

United States Department of Agriculture
Soil Conservation Service

Washington State Supplement

Waste Storage Pond, PS-425

I. Planning Considerations:

Permits: The pond shall be in compliance with all requirements of State and local permits, ordinances and/or regulations that are applicable for the installation of the planned site.

Location: The minimum distances to the pond from existing improvements shall be as specified in the permit(s), or this section, whichever is more restrictive. All distances are measured from the outside toe of embankments or the top edge of an excavated pond.

Owner occupied dwellings	100 ft.
All other dwellings	300 ft.
Domestic wells	
unconfined aquifers	200 ft.
confined aquifers	100 ft.
Water Courses	25 ft.

II. Design Criteria:

Soils: All GP, GW, SP or SW soils encountered in excavation or used as embankment material shall be lined if the nearest domestic water source is located closer than 300 feet to the site. Embankment heights of MH and CH soils shall not exceed four feet. The OL and OH soils shall not be used for construction of embankments. The PT soils are not recommended for installation of waste storage ponds. Excavated ponds in dense glacial till do not require a lining or need to be mechanically compacted. All soils with the exceptions listed may be used in the design and installation of waste storage ponds using standard construction methods.

Lining: Livestock waste storage ponds may be lined by the methods described in the Practice Standards for pond sealing or by earthen materials. The following earth materials may be used for liners with livestock manure sealing:

<u>Soil Liners</u>	<u>Minimum Compacted Thickness</u>
GM with well-graded gravels	12 inches
GC	9 inches
SM with well-graded sands	12 inches
SC	9 inches
ML	12 inches
CL	6 inches
CH	6 inches

Water Tables: The operation and maintenance plan shall specify that the liquid level in the pond be maintained at least six inches above the ground water. This also includes installations in sites where the ground water has seasonal fluctuations.

Livestock Manure Sealing: The initial loading of ponds designed for livestock manure sealing shall specify the first 12 inches of the pond depth to be either non-diluted manure slurry or solids. The remainder of the pond may be filled with either non-diluted or diluted manure slurry. The operation and maintenance plan shall specify that the landowner notify the local SCS office of any sudden decrease in the liquid level other than during periods of emptying.

O&M Plans: An operation and maintenance plan shall be prepared and reviewed with the landowner/operator of each installation.