

Scenario Worksheet

Practice and Scenario Description:

Information Type	Data
Region	Appalachian
State	North Carolina
Discipline Group	Engineering General
Practice Code/Name	521A - Pond Sealing or Lining, Flexible Membrane
Scenario ID	1
Scenario Name	Flexible Membrane - Uncovered without 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. Associated practices include P5378 Pond, P5313 Waste Storage Facility.
Before Practice Situation	In-place soils at site exhibit seepage rates in excess of acceptable limits.
After Practice 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	2420

Cost Summary:

Cost Category	Scenario Cost	Scenario Cost/Unit
Materials	\$1,742.40	\$0.72
Equipment/Installation	\$5,106.20	\$2.11
Labor	\$3,361.44	\$1.39
Mobilization	\$101.45	\$0.04
Acquisition of Technical Knowledge	\$0.00	\$0.00
Foregone Income	\$0.00	\$0.00
Total	\$10,311.49	\$4.26

Cost Details:

Cost Category	Component ID	Component Name	Component Description	Unit	Price (\$/unit)	Quantity	Cost
Materials	1387	Synthetic Liner, 40 mil	Synthetic 40 mil HDPE, LLDPE, EPDM, etc membrane liner material. Materials only.	Square Foot	\$0.72	2420	\$1,742.40
Equipment/Installation	42	Geotextile, woven	Woven Geotextile Fabric. Includes materials, equipment and labor	Square Yard	\$2.11	2420	\$5,106.20
Labor	235	Specialist Labor	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	\$75.07	32	\$2,402.24
Labor	230	Skilled Labor	Labor requiring a high level skill set: Includes carpenters, welders, electricians, conservation professionals involved with data collection, monitoring, and or record keeping, etc.	Hour	\$23.98	40	\$959.20
Mobilization	1141	Mobilization, Skilled labor	Mobilization of skilled labor: Includes carpenters, welders, electricians, conservation professionals involved with data collection, monitoring, and or record keeping, etc.	Hour	\$23.15	1	\$23.15
Mobilization	1146	Mobilization, Specialist Labor	Mobilization of Specialist Labor. Includes Agronomists, Foresters, Biologists, etc.	Hour	\$77.30	1	\$77.30
Mobilization	1043	Mobilization, Material, distance > 50 miles	Mobilization cost of materials for special cases where the distance from the supplier delivery point to the job site exceeds 50 miles. The costs for shipping by UPS or bulk freight shipping to a location within 50 miles of the job site have already been included in the component price.	Dollar	\$1.00	1	\$1.00