Practice: 521D - Pond Sealing or Lining, Compacted Clay Treatment

Scenario # 1 Material haul < 1 mile

Scenario Description: **Actual Scenario # 1** **New York**

A compacted soil liner treated with compacted clay is constructed to reduce seepage from ponds or waste storage impoundment structures. Material is hauled from less than 1 mile away from site. Practice implementation includes compaction of the soil liner under proper moisture conditions to the designed liner thickness, and soil cover to protect the finished liner.

Associated practices: Pond (378), Waste Storage Facility (313), and other waste impoundments

Before Practice Situation:

Soils on-site exhibit seepage rates in excess of acceptable limits. An adequate supply of soil suitable for constructing a clay liner without amendments is available at an economical haul distance within 1 mile of the site.

After Practice Situation:

A 12" thick compacted clay liner with 6" thick of soil cover is installed over 1 acre. Water conservation and environmental protection are provided by limiting seepage losses from ponds or waste storage impoundments.

Scenario Feature Measure:

Volume of Liner Material (including volume of soil cover, as needed)

Scenario Typical Size:	2420	Cubic Yard	Tot Unit Cost	$14.46

Cost Category	Component Name	Quantity	Unit	Unit Cost	Cost
Equip./Install.	Earthfill, Roller Compacted	2420	Cubic yard	$4.60	$11,132.00
Equip./Install.	Excavation, clay, large equipment,	1613	Cubic Yard	$7.12	$11,484.56
Equip./Install.	Excavation, common earth, large	2420	Cubic Yard	$3.98	$9,631.60
Labor	Specialist Labor	8	Hour	$105.46	$843.68
Mobilization	Mobilization, medium equipment	1	Each	$282.78	$282.78
Mobilization	Mobilization, large equipment	3	Each	$539.90	$1,619.70
				Total Cost:	$34,994.32

Payment types:

PayType	Unit Payment	PayType	Unit Payment
EQIP	$10.85	EQIP-HU	$13.01
WHIP	$0.00	WHIP-HU	$0.00

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Scenario # 2 Material haul > 1 mile

Scenario Description: **Actual Scenario # 2** **New York**

A compacted soil liner treated with compacted clay is constructed to reduce seepage from ponds or waste storage impoundment structures. Material is hauled from over 1 mile away from site. Practice implementation includes compaction of the soil liner under proper moisture conditions to the designed liner thickness, and soil cover to protect the finished liner.

Associated practices: Pond (378), Waste Storage Facility (313), and other waste impoundments

Before Practice Situation:

Soils on-site exhibit seepage rates in excess of acceptable limits. An adequate supply of soil suitable for constructing a clay liner without amendments is available at an economical haul distance over 1 mile from the site.

After Practice Situation:

A 12” thick compacted clay liner with 6” thick of soil cover is installed over 1 acre. Water conservation and environmental protection are provided by limiting seepage losses from ponds or waste storage impoundments. The typical haul distance is 3.3 miles.

Scenario Feature Measure:

Volume of Liner Material (including volume of soil cover, as needed)

Scenario Typical Size:	2420	Cubic Yard	Tot Unit Cost	$15.27

Cost Category	Component Name	Quantity	Unit	Unit Cost	Cost
Equip./Install.	Excavation, Common Earth, side	2420	Cubic yard	$2.48	$6,001.60
Equip./Install.	Earthfill, Roller Compacted	2420	Cubic yard	$4.60	$11,132.00
Equip./Install.	Excavation, clay, large equipment,	1613	Cubic Yard	$2.82	$4,548.66
Equip./Install.	Excavation, common earth, large	2420	Cubic Yard	$3.98	$9,631.60
Equip./Install.	Hauling, bulk, highway truck	8065	Cubic Yard Mile	$0.36	$2,903.40
Labor	Specialist Labor	8	Hour	$105.46	$843.68
Mobilization	Mobilization, medium equipment	1	Each	$282.78	$282.78
Mobilization	Mobilization, large equipment	3	Each	$539.90	$1,619.70
				Total Cost:	$36,963.42

Payment types:

PayType	Unit Payment	PayType	Unit Payment
EQIP	$11.46	EQIP-HU	$13.75
WHIP	$0.00	WHIP-HU	$0.00