

Scenario Worksheet

Practice and Scenario Description:

Information Type	Data
Region	New England
State	Connecticut
Discipline Group	Forestry
Practice Code/Name	391 - Riparian Forest Buffer
Scenario ID	1
Scenario Name	Bare Root, All Shelters
Scenario Description	Typically used to plant bare-root trees and/or shrubs according to state specifications . Assumes all hardwood trees have shelters/protectors. Does not include weed barrier - use Mulching (484). Establish a buffer of trees and/or shrubs into a suitably prepared site to restore riparian plant communities and associated benefits. The buffer will be located adjacent to and up-gradient from a watercourse or water body extending a minimum of 35 feet wide. Resource concerns to be addressed are Soil Erosion - excessive bank erosion; Water Quality - excess sediment and organics in surface waters and elevated temperature; Degraded Plant Condition - inadequate structure and composition; and Inadequate Habitat for Fish and Wildlife - habitat degradation.
Before Practice Situation	Typical sites include former riparian forests and habitat used for forage, cropland, speculation property, or other nonforest condition which contains undesirable amounts or types of vegetation. Active bank erosion is depositing sediment, nutrients and organics in the riparian area. Water temperature is high due to lack of shade. Habitat is not desirable for wildlife.
After Practice Situation	A buffer of trees and shrubs will be established along the riparian corridor which will provide stability, filtration, shade, and desirable habitat to address the above mentioned resource concerns.
Scenario Feature Measure	Area of planting
Scenario Unit	Acre
Scenario Typical Size	1

Cost Summary:

Cost Category	Scenario Cost	Scenario Cost/Unit
Materials	\$931.50	\$931.50
Equipment/Installation	\$698.56	\$698.56
Labor	\$783.76	\$783.76
Mobilization	\$135.02	\$135.02
Acquisition of Technical Knowledge	\$0.00	\$0.00
Foregone Income	\$0.00	\$0.00
Total	\$2,548.84	\$2,548.84

Cost Details:

Cost Category	Component ID	Component Name	Component Description	Unit	Price (\$/unit)	Quantity	Cost
Materials	1513	Tree, conifer, seedling, bare root, 1-1	Bare root conifer trees, 1-1 (2 years old). Materials only.	Each	\$0.39	100	\$39.00
Materials	1584	Stake, bamboo, 3/8" x 36"	3/8" x 36" bamboo stakes to anchor items in place. Materials only.	Each	\$0.08	250	\$20.00
Materials	1561	Tree shelter, solid tube type, 3-1/4" x 36"	3-1/4" x 36" tree tube for protection from animal damage. Materials only.	Each	\$2.56	250	\$640.00
Materials	1510	Tree, hardwood, seedling or transplant, bare root, 16-36"	Bare root hardwood trees 18-36" tall. Materials only.	Each	\$0.59	250	\$147.50
Materials	1507	Shrub, seedling or transplant, bare root, 18"-36"	Bare root hardwood trees 18-36" tall. Materials only.	Each	\$0.85	100	\$85.00
Equipment/Installation	1590	Hand tools, tree planting	Various hand tools for digging holes and planting trees such as augers, dibble bars, planting shovel, hoe-dad. Equipment only. Labor not included.	Hour	\$9.44	24	\$226.56
Equipment/Installation	939	Truck, Pickup	Equipment and power unit costs. Labor not included.	Hour	\$26.51	8	\$212.08
Equipment/Installation	1503	Trailer, enclosed, small	Small enclosed trailer (typically less than 30' in length) pulled by a pickup to transport materials and equipment. Truck not included.	Hour	\$3.51	8	\$28.08
Equipment/Installation	965	All terrain vehicles, ATV	Includes equipment, power unit and labor costs.	Hour	\$28.98	8	\$231.84
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	4	\$166.72
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	1145	Mobilization, Supervisor or Manager	Mobilization of supervisors or management. Includes crew supervisors, foremen and farm/ranch managers, etc.	Hour	\$41.30	2	\$82.60
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

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Information Type	Data
Region	New England
State	Connecticut
Discipline Group	Forestry
Practice Code/Name	391 - Riparian Forest Buffer
Scenario ID	2
Scenario Name	Bare Root, Half Shelters
Scenario Description	Typically used to plant bare-root trees and/or shrubs according to state specification. Assumes half of the hardwood trees have shelters/protectors. Does not include weed barrier - use Mulching (484). Establish a buffer of trees and/or shrubs into a suitably prepared site to restore riparian plant communities and associated benefits. The buffer will be located adjacent to and up-gradient from a watercourse or water body extending a minimum of 35 feet wide. Resource concerns to be addressed are Soil Erosion - excessive bank erosion; Water Quality - excess sediment and organics in surface waters and elevated temperature; Degraded Plant Condition - inadequate structure and composition; and Inadequate Habitat for Fish and Wildlife - habitat degradation.
Before Practice Situation	Typical sites include former riparian forests and habitat used for forage, cropland, speculation property, or other nonforest condition which contains undesirable amounts or types of vegetation. Active bank erosion is depositing sediment, nutrients and organics in the riparian area. Water temperature is high due to lack of shade. Habitat is not desirable for wildlife.
After Practice Situation	A buffer of trees and shrubs will be established along the riparian corridor which will provide stability, filtration, shade, and desirable habitat to address the above mentioned resource concerns.
Scenario Feature Measure	Area of planting
Scenario Unit	Acre
Scenario Typical Size	1

Cost Summary:

Cost Category	Scenario Cost	Scenario Cost/Unit
Materials	\$611.50	\$611.50
Equipment/Installation	\$698.56	\$698.56
Labor	\$783.76	\$783.76
Mobilization	\$135.02	\$135.02
Acquisition of Technical Knowledge	\$0.00	\$0.00
Foregone Income	\$0.00	\$0.00
Total	\$2,228.84	\$2,228.84

Cost Details:

Cost Category	Component ID	Component Name	Component Description	Unit	Price (\$/unit)	Quantity	Cost
Materials	1513	Tree, conifer, seedling, bare root, 1-1	Bare root conifer trees, 1-1 (2 years old). Materials only.	Each	\$0.39	100	\$39.00
Materials	1584	Stake, bamboo, 3/8" x 36"	3/8" x 36" bamboo stakes to anchor items in place. Materials only.	Each	\$0.08	250	\$20.00
Materials	1561	Tree shelter, solid tube type, 3-1/4" x 36"	3-1/4" x 36" tree tube for protection from animal damage. Materials only.	Each	\$2.56	125	\$320.00
Materials	1510	Tree, hardwood, seedling or transplant, bare root, 16-36"	Bare root hardwood trees 18-36" tall. Materials only.	Each	\$0.59	250	\$147.50
Materials	1507	Shrub, seedling or transplant, bare root, 18"-36"	Bare root hardwood trees 18-36" tall. Materials only.	Each	\$0.85	100	\$85.00
Equipment/Installation	1590	Hand tools, tree planting	Various hand tools for digging holes and planting trees such as augers, dibble bars, planting shovel, hoe-dad. Equipment only. Labor not included.	Hour	\$9.44	24	\$226.56
Equipment/Installation	939	Truck, Pickup	Equipment and power unit costs. Labor not included.	Hour	\$26.51	8	\$212.08
Equipment/Installation	1503	Trailer, enclosed, small	Small enclosed trailer (typically less than 30' in length) pulled by a pickup to transport materials and equipment. Truck not included.	Hour	\$3.51	8	\$28.08
Equipment/Installation	965	All terrain vehicles, ATV	Includes equipment, power unit and labor costs.	Hour	\$28.98	8	\$231.84
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	4	\$166.72
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	1145	Mobilization, Supervisor or Manager	Mobilization of supervisors or management. Includes crew supervisors, foremen and farm/ranch managers, etc.	Hour	\$41.30	2	\$82.60
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

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Practice and Scenario Description:

Information Type	Data
Region	New England
State	Connecticut
Discipline Group	Forestry
Practice Code/Name	391 - Riparian Forest Buffer
Scenario ID	3
Scenario Name	Bare Root, No Shelters
Scenario Description	Typically used to plant bare-root trees and/or shrubs according to state specifications. Assumes none of the trees have shelters/protectors. Does not include weed barrier - use Mulching (484). Establish a buffer of trees and/or shrubs into a suitably prepared site to restore riparian plant communities and associated benefits. The buffer will be located adjacent to and up-gradient from a watercourse or water body extending a minimum of 35 feet wide. Resource concerns to be addressed are Soil Erosion - excessive bank erosion; Water Quality - excess sediment and organics in surface waters and elevated temperature; Degraded Plant Condition - inadequate structure and composition; and Inadequate Habitat for Fish and Wildlife - habitat degradation.
Before Practice Situation	Typical sites include former riparian forests and habitat used for forage, cropland, speculation property, or other nonforest condition which contains undesirable amounts or types of vegetation. Active bank erosion is depositing sediment, nutrients and organics in the riparian area. Water temperature is high due to lack of shade. Habitat is not desirable for wildlife.
After Practice Situation	A buffer of trees and shrubs will be established along the riparian corridor which will provide stability, filtration, shade, and desirable habitat to address the above mentioned resource concerns.
Scenario Feature Measure	Area of planting
Scenario Unit	Acre
Scenario Typical Size	1

Cost Summary:

Cost Category	Scenario Cost	Scenario Cost/Unit
Materials	\$291.50	\$291.50
Equipment/Installation	\$698.56	\$698.56
Labor	\$783.76	\$783.76
Mobilization	\$135.02	\$135.02
Acquisition of Technical Knowledge	\$0.00	\$0.00
Foregone Income	\$0.00	\$0.00
Total	\$1,908.84	\$1,908.84

Cost Details:

Cost Category	Component ID	Component Name	Component Description	Unit	Price (\$/unit)	Quantity	Cost
Materials	1507	Shrub, seedling or transplant, bare root, 18"-36"	Bare root hardwood trees 18-36" tall. Materials only.	Each	\$0.85	100	\$85.00
Materials	1513	Tree, conifer, seedling, bare root, 1-1	Bare root conifer trees, 1-1 (2 years old). Materials only.	Each	\$0.39	100	\$39.00
Materials	1584	Stake, bamboo, 3/8" x 36"	3/8" x 36" bamboo stakes to anchor items in place. Materials only.	Each	\$0.08	250	\$20.00
Materials	1510	Tree, hardwood, seedling or transplant, bare root, 16-36"	Bare root hardwood trees 18-36" tall. Materials only.	Each	\$0.59	250	\$147.50
Equipment/Installation	939	Truck, Pickup	Equipment and power unit costs. Labor not included.	Hour	\$26.51	8	\$212.08
Equipment/Installation	1590	Hand tools, tree planting	Various hand tools for digging holes and planting trees such as augers, dibble bars, planting shovel, hoe-dad. Equipment only. Labor not included.	Hour	\$9.44	24	\$226.56
Equipment/Installation	965	All terrain vehicles, ATV	Includes equipment, power unit and labor costs.	Hour	\$28.98	8	\$231.84
Equipment/Installation	1503	Trailer, enclosed, small	Small enclosed trailer (typically less than 30' in length) pulled by a pickup to transport materials and equipment. Truck not included.	Hour	\$3.51	8	\$28.08
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
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	4	\$166.72
Mobilization	1145	Mobilization, Supervisor or Manager	Mobilization of supervisors or management. Includes crew supervisors, foremen and farm/ranch managers, etc.	Hour	\$41.30	2	\$82.60
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

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Practice and Scenario Description:

Information Type	Data
Region	New England
State	Connecticut
Discipline Group	Forestry
Practice Code/Name	391 - Riparian Forest Buffer
Scenario ID	4
Scenario Name	Small Container
Scenario Description	Plant small containerized trees and/or shrubs to establish into a suitably prepared site to restore riparian plant communities and associated benefits. Does not include weed barrier - use Mulching (484). The buffer will be located adjacent to and up-gradient from a watercourse or water body extending a minimum of 35 feet wide. Resource concerns to be addressed are Soil Erosion - excessive bank erosion; Water Quality - excess sediment and organics in surface waters and elevated temperature; Degraded Plant Condition - inadequate structure and composition; and Inadequate Habitat for Fish and Wildlife - habitat degradation.
Before Practice Situation	Typical sites include former riparian forests and habitat used for forage, cropland, speculation property, or other nonforest condition which contains undesirable amounts or types of vegetation. Active bank erosion is depositing sediment, nutrients and organics in the riparian area. Water temperature is high due to lack of shade. Habitat is not desirable for wildlife.
After Practice Situation	A buffer of trees and shrubs will be established along the riparian corridor which will provide stability, filtration, shade, and desirable habitat to address the above mentioned resource concerns.
Scenario Feature Measure	Area of planting
Scenario Unit	Acre
Scenario Typical Size	1

Cost Summary:

Cost Category	Scenario Cost	Scenario Cost/Unit
Materials	\$4,306.50	\$4,306.50
Equipment/Installation	\$1,850.24	\$1,850.24
Labor	\$3,135.04	\$3,135.04
Mobilization	\$270.04	\$270.04
Acquisition of Technical Knowledge	\$0.00	\$0.00
Foregone Income	\$0.00	\$0.00
Total	\$9,561.82	\$9,561.82

Cost Details:

Cost Category	Component ID	Component Name	Component Description	Unit	Price (\$/unit)	Quantity	Cost
Materials	1578	Stakes, wood, 1" x 1" x 48"	1" x 1" x 48" wood stakes to fasten items in place. Materials only.	Each	\$1.98	250	\$495.00
Materials	1536	Tree, conifer, seedling or transplant, potted, 1 gal.	Potted conifer, 1 gal. Materials only.	Each	\$5.70	100	\$570.00
Materials	1531	Tree, hardwood, seedling or transplant, potted, 1 gal.	Potted hardwood tree, 1 gal. Materials only.	Each	\$6.68	250	\$1,670.00
Materials	1566	Tree shelter, solid tube type, 4" x 48"	4" x 48" tree tube for protection from animal damage. Materials only.	Each	\$3.85	250	\$962.50
Materials	1526	Shrub, seedling or transplant, potted, 1 gal.	Potted shrub, 1 gal. Materials only.	Each	\$6.09	100	\$609.00
Equipment/Installation	939	Truck, Pickup	Equipment and power unit costs. Labor not included.	Hour	\$26.51	16	\$424.16
Equipment/Installation	1590	Hand tools, tree planting	Various hand tools for digging holes and planting trees such as augers, dibble bars, planting shovel, hoe-dad. Equipment only. Labor not included.	Hour	\$9.44	96	\$906.24
Equipment/Installation	965	All terrain vehicles, ATV	Includes equipment, power unit and labor costs.	Hour	\$28.98	16	\$463.68
Equipment/Installation	1503	Trailer, enclosed, small	Small enclosed trailer (typically less than 30' in length) pulled by a pickup to transport materials and equipment. Truck not included.	Hour	\$3.51	16	\$56.16
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	96	\$2,468.16
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	1145	Mobilization, Supervisor or Manager	Mobilization of supervisors or management. Includes crew supervisors, foremen and farm/ranch managers, etc.	Hour	\$41.30	4	\$165.20
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