 ml	Grab	Minimum 5/month[12]	Monthly
General minerals[13]	mg/L	Grab	Quarterly	Quarterly

F. Reclamation Area Monitoring

1. The Discharger shall perform the following routine monitoring and loading calculations for each discrete reclamation area:

[6] Gallons per day
[7] Reported for each day with average monthly flow calculated.
[8] Biochemical Oxygen Demand
[9] Milligrams per Liter
[10] TDS, as used in this MRP, shall be determined using Standard Method 2540C for combined organic and inorganic TDS and EPA Method No. 160.4 for inorganic TDS.
[11] Most Probably number
[12] At equally spaced week-intervals during the month.
[13] Alkalinity (as $CaCO_3$), Carbonate (as $CaCO_3$), Bicarbonate (as $CaCO_3$), Hardness (as $CaCO_3$), TDS, Boron, Chloride, Potassium, Calcium, Sodium, Sulfate, Magnesium.

Constituent/Parameter	Units	Type of Sample	Sampling Frequency	Reporting Frequency
Wastewater Application Area	--	Observation	Daily	Monthly
Precipitation	inches[14]	Rain Gauge[15]	Daily	Monthly
Treated Wastewater Flow	gpd	Measured	Daily	Monthly
Treated Wastewater Loading Rate	inches/day/acre[16]	Calculated	Daily	Monthly
IID Water	gpd	Estimated	Daily	Monthly
IID Water Loading Rate	inches/day/acre	Calculated	Daily	Monthly
Total Hydraulic Loading Rate[17]	inches/day/acre	Calculated	Daily	Monthly
BOD Loading Rate on application day[18],[19]	lbs/acre/day	Calculated	Daily	Monthly
BOD Loading Rate on averaged over application cycle[20]	lbs/acre/day	Calculated	Daily	Monthly
Monthly Nitrogen Loading Rate from Treated Wastewater	lbs/acre/month	Calculated	Monthly	Monthly
Monthly Nitrogen Loading Rate from Fertilizer	lbs/acre/month	Calculated	Monthly	Monthly
Cumulative Annual Nitrogen Loading	lbs/acre	Calculated	Monthly	Monthly

[14] Report to the nearest 0.1 inch.
[15] National Weather Service or Department of Water Resources data from the nearest weather station is acceptable.
[16] Report to the nearest 0.01 inch.
[17] Includes total liquid application (i.e., precipitation, wastewater, and irrigation water).
[18] Notification signs shall be consistent with the requirements of California Code of Regulations, title 22, section 60310, subdivision (g).
[19] Application day, as referred to in this MRP, shall be defined as a 24-hour period.
[20] Application cycle, as referred to in this MRP, shall be defined as the period (in days) of wastewater, actual application area, and the wastewater total nitrogen.

Rate[21]				
Inorganic TDS Loading Rate[22]	lbs/acre/month	Calculated	Monthly	Monthly
Tilewater discharge	Yes/No	Observation	Daily	Monthly

2. The Discharger shall also monitor the Reclamation Area daily when treated wastewater is applied to it and shall maintain a logbook that includes observations about the general condition of the Reclamation Area, including whether there is any tailwater discharge; any standing/pooled water and location of the standing water; the prevailing wind direction and estimated wind speed; and whether the Reclamation Area emits odors beyond its boundaries and a description of the odor(s). Copies of the entries into the logbook shall be available to the Colorado River Basin Water Board upon request. However, when odors beyond the boundaries are detected, a copy of the logbook with the notations for the date when the odor was detected shall also be included in the corresponding monthly self-monitoring report.

G. Tilewater Monitoring

1. **By October 15, 2018**, the Discharger shall submit for approval of the Executive Officer a proposed plan that establishes and identifies the proposed location of a minimum one tilewater sampling station for the 20-acre site and a minimum of one sampling station for the 120-acre site to collect representative samples of the tilewater from the reclamation operations. The approved sampling stations shall be monitored for the following constituents and according to the following schedule:

Constituent/Parameter	Units	Type of Sample	Sampling Frequency	Reporting Frequency
Ammonia (NH_3) as N	mg/L	Grab	Monthly	Monthly
TDS	mg/L	Grab	Monthly	Monthly
BOD	mg/L	Grab	Monthly	Monthly
General Minerals	mg/L	Grab	Quarterly	Quarterly
Iron	mg/L	Grab	Quarterly	Quarterly

[21] Starting as zero each January 1.
[22] Inorganic TDS loading rates shall be calculated using the applied volume of wastewater, actual application area, and the average of the three most recent results of wastewater inorganic TDS.

H. Odors Monitoring

1. The Discharger shall monitor the Facility's cattle reception, pens, and processing areas; rendering operations should they be conducted at the Facility; and the overall onsite WWTF unit process areas for the presence of wastes that have potential to emit objectionable odors. It shall maintain a logbook that includes:

    a. Observations and notations about the general conditions of and presence of wastes at these area;

    b. A description of the nature of the wastes (e.g., manure, wash wastewater, ponded wastewater, DAF Unit wastes, etc.);

    c. Whether these areas are omitting odors perceivable beyond the Facility's boundaries, the nature of the odors (e.g., strong putrid smell, rotten egg smell, etc.), the area(s) impacted by the smells.

    d. Notations about the general weather conditions, including direction of prevailing winds, wind velocity, temperature, time of the day.

    Monitoring shall take place at a minimum three times a day, at 8 am, 12 pm and 4 pm.

2. The Discharger shall monitor for objectionable odors at the Facility, but upwind of the Facility during its regular beef processing operations hours. Monitoring observations shall be included in the logbook cited in Item G.1, above, and include:

    a. A description of the nature of the odors (e.g., strong putrid smell, rotten egg smell, etc.),

    b. The area(s) impacted by the smells (e.g., Facility and area within ½-mile from the Facility);

    c. Notations about the general weather conditions, including direction of prevailing winds, wind velocity, temperature, time of the day. To the extent traceable, it shall also include the source of the odors.

3. When objectionable odors are detected, the Discharger shall notify the Imperial County Air Pollution Control District Officer and Colorado River Basin Water Board (at 760 352-1464 and 760 553-6839, respectively) within 15 minutes of when the objectionable odor is detected. If the odors are from the Facility, the Discharger shall also report the steps it is taking to eliminate them and when it expects to eliminate them.

4. Copies of logbook notations that document objectionable odors shall be included in the Discharger's monthly Self-Monitoring Report.

I. Sludge Monitoring

1. The Discharger shall report annually on the quantity, location, and method of disposal of all sludge and similar solid materials being produced at the WWTF. If no sludge is disposed of during the year being reported, the Discharger shall state "No Sludge Removed" in the annual monitoring report. Sludge that is generated at the WWTF shall be sampled and analyzed for the following prior to disposal:

Constituent	Units	Type of Sample	Sampling Frequency	Reporting Frequency
Arsenic	mg/kg[23]	Composite	Annually	Annually
Cadmium	mg/kg	Composite	Annually	Annually
Copper	mg/kg	Composite	Annually	Annually
Lead	mg/kg	Composite	Annually	Annually
Mercury	mg/kg	Composite	Annually	Annually
Molybdenum	mg/kg	Composite	Annually	Annually
Nickel	mg/kg	Composite	Annually	Annually
Selenium	mg/kg	Composite	Annually	Annually
Zinc	mg/kg	Composite	Annually	Annually
Fecal Coliform	MPN/gram[24]	Composite	Annually	Annually

J. Reporting

1. The Discharger shall inspect and document any operation and maintenance (O&M) problems by inspecting each unit process. In addition, calibration of flow meters and equipment shall be performed in a timely manner and documented. Operation and Maintenance reports shall be submitted to the Colorado River Basin Water Board office annually.

2. The Discharger shall arrange the data in tabular form so that the specified information is readily discernible. The data shall be summarized in such a manner as to clearly illustrate whether the Facility is operating in compliance

[23] Milligrams per kilogram
[24] Most Probable Number per gram

with the WDRs. Where appropriate, the Discharger shall include supporting calculations (e.g., for monthly averages).

3. The results of any analysis taken more frequently than required at the locations specified in this MRP shall be reported to the Colorado River Basin Water Board.

4. Self-Monitoring Reports (SMRs) shall be certified under penalty of perjury (WDRs Standard Provisions I.14) to be true and correct, and shall contain the required information at the frequency designated in this MRP.

5. Each Report shall contain an affirmation in writing that states:

   "All analyses were conducted at a laboratory certified for such analyses by and in accordance with current USEPA procedures or as specified in this Monitoring and Reporting Program."

6. Each Report shall contain the following statement:

   "I certify under the penalty of law that this document, including all attachments and supplemental information, was prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gathered and evaluated the information submitted. I have personally examined and am familiar with the information submitted in this document, and that based 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 a fine and imprisonment.

   Executed on the _____day of _____ at _____

   _____(Signature)"

7. The SMRs and any other information requested by the Colorado River Basin Water Board shall be signed by a principal executive officer or ranking elected official.

8. A duly-authorized representative of the Discharger may sign the documents if:

   a. The authorization is made in writing by the person described above;

b. The authorization specified an individual or person having responsibility for the overall operation of the regulated disposal system; and

c. The written authorization is submitted to the Colorado River Basin Water Board's Executive Officer.

9. Reporting of any failure in the Facility shall be as described in this Order. Results of any analysis performed as a result of a failure of the Facility shall be provided within fourteen (14) days after collection of the samples.

10. The Discharger shall attach a cover letter to the SMRs. The information contained in the cover letter shall clearly identify violations of the WDRs, discuss corrective actions taken or planned, and the proposed time schedule of corrective actions. Identified violations should include a description of the requirement that was violated and a description of the violation.

11. Daily, weekly, and monthly monitoring shall be included in the monthly monitoring report. Monthly monitoring reports shall be submitted to the Colorado River Basin Water Board by the **15th day of the following month following the monitoring period**. Quarterly monitoring reports shall be submitted by **January 15th, April 15th, July 15th, October 15th**. Annual monitoring reports shall be submitted to the Colorado River Basin Water Board by **January 15th of the following year.**

12. The Discharger shall comply with the Electronic Submittal of Information (ESI) requirements by submitting all correspondence and reports required under this MRP and future revisions thereto, including groundwater monitoring data and discharge location data (latitude and longitude), correspondence, and PDF monitoring reports to the State Water Board's GeoTracker database. Documents that are 100 megabytes (MB) or larger should be broken down into smaller electronic files, labelled properly and uploaded into GeoTracker.

Ordered by _____*Original signed by*_____

PAULA RASMUSSEN
Acting Executive Officer

_____*on October 24, 2018*____

Date