

ATTACHMENT A TO ACLC R7-2020-0025
ADMINISTRATIVE CIVIL LIABILITY METHODOLOGY
LEAN GREEN INDUSTRIES-INS, LLC
RIVERSIDE COUNTY

Administrative civil liability may be imposed pursuant to the procedures described in California Water Code section 13323. The Complaint alleges the acts or failures to act that constitutes a violation of law, the provision of the law authorizing civil liability to be imposed, and the proposed civil liability.

Pursuant to Water Code section 13327, in determining the amount of any civil liability, the Water Board is required to take into account the nature, circumstances, extent, and gravity of the violation or violations, whether the discharges are susceptible to cleanup or abatement, the degree of toxicity of the discharges, and, with respect to the violator, the ability to pay, the effect on ability to continue business, any voluntary cleanup efforts undertaken, any prior history of violations, the degree of culpability, economic benefit or savings, if any, resulting from the violations, and other matters that justice may require.

The State Water Resources Control Board (State Water Board) Water Quality Enforcement Policy (Enforcement Policy) provides a calculation methodology for determining administrative civil liability. The calculation methodology includes an analysis of the factors in Water Code section 13327, and it enables fair and consistent implementation of the Water Code's liability provisions.

The Colorado River Basin Regional Water Quality Control Board (Regional Water Board) Prosecution Team prepared this methodology consistent with the Enforcement Policy's administrative civil liability calculation methodology.

Step 1. Potential for Harm for Discharge Violations

Actual harm or potential harm to the water body's beneficial uses caused by the violation are determined using a three-factor scoring system to quantify: (1) the degree of toxicity of the discharge; (2) the actual harm or potential harm to beneficial uses; and (3) the discharge's susceptibility to cleanup or abatement for each violation or group of violations. A numeric score is determined for each of the three factors. These scores are then added together to determine a final Potential for Harm score. Based on the scores for toxicity, harm to beneficial uses, and cleanup susceptibility, and as further detailed below, a score of **5 (five)** is assigned to Step 1 of the calculation methodology.

A. Factor 1: The Degree of Toxicity of The Discharge

The evaluation of the degree of toxicity considers the physical, chemical, biological, and/or thermal characteristics of the discharge, waste, fill, or material involved in the violation or violations and the risk of damage the discharge could cause to the receptors or beneficial uses. A score between 0 (negligible risk) and 4 (significant risk) is assigned based on a determination of the risk or threat of the discharged material on potential receptors. Evaluation of the discharged material's toxicity should account for all the characteristics of the material prior to discharge, including, but not limited to, whether it is partially treated, diluted, concentrated, and/or a mixture of different constituents.

The Discharger pretreats its irrigation supply water by reverse osmosis (RO) prior to irrigating its cannabis plants. The RO process creates two outflows: one stream containing reduced constituent concentrations (clean irrigation water) and a second stream containing increased constituent concentrations, including salts, minerals, and other dissolved solids (RO brine). The stream containing increased constituent concentrations is mineralized waste. The Discharger tested two wastewater sources: the RO brine and irrigation tailwater (runoff from watering its cannabis plants). Select water quality test results from the Discharger are listed in the Table 1 below.

Table 1. Contaminant Concentrations in Wastewater

Chemical Constituent	Reverse Osmosis (RO) Brine (mg/L)	Irrigation Tailwater (mg/L)	Maximum Contaminant Level (mg/L)
Total Dissolved Solids (TDS)	404	459	500*
Manganese	<0.01	0.086	0.05*
Lead	0.017	<0.01	0.015

*Secondary Maximum Contaminant Level

Total dissolved solids (TDS) is the term used to describe the inorganic salts and small amounts of organic matter present in solution in water. TDS is a general indicator of water quality and potential concerns. Higher TDS levels can affect corrosion and encrustation in water distribution systems and also impact the taste of water. Drinking water with TDS levels less than 300 milligrams per liter (mg/L) is considered excellent while TDS concentrations above 1,200 mg/L is considered unacceptable. (World Health Organization 1996.) TDS levels in the Discharger's RO brine were 404 mg/L and 459 mg/L in the irrigation tailwater, the Secondary Maximum Contaminant Level (MCL) for TDS is 500 mg/L. The 2015 Coachella Valley Salt and Nutrient Management Plan states that TDS concentrations in the Indio Subbasin range from 224 to 520 mg/L, with a volume weighted average of 328 mg/L TDS, which is very high-quality water¹.

Manganese can produce undesirable taste in drinking water and form a coating on water distribution pipes. (World Health Organization 2011.) The Discharger's irrigation tailwater contained 0.086 mg/L manganese which is 72% over the Secondary MCL of 0.05 mg/L.

Lead exposure in humans can lead to muscle weakness, gastrointestinal symptoms, lower scores on psychometric tests, disturbances in mood, symptoms of peripheral neuropathy, renal disease, interference with calcium metabolism, central and peripheral nervous systems damage, preterm child delivery, depressed sperm counts, and birth defects. (World Health

¹ November 2018 Coachella Valley Salt Management Plan Status Report, Colorado River Basin Regional Water Quality Control Board

Organization 2011.) The Discharger's RO brine contained 0.017 mg/L lead which is 13% over the Primary MCL of 0.015 mg/L.

A septic tank acted as the primary treatment component of the onsite wastewater treatment system used during the duration of the discharge. During that time, both cannabis industrial wastewater and domestic wastewater were collected in the septic tank. Therefore, diluting of constituents in the cannabis industrial wastewater may have occurred. However, industrial wastewater is not expected to undergo meaningful treatment in a septic tank and, thus, the entire total pollutant load (i.e., constituent mass) entering the septic tank would not have been meaningfully reduced. Additionally, domestic wastewater treatment, typically driven by microbes in the septic tank, could have been disrupted, thus concentrating and increasing toxicity potential of constituents in the domestic wastewater. Without exact information on the diluting and concentrating effects of the comingled wastewaters, the most conservative approach is to focus on the total pollutant load (i.e., constituent mass) from the industrial wastewater that was assumed to have both entered and exited the septic tank to the disposal system

The groundwater basin underlying the site is the source of municipal water for Cathedral City. There are 2 municipal wells within 3,000 feet of the Site. The Whitewater River, which drains to the Salton Sea, is about 400 feet from the Site. While the MCL for TDS was not exceeded, concentrations of TDS in wastewater exceeded the background volume weighted average for the underlying groundwater basin. The Secondary MCL for manganese was exceeded by 72% and the Primary MCL for lead was exceeded by 13%. Because lead exceeds the MCL, a known risk factor, the characteristics of the discharged wastewater therefore pose an **above-moderate** risk or threat to potential receptors.

The Enforcement Policy defines above-moderate as:

Discharged material poses an above-moderate risk or a direct threat to potential receptors (i.e., the chemical and/or physical characteristics of the discharged material exceed known risk factors or there is substantial threat to potential receptors).

Accordingly, a score of **3 (three)** is assigned to Factor 1.

B. Factor 2: Actual Harm or Potential Harm to Beneficial Uses

The evaluation of the actual harm or the potential harm to beneficial uses factor considers the harm to beneficial uses in the affected receiving water body that may result from exposure to the pollutants or contaminants in the discharge, consistent with the statutory factors of the nature, circumstances, extent, and gravity of the violation(s). The Water Boards may consider actual harm or potential harm to human health, in addition to harm to beneficial uses. The score evaluates direct or indirect actual harm or potential for harm from the violation. A score between 0 (negligible) and 5 (major) is assigned in accordance with the statutory factors of the nature, circumstances, extent and gravity of the violation.

The Site is located within the Indio Subbasin of the Coachella Hydrologic Subunit of the Whitewater Hydrologic Unit. The Indio Subbasin is the highest use and highest priority basin

within the Colorado River Basin Region². The Colorado River Basin Regional Water Board's Water Quality Control Plan (Basin Plan), last amended in 2019, designates beneficial uses for groundwater in the Coachella Hydrologic Subunit of the Whitewater Hydrologic Unit as Municipal and Domestic Supply (MUN), Industrial Service Supply (IND), and Agricultural Supply (AGR).

At East Palm Canyon Drive and Date Palm Drive, about 3,000 feet from the Site, the depth to groundwater measured in remediation wells between 2006 and 2009 was generally around 200 feet below the ground surface. There are 2 municipal wells within 3,000 feet of the Site with the nearest well 2,800 feet from the Site in the downgradient groundwater flow direction. The concentrations of chemicals discharged in the wastewater and the total volume discharged (about 12,580 gallons or 170 gallons per day) would likely attenuate because of dispersal and dilution before they reach the nearest downgradient groundwater supply well. Therefore the discharge poses **minor** harm or potential harm to beneficial uses of the groundwater.

The Enforcement Policy defines minor harm as:

Minor – no actual harm and low threat of harm to beneficial uses. A score of minor is typified by a lack of observed impacts, but based on the characteristics of the discharge and applicable beneficial uses; there is potential short term impact to beneficial uses with no appreciable harm.

Therefore, a score of **1 (one)** is assigned to Factor 2.

C. Factor 3: Susceptibility to Cleanup or Abatement

A score of 0 is assigned for this factor if the discharger cleans up 50 percent or more of the discharge within a reasonable amount of time. A score of 1 is assigned for this factor if less than 50 percent of the discharge is susceptible to cleanup or abatement, or if 50 percent or more of the discharge is susceptible to cleanup or abatement, but the discharger failed to clean up 50 percent or more of the discharge within a reasonable time. Natural attenuation of discharged pollutants in the environment is not considered cleanup or abatement for purposes of evaluating this factor.

While it may have been possible for 50 percent of the discharge to be cleaned up through groundwater extraction, there is no evidence that the Discharger attempted a groundwater investigation and cleanup. The 12,580 gallons of wastewater discharged to groundwater were not cleaned up.

Therefore, a score of **1 (one)** is assigned to this factor.

Step 2. Assessment for Discharge Violations

The Enforcement Policy provides that the initial liability amount shall be determined on a per day and/or a per gallon basis using the Potential for Harm score from Step 1 in conjunction with the Extent of Deviation from the Requirement of the violation. (See Enforcement Policy, Tables 1 and 2.)

² November 2018 Coachella Valley Salt Management Plan Status Report, Colorado River Basin Regional Water Quality Control Board

Pursuant to Water Code section 13350, subdivision (e), civil liability may be imposed administratively in an amount not to exceed five thousand dollars (\$5,000) for each day in which the violation occurs, or an amount not to exceed ten dollars (\$10) per gallon discharged, but not both. The Prosecution Team has elected to calculate the initial liability amount on a per day basis.

A. Extent of Deviation from The Requirement

Dischargers covered under the Conditional Waiver must comply with the conditions contained in the General Order. The General Order, Section A, requires the Discharger to comply with all requirements described in Attachment A of the Cannabis Policy (also included as Attachment A to the General Order).

Attachment A, Section 1, General Requirements and Prohibitions, No. 27 prohibits the discharge of cannabis cultivation wastewater, which would include designated wastewater from RO systems, to an onsite wastewater treatment system, such as a septic tank.

Attachment A, Section 1, General Requirements and Prohibitions, No. 26 prohibits the discharge of waste in violation of, or in a manner inconsistent with the Basin Plan. Similarly, Attachment A, Section 1, General Requirements and Prohibitions, No. 12, requires compliance with all applicable requirements of the Basin Plan. The Basin Plan Chapter 3, Section IV. D states that discharge of softener regeneration brines, other mineralized wastes, and toxic wastes to disposal facilities that ultimately discharge in areas where such wastes can percolate to ground waters usable for domestic and municipal purposes are prohibited. RO brine is a mineralized waste under the Basin Plan.

Because Attachment A, Section 1, Term No. 27 specifically prohibits the discharge of cannabis cultivation wastewater into an onsite wastewater treatment system, the Discharger rendered the requirement ineffective in its essential function by discharging such waste into its onsite wastewater treatment system. Additionally, because Attachment A, Section 1 Nos. 12 and 26 require compliance with the Basin Plan, the Discharger's failure to adhere to the prohibition in Chapter 3, Section IV. D of the Basin Plan rendered those requirements ineffective in their essential functions.

Thus, the discharge is a **major** deviation from the prescribed requirements. The Enforcement Policy defines a major deviation as:

Major- The requirement has been rendered ineffective (e.g., the requirement was rendered ineffective in its essential functions).

Accordingly, based on the Potential for Harm score of 5 and a major deviation from the requirements, the per-day factor for this violation is **0.15**. (See Enforcement Policy, Table 2.)

B. Initial Amount of ACL

The initial liability amount is calculated as follows:

(per day factor) x (days of violation) x (maximum per day liability) = Initial Liability Amount

Days of Violation

The Discharger stated it began discharging cannabis cultivation wastewater into its onsite wastewater treatment system on November 1, 2018; however, the Discharger was not enrolled under the Conditional Waiver until March 25, 2019. Therefore, the Prosecution Team alleges the Discharger was discharging waste into its onsite wastewater treatment system in violation of the Conditional Waiver requirements of the General Order between March 25, 2019 and August 30, 2019, the date the Discharger provided documentation that all discharges of cannabis cultivation wastewater into its onsite wastewater treatment system had stopped. The Site is underlain by alluvial sediments and located near the Whitewater River channel. Wastewater in a domestic setting has been found to infiltrate highly permeable, unsaturated desert alluvium at a rate of 0.7 to 1.0 foot per day.³ The Prosecution Team conservatively used an infiltration rate of 1.0 foot per day, because this is an industrial setting with higher flow volumes than a domestic setting, to calculate the number of days it would take for wastes discharged into the onsite wastewater treatment system to reach groundwater. With an estimated depth to groundwater of 200 feet at the Site, it would take approximately 200 days for waste from the onsite wastewater treatment system to reach groundwater. The continued supply of domestic wastewater into the onsite wastewater treatment system provides continuous head that will cause the slug of cannabis industrial wastewater to eventually reach groundwater. This was demonstrated in a Yucca Valley study in the Western Mojave Desert that found that discharges of wastewater in arid regions will ultimately reach groundwater.⁴ In the Colorado River Basin, river channel and alluvial deposits allow for rapid infiltration and recharge of the underlying groundwater basin which makes these areas more vulnerable and susceptible to contamination from surface or shallow subsurface discharges of wastes.⁵

Therefore, the Prosecution Team alleges the Discharger discharged cannabis cultivation wastewater to groundwater for at least 159 days, between October 11, 2019 and March 17, 2020.⁶

Accordingly, the initial liability amount was calculated as:

$$(0.15) \times (159 \text{ days}) \times (\$5,000/\text{day}) = \mathbf{\$119,250.00}$$

Step 3. Per Day Assessment for Non-Discharge Violations

This step is not applicable.

³ 1995 US Geological Survey, [Potential for Ground-Water Contamination from Movement of Wastewater Through Unsaturated Zone, Upper Mojave River Basin, California](#)

⁴ Izbicki, et al. 2015, Storage and mobilization of natural and septic nitrate in thick unsaturated zones, California

⁵ 2018 Staff Report Colorado River Basin Regional Water Board, West Coachella Valley Nitrate Assessment Status Report

⁶ Calculating the days of discharge to groundwater based on the number of days that cannabis industrial wastewater was discharged into the onsite wastewater treatment system is likely a conservative estimate; the natural variability in sediments below the Site will cause dispersal and horizontal migration of the wastewater, which could lead to more days of discharge to groundwater than the number of days of discharge to the onsite wastewater treatment system. This estimate is also conservative because irrigation tailwater was discharged into the onsite wastewater treatment system and is not included in the discharge volume estimate. As the volume of wastewater increases, the infiltration rate can likewise increase and impact the number of days on which the wastewater discharged to groundwater.

Step 4. Adjustment Factors

The Enforcement Policy describes three additional factors related to the violator's conduct that must be considered for modifying the amount of initial liability: the violator's culpability, efforts to clean up or cooperate with regulatory authority, and the violator's history of violations. After each of these factors is considered for the violation involved, the applicable factor should be multiplied by the amount for each violation to determine the revised amount for that violation.

A. Culpability

Higher liabilities should result from intentional or negligent violations as opposed to accidental violations. A multiplier between 0.75 and 1.5 is to be used, with a higher multiplier for intentional or negligent behavior. The test for whether a discharger is negligent in what a reasonable and prudent person would have done or not done under similar circumstances. In this case a culpability multiplier of **1.5** has been selected.

Regional Water Board staff exchanged emails with the Discharger and his representative, Beatriz Treu, between February 19, 2019 and March 1, 2019, during the application approval process. Regional Water Board staff explained that the discharge of cannabis industrial wastewater to an onsite wastewater treatment system, such as a septic tank, is prohibited. Ms. Treu confirmed that cannabis industrial wastewater would be captured in sealed tanks and hauled by a third party for proper disposal and discharges to the septic tank would cease. Based on the confirmation provided by the Discharger and its representative, the Executive Officer issued a Notice of Applicability (NOA) informing the Discharger of its coverage under the Conditional Waiver. The NOA specified that the requirements of the General Order and Cannabis Policy were applicable to the Site. Despite staff's efforts to explain that discharges of cannabis industrial wastewater into the onsite wastewater treatment system were prohibited, and the Discharger's self-certification that the Site's cultivation activities were consistent with the applicable requirements, the Discharger failed to comply with the requirements of the Conditional Waiver. When staff inspected the Site two and a half months after the Discharger received its NOA, they observed cannabis cultivation wastewater being discharged into plumbing that flowed into an onsite wastewater treatment system. The Discharger was fully aware of the discharge prohibition and had prepared a Site diagram, dated December 3, 2018, that included modifications to the Site's plumbing to intercept cannabis industrial wastewater and divert it to a sealed holding tank; however, those modifications had not been implemented when staff inspected the Site on June 5, 2019. A reasonable and prudent person would have implemented the necessary modifications to the Site's plumbing to comply with the requirements of the Conditional Waiver. By disregarding the waiver requirements and continuing to discharge cannabis industrial wastewater to the onsite wastewater treatment system for a period of several months, the Discharger failed to act as a reasonable and prudent person would have under similar circumstances.

B. History of Violations

When there is no history of violations, the Enforcement Policy assigns a neutral multiplier of 1.0. There are no adjudicated cases of this nature against the Discharger. Therefore, a neutral multiplier of **1.0** has been selected.

C. Cleanup and Cooperation

This factor reflects the extent to which a discharger voluntarily cooperated in returning to compliance and correcting environmental damage. A multiplier between 0.75 and 1.5 is to be used, with a higher multiplier when there is a lack of cooperation. A reasonable and prudent response to a discharge violation or timely response to a Water Board order should receive a neutral adjustment as it is assumed a reasonable amount of cooperation is the warranted baseline. In this case, a Cleanup and Cooperation multiplier of **1.3** has been selected.

At the site inspection, and again in a subsequent email two days after the inspection, staff informed the Discharger's representative, Marc Lebanoff, of the violation. In the June 7, 2019 email, staff requested the Discharger cease its discharge of RO brine into the onsite wastewater treatment system and provide documentation that such discharges had ceased. Although the Discharger's representative provided confirmation on June 18, 2019 that all discharges of RO brine had ceased, it took 85 days following the inspection and multiple email requests for the Discharger to cease its discharge of irrigation tailwater. Additionally, when responding to the October 22, 2019 Notice of Violation (NOV), the Discharger's representative was not immediately forthcoming about the date that discharges of wastewater to the onsite wastewater treatment system began. Staff did not receive an answer to that inquiry until January 13, 2020.

On May 15, 2020 Regional Water Board staff contacted the Discharger's representative, Tanner Osborn, to clarify why cannabis industrial wastewater hauling volumes in 2020 were roughly half of the volumes being hauled in 2019. On May 28, 2020 Regional Water Board staff were notified via email by Mr. Osborn that irrigation tailwater was no longer being collected in 5-gallon buckets for disposal by hauling but was being discharges to the onsite wastewater treatment system. On May 28, 2020 Regional Water Board staff notified Mr. Osborn and the Discharger via email that discharging cannabis industrial wastewater to the onsite wastewater treatment system was a violation of its Conditional Waiver, requested that discharges cease immediately, and also requested the dates that discharges of irrigation tailwater resumed to the onsite wastewater treatment system. As of the date of this ACLC, the Discharger has not responded with the requested information.

A reasonably prudent person in a similar situation would have responded to the violation by promptly eliminating all discharges of cannabis irrigation wastewater into the onsite wastewater treatment system and submitting all requested information to Regional Water Board staff in a timely manner. The Discharger failed to act as a reasonable and prudent person would have by allowing the discharges of irrigation tailwater to continue and by providing a delayed response to the NOV.

Step 5. Determination of Total Base Liability Amount

The Total Base Liability is determined by applying the adjustment factors from Step 4 to the Initial Liability Amount determined in Step 3.

Total Base Liability = Initial Liability (\$119,250.00) x Adjustments (1.5) (1.0) (1.3) = **\$232,537.50**

Step 6. Ability to Pay and Continue in Business

If the Water Boards have sufficient financial information necessary to assess the violator's ability to pay the Total Base Liability Amount or to assess the effect of the Total Base Liability Amount on the violator's ability to continue in business, the Total Base Liability Amount may be adjusted to address the ability to pay or to continue in business. The ability of a discharger to pay an ACL is determined by its income (revenues minus expenses) and net worth (assets minus liabilities). The Water Boards are under no obligation to ensure that a violator has the ability to pay or continue in business, but, rather, they are obligated to consider these factors when imposing a civil liability.

Here, the Discharger is a limited liability company with an ongoing business.⁷ Regional Water Board staff have no information that would indicate the Discharger has an inability to pay the administrative civil liability amount. Therefore, no adjustment has been made under this step.

Step 7. Economic Benefit

The Enforcement Policy provides that the economic benefit of noncompliance shall be estimated for every violation. Economic benefit is any savings or monetary gain derived from the act or omission that constitutes the violation. The Enforcement Policy provides that the economic benefit should be calculated using the United States Environmental Protection Agency's (USEPA) Economic Benefit Model (BEN) penalty and financial modeling program unless the Water Board determines, or the discharger demonstrates to the satisfaction of the Water Board, that based on case-specific factors, an alternate method is more appropriate for a particular situation.

Hauling records provided by the Discharger show that the average rate of RO brine production between June 2019 and August 2019 was about 170 gallons per day. Irrigation tailwater continued to be discharged to the onsite wastewater treatment system until August 30, 2019 and was not included in the 170 gallons per day total average. In the NOV, the Discharger was requested to provide a volume estimate for the discharge of irrigation tailwater, however this information was not provided, so the economic benefit estimated by Regional Water Board staff is based only on 170 gallons per day, which is a conservative estimate of the volume of wastewater that should have been hauled offsite. Regional Water Board and Office of Enforcement staff conducted the BEN analysis based on the following assumptions: (1) Days in violation = beginning March 25, 2019 and ending June 7, 2019 = 74 days; (2) Volume to be hauled offsite = 170 gallons per day for 74 days = 12,580 gallons; (3) Avoided cost = 12,580 gallons at \$0.90 per gallon, based on the median disposal cost per gallon from the Discharger's receipts for wastewater hauling by Amberwick Corporation of Long Beach = \$11,322; (4) Delayed cost = \$3,569 for the purchase of 5 sealed wastewater holding tanks = \$40 (5) Payment date = date of hearing, September 3, 2020; (6) Taxes = State income tax only estimated for the cost of disposal for hauling and tank purchase costs. Based on the foregoing assumptions, the economic benefit calculated through the BEN analysis is: \$10,645.00.

Step 8. Other Factors as Justice May Require

Regional Water Board staff members spent 60 hours investigating the facility and preparing the Complaint, amounting to \$4,629.60 in staff costs.

⁷ State-licensed cannabis businesses, including cannabis cultivators, were deemed an essential business and were allowed to operate during the shelter-in-place directive related to COVID-19 issued under Executive Order N-33-20.

Step 9. Maximum and Minimum Liability Amounts

Minimum Liability Amount: \$11,709.50

The Enforcement Policy states that the total liability shall be at least 10 percent higher than the economic benefit, "so that liabilities are not construed as the cost of doing business and the assessed liability provides meaningful deterrent to future violations." The minimum liability amount here is \$11,709.50. This number is derived from the economic benefit, which is calculated to be \$10,645.00, plus ten percent. The total base liability amount is more than the economic benefit plus 10 percent; therefore, no adjustment is needed.

Maximum Liability Amount: \$795,000.00

The maximum liability under Water Code section 13350 is \$5,000 per day of violation. The Prosecution Team alleges 159 days of violation, which results in a statutory maximum liability amount of \$795,000.00. The total base liability amount is less than the statutory maximum liability amount; therefore, no adjustment is needed.

Step 10. Final Liability Amount

The final liability amount consists of the added amounts for each violation, with any allowed adjustments, provided the amounts were within the statutory minimum and maximum amounts. Based on the foregoing analysis, and consistent with the Enforcement Policy and Water Code section 13327, the final liability amount for the alleged violation is **\$237,167.10**.