

Practice: 356 - Dike

Scenario # 1 Material haul < 1 mile

Scenario Description:

Louisiana

Construction of a barrier, constructed of an earthen embankment, to control water level. Embankment structure to provide adequate freeboard, allowance for settlement, and foundation and embankment stability. Material haul < 1 mile. Associated practices include, but are not limited to: PS327 Conservation Cover, PS656 Constructed Wetland, PS342 Critical Area Planting, PS378 Ponds, PS382 Fence, PS464 Irrigation Land Levelling, PS500 Obstruction Removal, PS528 Prescribed Grazing, PS587 Structure for Water Control, PS620 Underground Outlet, PS645 Upland Wildlife Management, PS658 Wetland Creation, PS659 Wetland Enhancement, PS657 Wetland Restoration, PS644 Wetland Wildlife Habitat Management.

Before Practice Situation:

Site is subject to flooding or inundation which poses a potential hazard to public safety, damage to land or property. Site may also require control of water level for purposes connected with crop production; fish and wildlife management; or wetland maintenance, improvement, restoration, or construction. An adequate quantity of soil suitable for constructing an earthen dike is available at an economical haul distance. Material haul < 1 mile.

After Practice Situation:

Water level controlled by a stable earthen structure. Potential hazard to public safety, land or property mitigated; environmental benefit provided.

Scenario Feature Measure:

Volume of Earthfill (including volume of soil berm, as needed)

Scenario Typical Size:	4500	Cubic Yard	Unit Cost	\$3.52
-------------------------------	------	------------	-----------	--------

Cost Category	Component Name	Quantity	Unit	Unit Cost	Cost
Equip./Install.	Earthfill, Roller Compacted	4500	Cubic yard	\$3.32	\$14,940.00
Mobilization	Mobilization, large equipment	3	Each	\$249.71	\$749.13
Mobilization	Mobilization, medium equipment	1	Each	\$133.51	\$133.51
				Total Cost:	\$15,822.64

Practice: 356 - Dike

Scenario # 2 Material haul > 1 mile

Scenario Description:

Louisiana

Construction of a barrier, constructed of an earthen embankment, to control water level. Embankment structure to provide adequate freeboard, allowance for settlement, and foundation and embankment stability. Material haul > 1 mile. Associated practices include, but are not limited to: PS327 Conservation Cover, PS656 Constructed Wetland, PS342 Critical Area Planting, PS378 Ponds, PS382 Fence, PS464 Irrigation Land Levelling, PS500 Obstruction Removal, PS528 Prescribed Grazing, PS587 Structure for Water Control, PS620 Underground Outlet, PS645 Upland Wildlife Management, PS658 Wetland Creation, PS659 Wetland Enhancement, PS657 Wetland Restoration, PS644 Wetland Wildlife Habitat Management.

Before Practice Situation:

Site is subject to flooding or inundation which poses a potential hazard to public safety, damage to land or property. Site may also require control of water level for purposes connected with crop production; fish and wildlife management; or wetland maintenance, improvement, restoration, or construction. An adequate quantity of soil suitable for constructing an earthen dike is available at an economical haul distance. Material haul > 1 mile.

After Practice Situation:

Water level controlled by a stable earthen structure. Potential hazard to public safety, land or property mitigated; environmental benefit provided.

Scenario Feature Measure:

Volume of Earthfill (including volume of soil berm, as needed)

Scenario Typical Size:	4500	Cubic Yard	Unit Cost	\$4.02
-------------------------------	------	------------	-----------	--------

Cost Category	Component Name	Quantity	Unit	Unit Cost	Cost
Equip./Install.	Hauling, bulk, highway truck	9000	Cubic Yard Mile	\$0.25	\$2,250.00
Equip./Install.	Earthfill, Roller Compacted	4500	Cubic yard	\$3.32	\$14,940.00
Mobilization	Mobilization, large equipment	3	Each	\$249.71	\$749.13
Mobilization	Mobilization, medium equipment	1	Each	\$133.51	\$133.51
				Total Cost:	\$18,072.64

Practice: 356 - Dike

Scenario # 3 Shallow Water Area

Scenario Description:

Louisiana

Construction of a barrier, constructed of an earthen embankment, to control water level. Embankment structure to provide adequate freeboard, allowance for settlement, and foundation and embankment stability. Associated practices include, but are not limited to: PS327 Conservation Cover, PS656 Constructed Wetland, PS 342 Critical Area Planting, (378) Ponds, (382) Fence, (464) Irrigation Land Levelling, (500) Obstruction Removal, (528) Prescribed Grazing, (587) Structure for Water Control, (620) Underground Outlet, (645) Upland Wildlife Management, (658) Wetland Creation, (659) Wetland Enhancement, (657) Wetland Restoration, (644) Wetland Wildlife Habitat Management.

Before Practice Situation:

Site requires control of water level for purposes connected with crop production; fish and wildlife management; or wetland maintenance, improvement, restoration, or construction. An adequate quantity of soil suitable for constructing an earthen dike is available at an economical haul distance.

After Practice Situation:

A 2,640 foot long Class III dike is constructed with an average height of 3 feet, top width of 10 feet, and 3:1 side slopes. The water level is controlled by a stable earthen structure, and environmental benefit provided.

Scenario Feature Measure:

Volume of Earthfill (including volume of soil berm, as needed)

Scenario Typical Size:	5573	Cubic Yard	Unit Cost	\$3.48
-------------------------------	------	------------	-----------	--------

Cost Category	Component Name	Quantity	Unit	Unit Cost	Cost
Equip./Install.	Earthfill, Roller Compacted	5573	Cubic yard	\$3.32	\$18,502.36
Mobilization	Mobilization, large equipment	3	Each	\$249.71	\$749.13
Mobilization	Mobilization, medium equipment	1	Each	\$133.51	\$133.51
				Total Cost:	\$19,385.00

Practice: 356 - Dike

Scenario # 4 Material Haul<1 Moisture control

Scenario Description:

Louisiana

Construction of a barrier, constructed of an earthen embankment, to control water level. Embankment structure to provide adequate freeboard, allowance for settlement, and foundation and embankment stability. The proper moisture content of the compacted material is necessary to insure necessary compaction. Associated practices include, but are not limited to: PS327 Conservation Cover, PS656 Constructed Wetland, PS342 Critical Area Planting, PS378 Ponds, PS382 Fence, PS464 Irrigation Land Levelling, PS500 Obstruction Removal, PS528 Prescribed Grazing, PS587 Structure for Water Control, PS620 Underground Outlet, PS645 Upland Wildlife Management, PS658 Wetland Creation, PS659 Wetland Enhancement, PS657 Wetland Restoration, PS644 Wetland Wildlife Habitat Management.

Before Practice Situation:

Site is subject to flooding or inundation which poses a potential hazard to public safety, damage to land or property. Site may also require control of water level for purposes connected with crop production; fish and wildlife management; or wetland maintenance, improvement, restoration, or construction. An adequate quantity of soil suitable for constructing an earthen dike is available at an economical haul distance.

After Practice Situation:

Water level controlled by a stable earthen structure. Potential hazard to public safety, land or property mitigated; environmental benefit provided. Structure is stable due to the proper moisture content of soil during compaction.

Scenario Feature Measure:

Volume of Earthfill (including volume of soil berm, as needed)

Scenario Typical Size:	4500	Cubic Yard	Unit Cost	\$3.96
-------------------------------	------	------------	-----------	--------

Cost Category	Component Name	Quantity	Unit	Unit Cost	Cost
Equip./Install.	Earthfill, Roller Compacted	4500	Cubic yard	\$3.32	\$14,940.00
Equip./Install.	Tractor, agricultural, 60 HP	16	Hour	\$19.28	\$308.48
Labor	Equipment Operators, Heavy	16	Hour	\$25.62	\$409.92
Mobilization	Mobilization, medium equipment	2	Each	\$133.51	\$267.02
Mobilization	Mobilization, large equipment	6	Each	\$249.71	\$1,498.26
Labor	Equipment Operators, Heavy	16	Hour	\$25.62	\$409.92
				Total Cost:	\$17,833.60

Practice: 356 - Dike

Scenario # 5 Material haul>1 Moisture control

Scenario Description:

Louisiana

Construction of a barrier, constructed of an earthen embankment, to control water level. Embankment structure to provide adequate freeboard, allowance for settlement, and foundation and embankment stability. The proper moisture content of the compacted material is necessary to insure necessary compaction. Associated practices include, but are not limited to: PS327 Conservation Cover, PS656 Constructed Wetland, PS342 Critical Area Planting, PS378 Ponds, PS382 Fence, PS464 Irrigation Land Levelling, PS500 Obstruction Removal, PS528 Prescribed Grazing, PS587 Structure for Water Control, PS620 Underground Outlet, PS645 Upland Wildlife Management, PS658 Wetland Creation, PS659 Wetland Enhancement, PS657 Wetland Restoration, PS644 Wetland Wildlife Habitat Management.

Before Practice Situation:

Site is subject to flooding or inundation which poses a potential hazard to public safety, damage to land or property. Site may also require control of water level for purposes connected with crop production; fish and wildlife management; or wetland maintenance, improvement, restoration, or construction. An adequate quantity of soil suitable for constructing an earthen dike is available at an economical haul distance.

After Practice Situation:

Water level controlled by a stable earthen structure. Potential hazard to public safety, land or property mitigated; environmental benefit provided. Structure is stable due to the proper moisture content of soil during compaction.

Scenario Feature Measure:

Volume of Earthfill (including volume of soil berm, as needed)

Scenario Typical Size:	4500	Cubic Yard	Unit Cost	\$4.37
-------------------------------	------	------------	-----------	--------

Cost Category	Component Name	Quantity	Unit	Unit Cost	Cost
Labor	Equipment Operators, Heavy	16	Hour	\$25.62	\$409.92
Mobilization	Mobilization, large equipment	6	Each	\$249.71	\$1,498.26
Equip./Install.	Tractor, agricultural, 60 HP	16	Hour	\$19.28	\$308.48
Equip./Install.	Hauling, bulk, highway truck	9000	Cubic Yard Mile	\$0.25	\$2,250.00
Equip./Install.	Earthfill, Roller Compacted	4500	Cubic yard	\$3.32	\$14,940.00
Mobilization	Mobilization, medium equipment	2	Each	\$133.51	\$267.02
				Total Cost:	\$19,673.68