

# Managing Waste from Virginia's Wineries

## Regulated Discharges

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- While growing grapes in a vineyard is covered under the Clean Water Act's agricultural exemption, federal and state regulations provide that discharges to surface waters from processing grapes into wine are not exempt from the Clean Water Act's requirements (40 C.F.R. 122.3 and 9VAC25-31-40).
- Processing grapes into wine creates solid and liquid wastes, including:
  - Solids from destemming and pressing operations,
  - Liquid wastewater from the cleaning of tanks, floor drains and processing equipment and bottle-washing.
- Depending on the process, stormwater from open or exposed wine-making activities or from on-site construction not associated with growing grapes may be subject to regulation.

## Options for Managing Wastes

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- Appropriate disposal of solids and liquid wastes is necessary to protect public health and the environment. Some options include:
  - To a below ground disposal, regulated by EPA's Underground Injection Control (UIC) program;
  - To surface waters, regulated by DEQ's Virginia Pollutant Discharge Elimination System (VPDES) program;
  - To a sanitary sewer system, regulated locally;
  - Pumping and hauling waste to a landfill or treatment facility, regulated locally;
  - Utilizing the food processing residuals as fertilizer by applying it to farmland; regulated by either Virginia's Department of Agriculture and Consumer Services (VDACS) or DEQ's Virginia Pollution Abatement (VPA) program.
- To learn more or to contact your regional DEQ office, visit our website at: <http://www.deq.virginia.gov/>

## Quick Facts on Managing Wineries' Waste

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- State rivers are **protected** so people may use them to swim, for drinking water and so **aquatic life** may survive.
- If wastewater is **improperly disposed**, it may **threaten** Virginia's natural resources.

- Under the Clean Water Act, DEQ issues individual **VPDES permits** to municipal and industrial facilities that have point source **discharges to surface waters**.

- Food processing residuals are an example of an **"industrial waste"** that may have value as **fertilizer** or as a **soil amendment**.
- The **Virginia Dept. of Agriculture and Consumer Services (VDACS)** regulates some of these materials as "industrial co-products" through the Virginia Fertilizer Law or Virginia Agricultural Liming Material Law.

- **EPA administers** the **UIC** program in Virginia and oversees underground disposal of industrial wastewaters, such as winery wastewaters, to ensure drinking water sources are protected.

- Coverage under a state permit may be required to discharge **stormwater** from a **construction activity** and to address post construction stormwater **runoff**.

- **Wastewater** from **wineries** may have an **acidic pH**, and high **carbohydrates** (sugars). In order to break down carbohydrates in a stream, a large amount of **oxygen** is needed. This may cause water quality problems.

- Individual VPDES permits **include site specific requirements** in order to ensure that the facility's discharge meet applicable water quality criteria.
- Permit requirements may include: **effluent limitations, monitoring requirements, and other special conditions**.

- For materials not registered with VDACS, a **VPA permit** may be used to **authorize land application** of industrial wastes.

- VPA regulation provides the **flexibility** necessary to derive individual permit conditions and standards.
- These standards are applied on a **case by case** basis after an analysis.

- Many **local governments** implement stormwater requirements and should be **consulted** prior to starting a construction activity.
- During **construction**, a separate permit may be required from the locality for **erosion and sediment control**.