

**Scenario Worksheet**

**Practice and Scenario Description:**

Information Type	Data
Region	New England
State	Connecticut
Discipline Group	Wildlife Wetland
Practice Code/Name	657 - Wetland Restoration
Scenario ID	3
Scenario Name	Depression Sediment Removal and Ditch Plug
Scenario Description	A Depressional HGM class wetland is to be restored. The tract size is 15 acres, and the actual wetland size is 10 acres. The site is a recharge depression, fed only from surface runoff. Resource Concerns are: 4-SOIL QUALITY DEGRADATION - Organic matter depletion, 11- WATER QUALITY DEGRADATION - Excess nutrients in surface and ground waters, 12 - WATER QUALITY DEGRADATION - Pesticides transported to surface and ground waters, 16 - WATER QUALITY DEGRADATION - Excessive sediment in surface waters, 18 - DEGRADED PLANT CONDITION - Undesirable plant productivity and health, 19 - DEGRADED PLANT CONDITION, Inadequate structure and composition, 22- INADEQUATE HABITAT FOR FISH AND WILDLIFE - Habitat degradation.
Before Practice Situation	The wetland has been converted to agricultural production, and the tract drained with a surface ditch. The ditch is 4' average depth, and 12 feet average width. The wetland receives surface runoff from an adjacent upland watershed, and ponds water on a shallow perched layer. The watershed has been converted from native to agricultural landuse, and the resultant soil erosion has deposited 6" of sediment in the bottom of the depression.
After Practice Situation	The ditch has been plugged by the installation of a 50' long section of compacted clay fill, and the deposition has been removed down to the original topsoil layer. A herbaceous plant community has been seeded. Facilitative practices include Conservation Cover. Restoration of hydrology and plant community functions will improve the WATER QUALITY and DEGRADED PLANT CONDITION concerns listed above. The hydrologic and vegetative practices will address the SOIL QUALITY DEGRADATION and INADEQUATE HABITAT FOR FISH AND WILDLIFE concerns.
Scenario Feature Measure	Acres of Tract
Scenario Unit	Acre
Scenario Typical Size	15

**Cost Summary:**

Cost Category	Scenario Cost	Scenario Cost/Unit
Materials	\$0.00	\$0.00
Equipment/Installation	\$18,385.85	\$1,225.72
Labor	\$0.00	\$0.00
Mobilization	\$1,026.20	\$68.41
Acquisition of Technical Knowledge	\$0.00	\$0.00
Foregone Income	\$0.00	\$0.00
Total	\$19,412.05	\$1,294.14

**Cost Details:**

Cost Category	Component ID	Component Name	Component Description	Unit	Price (\$/unit)	Quantity	Cost
Equipment/Installation	48	Excavation, Common Earth, side cast, small equipment	Bulk excavation and side casting of common earth with hydraulic excavator with less than 1 CY capacity. Includes equipment and labor.	Cubic yard	\$2.19	8067	\$17,666.73
Equipment/Installation	49	Earthfill, Roller Compacted	Earthfill, roller or machine compacted, includes equipment and labor	Cubic yard	\$4.04	178	\$719.12
Mobilization	1140	Mobilization, large equipment	Equipment >150HP or typical weights greater than 30,000 pounds or loads requiring over width or over length permits.	Each	\$513.10	2	\$1,026.20

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Region	New England
State	Connecticut
Discipline Group	Wildlife Wetland
Practice Code/Name	657 - Wetland Restoration
Scenario ID	4
Scenario Name	Estuarine Fringe Levee Removal
Scenario Description	An Estuarine Fringe HGM landscape is to be restored. The wetland is subject to tidally induced water level fluctuations. The tract size is 120 acres, and the wetland area is 100 acres. Resource Concerns are: 4 - SOIL QUALITY DEGRADATION - Organic matter depletion, 11 - WATER QUALITY DEGRADATION - Excess nutrients in surface and ground waters, 12 - WATER QUALITY DEGRADATION - Pesticides transported to surface and ground waters, 16 - WATER QUALITY DEGRADATION - Excessive sediment in surface waters, 18 - DEGRADED PLANT CONDITION - Undesirable plant productivity and health, 19 - DEGRADED PLANT CONDITION, Inadequate structure and composition, 22 - INADEQUATE HABITAT FOR FISH AND WILDLIFE - Habitat degradation.
Before Practice Situation	The wetland has been converted to agricultural production by construction of a dike to prevent tidal flows. The dike has a culvert with a flapgate to allow surface water to flow out, but prevents tide water from entering. The dike is 7 feet high above the current marsh surface. The dike has side slopes of 3:1, with a 12 foot top. A suitable seedbank exists for natural regeneration of the original plant community. The soils are organic, and loss of hydrology has caused the land surface to subside 3 feet due to aerobic decomposition of organic matter (mineralization).
After Practice Situation	The dike has been breached in 4 locations, corresponding to the number of original inlet channels. The breach locations have 8 foot long steel sheet pile Structures for Water Control installed to prevent tidal surges from causing serious erosion on the subsided land surface. The original flap gate culvert has been removed. The dike is 4 feet higher than the weir crests, so the excavations are 4 feet by 8 feet long, with 3:1 side slopes. The culvert has been removed and salvaged by the landowner. Facilitating practices are Structure for Water Control. Restoration of hydrology and plant community functions will improve the WATER QUALITY and DEGRADED PLANT CONDITION concerns listed above. The hydrologic and vegetative practices will address the SOIL QUALITY DEGRADATION and INADEQUATE HABITAT FOR FISH AND WILDLIFE concerns.
Scenario Feature Measure	Acres of Tract
Scenario Unit	Acre
Scenario Typical Size	120

**Cost Summary:**

Cost Category	Scenario Cost	Scenario Cost/Unit
Materials	\$0.00	\$0.00
Equipment/Installation	\$621.96	\$5.18
Labor	\$0.00	\$0.00
Mobilization	\$1,539.30	\$12.83
Acquisition of Technical Knowledge	\$0.00	\$0.00
Foregone Income	\$0.00	\$0.00
<b>Total</b>	<b>\$2,161.26</b>	<b>\$18.01</b>

**Cost Details:**

Cost Category	Component ID	Component Name	Component Description	Unit	Price (\$/unit)	Quantity	Cost
Equipment/Installation	48	Excavation, Common Earth, side cast, small equipment	Bulk excavation and side casting of common earth with hydraulic excavator with less than 1 CY capacity. Includes equipment and labor.	Cubic yard	\$2.19	284	\$621.96
Mobilization	1140	Mobilization, large equipment	Equipment >150HP or typical weights greater than 30,000 pounds or loads requiring over width or over length permits.	Each	\$513.10	3	\$1,539.30
Foregone Income	1276	Foregone income, place holder	This is a place holder component for foregone income. The existence of this component indicates that the practice is eligible for foregone income payment. The component will be replaced when the actual FI components become available.	Acre	\$0.00	120	\$0.00

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## Practice and Scenario Description:

<b>Information Type</b>	<b>Data</b>
Region	New England
State	Connecticut
Discipline Group	Wildlife Wetland
Practice Code/Name	657 - Wetland Restoration
Scenario ID	8
Scenario Name	Wetland Hydrologic Barrier Removal
Scenario Description	A wetland complex has been altered due road or trail crossings impairs hydrologic connectivity, function, and can result in altered plant communities. Water typically higher on one side of the road and lower due to the road berm. The crossing alters the wetland hydrology which in turn can alter historic plant communities. Roads will be retired and road/trail berms removed or berms breached with low water crossings in several locations to restore hydrology. Wetland range in size fro 0.5 acres to 50 acres.Resource concerns are: 18 - DEGRADED PLANT CONDITION - Undesirable plant productivity and health, 19 - DEGRADED PLANT CONDITION, Inadequate structure and composition, 22- INADEQUATE HABITAT FOR FISH AND WILDLIFE - Habitat degradation.
Before Practice Situation	A road or trail system used to access or manage land is bisecting and altering any wetland type. The road/trail berm and associated borrow ditch has altered hydrologic connectivity, water flow and altered the historic plant community. Alteration of wetlands by trails or access roads can occur on any land use.
After Practice Situation	Road/trail fill material and culverts are removed by heavy equipment and fill placed back in the borrow ditch from which it was taken. Excess fill will be trucked offsite. Where complete road/trail removal is not a viable alternative, the road or trail will be breached in as many locations as feasible and the bottom stabilized with gravel and compacted to allow infrequent crossing by equipment.
Scenario Feature Measure	footprint of trail removed assume 14 foot width x 1000 foot long
Scenario Unit	Acre
Scenario Typical Size	0.35

## Cost Summary:

Cost Category	Scenario Cost	Scenario Cost/Unit
Materials	\$0.00	\$0.00
Equipment/Installation	\$2,222.72	\$6,350.63
Labor	\$1,212.48	\$3,464.23
Mobilization	\$1,026.20	\$2,932.00
Acquisition of Technical Knowledge	\$0.00	\$0.00
Foregone Income	\$0.00	\$0.00
Total	\$4,461.40	\$12,746.86

## Cost Details:

Cost Category	Component ID	Component Name	Component Description	Unit	Price (\$/unit)	Quantity	Cost
Equipment/Installation	1228	Excavation, common earth, wet, side cast, large equipment	Bulk excavation and side casting of wet common earth with hydraulic excavator or dragline with greater than 1 CY capacity. Includes equipment and labor.	Cubic Yard	\$4.08	0	\$0.00
Equipment/Installation	1401	Truck, dump, 8 CY	Dump truck for moving bulk material. Typically capacity is 12 ton or 8 cubic yards. Includes equipment only.	Hour	\$44.87	16	\$717.92
Equipment/Installation	931	Hydraulic Excavator, 1 CY	Track mounted hydraulic excavator with bucket capacity range of 0.8 to 1.5 CY. Equipment and power unit costs. Labor not included.	Hour	\$94.05	16	\$1,504.80
Labor	233	Equipment Operators, Heavy	Includes: Cranes, Hydraulic Excavators >=50 HP, Dozers, Paving Machines, Rock Trenchers, Trenchers >=12", Dump Trucks, Ag Equipment >=150 HP, Scrapers, Water Wagons.	Hour	\$34.10	16	\$545.60
Labor	234	Supervisor or Manager	Labor involving supervision or management activities. Includes crew supervisors, foremen and farm/ranch managers time required for adopting new technology, etc.	Hour	\$41.68	16	\$666.88
Mobilization	1140	Mobilization, large equipment	Equipment >150HP or typical weights greater than 30,000 pounds or loads requiring over width or over length permits.	Each	\$513.10	2	\$1,026.20

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## Practice and Scenario Description:

<b>Information Type</b>	<b>Data</b>
Region	New England
State	Connecticut
Discipline Group	Wildlife Wetland
Practice Code/Name	657 - Wetland Restoration
Scenario ID	1
Scenario Name	Mineral or Organic Flat
Scenario Description	A Mineral Flat wetland is to be restored. The tract size is 160 Acres consists of surface saturated soils interspersed with shallow depressions that are not depressional class HGM wetlands. The wetland size is also 160 acres. Resource Concerns are: 4-SOIL QUALITY DEGRADATION - Organic matter depletion, 11- WATER QUALITY DEGRADATION - Excess nutrients in surface and ground waters, 12 - WATER QUALITY DEGRADATION - Pesticides transported to surface and ground waters, 16 - WATER QUALITY DEGRADATION - Excessive sediment in surface waters, 18 - DEGRADED PLANT CONDITION - Undesirable plant productivity and health, 19 - DEGRADED PLANT CONDITION, Inadequate structure and composition, 22- INADEQUATE HABITAT FOR FISH AND WILDLIFE - Habitat degradation.
Before Practice Situation	The site has been drained with a tile drain system. A suitable seed bank exists for natural regeneration to re-establish hydrophytic vegetation. The site is in agricultural production.
After Practice Situation	The drain tiles have been rendered non-functional by excavating 50 foot lengths of tile mains and laterals in 24 separate locations, and backfilling with excavated earth, which is compacted with the excavator bucket. There are no facilitating practices. Restoration of hydrology and plant community functions will improve the WATER QUALITY and DEGRADED PLANT CONDITION concerns listed above. The hydrologic and vegetative practices will address the SOIL QUALITY DEGRADATION and INADEQUATE HABITAT FOR FISH AND WILDLIFE concerns.
Scenario Feature Measure	Acres of Tract
Scenario Unit	Acre
Scenario Typical Size	160

## Cost Summary:

Cost Category	Scenario Cost	Scenario Cost/Unit
Materials	\$0.00	\$0.00
Equipment/Installation	\$1,119.84	\$7.00
Labor	\$573.60	\$3.59
Mobilization	\$274.33	\$1.71
Acquisition of Technical Knowledge	\$0.00	\$0.00
Foregone Income	\$0.00	\$0.00
Total	\$1,967.77	\$12.30

## Cost Details:

Cost Category	Component ID	Component Name	Component Description	Unit	Price (\$/unit)	Quantity	Cost
Equipment/Installation	930	Hydraulic Excavator, .5 CY	Track mounted hydraulic excavator with bucket capacity range of 0.3 to 0.8 CY. Equipment and power unit costs. Labor not included.	Hour	\$46.66	24	\$1,119.84
Labor	232	Equipment Operators, Light	Includes: Skid Steer Loaders, Hydraulic Excavators <50 HP, Trenchers <12", Ag Equipment <150 HP, Pickup Trucks, Forklifts, Mulchers	Hour	\$23.90	24	\$573.60
Mobilization	1139	Mobilization, medium equipment	Equipment with 70-150 HP or typical weights between 14,000 and 30,000 pounds.	Each	\$274.33	1	\$274.33

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**Practice and Scenario Description:**

<b>Information Type</b>	<b>Data</b>
Region	New England
State	Connecticut
Discipline Group	Wildlife Wetland
Practice Code/Name	657 - Wetland Restoration
Scenario ID	5
Scenario Name	Riverine Channel and Floodplain Restoration
Scenario Description	A Riverine HGM landscape on a small stream on a low stream order riparian landscape has been converted to agricultural production. The stream channel has degraded. The reach is 1500 feet in length, and the tract size is 15 acres. The wetland area is 10 acres. Resource Concerns are: 4-SOIL QUALITY DEGRADATION - Organic matter depletion, 11- WATER QUALITY DEGRADATION - Excess nutrients in surface and ground waters, 12 - WATER QUALITY DEGRADATION - Pesticides transported to surface and ground waters, 16 - WATER QUALITY DEGRADATION - Excessive sediment in surface waters, 18 - DEGRADED PLANT CONDITION - Undesirable plant productivity and health, 19 - DEGRADED PLANT CONDITION, Inadequate structure and composition, 22- INADEQUATE HABITAT FOR FISH AND WILDLIFE - Habitat degradation.
Before Practice Situation	Channel incision has broken the lateral connectivity between the stream and floodplain. The conversion to cropland was accompanied by filling and leveling of backswamp, side channel, and oxbow features which formerly ponded water or exposed the floodplain groundwater table. The site no longer has access to floodwater or water surface profile supported groundwater. No suitable seed bank exists for natural regeneration of the original hydrophytic plant community, either in the channel, or on the floodplain.
After Practice Situation	The hydrology of the site is restored by the installation of a series of rock check structures to raise the stream water surface profile. Floodplain macrotopographic features replicating the original side channels, oxbows, and backswamps are constructed by excavation. Spoil is placed adjacent to the excavations to replicate natural depositional features. The average depth of the excavated features is 2 feet, and the surface area of the excavations is 25% of the tract size. The eroding stream bank is stabilized with soil bio-engineering features, and fish habitat improvement measures are installed in the channel. The tract is seeded to appropriate hydrophytic and upland vegetation, both woody and herbaceous. Facilitating practices are Streambank and Shoreline protection, Structure for Water Control, Conservation Cover, Tree/Shrub Establishment, and Stream Habitat Improvement and Management. Restoration of hydrology and plant community functions will improve the WATER QUALITY and DEGRADED PLANT CONDITION concerns listed above. The hydrologic and vegetative practices will address the SOIL QUALITY DEGRADATION and INADEQUATE HABITAT FOR FISH AND WILDLIFE concerns.
Scenario Feature Measure	Acres of Tract
Scenario Unit	Acre
Scenario Typical Size	15

**Cost Summary:**

Cost Category	Scenario Cost	Scenario Cost/Unit
Materials	\$0.00	\$0.00
Equipment/Installation	\$6,624.75	\$441.65
Labor	\$0.00	\$0.00
Mobilization	\$1,026.20	\$68.41
Acquisition of Technical Knowledge	\$0.00	\$0.00
Foregone Income	\$0.00	\$0.00
<b>Total</b>	<b>\$7,650.95</b>	<b>\$510.06</b>

**Cost Details:**

Cost Category	Component ID	Component Name	Component Description	Unit	Price (\$/unit)	Quantity	Cost
Equipment/Installation	48	Excavation, Common Earth, side cast, small equipment	Bulk excavation and side casting of common earth with hydraulic excavator with less than 1 CY capacity. Includes equipment and labor.	Cubic yard	\$2.19	3025	\$6,624.75
Mobilization	1140	Mobilization, large equipment	Equipment >150HP or typical weights greater than 30,000 pounds or loads requiring over width or over length permits.	Each	\$513.10	2	\$1,026.20
Foregone Income	1276	Foregone income, place holder	This is a place holder component for foregone income. The existence of this component indicates that the practice is eligible for foregone income payment. The component will be replaced when the actual FI components become available.	Acre	\$0.00	15	\$0.00

**Scenario Worksheet**

**Practice and Scenario Description:**

<b>Information Type</b>	<b>Data</b>
Region	New England
State	Connecticut
Discipline Group	Wildlife Wetland
Practice Code/Name	657 - Wetland Restoration
Scenario ID	2
Scenario Name	Riverine Levee Removal and Floodplain Features
Scenario Description	A Riverine HGM tract on a large floodplain is to be restored. It has been converted to agricultural production by surface ditching and clearing of woody vegetation. The size of the tract is 100 acres. The wetland extent is 60 acres, and 40 acres are adjacent non-wetland. Resource Concerns are: 4-SOIL QUALITY DEGRADATION - Organic matter depletion, 11- WATER QUALITY DEGRADATION - Excess nutrients in surface and ground waters, 12 - WATER QUALITY DEGRADATION - Pesticides transported to surface and ground waters, 16 - WATER QUALITY DEGRADATION - Excessive sediment in surface waters, 18 - DEGRADED PLANT CONDITION - Undesirable plant productivity and health, 19 - DEGRADED PLANT CONDITION, Inadequate structure and composition, 22- INADEQUATE HABITAT FOR FISH AND WILDLIFE - Habitat degradation.
Before Practice Situation	A levee prevents floodwater from entering the tract. The original cover was forest. The site is drained by surface ditches which collect surface water and direct it to the river through a flap gate structure. The site has been completely cleared, and no suitable adjacent seedwall exists for natural regeneration of forest species. The lateral connectivity between the channel and floodplain has been altered by construction of levees along the reach.
After Practice Situation	The hydrology of the site is restored with the installation of ditch plugs, and the excavation of macrotopographic features with an average depth of 6" over 30% of the wetland area. Excavated spoil is placed adjacent to the features on the wetland and adjacent non-wetland area with a maximum depth of 24 inches. The levee has been breached at the upstream and downstream ends of the tract reach, restoring dynamic stream flooding. The breach length is 150 feet long at both locations. Both the wetland and non-wetland areas are planted with a Bottomland Hardwood species mix. The levee breaches are armored with rock riprap. Facilitating practices include Grade Stabilization Structure and Tree and Shrub Planting. Restoration of hydrology and plant community functions will improve the WATER QUALITY and DEGRADED PLANT CONDITION concerns listed above. The hydrologic and vegetative practices will address the SOIL QUALITY DEGRADATION and INADEQUATE HABITAT FOR FISH AND WILDLIFE concerns.
Scenario Feature Measure	Acres of Tract
Scenario Unit	Acre
Scenario Typical Size	100

**Cost Summary:**

Cost Category	Scenario Cost	Scenario Cost/Unit
Materials	\$0.00	\$0.00
Equipment/Installation	\$36,178.80	\$361.79
Labor	\$0.00	\$0.00
Mobilization	\$1,539.30	\$15.39
Acquisition of Technical Knowledge	\$0.00	\$0.00
Foregone Income	\$0.00	\$0.00
<b>Total</b>	<b>\$37,718.10</b>	<b>\$377.18</b>

**Cost Details:**

Cost Category	Component ID	Component Name	Component Description	Unit	Price (\$/unit)	Quantity	Cost
Equipment/Installation	48	Excavation, Common Earth, side cast, small equipment	Bulk excavation and side casting of common earth with hydraulic excavator with less than 1 CY capacity. Includes equipment and labor.	Cubic yard	\$2.19	16520	\$36,178.80
Mobilization	1140	Mobilization, large equipment	Equipment >150HP or typical weights greater than 30,000 pounds or loads requiring over width or over length permits.	Each	\$513.10	3	\$1,539.30

**Scenario Worksheet**

**Practice and Scenario Description:**

Information Type	Data
Region	New England
State	Connecticut
Discipline Group	Wildlife Wetland
Practice Code/Name	657 - Wetland Restoration
Scenario ID	6
Scenario Name	Tidal Marsh Phragmites Removal
Scenario Description	In coastal and estuarine wetland areas where tidal flow has been restored and invasive plants such as Phragmites has been eliminated there is a need to remove accumulated invasive plant rhizomes to facilitate natural restoration of native plant communities such as Spartina alterniflora, Spartina patens, and Iva frutescens and Distichlis spicatta. Normally excavating 0.5 to 1.0 foot of the material will remove the accumulated rhizomes. The resulting mud flats are then able to naturally be naturally revegetated. There may be situations when planting is required. Coastal wetland range in size from 1 acre to 500 acres. The marsh surface is excavated using low pressure excavation equipment. Coastal permitting agencies require the excavated materials to be removed from the wetland. Many projects requires installation of new culverts to allow flow through dikes and roads. Resource concerns include: Inadequate Habitat for Fish and Wildlife, Degrade plant condition. Facilitating practices include: 587 Structure for Watercontrol, 657 Wetland Restoration, 390 Riparian Herbaceous Cover.
Before Practice Situation	Coastal and estuarine wetlands are degraded due to growth of invasive plants such as Phragmites. The Phragmites has been eliminated using a variety of techniques including restoration of tidal flow, invasive plant removal, and tidal channel restoration. Large areas of dead rhizomes, usually 0.5 to 1.0 feet in thickness prevent native vegetation from re-establishing.
After Practice Situation	The areas with dense mats of rhizomes are removed. Mud flats can be colonized by native plants such as: Spartina alterniflora, Spartina patens, and Iva frutescens and Distichlis spicatta. The restored area provides habitat for coastal wildlife.
Scenario Feature Measure	
Scenario Unit	Acre
Scenario Typical Size	1

**Cost Summary:**

Cost Category	Scenario Cost	Scenario Cost/Unit
Materials	\$0.00	\$0.00
Equipment/Installation	\$11,512.40	\$11,512.40
Labor	\$8,359.20	\$8,359.20
Mobilization	\$561.69	\$561.69
Acquisition of Technical Knowledge	\$0.00	\$0.00
Foregone Income	\$0.00	\$0.00
Total	\$20,433.29	\$20,433.29

**Cost Details:**

Cost Category	Component ID	Component Name	Component Description	Unit	Price (\$/unit)	Quantity	Cost
Equipment/Installation	929	Dozer, 80 HP	Track mounted Dozer with horsepower range of 60 to 90. Equipment and power unit costs. Labor not included.	Hour	\$55.58	80	\$4,446.40
Equipment/Installation	933	Skidsteer, 80 HP	Skidsteer loader with horsepower range of 60 to 90. Equipment and power unit costs. Labor not included.	Hour	\$35.33	200	\$7,066.00
Labor	232	Equipment Operators, Light	Includes: Skid Steer Loaders, Hydraulic Excavators <50 HP, Trenchers <12", Ag Equipment <150 HP, Pickup Trucks, Forklifts, Mulchers	Hour	\$23.90	280	\$6,692.00
Labor	234	Supervisor or Manager	Labor involving supervision or management activities. Includes crew supervisors, foremen and farm/ranch managers time required for adopting new technology, etc.	Hour	\$41.68	40	\$1,667.20
Mobilization	1138	Mobilization, small equipment	Equipment <70 HP but can't be transported by a pick-up truck or with typical weights between 3,500 to 14,000 pounds.	Each	\$187.23	3	\$561.69

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**Practice and Scenario Description:**

Information Type	Data
Region	New England
State	Connecticut
Discipline Group	Wildlife Wetland
Practice Code/Name	657 - Wetland Restoration
Scenario ID	7
Scenario Name	Wetland Restoration Sediment Removal
Scenario Description	A wetland complex has been altered due accumulation of sediments from adjacent landuse changes. The sediment accumulation has altered the plant composition, structure and hydrology of the wetland. Accumulated sediments will be removed to recreate the prior topography of the wetland so that native plants can become re-established. Removing the sediments will restore the wetland hydrology. Wetland range in size fro 0.5 acres to 50 acres. Resource concerns include: Habitat Fragmentation, Inadequate Cover/Shelter, Inadequate Food, Ihadequate Space. Associated practice include: 390 Riparian Herbaceous Cover, 659 Wetland Enhancement, 342 Critical Area Planting.
Before Practice Situation	In wetland areas associated with forestland, and cropland. Portions of the wetland has been altered due to deposition and accumulation of sediments
After Practice Situation	Define the size and extent of the practice that will be installed. Describe how the practice is typically installed to solve the resource problem.
Scenario Feature Measure	
Scenario Unit	Acre
Scenario Typical Size	1

Wetland Restoration

**Cost Summary:**

Cost Category	Scenario Cost	Scenario Cost/Unit
Materials	\$0.00	\$0.00
Equipment/Installation	\$13,892.00	\$13,892.00
Labor	\$7,653.60	\$7,653.60
Mobilization	\$1,026.20	\$1,026.20
Acquisition of Technical Knowledge	\$0.00	\$0.00
Foregone Income	\$0.00	\$0.00
Total	\$22,571.80	\$22,571.80

**Cost Details:**

Cost Category	Component ID	Component Name	Component Description	Unit	Price (\$/unit)	Quantity	Cost
Equipment/Installation	1401	Truck, dump, 8 CY	Dump truck for moving bulk material. Typically capacity is 12 ton or 8 cubic yards. Includes equipment only.	Hour	\$44.87	100	\$4,487.00
Equipment/Installation	931	Hydraulic Excavator, 1 CY	Track mounted hydraulic excavator with bucket capacity range of 0.8 to 1.5 CY. Equipment and power unit costs. Labor not included.	Hour	\$94.05	100	\$9,405.00
Labor	233	Equipment Operators, Heavy	Includes: Cranes, Hydraulic Excavators >=50 HP, Dozers, Paving Machines, Rock Trenchers, Trenchers >=12", Dump Trucks, Ag Equipment >=150 HP, Scrapers, Water Wagons.	Hour	\$34.10	200	\$6,820.00
Labor	234	Supervisor or Manager	Labor involving supervision or management activities. Includes crew supervisors, foremen and farm/ranch managers time required for adopting new technology, etc.	Hour	\$41.68	20	\$833.60
Mobilization	1140	Mobilization, large equipment	Equipment >150HP or typical weights greater than 30,000 pounds or loads requiring over width or over length permits.	Each	\$513.10	2	\$1,026.20