

**STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION**

STAFF REPORT FOR REGULAR MEETING OF JULY 29, 2016
Prepared July 13, 2016

ITEM NUMBER: 14

SUBJECT: Cease and Desist Order No. R3-2016-0015, David Robertson, Centrally Grown, Inc., and Centrally Grown Holdings, LLC

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KEY INFORMATION

Discharger:	David Robertson, Centrally Grown, Inc., and Centrally Grown Holdings, LLC
Facility Name:	Centrally Grown
Facility Address:	7432 Exotic Gardens Drive Cambria, CA 93428 San Luis Obispo County
Type of Waste:	Domestic and Restaurant Wastewater
Treatment:	Raw wastewater is treated via an advanced onsite treatment system designed to meet secondary treatment standards
Disposal:	Treated wastewater is discharged to an onsite subsurface drip irrigation system
Facility Design Flow:	5,000 gallons per day
Existing Orders:	Waste Discharge Requirements Order No. 97-10-DWQ
Requested Action:	Adopt Cease and Desist Order No. R3-2016-0015 with Advisory Team proposed changes

SUMMARY

On January 22, 2013, the Central Coast Regional Water Board (Water Board) enrolled Centrally Grown Inc., and Centrally Grown Holdings LLC (collectively referred to as Discharger) in General Waste Discharge Requirements (WDR) for Discharges to Land by Small Domestic Wastewater Treatment Systems Order No. 97-10-DWQ. The Discharger was enrolled under the General WDRs to regulate the operation of an onsite wastewater treatment and disposal system owned and operated by the Discharger for its Centrally Grown restaurant and an adjoining single family residence. In addition to the restaurant and residence, the facility also reportedly hosts special events such as wedding receptions. The facility began operating in December 2014.

The attached draft Cease and Desist Order (CDO) No. R3-2016-0015 alleges the Discharger failed to comply with Waste Discharge Requirements (WDR) Order No. 97-10-DWQ by allowing effluent to surface and pond in the subsurface drip disposal field, allowing public access in areas of surfacing effluent, and failing to submit quarterly monitoring reports. Specifically, the draft CDO alleges the Discharger violated the following WDR Order No. 97-10-DWQ requirements:

- Prohibitions A.2. “The treatment and disposal of wastes at the facility shall not cause pollution, contamination, or nuisance as defined in CWC Section 13050...”
- Prohibitions A.4. “Bypass or overflow of treated or untreated waste is prohibited...”
- Requirements B.5. a. “The subsurface wastewater disposal system(s) shall be maintained so that at no time will sewage surface at any location...”
- Provisions D.1. s. “Adequate measures shall be taken to assure that unauthorized persons are effectively excluded from contact with the wastewater disposal facility(s) ...”
- Provisions D.1. d. “The Discharger shall comply with “General Monitoring and Reporting Program No. 97-10-DWQ...and any future revisions...”
- Provisions D.1. f. “The Discharger at all times shall properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Discharger to achieve compliance with conditions of this Order.”

The Prosecution Team issued the draft CDO and hearing notice to the Discharger on April 29, 2016. Prior to issuing the draft CDO to the Discharger, Water Board staff issued five notices of violation (NOV) over a ten-month period for surfacing effluent and failure to submit required monitoring reports. As of the preparation date of this staff report, the Discharger has failed to document that the treatment and disposal system problems causing ongoing conditions of surfacing effluent have been remedied or satisfactorily respond to the NOV's regarding the ongoing failure to provide complete and timely monitoring reports. However, the Discharger's engineering consultant submitted a technical report dated June 9, 2016, in response to the draft CDO. The restaurant has reportedly been closed since sometime in February, and the outgoing message for Centrally Grown indicates the facility is currently only available for special events.

DISCUSSION

The Discharger owns and operates an advanced onsite wastewater treatment and disposal system that treats commercial and domestic wastewater from a restaurant and a single family residence. The system includes advanced onsite treatment designed to treat wastewater to secondary treatment standards and a subsurface shallow drip irrigation disposal system located in a landscaped garden area of the facility intended for public use. The November 26, 2014 as-built treatment and disposal system document indicates the restaurant kitchen waste is directed through a grease trap prior to the advanced treatment system. Estimated wastewater flows from the restaurant and residence are 4,630 and the system was designed to treat and dispose of up to 5,000 gallons of wastewater per day. Actual facility flows are unknown because the Discharger has failed to submit required monitoring reports.

Water Board staff conducted site inspections and observed surfacing effluent on December 15, 2014, June 29, 2015, July 8 and 9, 2015, November 12, 2015, and December 16, 2015 in the vicinity of the subsurface drip disposal area. During the July 9th follow-up site meeting and inspection, staff observed and photo documented oil/grease within the treatment system. Water Board staff issued a Notice of Violation (NOV) on July 10, 2015 for surfacing effluent and allowing public access to surfacing effluent in violation Order No. 97-10-DWQ. The Discharger provided an email response to the NOV on July 31, 2015. Water Board staff found the response insufficient and issued another NOV on August 7, 2015, requiring a technical report from a licensed civil engineer.

The Discharger responded to the August 7, 2015, NOV via an August 21, 2015 engineering report prepared by licensed civil engineer (i.e., consultant). The report details the corrective actions taken and to be taken by the Discharger to rehabilitate the wastewater system to prevent surfacing effluent and to prevent the public from coming in contact with surfacing effluent. The report documents that the Discharger roped off the subsurface drip disposal area to keep the public out and posted signage to notify

the public that the area contains sewage. The report also documents that the Discharger had a licensed septic hauler pump out, clean and flush the entire treatment system and disposal field lines to remove accumulated grease from the system. Although the report indicated that most of the grease had been removed, it also indicated that residual grease in the treatment and disposal system was still reportedly causing uneven distribution of effluent disposal within the subsurface drip system. Uneven effluent disposal was also reportedly being caused by the incorrect installation of effluent emitters within the first ten emitter lines, consisting of a 520 linear foot section, or approximately 17 percent, of the subsurface drip disposal system. Subsurface disposal systems are required to evenly distribute effluent within the disposal area at application rates below the allowable site specific design loading (i.e., gallons per square foot per day) to maximize infiltration and percolation and prevent overloading. Uneven effluent disposal within a disposal system can result in portions of the disposal area receiving more than the allowable design loading and cause surfacing effluent. The report outlined the following additional tasks the Discharger would implement per an associated timeline to correct outstanding issues associated with surfacing effluent in the disposal field:

- Continue to flush all tanks until free from grease and debris.
- Continue to flush pumps and basket filters to maintain proper pressure to the disposal field.
- Cap the first 10 emitter lines that are currently located at the low points in the system. This will “force” water to the areas that are currently not seeing pressure. The linear footage of perforated pipe being capped is 520 linear feet.
- Install a minimum of 520 linear feet of new emitter lines to replace the ones being “capped”.
- Install internet connection at WWTP control panel for off-site monitoring and operation.
- Continually monitor pump output and pressure at the far end of the disposal field to ensure even distribution.
- Update the action plan following installation of new lines and “capped” lines.
- Add soil to the disposal field in areas where emitters are not buried.

The report also included service agreements documenting that the Discharger had contracted with a local septic service provider with experience operating advanced treatment systems for ongoing operations and maintenance support, and discussed various recommended operations and maintenance related activities to prevent additional failures.

The Discharger’s engineering consultant submitted an updated action plan on October 15, 2015, providing a list of corrective actions taken since the previous correspondence. The Discharger completed the corrective actions listed above with the exception of installing 520 linear feet of new emitter lines. The report also documented ongoing effluent pump filter clogging and backwash operational problems. During their monthly service visits, the licensed septic service provider discovered that grease was accumulating in the grease trap at rates warranting more frequent pump-out (i.e., monthly versus once every three months as originally scheduled) and concluded that grease was still flushing from the trap and clogging various components of the treatment system. It was also speculated that some of the grease in the treatment system may have been generated from the residence and portions of the restaurant kitchen not plumbed to the grease trap or the use of a chemical dishwasher and cleaning products that emulsify oils and grease, thus allowing them to pass through the grease trap. It is also likely that the type and size of the grease trap may not be well suited for the removal of the various types of plant-based oils used in the restaurant (i.e., olive oil, nut oils, etc.).

Despite the Discharger’s corrective actions and engineering report proposing continued operation and maintenance efforts, Water Board noted surfacing effluent in November and December of 2015. Water Board staff issued an NOV on February 2, 2016, for failing to report flow data, not measuring sludge and scum layers, not conducting influent and effluent monitoring concurrently, and failing to meet the signatory

requirements for monitoring report submittals. Water Board staff issued additional NOV's on March 28, 2016 and May 24, 2016 for failing to submit monthly monitoring reports for January-February and March-April respectively.

The findings of the draft CDO and other documents contained within the Prosecution Team Evidence Package (Attachment 1) include additional details regarding the ongoing violations, inspections, and associated NOV's.

The April 29, 2016 draft CDO provided to the Discharger by the Prosecution Team requires the Discharger to complete various tasks prior to re-commencing wastewater treatment operations, subject to written authorization from the Executive Officer, to address the grease loading and surfacing effluent problems. The April 29, 2016 draft CDO also includes tasks to be completed after re-starting wastewater treatment operations to ensure the system is properly operated and maintained. Specifically, tasks 2 and 3 of the CDO require the Discharger to submit verification that restaurant wastewater flows are properly routed through an appropriately sized and designed grease trap, and task 4 requires the Discharger to install 520 linear feet of subsurface drip disposal line to replace the portion of the system that was capped off. Tasks 7 and 8 require the Discharger to develop and implement an Executive Officer-approved operation, maintenance and monitoring plan after re-commencing wastewater operations. Task 9 of the April 29, 2016 draft CDO also requires the Discharger discontinue wastewater discharges until additional corrective actions are complete in the event of any evidence of surfacing effluent in the future. The April 29, 2016 draft CDO prohibits the Discharger from re-commencing discharges to the system until approved by the Executive Officer in writing.

In response to the April 29, 2016 draft CDO, the Discharger's engineering consultant submitted a technical report dated June 9, 2016. This report, included within attachment 3, outlines additional actions the Discharger has and plans on taking, some of which are consistent with the draft CDO requirements, to bring the system into compliance. Completed actions include:

- Implementation of a grease interceptor inspection and dye test to determine what drains and appurtenances are connected to the grease interceptor.
- Disposal field and drip line inspection by a soils engineer (Earth Systems Pacific) to determine how to rehabilitate the subsurface drip disposal field and to identify additional potential disposal areas.

The grease interceptor inspection and dye test revealed that a number of the upstairs kitchen drains were bypassing the grease interceptor. The disposal field inspection revealed that the subsurface drip lines are installed on top of the undisturbed native soil (referred to as native subgrade in the report) and covered with crushed gravel, as opposed to being trenched into the native soil or installed on top of ripped or scarified soil before burying it with additional material, as would be standard practice to maximize percolation.

The proposed next steps of the June 9, 2016 report include:

- Preparing a Facilities Improvement Plan to 1) reroute plumbing lines from the restaurant to the grease interceptor, 2) install a minimum of 520 linear feet of additional dripline, 3) rehabilitate the existing disposal field, and 4) replace the existing headworks filter.
- Implementation of a hold and haul program to regularly pump wastewater from the treatment tanks and transport it to an approved disposal facility until the Facilities Improvement Plan has been successfully implemented.
- Prepare an Operations and Maintenance Manual.

- Secure a long-term contract with a certified operator for ongoing operations and maintenance, and the implementation of the WDR-required monitoring and reporting program.

ADVISORY TEAM COMMENTS AND RECOMMENDATIONS

The April 29, 2016 draft CDO and other documents contained within the attached Prosecution Team Evidence Package include findings and supporting documentation clearly indicating ongoing violations of Order No. 97-10-DWQ and inadequate and/or non-responsiveness to Central Coast Water Board staff NOVs. Consequently, the Advisory Team recommends that the Water Board consider the adoption of the proposed CDO with suggested modifications as outlined below and included within Attachment 2. Consistent with the application of the Water Board's progressive enforcement approach, the Advisory Team also recommends the Water Board consider other next-step alternatives such as administrative civil liability for failure to submit required monitoring reports.

The evidence provided clearly indicates the ongoing conditions of surfacing effluent from the subsurface drip disposal system are likely a result of a combination of factors potentially including: constrained site conditions (i.e., limited available disposal area, slow percolation rates and poor surface drainage) and the insufficient or faulty design, construction, and operation and maintenance of the advanced treatment and disposal system. The unconventional installation of the subsurface drip system directly on top of undisturbed native soil surface and then burying it with other material is particularly problematic because it could cause effluent to pond on top of the soil interface or runoff in a down gradient direction if it is unable to infiltrate the soil interface. According to the as-built design documents for the Centrally Grown treatment and disposal system and other supporting information within the Prosecution Team Evidence Package, the subsurface drip lines were reportedly installed at a depth of eight inches or less below grade. The more recent inspections documented in the June 9, 2016 technical report indicate the drip lines were installed on top of the native surface soil and buried with crushed rock. This construction approach likely contributed to the occurrence of surfacing effluent because it would only work with highly permeable free draining surface soils. Percolation test results contained within the Wastewater Analysis document (Exhibit 6 of the Attached Evidence Package) generally indicate poor percolation rates with more favorable percolation rates at a depth of 24 inches versus 12 inches. Subsequently, the Discharger's engineering consultant should consider reinstalling the entire subsurface drip irrigation system at a minimum depth of 12 inches below ground surface as per the original design documents or consider designing and constructing a deeper conventional disposal system to maximize percolation.

In addition, the documented grease loading to the treatment and disposal systems and associated system failures has likely rendered the advanced treatment and disposal systems unable to handle the facility flows without significant repairs or redesign and the construction of new system components. This is particularly true for the disposal system, as it is very difficult, if not impossible, to rehabilitate the absorption and percolation capacity of soil within a disposal field that has been subject to ongoing grease loading for extended periods of time. The good news is that the grease loading may have only blinded the native surface soil interface and not the deeper soils where the drip lines should have originally been installed or if the surface soils were ripped to improve infiltration and percolation. Consequently, redesign and upgrade of the grease trap and replacement of the 520 linear feet of subsurface drip line taken out of service, as required in the April 29, 2016 draft CDO, may not sufficiently resolve the ongoing occurrence of surfacing effluent in the existing disposal area. It is very likely that the entire disposal field will need to be redesigned and installed below ground as would generally be standard practice.

Although not required by San Luis Obispo County, the Water Board's Onsite Wastewater Treatment System (OWTS) Policy or Order No. 97-10, it is a common practice to design and build dual subsurface disposal systems, each with enough capacity to handle 100 percent of the effluent flow, such that they can

be operated alternately at set frequencies to allow one field to “rest” while the other is in service. (Note: Monterey County requires dual disposal systems for facilities with more than five service connections or with flows greater than 2,500 gallons per day.) Dual disposal systems can be an effective strategy to prevent overloading of the disposal system, particularly for sites with slow percolation rates.

Based on the above discussion, the Advisory Team recommends adopting the CDO with the following recommended changes to the April 29, 2016 draft CDO:

1. Replace the specific grease trap and disposal system repair requirements (formerly proposed tasks 2, 3 and 4) with non-specific performance-based requirements and technical deliverables as needed to ensure the system can sufficiently treat and dispose of facility wastewater flows.
2. Require the Discharger to secure a performance bond to cover the costs of any future repairs as necessary to maintain compliance.
3. Eliminate the “Tasks For Completion After Re-Commencing Wastewater Operations” section and associated redundant and ongoing conditional tasks (i.e., formerly proposed tasks 5, 6 and 8 [also see number 5 below]) that would require keeping the CDO active in perpetuity to enforce. As outlined following these recommended changes to the CDO, the Advisory Team also recommends modifying the Discharger’s WDRs to include and maintain some of the eliminated and recommended CDO requirements to make them enforceable during the life of the permit after the Discharger complies with the CDO.
4. Combine and beef-up the Operations Maintenance and Monitoring Plan (OMMP) requirements to:
 - a. Require submittal and Executive Officer approval of the OMMP prior to re-commencing operations (versus after as initially proposed), and
 - b. Require the Discharger to retain a Grade II-licensed wastewater treatment plant operator to operate and maintain the system.
5. Eliminate former task 9 and associated corrective action requirement options in the event of potential surfacing effluent conditions in the future. The Advisory Team is recommending this change, as well as eliminating former task 8, because the enforcement of these requirements would require keeping the CDO active in perpetuity after the Discharger complies with all other aspects of the CDO and successfully demonstrates the treatment and disposal system has been repaired. Former task 9 is not necessary as part of the CDO because the Water Board has the ability to implement enforcement actions as needed to address potential future occurrences of non-compliance.

The Advisory Team’s recommended “underline and strikeout” changes to the April 29, 2016 draft CDO are contained within Attachment 2.

The Advisory Team is recommending the following changes to the Discharger’s WDRs and/or associated monitoring and reporting program for the maintenance of specific enforceable requirements to ensure the adequate operation and maintenance of the treatment and disposal system; these include a requirement the Advisory Team recommends removing from the April 29, 2016 draft CDO (see number 3 above):

1. A requirement for the Discharger to maintain and provide proof of the following on an annual basis:
 - a. a performance bond in an amount sufficient to repair or replace the treatment and disposal system components as determined by estimates calculated by the Discharger’s licensed civil engineer, and
 - b. a performance based contract with a Grade II-licensed wastewater treatment plant operator to operate and maintain the treatment and disposal system. Subject to Executive Officer approval, this requirement may be reduced to a Grade I operator upon request after it has been demonstrated that the system can be operated without failure for at least one year.

2. A requirement for the Discharger to implement and update as necessary the Executive Officer approved OMMP prepared pursuant to the CDO. The WDR should require the Discharger re-evaluate the plan on an annual basis or whenever administrative, operational, treatment process, monitoring, or other related changes occur that warrant OMMP revision, and to submit proposed OMMP revisions to the Executive Officer for approval.

ATTACHMENTS

1. Prosecution Team Evidence Package (includes April 29, 2016 draft CDO)
2. Draft Cease and Desist Order No. R3-2016-0015 with Advisory Team recommended changes as shown in underline and strikeout format.
3. July 1, 2016, Rebuttal of Evidence in the Matter of Proposed Cease and Desist Order No. R3-2016-0015, Centrally Grown Inc., Centrally Grown L.L.C, Dave Robertson