

Do not discharge any waste directly to waters of the state

Direct discharge of waste to waterways is prohibited. The waste can impair water quality, threaten human health, and harm or kill fish and other aquatic species. Also, do not discharge wastewater to ground where runoff can occur or when it cannot adequately infiltrate and be taken up by plants.

Separate solids, whey, and 1st rinse from other wastewater

Solids, whey, and 1st rinse water are “high-strength” (contain the most organic matter), and put the most strain on a wastewater system, whether your own or a municipal wastewater treatment plant. High-strength waste can cause septic failure, and it can be expensive to send to a treatment plant.

Put high-strength waste to better use, such as feeding animals or creating energy through anaerobic digestion. It may also be land-applied to farm fields (only during times when the nutrients can be taken up by growing plants), or sent to a manure pit for later land-application. Low-strength wastes can be discharged to an on-site wastewater system or municipal wastewater treatment plant.

Drain tips

Good drain design and practice can go a long way to saving you headaches, time, and money. Basics include:

- follow plumbing code
- use traps to catch solids and fats on sink drains connected directly to wastewater discharge lines
- air vent drains
- drains centered over a floor sink should terminate two diameters above the sink’s flood rim (this makes an air gap)
- don’t let butterfat or sludge from separators go down the drain

Make sure your holding and equalization tanks have adequate capacity to store the volume of wastewater you plan to be generating.

And don’t just plan for what you need now, when everything goes right. Have enough capacity to handle delays or complications in wastewater management. If you hope to grow your operation, consider what additional capacity you may need.

Keep creamery and milkhouse wastewater separate from sanitary (i.e., bathrooms) wastewater.

Mixing human sewage with process wastewater and washwater means you will need to treat all your wastewater to (more stringent) sanitary wastewater standards. Keep these systems separate!

Control odors at the source

The worst odors come from breakdown of organic material in low-oxygen or anaerobic conditions. Even when open to the air, large ponds/pit do not receive enough oxygen to prevent bad odors. If you must use an open pond/pit to store dairy process wastewater, install an aeration system.

Talk to your wastewater treatment plant operator

Municipal wastewater treatment plants vary in their designed capacity levels for wastewater volume and strength, and in how close to these limits they are currently operating. Dairy manufacturing wastewater can have a significant impact, especially on small or overtaxed treatment plants. Depending on the volume and strength of your wastewater, you may need to get a pretreatment permit (in VT, issued by the state).

Treat spoiled milk & product like high-strength process waste

Keep these out of your on-site wastewater system. Ask the municipal wastewater treatment system operator if they have capacity to accept before sending it.

Don't use excessive cleaners/sanitizers that kill microbes if you use an on-site wastewater system

Your on-site wastewater system needs to keep a healthy community of microbes to break down your waste efficiently. Strong cleaners and sanitizers designed to kill microbes in your creamery can also kill the microbes in your wastewater system, which can lead to failure. Phosphoric cleaners can be particularly problematic.

Get your permits

Food manufacturing facilities in Vermont and many other states require state permits for wastewater, whether handled on-site or at a wastewater treatment plant. Facilities in Vermont can contact a regional DEC Permit Specialist or call 800-974-9559.