



Commercial Wastewater Facility Plan Review Worksheet

Plans for commercial wastewater facilities should include a narrative outlining the project, specifically addressing waste strength, flow determination and other critical information, which will vary depending on the project. Use this worksheet for a commercial wastewater plan review to ensure that the system meets the construction standards that may be different from residential projects.

Project details

The plan should describe the commercial wastewater facility, including population and number of customers, as it relates to contributing flow to the system.

Projected daily sewage flow

Base projected daily sewage flow on Oregon Administrative Rule 340-071-0220-Table 2 or other information the DEQ agent determines to be valid.

Review details on Table 2 or provided details for flow data from designer. Flow data must be gathered daily at a representative time (such as summer for a summer camp), and include all sources of flow, such as washing machines.

Designer

The designer must meet required qualifications in OAR 340-071-0130(18)(b).

Commercial sand filter, Recirculating Gravel Filter, or alternative treatment technology systems greater than 600 gallons per day require a designer registered under ORS 672 or 700.

List the name of designer and their credentials: _____

Tanks

Grease interceptor tanks are plumbing fixtures and they may be required to reduce waste strength, they are not part of the plan review.

Tank size: _____

Total combined volume of septic tanks: _____

Dosing tank capacity: _____

Dosing tank must have a minimum liquid capacity equal to the projected daily sewage flow for flows up to 1,200 gallons per day. The department will determine tank sizing for dosing tanks with projected daily sewage flows greater than 1,200 gallons per day. The liquid capacity of dosing tanks must be as measured from the invert elevation of the inlet fitting.

Pumps and control panels

Pump size, type of pump, plans should include head loss calculations _____
Requires duplex? ___ Greater than 600 gpd and pumps needed require alternating duplex*.
Control Panels have alarm if one of the pumps malfunctions. ___

Confirm with designer:

If alternative treatment technology system, check product DEQ approval which may allow simplex pump for larger flows and may allow a vault instead of a dosing tank.

Control panels are pre-manufactured. ___

Have elapsed time meters. ___

Have event counters. ___

Alarms on a separate circuit from pumps. ___

The plan must specify whether screen or vault the pumps will be part of the system.

Provided calculations must demonstrate that the pumps are adequately sized. ___

Treatment Units

Detail what system or method will be used in the design.

Documentation should include DEQ product's approval for design flow of the proposed facility whether the design is a prescriptive design, has manufacturer documentation or something else.

If it is an alternative treatment technology system, check with manufacturer that flows and waste strength are within system capabilities.

Soil Absorption

Dosing by pump or gravity flow _____

The control panel must be linked with upstream pumps so if this pump fails other pumps will not continue to operate.

Pressure distribution or gravity _____

Pressure distribution

Verify that the pump or pumps will perform as required. Specify if a hydrotek valve used, it is included in maintenance contract.

Peak design flow _____

Adequate area for initial and replacement area? _____

Maintenance

Consider maintenance in reviewing plans. The plan should explain whether it will be possible to get representative samples from the system. The plan should also demonstrate if there is a water source close by for cleaning components, component removable and accessible.

Explain if the system requires a contract between owner and service provider.

The contract must cover the entire system, including tanks, pumps, hydrosplitters and other components.

Initial two-year contract requires six-month intervals for site visits. DEQ bases the number of subsequent visits on type of system.

Any concerns in the plan review should be discussed with designer. Examples include a serial system with short trenches where top line receives hundreds of gallons per dose, tanks proposed in location that will be difficult to access or create a public nuisance.