

Practice: 521A - Pond Sealing or Lining, Flexible Membrane

Scenario: #2 - Flexible Membrane - Uncovered with liner drainage or venting

Scenario Description:

Installation of a flexible geosynthetic membrane liner, uncovered, to reduce seepage from ponds or waste storage impoundment structures. Practice implementation includes a geotextile or soil cushion to protect the liner from subgrade damage, and liner drainage or venting. Associated practices include PS378 Pond, PS313 Waste Storage Facility.

Before Situation:

In-place soils at site exhibit seepage rates in excess of acceptable limits.

After Situation:

Water conservation and environmental protection provided by limiting seepage losses from ponds or waste storage impoundments.

Scenario Feature Measure: Surface area of Liner Material (including anchorage)

Scenario Unit: Square Yard

Scenario Typical Size: 2,420

Scenario Cost: \$29,575.04

Scenario Cost/Unit: \$12.22

Cost Details (by category):

| Component Name | ID | Component Description | Unit | Price (\$/unit) | Quantity | Cost |
|-------------------------------|------|---|-------------|-----------------|----------|-------------|
| Equipment/Installation | | | | | | |
| Geotextile, woven | 42 | Woven Geotextile Fabric. Includes materials, equipment and labor | Square Yard | \$2.06 | 2420 | \$4,985.20 |
| Labor | | | | | | |
| Specialist Labor | 235 | Labor requiring a specialized skill set: Includes Agronomists, Foresters, Biologists, etc. to provide additional technical information during the planning and implementation of the practice. Does not include NRCS or TSP services. | Hour | \$94.22 | 32 | \$3,015.04 |
| Skilled Labor | 230 | Labor requiring a high level skill set: Includes carpenters, welders, electricians, conservation professionals involved with data collection, monitoring, and or record keeping, etc. | Hour | \$23.91 | 40 | \$956.40 |
| Materials | | | | | | |
| Synthetic Liner, 40 mil | 1387 | Synthetic 40 mil HDPE, LLDPE, EPDM, etc membrane liner material. Includes materials and shipping only. | Square Yard | \$5.65 | 2420 | \$13,673.00 |
| Geonet | 1778 | Geosynthetic drainage liner, typically HDPE of 300 mil thickness. Includes materials and shipping only. | Square Yard | \$2.87 | 2420 | \$6,945.40 |