General Waste Discharge Requirements for Discharges of Winery Waste to Land
General Information and Orientation

Who is the San Francisco Bay Regional Water Quality Control Board?
The San Francisco Bay Regional Water Quality Control Board (Regional Water Board) is a branch of the California Environmental Protection Agency (CalEPA). The mission of the CalEPA is to restore, protect, and enhance the environment, to ensure public health, environmental quality, and economic vitality. There are nine Regional Water Quality Control Boards statewide that exercise rulemaking and regulatory activities to best protect, enhance, and restore the beneficial uses of the State’s waters as a result of the Porter-Cologne Water Quality Control Act.

The areas that are covered by the Regional Water Board include some or all of the following counties: Alameda, Contra Costa, San Francisco, Santa Clara, San Mateo, Marin, Sonoma, Napa, and Solano. A map of the jurisdictional areas covered by each of the Regional Water Boards is located at http://www.waterboards.ca.gov/waterboards_map.shtml.

What are General Waste Discharge Requirements?
An individual set of Waste Discharge Requirements (Individual Order) is a regulatory mechanism or permit used by the Regional Water Board to establish requirements in support of authorizing entities to discharge a waste stream to land and ultimately groundwater. The primary purpose of Individual Orders for land application of wastewater is to protect groundwater resources. When a class of facilities has common characteristics, such as similar constituents, concentrations of constituents, disposal techniques, flow ranges, and treatment standards, the Regional Water Board can opt to issue General Waste Discharge Requirements (General Order).

The principal differences between General and individual Orders are the manner in which they are issued and that the General Order can cover many applicants. Individual Orders can be adopted only by action of the Water Board, which is comprised of seven part-time Board members appointed by the Governor. By contrast, coverage under a General Order can ordinarily be authorized by the Executive Officer, the individual that fulfills the lead position at the Regional Water Board. The Executive Officer can make administrative decisions that have the potential to require less processing time than preparing and presenting Individual Orders to the Water Board for review.

We issue Waste Discharge Requirements in accordance with the California Water Code, which requires that any person discharging waste or proposing to discharge waste within any region, other than to a community sewer system, that could affect the quality of the waters of the state, file a Report of Waste Discharge to obtain coverage under Waste Discharge Requirements.

Why are we developing General Waste Discharge Requirements for Wineries?

Legal Compliance
which was effective as of May 13, 2013. According to the OWTS Policy, the Regional Water Boards are now responsible for the regulation of subsurface land disposal of high-strength wastewater, which was previously handled locally by county permitting authorities.

Since wineries produce a waste stream that is considered high-strength, this will affect some wineries that are not connected to a public sewer system and that discharge to land (surface and subsurface) in the San Francisco Bay area. Thus, the need for Waste Discharge Requirements is a result of a legal requirement.

Additional information on the OWTS policy is located at http://www.waterboards.ca.gov/water_issues/programs/owts/board_adopted_policy.shtml.

**Permit Streamlining and Customer Service**

We have also received an increase in the quantity of permit applications for wineries and anticipate that this industry will continue to expand throughout the region. General Waste Discharge Requirements for wineries that discharge wastewater to land (Winery General Order) will enable us to provide more effective customer service and address the permit applications in a more streamlined and timely manner. The Winery General Order will also provide permitting consistency throughout the region.

**Who will be subject to the Winery General Order?**

The Winery General Order will authorize discharges to land (surface and subsurface) from enrolled facilities’ winery wastewater treatment and disposal systems.

Winery process wastewater and solids are generated by wineries in the course of wine production. Winery process wastewater is any byproduct of winemaking operations, which includes, but is not limited to, the wastewater generated from grape crushing, processing, bottling, cleaning and washing, tank, barrel, and bottle rinse water, equipment or floor wash water, and lees (wine sediment), pomace (i.e., grape skins, stems, and seeds), stillage, cooling tower blowdown, and spilled product. Wastewater is also generated when stormwater falls on or runs across areas with exposure to winery raw materials, processes, products, equipment, and wastes.

Winery solid waste are the associated solids removed from the winery process wastewater stream and may include grape marc, lees, filtered solids, stalks, winery wastewater sludge, inorganic solids such as bentonite and diatomaceous earth, and residual solids.

**Why is winery wastewater considered high-strength waste?**

According to the OWTS Policy, high-strength wastewater is defined as wastewater having a 30-day average concentration of biochemical oxygen demand greater than 300 mg/L or of total suspended solids greater than 330 mg/L or a fats, oil, and grease concentration greater than 100 mg/L prior to the septic tank or other onsite wastewater treatment system.

Biochemical oxygen demand (BOD) is the measurement of the concentration of biodegradable organic content in wastewater and represents the amount of oxygen required by microorganisms to oxidize or consume the waste constituents. Total suspended solids (TSS) are solids in water that can be trapped by a filter.
The BOD levels of untreated winery wastewater can generally range from 2,000 to 5,000 milligrams per liter (mg/L), but can be as high as 12,000 mg/L during the crush season. BOD can be generated throughout the wine making process such as from the grapes, pomace, lees, and stillage. The total suspended solids levels in winery wastewater can range from 40 to 800 mg/L during crush season. These levels are generally greater than naturally occurring levels in the source water and the groundwater that underlie the wineries and vineyards.

Winery processing and bottling waste can have elevated levels of organic matter, solids, nutrients, and salts with swings in pH requiring physical, biological, and/or chemical treatment. Whether an individual discharge of winery wastewater may affect the quality of waters of the State depends on the quantity of waste, the quality of waste, extent of treatment, soil characteristics, distance to surface waters, depth to groundwater, and other factors.

**Timeline for the Winery General Order**

The timeline for the issuance of the Winery General Order has not been finalized but we are aiming for the fall/winter of 2017. A 30-day public engagement and comment period will begin on July 17, 2017.

**Have other Winery General Orders been issued?**

The North Coast and Central Coast Regional Water Boards have already adopted General Waste Discharge Requirements for winery waste and the Central Valley Regional Water Board has a Waste Discharge Requirements Waiver for small wineries.

**Regional Water Board contact**

Melissa Gunter  
Melissa.Gunter@waterboards.ca.gov  
(510) 622-2390  
San Francisco Bay Regional Water Quality Control Board  
1515 Clay Street, Suite 1400  
Oakland, CA 94612

Sign-up to receive future notices on this topic by joining the *General Waste Discharge Requirements for Wineries* email list, which is listed in the *General Section* at [http://www.waterboards.ca.gov/resources/email_subscriptions/reg2_subscriber.shtml](http://www.waterboards.ca.gov/resources/email_subscriptions/reg2_subscriber.shtml).

As this effort progresses, we may also post pertinent information on the internet at [http://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/on_site_wastewater_treatment_systems.shtml](http://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/on_site_wastewater_treatment_systems.shtml).