Focus on Wineries

Water Quality Program

Winery General Permit

The Washington Department of Ecology (Ecology) is currently soliciting comments regarding the development of a Winery General Permit (WGP).

Why is Ecology considering developing a WGP?

Rapid growth within the wine industry has presented the need for standardized wastewater management requirements. The goal of the permit is to protect water quality by requiring wineries to implement best wastewater management practices and, if necessary, adequate wastewater treatment.

The WGP will provide regulatory certainty and stability for the wine industry in Washington. Winery wastewater has a variety of potential pollutants of concern generated during various stages of wine making. Typical raw winery and domestic wastewater have the following characteristics:

| | | Typical Winery Wastewater | | Typical Domestic Wastewater |
|---------------------------|-------|---------------------------|------------|--------------------------------|
| Parameter | Units | Crush | Non-Crush | Household |
| рН | | 2.5 - 9.5 | 3.5 – 11 | 6-9 |
| BOD ₅ | mg/L | 500 - 12000 | 300 - 3500 | 35-100 |
| Dissolved Oxygen | mg/L | 0.5 – 8.5 | 1.0 - 10 | |
| Settleable Solids | mg/L | 25 - 100 | 2 - 100 | 5-20 |
| Total Suspended Solids | mg/L | 40 - 800 | 10-400 | 200-290 |
| Total Nitrogen | mg/L | 1-40 | 1-40 | 20-70 |
| Nitrate | mg/L | 0.5 – 5 | | 35-100 |
| Phosphorous | mg/L | 1-10 | 1-40 | 4-12 |
| Sulfate | mg/L | 10 – 75 | 20 – 75 | 20-50 |
| Total Dissolved Solids | mg/L | 80 – 2900 | 80 – 2900 | 270-860 |
| Sodium | mg/L | 35 – 200 | 35 – 200 | 40-70 |
| Chloride | mg/L | 3 – 250 | 3 - 250 | 30-90 |

Wastewater discharge from wineries may have a high five-day biochemical oxygen demand (BOD) (typically 5 to 50 times the concentration of domestic wastewater) and low pH. BOD is a measure of how much oxygen is used by microorganisms



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WHY IT MATTERS

Without proper treatment, winery wastewater has the potential to disrupt treatment plant operations and degrade groundwater. The WGP will protect water quality by requiring wineries to implement protective wastewater management practices.



Contact information

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Special accommodations

If you need this document in a format for the visually impaired, call the Water Quality Program at 360-407-6600.

Persons with hearing loss, call 711 for Washington Relay Service. Persons with a speech disability, call 877-833-6341.

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breaking down organic matter over a five-day period. High BOD and low pH wastewater discharged to a wastewater treatment plant may cause a disruption to the plant's treatment process. This may result in wastewater that is not treated to the proper level before it is discharged to the environment.

Public involvement

In the event Ecology chooses to move forward with the permit, we are working to form an external technical advisory group comprised of stakeholders with winery experience and industry knowledge to assist with permit development. If you are interested in becoming an advisory group member, please contact Chelsea Desforges. Contact information is on the front, right-hand side bar of this publication.

A public notice requesting comments on whether it is appropriate for Ecology to develop a Winery General Permit will be published in the State Register June 4, 2014. This comment period ends July 4, 2014. To view the public notice online please visit the following link under Ecology, Department of: <u>http://apps.leg.wa.gov/documents/laws/wsr/2014/14+WSR+Index+E.htm</u>

To receive updates, notices, and other information, join our new Winery listserv: <u>http://listserv.wa.gov/cgi-bin/wa?A0=ECY-WINERY-PERMIT</u>