

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

STAFF REPORT FOR REGULAR MEETING OF JANUARY 30-31, 2020

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ITEM NUMBER: 15

SUBJECT: General Order Development and Program Strategy for the Regulation of Large Domestic Wastewater Treatment Plants with Discharges to Land

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ACTION: Information / Discussion

KEY INFORMATION

SUMMARY

This information item provides the Board and stakeholders insight into how staff are changing how we do our work in the Waste Discharge Requirements (WDR) program. WDR program management and staff are implementing new strategies to grow programmatic efficiency, while at the same time increasing consistency of regulation for the nearly 800 discharging facilities regulated by staff in this program. One of these strategies will use a general order to more efficiently regulate domestic wastewater treatment plants with flows greater than 100,000 gallons per day (gpd). Staff are also developing strategies to prioritize tasks that focus on helping dischargers achieve compliance with permit requirements; resulting in measurable water quality improvements.

This programmatic business model overhaul is in response to the reality that the number and complexity¹ of regulated facilities in the program has significantly increased over the last twenty years, and will continue to increase, while the resources allocated by State Water Board has not increased during this same period.

¹ Facilities are developing innovative and complex ways to treat and recycle wastewater (e.g., Pure Water Monterey, Central Coast Blue, and Cambria Community Services District Emergency Water Supply projects). In addition, changes to State Board policies (e.g., the Recycled Water Policy and the Onsite Wastewater Treatment System Policy) has increased the complexity of our permits and the number of facilities WDR staff regulate.

DISCUSSION

Facilities that Require Permits to Discharge Waste to Land

In the Central Coast region, there are currently approximately 780 different facilities regulated by staff of the WDR program. Of the 780 facilities, there are approximately 185 facilities regulated by individual permits. Three quarters of these permits are over 10 years old and some are over 20 years old. These older permits require updates because they typically do not have the same level of water quality protection, allowance for the production and use of recycled water, or updated monitoring requirements relative to the newer permits, creating inconsistent regulation across the region.

WDR staff typically can only update approximately one or two individual permits per year, in addition to numerous other case management work tasks. Considering the number of permits that need updating, the historic approach of updating individual permits is not a sustainable strategy as the number of requests from dischargers for new permits continue to increase over time. Therefore, one efficiency- and consistency-focused strategy is to develop general orders for similar types of discharges. Enrollment of a facility into a general order takes a fraction of the staff time compared to updating a facility's individual order. Of the 185 facilities that are regulated by individual permits, 43 facilities (approximately 25 percent) treat domestic wastewater with flows greater than 100,000 gpd. Development of a general order to regulate the higher flow domestic wastewater discharges is an excellent opportunity to update the requirements for many facilities, while at the same time creating permitting efficiency by decreasing the number of permits requiring development and regular updating.

WDR Program Staff Resources

The WDR program currently has 3.9 engineers; these staff are Howard Kolb (fulltime), Jon Rokke (fulltime), Cecile Blancarte (0.9 timebase), Kristina Olmos (0.6 timebase), and Kelsey Gerhart (0.4 timebase) and Jennifer Epp, the senior engineer overseeing the program. The program also benefits from having two excellent student engineers (Joey Velasquez and Allyson Swain) to assist staff. On January 15, 2020, a fulltime hydrogeologist (James Bishop) joined the program and is tasked as the lead on groundwater-focused projects such as managed aquifer recharge and recycled water-related projects. The WDR program is also recruiting for another fulltime engineer. In addition to adding staff, the WDR program is also implementing multiple program strategies to utilize our resources more effectively.

Proposed General Order Concept and Benefits

Currently, all new and existing domestic wastewater facilities with flows less than 100,000 gpd are regulated pursuant to a statewide general order.² The statewide general order became effective on September 23, 2014. Development of the statewide general order required staff from the State Board Division of Water Quality to conduct

² State Water Resources Control Board Order No. WQ 2014-0153-DWQ, General Waste Discharge Requirements for Small Domestic Wastewater Treatment Systems
https://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2014/wqo2014_0153_dwq.pdf.

public comment and outreach prior to adoption of the order and additionally included California Environmental Quality Act (CEQA) review, California Code of Regulations title 27 exemptions review, and an antidegradation analysis. The Central Coast Water Board currently has 54 facilities enrolled and approximately 100 facilities pending enrollment in this statewide general order.

WDR staff plans to add to the available efficiency-focused regulatory tools (e.g., general orders), in addition to the statewide general order, by building a regional general order for the large domestic wastewater facilities that incorporates many of the same requirements as the statewide general order. This new regional general order will regulate facilities with flows greater than those covered under the existing statewide general order. The following benefits will be achieved by enrolling the large facilities into the proposed regional general order:

- Effluent and groundwater limits will be updated and made more consistent among similar facilities. Facilities will have consistent requirements for biochemical oxygen demand, total suspended solids, total dissolved solids, sodium, chloride, sulfate, boron, and nitrogen. All facilities will also have groundwater limits consistent with the groundwater basin that receives their discharge. Currently, requirements in existing individual orders differ significantly for similar facilities depending on when the permit was issued and what staff member wrote the permit. For example, most facilities with individual orders do not have nitrogen effluent limits and for those that do have nitrogen effluent limits, the concentration and form of nitrogen vary with the limit (e.g., 30-day average nitrate, maximum total nitrogen, 30-day average ammonia, etc.).
- Regional general order will include an allowance for the production and use of recycled water to avoid delay in implementing recycling. Currently, most of the individual permits do not have recycling requirements incorporated into their permit, which prevents recycling until the facility applies and obtains an additional permit.
- Updated monitoring requirements will be included to improve consistency among similar treatment processes at facilities. Monitoring requirements will be consistent for each facility with similar threats to water quality. Currently, monitoring requirements for facilities with similar treatment processes vary greatly and there is a lack of consistency between each facility without any correlation to threat to water quality (i.e., the facilities with the most extensive monitoring requirements are not necessarily the facilities that have the greatest potential to impact water quality). Some facilities have extensive monitoring requirements while others have minimal requirements.
- Improved water quality protection requirements will be more protective of water quality and these requirements are consistent with statewide general order. The proposed regional general order will include requirements that are more protective of water quality than existing requirements included in many individual permits. The proposed regional general order can also be developed in a relatively short timeline due to the precedent that has already been set by the statewide general order.
- Staff resources will be optimized to spend more time assisting facilities achieve compliance with permit requirements. Staff will be able to minimize resources

associated with individual permit development and maximize staff time for data and technical report review, wastewater treatment plant performance evaluations, and compliance inspections. WDR staff finds that inspections and consultation with facility operators is one of the most effective means for helping facilities achieve permit compliance.

- Consistent reporting of monitoring results will improve efficiency of review data. As part of the proposed general order, reports and data will be uploaded electronically to GeoTracker. Having a consistent data set with the same reporting units for each constituent of concern will enable staff to manage their facilities more efficiently and compare data across facilities and against permit requirements. Monitoring data is currently submitted as PDF files and it is a time-consuming effort for staff to review facility data and determine permit compliance because individual permit requirements and the results reported vary between each facility.
- Easier enrollment process for both staff and dischargers will create time savings that can be directed to other priority staff tasks and have financial benefits to dischargers. Enrolling a facility into a general order takes only a fraction of time compared to updating and adopting individual permits. This reduces the administrative cost for both staff and dischargers and enables staff to redistribute time savings towards inspections, data review, and communications with the dischargers. Obtaining a permit more quickly can have positive financial benefits to dischargers.
- Dischargers can better anticipate and plan for permit requirements. When a discharger applies for an individual permit, they do not know what their permit requirements will be. Dischargers often express to Central Coast Water Board staff that general orders have a significant advantage over individual permits for planning, design, and budgeting purposes because the process and result of obtaining an individual permit is much less certain.

Outreach Efforts for Proposed General Order

WDR staff plans to conduct a public outreach kickoff meeting with stakeholders associated with large wastewater treatment plants around early February of this year to provide an overview of the general order development. WDR staff will then send out the draft general order and provide a 30-day public comment period. During that public comment period staff will conduct workshops in the northern and southern portion of our region to describe the content of the general order and to listen to comments from the stakeholders. Depending on the comments received, other public workshops may be necessary before presenting the proposed general order for Central Coast Water Board consideration. Staff's current goal is to present the proposed general order at either the July or September 2020 board meeting.

Ability to Achieve Compliance with Proposed General Order Requirements

WDR staff will evaluate whether it is technically and economically feasible for large domestic wastewater facilities to meet the requirements in the proposed general order as they are being developed. WDR staff will continue to ask questions such as:

- Would the proposed general order requirements result in municipalities needing to build entirely new wastewater treatment plants or other energy intensive treatment

components to their facilities (e.g., reverse osmosis systems)? This question addresses both climate change and economic considerations.

- Can the municipalities in disadvantaged communities with resource constraints comply with the proposed general order requirements?

WDR staff have demonstrated success working with multiple facilities and their operators (even those with resource constraints) in making significant improvements in water quality by adjusting existing systems and operations.

PROGRAM AND OUTREACH STRATEGIES

The ultimate goal is for our facilities to be in compliance with permit requirements that are protective of water quality. In addition to shifting additional staff to this program and developing general orders for similar types of discharges, WDR staff are also developing longer term strategies and planning various outreach efforts to assist dischargers with permit compliance, system performance, and to focus more staff time toward high priority tasks. Some of those new strategies and outreach efforts include:

- Training. Training for facility operators on various common technical, reporting, or operational non-compliance issues that are observed by WDR staff at multiple facilities. Currently, the Office of Operator Certification does not require continual education credits for operators. Therefore, once an operator obtains their license, they are not required to do training to maintain their license. WDR staff plans to continue to work with the State Board Office of Operator Certification to find opportunities to have continual education and training for operators to maximize operation of the facilities they oversee. WDR staff is also looking for ways to provide advice to under-resourced facilities. WDR staff has begun working toward implementing a low-cost training on pond operation and plans to host a class this spring. Staff has observed that when facility operators learn more about how to manage their systems, they can make significant improvement to water quality without significant financial investments.
- Funding. Providing funding information and describing the process on how to apply for funding during workshops or via other forms of communication to assist under-resourced facilities/operators in obtaining funding for planned improvements at their facilities. There are various funding opportunities, especially for disadvantaged communities, and WDR staff will continue to work with the State Board Division of Financial Assistance and the facilities to improve information sharing on available funds for various wastewater treatment plant specific type of projects that would benefit operations and improve water quality, both help and encourage facilities prepare for climate change impacts, including increasing recycled water production and use, where feasible.
- Database Improvements. Improving the functionality and inter-relatability of the California Integrated Water Quality System (CIWQS) and GeoTracker for the WDR program by working with State Board staff to change various pages in GeoTracker such that dischargers can easily upload water quality data, flow information, and various other details about their facilities. This reduces the time staff spends entering data into various systems and staff can develop reporting mechanisms and tools

through GeoTracker to evaluate non-compliance issues associated with each facility or several facilities at once. The goal is to eventually include performance measures in GeoTracker that track and measure water quality improvements at facilities to ensure we focus our work on the highest threat to water quality facilities.

- *Electronic Application Process*. Developing electronic notices of intent (permit application) and electronic notices of applicability (enrollment in permit). Currently, staff are receiving hardcopies or PDFs of notices of intent and this information needs to be entered into various databases. Following review of the notices of intent, staff prepare notices of applicability on a case-by-case basis. Staff will continue to work with State Board to develop web-based electronic notices of intent and notices of applicability to automate data entry to reduce time spent by staff entering data into databases and preparing letters that are not initially auto-populated with discharger- and facility-specific information. WDR staff, the executive officer, and Chair Wolff have all had discussions with State Board to develop these electronic processes.
- *Performance Measures*. Develop new performance measures that better quantify the work performed by regional board staff. Currently the performance targets include number of individual permits past review date updated and number of inspections. Including a performance target for enrollments in general orders will help demonstrate the amount of work produced by our staff and other regional board staff. Additional performance targets will be recommended in the future after WDR staff has worked with the other regions and the State Board to build GeoTracker so that we can track water quality-based performance measures.

CLIMATE CHANGE

WDR staff plans to include a requirement in the regional general order for facilities to evaluate the impacts from climate change on their systems and to provide a plan on how they will adapt accordingly. WDR staff will continue to work with other staff to provide guidance to discharges on what climate change scenarios they need to evaluate their facilities for.

HUMAN RIGHT TO WATER

California Water Code section 106.3, subdivision (a) states: It is a policy of the State of California "that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitation purposes." On January 26, 2017, the Central Coast Water Board adopted Resolution No. R3-2017-0004, which affirms the realization of the human right to water and the protection of human health as the Central Coast Water Board's top priorities. The proposed regional general order will include requirements that are more protective of water quality compared to existing requirements, which will protect the municipal and domestic supply (MUN) drinking water beneficial use and improve drinking water quality for those that depend on groundwater as their drinking water source.

DISADVANTAGED COMMUNITY STATUS

WDR staff plans to evaluate the status of each community near a permitted facility to determine its status using the California Department of Water Resources

Disadvantaged Communities (DAC) Mapping Tool³ as either a place, tract, or block group per 2016 census data.

CONCLUSIONS

The WDR program staff and management are overhauling their program's business model as a counterstrategy to the increasing number and complexity of permitted facilities relative to staff resources. Some of the counterstrategies for doing this include: 1) developing a regional general order to regulate domestic wastewater treatment plants with flows greater than 100,000 gpd instead of updating individual orders, and 2) increasing staff consultative efforts with dischargers to assist in achieving compliance with permit conditions. These permit requirements will be more consistent throughout the region and more protective of water quality than previous permit requirements, which will result in improved water quality conditions throughout the region. Adoption of the regional general order will create a staff time savings that will be spent more effectively better evaluating compliance with this and other orders' limits, as well as focusing on assisting facilities achieve compliance.

WDR staff will update the board on our progress toward the goals outlined in this staff report later this year, at the board hearing to consider adoption of the proposed regional general order.

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³ The DAC Mapping Tool (<https://gis.water.ca.gov/app/dacs/>) is used to inform statewide Integrated Water Resources Management (IRWM), Sustainable Groundwater Monitoring Act (SGMA), and California Water Plan implementation efforts.