

NATURAL RESOURCES CONSERVATION SERVICE
CONSERVATION PRACTICE SPECIFICATION
360 – CLOSURE OF WASTE IMPOUNDMENTS

I. SCOPE

The work shall consist of the required construction operations necessary to remove an existing waste storage pond or treatment lagoon, including appurtenant structures, and replace it with compacted fill, as shown on the drawings.

II. WASTE REMOVAL

Liquid and Slurries. Waste remaining in the impoundment in liquid or slurry form shall be removed. Liquids and slurries shall be mixed to entrain settled solids and to reduce the spatial variability of the waste's physical and chemical characteristics, to the extent feasible. Mixing shall occur within the impoundment prior to removal. Addition of water may be necessary to facilitate mixing. Liquid and slurry waste removed from the impoundment will be managed as shown on the drawings or described in specification 590 - Nutrient Management, or 633 – Waste Utilization, or as directed by the engineer.

Solid Waste. Solid waste including manure, sludge, contaminated soil and other material as may be present shall be removed to the extent shown on the drawings. Testing may be required during removal operations to determine the final extent of substrate removal. Solid waste removed from the impoundment will be managed as shown on the drawings or described in specification 590 – Nutrient Management, or 633 – Waste Utilization, or as directed by the engineer.

The timing and methods of both liquid and solid waste removal shall give due consideration for odor control, and may be restricted to periods least likely to be offensive. Removal and transport methods shall be reasonably leak or spill free over the entire transportation route. Vehicles transporting waste over public roads may

require washing to prevent depositing objectionable material on the roadway.

III. STRUCTURAL REMOVAL

Structures, including channels, pipelines, sumps, fencing and other facilities to be removed shall be identified on the drawings. Material to be salvaged for some other use will be left on site in areas designated on the drawings or as directed by the engineer. Material not salvaged shall be disposed of in a manner consistent with all applicable laws and regulations. Structure material shall not be burned or buried on site unless otherwise approved by the engineer and permitted under applicable laws and regulations.

IV. EXCAVATION

Required excavations shall be made to the lines and grades shown on the drawings or as staked in the field. Excavations shall be kept free of standing water during backfill operations. No excavated slopes shall be left steeper than 1:1 when excavation is complete.

Excavated materials, if suitable, may be used in required fill areas. Unless otherwise shown on the drawings excess or otherwise unusable excavated material will be disposed of at locations shown on the drawings or as directed by the engineer during construction.

Final grading in borrow areas shall be as shown on the drawing or staked in the field.

V. FILL PLACEMENT

Foundation Preparation. Areas to receive fill shall be cleared of all trees, brush, roots, sod, and soil containing excess amounts of

organic matter, waste or objectionable materials and disposed of off site. Disposal methods shall be in accordance with applicable laws with due regard to the safety of persons and property.

The fill foundation area shall be thoroughly scarified before placement of the fill.

Material. All fill materials shall meet the requirements shown on the drawings and shall be obtained from approved sources or required excavations (if applicable). Fill materials shall contain no sod, brush, roots, frozen, or other unsuitable materials.

Placement. Fill shall be placed to the lines and grades shown on the drawings. Foundation areas shall be kept free of standing water when fill is being placed on them. The placing and spreading of fill material shall be started at the lowest point of the impoundment and the fill brought up in horizontal layers of such thickness that the required compaction can be obtained. The fill shall be constructed in continuous horizontal layers to the extent possible.

Moisture Control. Moisture content of the fill material shall be adequate for obtaining the required compaction. Material that is too wet shall be dried to meet this requirement, or removed, and material that is too dry shall have water added and mixed until the requirement is met. The proper moisture content for compaction will be determined by inspection during the placement operation.

Compaction. Unless shown otherwise on the drawings, fill compaction shall be accomplished by one of the following methods:

1. Sheepfoot roller. The maximum layer thickness shall be 8 inches before compaction. The roller shall have staggered, uniformly spaced tamping feet and be equipped with suitable cleaners. The weight of the roller shall not be less than 2,500 pounds per foot of width. Each layer placed should receive 4 passes of this equipment to attain the necessary compaction.

2. Rubber tired roller. The maximum layer thickness before compaction shall be 6 inches. A pneumatic roller, loaded scraper, or similar construction equipment may be used. The wheels of this equipment must make a minimum of 2 passes over each lift before a new lift is placed. Farm tractors or other rubber tired agricultural equipment are not acceptable compaction tools unless approved by the engineer.

3. Track equipped machines (bulldozer). The maximum layer thickness before compaction shall be 4 inches. The tracks must have a minimum contact pressure of 10 psi and must make at least 4 passes over the surface of each lift before a new lift is placed.

Fill not meeting the specified requirements shall be reworked or removed and replaced with acceptable fill.

VI. SEEDING AND MULCHING

Unless otherwise specified, all disturbed areas shall be seeded and mulched. Seeding and mulching shall conform to the requirements shown on the drawings or as described in Practice Specification 342 - Critical Area Planting.

VII. CONSTRUCTION OPERATIONS

Construction operations shall be done in such a manner that erosion and air and water pollution are minimized and held within legal limits. The Owner, operation, Contractor or other persons will conduct all work and operations in accordance with proper safety codes for the type of construction being performed with due regards to the safety of all persons and property.