ATTACHMENT I

**DEFINITIONS**

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

**SAN FRANCISCO BAY REGION**

For the General Waste Discharge Requirements for

Discharges of Winery Waste to Land Within the San Francisco Bay Region

Order No. R2-2017-Xxx

**Agronomic rate** is defined as the rate of fertilizer and irrigation water that a plant needs to enhance soil productivity and provide the crop or forage growth with needed nutrients for optimum health and growth, without having any excess water or nutrient percolate beyond the root zone.

**Advanced System** is a type of OWTS that utilizes either a method of wastewater treatment other than a conventional septic tank and/or a method of wastewater dispersal other than a conventional drainfield trench for the purpose of producing a higher quality wastewater effluent and improved performance of and siting options for effluent dispersal.

**Advanced wastewater treatment** is treatment of wastewater that goes beyond the secondary or biological water treatment stage and includes the removal of nutrients and a high percentage of suspended solids. Advanced treatment technologies can be extensions of conventional secondary biological treatment to further stabilize oxygen-demanding substances in the wastewater, or to remove nitrogen and phosphorus. Advanced treatment may also involve physical-chemical separation techniques such as adsorption, flocculation/precipitation, membranes for advanced filtration, ion exchange, and reverse osmosis.[[1]](#footnote-1)

**Best Management Practices** are defined as a permit condition used in place of, or in conjunction with effluent limitations, to prevent or control the discharge of pollutants. BMPs may include a schedule of activities, prohibition of practices, maintenance procedure, or other management practice.

**Biochemical Oxygen Demand (BOD)** indicates the amount of dissolved oxygen needed by organisms in water to break down organic material in a water sample. A test is used to measure the amount of oxygen consumed by these organisms during a specified period of time that is usually five days at 20 degrees Celsius.

**Conventional septic system** consists of a series of tanks or a compartmented tank followed by a distribution system. The septic tanks are used to settle out solids and partially treat wastewater before it reaches the distribution system.

**Discharger** is the person or business that is the owner of the winery facility whose wastewater is permitted by the Order, and is responsible for compliance with the Order.

**Domestic wastewater** means wastewater with a measured strength less than high‑strength wastewater and is the type of wastewater normally discharged from, or similar to, that discharged from plumbing fixtures, appliances and other household devices including, but not limited to toilets, bathtubs, showers, laundry facilities, dishwashing facilities, and garbage disposals. Domestic wastewater may include wastewater from commercial buildings such as office buildings, retail stores, and some restaurants, or from industrial facilities where the domestic wastewater is segregated from the industrial wastewater. Domestic wastewater may include incidental recreational vehicle (RV) holding tank dumping but does not include wastewater consisting of a significant portion of RV holding tank wastewater such as at RV dump stations. Domestic wastewater does not include wastewater from industrial processes.

**Impacted groundwater** is groundwater that contains a particular constituent at levels above applicable Basin Plan water quality objectives.

**Impaired Water Bodies** means those surface water bodies or segments thereof that are identified on a list approved first by the State Water Board and then approved by U.S. EPA pursuant to Section 303(d) of the federal Clean Water Act.

**Managed vegetation** refers to vegetation (whether used as a crop or in landscaping) that is located within the discharge area and is maintained by periodic human intervention and can be used to provide additional treatment for wastewater.

**Notice of Intent Form** is the Notice of Intent Form serves as an application for enrollment under the Order and is one component of the Notice of Intent Package. The Notice of Intent Form and instructions are included in **Attachments B** and **C** of the Order**.**

**Notice of Intent Package** refers to the all of the documents submitted to the Regional Water Board in support of enrolling for coverage under the Order. The information submitted in the Notice of Intent Package ensures that the wastewater system is designed to sufficiently treat and properly dispose of the waste generated by the facility and to ensure that the Order requirements are met. The Notice of Intent Package includes the following:

1. Location Map
2. Facility Site Plan or Map
3. Wastewater Flow and Treatment Diagram
4. Water Mass Balance
5. Notice of Intent (NOI) Form
6. NOI Technical Report (refer to the definition contained herein)
7. Application fee, which serves as the first annual fee
8. CEQA Compliance for Tiers 2 and 3 wineries

**Notice of Intent Technical Report** substantiates the information presented in the Notice of Intent (NOI) and the Notice of Intent Package. The NOI Technical Report shall contain the following assessments and plans:

1. Wastewater Management Plan, the development of which is informed by the following NOI Package components:
2. Hydraulic Loading Rate Calculations
3. Discharge Area Soil Assessment
4. Solids Management Plan
5. Operation and Management Plan (not applicable to Tier 1 or Tier 3 discharging less than 1,500 gpd)
6. Nitrogen Assessment, only submitted with the NOI Technical Report for dischargers within a discharge area overlaying nitrate‑impacted groundwater area plume

**Nuisance** means anything which meets all of the following requirements:

1. Is injurious to health, or is indecent or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property.
2. Affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal.
3. Occurs during, or as a result of, the treatment or disposal of wastes.

**Onsite wastewater treatment system(s)** (OWTS) means individual disposal systems, community collection and disposal systems, and alternative collection and disposal systems that use subsurface disposal. The short form of the term may be singular or plural. OWTS do not include “graywater” systems pursuant to Health and Safety Code Section 17922.12.

**Pollution** means an alteration of the quality of the waters of the state by waste to a degree which unreasonably affects either of the following:

1. The waters for beneficial uses.
2. Facilities which serve these beneficial uses.

**Primary treatment** means a wastewater treatment process involving physical treatment such as floatation and gravity settling, that is generally the first step in the treatment process; it provides approximately 50 to 70 percent removal of biochemical oxygen demand and 25 to 40 percent removal of total suspended solids.[[2]](#footnote-2)

**Receiving Land Owner** is the owner of the property onto which the treated wastewater is disposed. The Receiving Land Owner may be the same entity as the Discharger or they may be a separate entity.

**Recycled water** means water which, as a result of treatment of waste, is suitable for a direct beneficial use or a controlled use that would not otherwise occur and is therefore considered a valuable resource.

**Resting period** is the time after wastewater application until the beginning of the next application cycle. During this period, the applied water partially evaporates and the remainder moves downward into the soil column, allowing the upper reaches of the soil horizon to dry and reaerate.[[3]](#footnote-3)

**Secondary treatment** means a wastewater treatment process utilizing biological activity in the treatment of wastewater; generally the second step in the treatment process (after primary treatment) that results in the removal of approximately 90 to 95 percent of influent biochemical oxygen demand and total suspended solids.1

**Sodium Adsorption Ratio (SAR)** equals the sodium concentration expressed in moles of charge per liter divided by the square root of half the sum of calcium and magnesium expressed in moles of charge per liter. The SAR along with the electrical conductivity EC impacts the ability of water to infiltrate into soil. At a low EC, 5 dS/m, a SAR of less than 20 will not impede infiltration. (Ayers and Westcot, 1985)

**State Water Board** references the California State Water Resources Control Board.

**Supplemental treatment** means any onsite wastewater treatment system or component of an onsite wastewater treatment system, except a septic tank or dosing tank that performs additional wastewater treatment so that the effluent meets a predetermined performance requirement prior to discharge of effluent into the dispersal field.

**TMDL** is the acronym for "total maximum daily load." Section 303(d)(1) of the Clean Water Act requires each State to establish a TMDL for each impaired water body to address the pollutant(s) causing the impairment. In California, TMDLs are usually adopted as Basin Plan amendments and contain implementation plans detailing how water quality standards will be attained.

**Vadose Zone** is the unsaturated portion of soil between the soil surface and saturated soil associated with the water table. The term unsaturated zone is used interchangeably with vadose zone.

**Waste** includes sewage and any and all other waste substances, liquid, solid, gaseous, or radioactive, associated with human habitation, or of human or animal origin, or from any producing, manufacturing, or processing operation, including waste placed within containers of whatever nature prior to, and for purposes of, disposal.

**Waste discharge requirement** or **WDR** means an operation and discharge permit issued for the discharge of waste pursuant to Section 13260 of the California Water Code.

**Wastewater system** refers to the collection and conveyance system, treatment equipment and systems, pumping stations, monitoring systems, and other systems associated with the collection, treatment, storage, and disposal of wastewater.

1. EPA Primer for Municipal Wastewater Treatment. EPA 832-R-04-001. (September 2004). pg. 17. Accessible online at <https://www.epa.gov/sites/production/files/2015-09/documents/primer.pdf>. [↑](#footnote-ref-1)
2. Source: US Environmental Protection Agency. 1996. Wastewater Treatment: Alternatives to Septic Systems Guidance Document. EPA/909-K-96-001. [↑](#footnote-ref-2)
3. Source: Wine Institute, Kennedy/Jenks Consultants. 2004. *Land Application of Winery Stillage and Non-Stillage Process Water: Study Results and Proposed Guidelines*. Glossary of Terms. [↑](#footnote-ref-3)