

**NATURAL RESOURCES CONSERVATION SERVICE
CONSTRUCTION SPECIFICATIONS**

POND SEALING OR LINING - FLEXIBLE MEMBRANE

Code 521A

SCOPE

The work shall consist of placing a flexible membrane in a pond to the elevations, grades, and cross sections as shown on the drawings or as staked in the field.

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, operator, 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.

The completed job shall be workmanlike and present a good appearance.

SUBGRADE PREPARATION

The area to be lined shall be drained and allowed to dry until the surface is firm and can support the men/women and equipment that must travel over it during installation of the lining.

All banks and fills in the area to be lined must be sloped no steeper than 1:1 for exposed linings and 2½ horizontal to 1 vertical for buried linings.

The foundation area for flexible membrane linings shall be smooth and free of projections that can damage the lining. Stumps and roots shall be removed. Rocks, hard clods, and other such material shall be removed, rolled so as to provide a smooth surface, or covered with a cushion of fine soil.

When specified, an effective sterilant shall be applied to the subgrade at the rate recommended by the manufacturer.

An anchor trench shall be excavated completely around the area to be lined at the planned elevation of the top of the lining. The trench shall be 8 to 10 inches deep and approximately 12 inches wide.

PLACEMENT

Membranes shall be loosely spread over the subgrade. Polyethylene film requires about 5 percent slack for satisfactory results. All field splices shall be made according to the manufacturer's recommended technique, using materials furnished for the purpose. The joints shall be watertight and capable of maintaining their integrity throughout the expected life of the lining.

Approximately 8 inches of the top of the lining shall be placed in the anchor trench and anchored with compacted backfill.

For covered membranes, the material to be used as a protective cover shall be free of large clods, sharp rocks, sticks, and other objects that can puncture the lining. The cover shall be placed to the specified depth without damage to the membrane.

PROTECTION

Treated areas shall be protected from puncture by livestock trampling. Areas near the normal waterline and points of concentrated surface flow into the pond shall be protected against erosion.

MATERIALS

All materials are to meet the requirements indicated on the plans and specifications.

All lining material shall be free of damage or defect. Each package delivered to the job site shall bear the name of the material, the manufacturer's name or symbol, the quantity therein, and the thickness or weight of the material.

VEGETATIVE COVER

Unless otherwise specified, a protective cover of vegetation shall be established on the disturbed area outside of the treated area. The planting of vegetative materials shall conform to the requirements of NRCS conservation practice standard Critical Area Planting, Code 342.