

Scenario Worksheet

Practice and Scenario Description:

Information Type	Data
Region	New England
State	Connecticut
Discipline Group	Wildlife Wetland
Practice Code/Name	399 - Fishpond Management
Scenario ID	4
Scenario Name	Aerator, subsurface
Scenario Description	Aerator added to existing fishpond to obtain desired oxygen levels. Typically 1 aerator needed per pond. Certain oxygen levels in the fishpond are needed for optimum vegetation, habitat and water quality. Oxygen levels and size of aerator needed are determined by a conservation planner, engineer or per existing supported data. Aerator planning and placement specifications can be found in "AEN-3: Aeration of ponds used in aquaculture". Resource concerns addressed include: Inadequate Habitat for Fish and Wildlife - Habitat degradation; Water Quality Degradation - Elevated water temperature. Associated Practice: Critical Area Planting - 342
Before Practice Situation	Existing fishpond has insufficient levels of oxygen available for desired fish species in pond. Habitat and water quality degraded, as well as health of the fish population.
After Practice Situation	Aerator sized appropriately for fishpond has been established and oxygen is at an optimum level. Participant will follow Operation and Maintenance guidance to ensure aerator maintained to continually provide appropriate oxygen levels for fishpond.
Scenario Feature Measure	Acre of pond managed
Scenario Unit	Acre
Scenario Typical Size	1

Cost Summary:

Cost Category	Scenario Cost	Scenario Cost/Unit
Materials	\$2,577.50	\$2,577.50
Equipment/Installation	\$70.30	\$70.30
Labor	\$102.84	\$102.84
Mobilization	\$400.67	\$400.67
Acquisition of Technical Knowledge	\$0.00	\$0.00
Foregone Income	\$0.00	\$0.00
Total	\$3,151.31	\$3,151.31

Cost Details:

Cost Category	Component ID	Component Name	Component Description	Unit	Price (\$/unit)	Quantity	Cost
Materials	1821	Aerator - subsurface	Aeration system, ponds, subsurface air. Includes shipping.	Each	\$2,470.00	1	\$2,470.00
Materials	977	Pipe, PVC, 3", SCH 40	Materials: -3" - PVC - SCH 40 - ASTM D1785	Foot	\$2.15	50	\$107.50
Equipment/Installation	939	Truck, Pickup	Equipment and power unit costs. Labor not included.	Hour	\$26.51	2	\$53.02
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	\$2.16	8	\$17.28
Labor	231	General Labor	Labor performed using basic tools such as power tool, shovels, and other tools that do not require extensive training. Ex. pipe layer, herder, concrete placement, materials spreader, flagger, etc.	Hour	\$25.71	4	\$102.84
Mobilization	1142	Mobilization, General labor	Mobilization of general labor: Ex. pipe layer, herder, concrete placement, materials spreader, flagger, etc.	Hour	\$26.21	1	\$26.21
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	2	\$374.46

Scenario Worksheet

Practice and Scenario Description:

Information Type	Data
Region	New England
State	Connecticut
Discipline Group	Wildlife Wetland
Practice Code/Name	399 - Fishpond Management
Scenario ID	3
Scenario Name	Aerator, surface
Scenario Description	Aerator added to existing fishpond to obtain desired oxygen levels. Typically 1 aerator needed per pond. Certain oxygen levels in the fishpond are needed for optimum vegetation, habitat and water quality. Oxygen levels and size of aerator needed are determined by a conservation planner, engineer or per existing supported data. Aerator planning and placement specifications can be found in "AEN-3: Aeration of ponds used in aquaculture". Resource concerns addressed include: Inadequate Habitat for Fish and Wildlife - Habitat degradation; Water Quality Degradation - Elevated water temperature.
Before Practice Situation	Existing fishpond has insufficient levels of oxygen available for desired fish species in pond. Habitat and water quality degraded, as well as health of the fish population.
After Practice Situation	Aerator sized appropriately for fishpond has been established and oxygen is at an optimum level. Participant will follow Operation and Maintenance guidance to ensure aerator maintained to continually provide appropriate oxygen levels for fishpond.
Scenario Feature Measure	Acre of pond managed
Scenario Unit	Acre
Scenario Typical Size	1

Cost Summary:

Cost Category	Scenario Cost	Scenario Cost/Unit
Materials	\$2,913.81	\$2,913.81
Equipment/Installation	\$53.02	\$53.02
Labor	\$51.42	\$51.42
Mobilization	\$213.44	\$213.44
Acquisition of Technical Knowledge	\$0.00	\$0.00
Foregone Income	\$0.00	\$0.00
Total	\$3,231.69	\$3,231.69

Cost Details:

Cost Category	Component ID	Component Name	Component Description	Unit	Price (\$/unit)	Quantity	Cost
Materials	1708	Aerator, pond, 1 hp	1 hp Aerator for pond or tank with less than 10 acres of surface area. Materials only.	Each	\$2,888.93	1	\$2,888.93
Materials	17	Post, Steel T, 1.33 lbs, 10'	Steel Post, Studded 10' - 1.33 lb	Each	\$12.44	2	\$24.88
Equipment/Installation	939	Truck, Pickup	Equipment and power unit costs. Labor not included.	Hour	\$26.51	2	\$53.02
Labor	231	General Labor	Labor performed using basic tools such as power tool, shovels, and other tools that do not require extensive training. Ex. pipe layer, herder, concrete placement, materials spreader, flagger, etc.	Hour	\$25.71	2	\$51.42
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	1	\$187.23
Mobilization	1142	Mobilization, General labor	Mobilization of general labor: Ex. pipe layer, herder, concrete placement, materials spreader, flagger, etc.	Hour	\$26.21	1	\$26.21

Scenario Worksheet

Practice and Scenario Description:

Information Type	Data
Region	New England
State	Connecticut
Discipline Group	Wildlife Wetland
Practice Code/Name	399 - Fishpond Management
Scenario ID	7
Scenario Name	Depth Management, Littoral Shelf
Scenario Description	Management of existing fishpond by excavation or placement of material to create deep open water and creation of littoral shelves. Fishpond currently does not provide optimum habitat for desired species. Excavated material will either be relocated within fish pond, or sited appropriately so as to not cause any negative environmental effects. Changes to depth will be based upon recommendations by conservation planner or other individual with appropriate credentials. Resource Concerns addressed include: Inadequate Habitat for Fish and Wildlife - Habitat degradation. Practice installation may also address: Water Quality Degradation - Elevated water temperatures. Associated Practice (if required): Critical Area Planting - 342
Before Practice Situation	Existing fish pond lacks sufficient depth, diversity of depth or desired bottom structure to provide optimum habitat for desired fish species.
After Practice Situation	Depth and bottom structure of fishpond are appropriate for desired fish species. Resource concerns have been addressed. Participant will follow Operation and Maintenance guidance to ensure created habitat is maintained and continues to provide the benefits to the resources.
Scenario Feature Measure	Acre of pond managed
Scenario Unit	Acre
Scenario Typical Size	1

Cost Summary:

Cost Category	Scenario Cost	Scenario Cost/Unit
Materials	\$1,088.80	\$1,088.80
Equipment/Installation	\$15,338.88	\$15,338.88
Labor	\$4,299.84	\$4,299.84
Mobilization	\$1,146.18	\$1,146.18
Acquisition of Technical Knowledge	\$0.00	\$0.00
Foregone Income	\$0.00	\$0.00
Total	\$21,873.70	\$21,873.70

Cost Details:

Cost Category	Component ID	Component Name	Component Description	Unit	Price (\$/unit)	Quantity	Cost
Materials	1834	Aggregate, river rock	Well graded, rounded mineral substrates derived from local riverine settings. Includes materials and local delivery	Ton	\$32.88	10	\$328.80
Materials	43	Silt Fence	Silt Fence with support post, includes materials, equipment and labor	Foot	\$0.76	1000	\$760.00
Equipment/Installation	1400	Truck, dump, 18 CY	Dump truck for moving bulk material. Typically capacity is 25 ton or 18 cubic yards. Includes equipment only.	Hour	\$93.60	100	\$9,360.00
Equipment/Installation	1615	Hauling, bulk, highway truck	Hauling of bulk earthfill, rockfill, waste or debris. One-way travel distance using fully loaded highway dump trucks (typically 16 CY or 20 TN capacity). Includes equipment and labor for truck only. Does not include cost for loading truck.	Cubic Yard Mile	\$0.28	1200	\$336.00
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	1200	\$4,896.00
Equipment/Installation	969	Water management, Flooding & dewatering	Includes equipment, power unit and labor costs.	Acre Foot	\$186.72	4	\$746.88
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	108	\$3,682.80
Labor	231	General Labor	Labor performed using basic tools such as power tool, shovels, and other tools that do not require extensive training. Ex. pipe layer, herder, concrete placement, materials spreader, flagger, etc.	Hour	\$25.71	24	\$617.04
Mobilization	1144	Mobilization, Heavy Equipment Operator	Mobilization of heavy equipment operators: Hydraulic Excavators >=50 HP, Dozers, Paving Machines, Rock Trenchers, Trenchers >=12", Dump Trucks, Ag Equipment >=150 HP, Scrapers, Water Wagons.	Hour	\$33.78	2	\$67.56
Mobilization	1142	Mobilization, General labor	Mobilization of general labor: Ex. pipe layer, herder, concrete placement, materials spreader, flagger, etc.	Hour	\$26.21	2	\$52.42
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

Scenario Worksheet

Practice and Scenario Description:

Information Type	Data
Region	New England
State	Connecticut
Discipline Group	Wildlife Wetland
Practice Code/Name	399 - Fishpond Management
Scenario ID	6
Scenario Name	Depth Management
Scenario Description	Management of existing fishpond by excavation or placement of material to create deep open water. Fishpond currently does not provide optimum habitat for desired species. Excavated material will either be relocated within fish pond, or sited appropriately so as to not cause any negative environmental effects. Changes to depth will be based upon recommendations by conservation planner or other individual with appropriate credentials. Resource Concerns addressed include: Inadequate Habitat for Fish and Wildlife - Habitat degradation. Practice installation may also address: Water Quality Degradation - Elevated water temperatures. Associated Practice (if required): Critical Area Planting - 342
Before Practice Situation	Existing fish pond lacks sufficient depth, diversity of depth or desired bottom structure to provide optimum habitat for desired fish species.
After Practice Situation	Depth and bottom structure of fishpond are appropriate for desired fish species. Resource concerns have been addressed. Participant will follow Operation and Maintenance guidance to ensure created habitat is maintained and continues to provide the benefits to the resources.
Scenario Feature Measure	Acre of pond managed
Scenario Unit	Acre
Scenario Typical Size	1

Cost Summary:

Cost Category	Scenario Cost	Scenario Cost/Unit
Materials	\$760.00	\$760.00
Equipment/Installation	\$15,338.88	\$15,338.88
Labor	\$4,027.04	\$4,027.04
Mobilization	\$1,146.18	\$1,146.18
Acquisition of Technical Knowledge	\$0.00	\$0.00
Foregone Income	\$0.00	\$0.00
Total	\$21,272.10	\$21,272.10

Cost Details:

Cost Category	Component ID	Component Name	Component Description	Unit	Price (\$/unit)	Quantity	Cost
Materials	43	Silt Fence	Silt Fence with support post, includes materials, equipment and labor	Foot	\$0.76	1000	\$760.00
Equipment/Installation	1400	Truck, dump, 18 CY	Dump truck for moving bulk material. Typically capacity is 25 ton or 18 cubic yards. Includes equipment only.	Hour	\$93.60	100	\$9,360.00
Equipment/Installation	1615	Hauling, bulk, highway truck	Hauling of bulk earthfill, rockfill, waste or debris. One-way travel distance using fully loaded highway dump trucks (typically 16 CY or 20 TN capacity). Includes equipment and labor for truck only. Does not include cost for loading truck.	Cubic Yard Mile	\$0.28	1200	\$336.00
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	1200	\$4,896.00
Equipment/Installation	969	Water management, Flooding & dewatering	Includes equipment, power unit and labor costs.	Acre Foot	\$186.72	4	\$746.88
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	100	\$3,410.00
Labor	231	General Labor	Labor performed using basic tools such as power tool, shovels, and other tools that do not require extensive training. Ex. pipe layer, herder, concrete placement, materials spreader, flagger, etc.	Hour	\$25.71	24	\$617.04
Mobilization	1144	Mobilization, Heavy Equipment Operator	Mobilization of heavy equipment operators: Hydraulic Excavators >=50 HP, Dozers, Paving Machines, Rock Trenchers, Trenchers >=12", Dump Trucks, Ag Equipment >=150 HP, Scrapers, Water Wagons.	Hour	\$33.78	2	\$67.56
Mobilization	1142	Mobilization, General labor	Mobilization of general labor: Ex. pipe layer, herder, concrete placement, materials spreader, flagger, etc.	Hour	\$26.21	2	\$52.42
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

Scenario Worksheet

Practice and Scenario Description:

Information Type	Data
Region	New England
State	Connecticut
Discipline Group	Wildlife Wetland
Practice Code/Name	399 - Fishpond Management
Scenario ID	2
Scenario Name	Habitat Structures
Scenario Description	Fishpond lacks a diversity of habitat to provide adequate habitat for desired fish species. Creation of habitat structures as recommended by conservation planner or other individual with appropriate credentials. Suggested improvements will determine type of structure needed, number of structures, density and location of structures. Habitat structures are typically submerged or emergent. Structures may include log cribs, rock piles, log and rock cribs, pipe and timber cribs, conifer cribs, PVC-tree structures, gravel spawning beds, catfish cages, concrete blocks stacked and filled with sticks or cuttings or plastic barrels filled with sand and sticks. Resource Concerns addressed include: Inadequate Habitat for Fish and Wildlife - Habitat degradation. Practice installation may also address: Water Quality Degradation - Elevated water temperatures.
Before Practice Situation	Existing fish pond lacks sufficient habitat diversity to provide optimum conditions for desired fish species.
After Practice Situation	Habitat structures within fishpond are appropriate for desired fish species. Typical installation in 1 ac pond: 12 structures of 1 fish crib and 4 concrete blocks, with woody material placed within crib. Resource concerns have been addressed. Participant will follow Operation and Maintenance guidance to ensure created habitat is maintained and continues to provide the benefits to the resources.
Scenario Feature Measure	Acre of pond managed
Scenario Unit	Acre
Scenario Typical Size	1

Cost Summary:

Cost Category	Scenario Cost	Scenario Cost/Unit
Materials	\$1,847.52	\$1,847.52
Equipment/Installation	\$361.96	\$361.96
Labor	\$3,702.24	\$3,702.24
Mobilization	\$587.90	\$587.90
Acquisition of Technical Knowledge	\$0.00	\$0.00
Foregone Income	\$0.00	\$0.00
Total	\$6,499.62	\$6,499.62

Cost Details:

Cost Category	Component ID	Component Name	Component Description	Unit	Price (\$/unit)	Quantity	Cost
Materials	2163	Fish Crib, corrugated plastic, modular	Corrugated plastic fish crib measuring 48" wide x 60" long x 48" high. Materials and shipping only.	Each	\$147.00	12	\$1,764.00
Materials	253	Block, concrete	Concrete block, hollow, normal weight, 3500 psi. Includes both full and partial sizes. Material only	Each	\$1.74	48	\$83.52
Equipment/Installation	937	Chainsaw	Equipment and power unit costs. Labor not included.	Hour	\$5.48	8	\$43.84
Equipment/Installation	939	Truck, Pickup	Equipment and power unit costs. Labor not included.	Hour	\$26.51	12	\$318.12
Labor	231	General Labor	Labor performed using basic tools such as power tool, shovels, and other tools that do not require extensive training. Ex. pipe layer, herder, concrete placement, materials spreader, flagger, etc.	Hour	\$25.71	144	\$3,702.24
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
Mobilization	1142	Mobilization, General labor	Mobilization of general labor: Ex. pipe layer, herder, concrete placement, materials spreader, flagger, etc.	Hour	\$26.21	1	\$26.21

Scenario Worksheet

Practice and Scenario Description:

Information Type	Data
Region	New England
State	Connecticut
Discipline Group	Wildlife Wetland
Practice Code/Name	399 - Fishpond Management
Scenario ID	1
Scenario Name	Invasive Weed Species - Chemical
Scenario Description	Chemical application to existing fishpond to remove invasive or undesired vegetation. Typically use Diquat dibromide or other appropriate herbicide. Chemical control will be applied by a certified pesticide applicator per state code. Resource concerns addressed include: Degraded Plant Condition - Excessive plant pest pressure; Degraded Plant Condition - Inadequate structure and composition; Inadequate Habitat for Fish and Wildlife - Habitat degradation.
Before Practice Situation	Existing fishpond is negatively impacted by invasive vegetation. Invasive vegetation is reducing availability of resources for desired fish species.
After Practice Situation	Chemical application has been completed to manage the invasive vegetation. Resource concerns have been addressed. Participant will follow Operation and Maintenance guidance to ensure control has been achieved through regular monitoring and will address any negative impacts to ensure an invasion does not occur again within the lifespan of the practice.
Scenario Feature Measure	Acre of pond managed
Scenario Unit	Acre
Scenario Typical Size	1

Cost Summary:

Cost Category	Scenario Cost	Scenario Cost/Unit
Materials	\$141.21	\$141.21
Equipment/Installation	\$53.02	\$53.02
Labor	\$158.16	\$158.16
Mobilization	\$226.46	\$226.46
Acquisition of Technical Knowledge	\$0.00	\$0.00
Foregone Income	\$0.00	\$0.00
Total	\$578.85	\$578.85

Cost Details:

Cost Category	Component ID	Component Name	Component Description	Unit	Price (\$/unit)	Quantity	Cost
Materials	1820	Herbicide, Diquat dibromide	Aquatic herbicide and plant growth regulator. Refer to WIN-PST for product names and active ingredients. Materials only.	Gallon	\$141.21	1	\$141.21
Equipment/Installation	939	Truck, Pickup	Equipment and power unit costs. Labor not included.	Hour	\$26.51	2	\$53.02
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	\$39.54	4	\$158.16
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	\$39.23	1	\$39.23
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	1	\$187.23

Scenario Worksheet

Practice and Scenario Description:

Information Type	Data
Region	New England
State	Connecticut
Discipline Group	Wildlife Wetland
Practice Code/Name	399 - Fishpond Management
Scenario ID	8
Scenario Name	Littoral Shelf
Scenario Description	Management of existing fishpond by creation of littoral shelf. Fishpond currently does not provide optimum habitat for desired species. Changes to depth will be based upon recommendations by conservation planner or other individual with appropriate credentials. Resource Concerns addressed include: Inadequate Habitat for Fish and Wildlife - Habitat degradation. Practice installation may also address: Water Quality Degradation - Elevated water temperatures. Associated Practice (if required): Critical Area Planting - 342
Before Practice Situation	Existing fish pond lacks sufficient depth, diversity of depth or desired bottom structure to provide optimum habitat for desired fish species.
After Practice Situation	Depth and bottom structure of fishpond are appropriate for desired fish species. Resource concerns have been addressed. Participant will follow Operation and Maintenance guidance to ensure created habitat is maintained and continues to provide the benefits to the resources.
Scenario Feature Measure	Acre of pond managed
Scenario Unit	Acre
Scenario Typical Size	1

Cost Summary:

Cost Category	Scenario Cost	Scenario Cost/Unit
Materials	\$1,088.80	\$1,088.80
Equipment/Installation	\$1,499.28	\$1,499.28
Labor	\$889.84	\$889.84
Mobilization	\$668.64	\$668.64
Acquisition of Technical Knowledge	\$0.00	\$0.00
Foregone Income	\$0.00	\$0.00
Total	\$4,146.56	\$4,146.56

Cost Details:

Cost Category	Component ID	Component Name	Component Description	Unit	Price (\$/unit)	Quantity	Cost
Materials	1834	Aggregate, river rock	Well graded, rounded mineral substrates derived from local riverine settings. Includes materials and local delivery	Ton	\$32.88	10	\$328.80
Materials	43	Silt Fence	Silt Fence with support post, includes materials, equipment and labor	Foot	\$0.76	1000	\$760.00
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	8	\$752.40
Equipment/Installation	969	Water management, Flooding & dewatering	Includes equipment, power unit and labor costs.	Acre Foot	\$186.72	4	\$746.88
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	8	\$272.80
Labor	231	General Labor	Labor performed using basic tools such as power tool, shovels, and other tools that do not require extensive training. Ex. pipe layer, herder, concrete placement, materials spreader, flagger, etc.	Hour	\$25.71	24	\$617.04
Mobilization	1144	Mobilization, Heavy Equipment Operator	Mobilization of heavy equipment operators: Hydraulic Excavators >=50 HP, Dozers, Paving Machines, Rock Trenchers, Trenchers >=12", Dump Trucks, Ag Equipment >=150 HP, Scrapers, Water Wagons.	Hour	\$33.78	2	\$67.56
Mobilization	1142	Mobilization, General labor	Mobilization of general labor: Ex. pipe layer, herder, concrete placement, materials spreader, flagger, etc.	Hour	\$26.21	2	\$52.42
Mobilization	1139	Mobilization, medium equipment	Equipment with 70-150 HP or typical weights between 14,000 and 30,000 pounds.	Each	\$274.33	2	\$548.66

Scenario Worksheet

Practice and Scenario Description:

Information Type	Data
Region	New England
State	Connecticut
Discipline Group	Wildlife Wetland
Practice Code/Name	399 - Fishpond Management
Scenario ID	5
Scenario Name	Planting Native Vegetation
Scenario Description	Native, aquatic vegetation will be established by plugs and or tubers. Both emergent and submerged vegetation will be established using hand tools or other small equipment as needed. Vegetation will be established to ensure appropriate cover for desired fish species. Plants will be established at a rate, location and density as prescribed by the conservation planner or other resource. A typical setting will plant between 2-5 aquatic plants per 10 SF. This scenario may include replacing of non desired plants with appropriate native plants. Resource Concerns addressed include: Degraded Plant Condition - Excessive plant pest pressure; Inadequate Habitat for Fish and Wildlife - Habitat degradation. Practice installation may also address: Water Quality Degradation - Elevated water temperatures.
Before Practice Situation	Established fish pond which has had insufficient vegetation for desired fish species. Vegetation consists either primarily of non-desired plants or is not of a density to provide adequate cover for fish species. Fishpond is typically 1 acre in size, 1/4 acre of fishpond will receive native vegetation restoration.
After Practice Situation	Vegetation in fishpond is of a density and composition that is suitable for desired fish species. Vegetation is native plants. Resource concerns have been addressed. Participant will follow Operation and Maintenance guidelines to ensure established plants will thrive. If plant die-off occurs prior to lifespan of practice, participant is required to re-establish vegetation to NRCS Standards and Specifications.
Scenario Feature Measure	Acre of vegetation planted
Scenario Unit	Acre
Scenario Typical Size	1

Cost Summary:

Cost Category	Scenario Cost	Scenario Cost/Unit
Materials	\$2,898.00	\$2,898.00
Equipment/Installation	\$53.02	\$53.02
Labor	\$822.72	\$822.72
Mobilization	\$292.07	\$292.07
Acquisition of Technical Knowledge	\$0.00	\$0.00
Foregone Income	\$0.00	\$0.00
Total	\$4,065.81	\$4,065.81

Cost Details:

Cost Category	Component ID	Component Name	Component Description	Unit	Price (\$/unit)	Quantity	Cost
Materials	1843	Native Aquatic Plants, Emergent - Sedges (Carex spp.), Plug	Native aquatic sedge plugs. Plants are emergent. All required materials for establishing vegetation. Includes materials and shipping.	Each	\$1.20	300	\$360.00
Materials	1846	Native aquatic plants, emergent - Iris (Iris versicolor, Iris Virginica)	Native aquatic irises, plug/division/bulb. Plants are emergent. All required materials for establishing vegetation. Includes material and shipping.	Each	\$2.04	300	\$612.00
Materials	1847	Native Aquatic Plants, Emergent - Arrow Arum (Peltandra virginica)	Arrow Arum. Native aquatic, plugs. Plants are emergent. All required materials for establishing vegetation. Includes material and shipping.	Each	\$1.87	300	\$561.00
Materials	1844	Native Aquatic Plants, Submerged - White Water Lily (Nymphaea odorata)	White Water Lily. Native aquatic, tuber. Plants are submerged. All required materials for establishing vegetation. Includes material and shipping.	Each	\$1.63	300	\$489.00
Materials	1848	Native Aquatic Plants, Submerged - Pickerelweed (Pontederia cordata)	Pickerelweed. Native aquatic, plugs. Plants are submerged. All required materials for establishing vegetation. Includes material and shipping.	Each	\$2.00	300	\$600.00
Materials	1849	Native Aquatic Plants, Submerged - Wild Celery/American eelgrass (Vallisneria americana)	Wild Celery/American eelgrass. Native aquatic, tubers. Plants are submerged. All required materials for establishing vegetation. Includes material and shipping.	Each	\$0.92	300	\$276.00
Equipment/Installation	939	Truck, Pickup	Equipment and power unit costs. Labor not included.	Hour	\$26.51	2	\$53.02
Labor	231	General Labor	Labor performed using basic tools such as power tool, shovels, and other tools that do not require extensive training. Ex. pipe layer, herder, concrete placement, materials spreader, flagger, etc.	Hour	\$25.71	32	\$822.72
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	1	\$187.23
Mobilization	1142	Mobilization, General labor	Mobilization of general labor: Ex. pipe layer, herder, concrete placement, materials spreader, flagger, etc.	Hour	\$26.21	4	\$104.84