Cost Share = "_____ percent of the actual cost not to exceed $_____ per unit of measure."

Component Code	Practice	Scenario	ERFP Practice	Practice	Scenario Description	Scenario Units	Unit Cost 100%	Unit Cost 75%	Life Span (years)
24MEEFE315A1	**315**	**A1**	EF1, EF2, EF3	**Herbaceous Weed Treatment**	**Herbaceous weed treatment to crate plant communities consistent with the ecological site**	**Ac**	**$16.17**	$12.13	**5**
24MEEF3842	**384**	**2**	EF1, EF2, EF3	**Woody Residue Treatment**	**Restoration/conservation treatment following catatrophic events**	**Ac**	**$868.11**	$651.08	**10**
24MEEF3843	**384**	**3**	EF1, EF2, EF3	**Woody Residue Treatment**	**Woody Residue/Silvicultural slash treatment - light**	**Ac**	$260.07	$195.05	**10**
24MEEF3844	**384**	**4**	EF1, EF2, EF3	**Woody Residue Treatment**	**Chipping and hauling off - site**	**Ac**	**$328.32**	$246.24	**10**
24MEEF3845	**384**	**5**	EF1, EF2, EF3	**Woody Residue Treatment**	**Forest Slash Treatment - med/heavy**	**Ac**	$448.25	$336.19	**10**
24MEEF4901	**490**	**1**	**EF1, EF2, EF3**	**Tree/Shrub Site Preparation**	**Mechanical, Heavy**	**Ac**	**$237.70**	$178.28	**1**
24MEEF4902	**490**	**2**	**EF1, EF2, EF3**	**Tree/Shrub Site Preparation**	**Mechanical, Light**	**Ac**	**$98.25**	$73.69	**1**
24MEEF4903	**490**	**3**	**EF1, EF2, EF3**	**Tree/Shrub Site Preparation**	**Chemical, Ground Application**	**Ac**	**$210.87**	$158.15	**1**
24MEEF4906	**490**	**6**	**EF1, EF2, EF3**	**Tree/Shrub Site Preparation**	**Hand site preparation**	**Ac**	**$266.22**	$199.67	**1**
24MEEF500107	**500**	**107**	**EF1, EF2, EF3**	**Obstruction Removal**	**Removal and Disposal of Brush and Trees > 6 inch Diameter**	Ac	**$2,348.39**	$1,761.29	**10**
24MEEF500108	**500**	**108**	**EF1, EF2, EF3**	**Obstruction Removal**	**Removal and Disposal of Brush and Trees < 6 inch Diameter**	Ac	**$1,439.19**	$1,079.39	**10**
24MEEF5604	**560**	**4**	**EF1, EF2, EF3**	**Access Road**	**Rehabilitation of existing earth road in dry, level terrain**	**Ft**	**$5.16**	$3.87	**10**
24MEEF5605	**560**	**5**	**EF1, EF2, EF3**	**Access Road**	**Rehabilitation of existing road using gravel in soft, level terrain**	**Ft**	**$11.27**	$8.45	**10**
24MEEF5606	**560**	**6**	**EF1, EF2, EF3**	**Access Road**	**Rehabilitation of existing road using geocell in soft, level terrain**	**Ft**	**$22.82**	$17.12	**10**
24MEEF56010	**560**	**10**	**EF1, EF2, EF3**	**Access Road**	**Rehabilitation of existing earth road in soft, sloped terrain**	**Ft**	**$6.07**	$4.55	**10**
24MEEF56011	**560**	**11**	**EF1, EF2, EF3**	**Access Road**	**Rehabilitation of existing road using gravel in soft, sloped terrain**	**Ft**	**$12.45**	$9.34	**10**
24MEEF56012	**560**	**12**	**EF1, EF2, EF3**	**Access Road**	**Rehabilitation of existing road using geocell in soft, sloped terrain**	**Ft**	**$24.00**	$18.00	**10**
24MEEF580	**580**	**1**	**EF1, EF2, EF3**	**Streambank and Shoreline Protection**	**Riprap**	**Cubic Yards**	**$147.54**	$110.66	**20**
24MEEF5802	**580**	**2**	**EF1, EF2, EF3**	**Streambank and Shoreline Protection**	**Bioengineered**	**Square Feet**	**$5.08**	$3.81	**20**
24MEEF58029	**580**	**29**	**EF1, EF2, EF3**	**Streambank and Shoreline Protection**	**Vegetative**	**Linear Feet**	**$27.61**	$20.71	**20**
24MEEF58030	**580**	**30**	**EF1, EF2, EF3**	**Streambank and Shoreline Protection**	**Structural**	**Feet**	**$267.96**	$200.97	**20**
24MEEF5874	**587**	**4**	**EF1, EF2, EF3**	**Structure for Water Control**	**Culvert <30 inches HDPE**	**Inch-Foot**	**$3.76**	$2.82	**20**
24MEEF5875	**587**	**5**	**EF1, EF2, EF3**	**Structure for Water Control**	**Culvert <30 inches CMP**	**Inch-Foot**	**$3.96**	$2.97	**20**
24MEEF6121	**612**	**1**	**EF1, EF2, EF3**	**Tree/Shrub Establishment**	**Hardwood Hand Planting - bare root-protected**	**Acres**	**$734.14**	$550.61	**15**
24MEEF6123	**612**	**3**	**EF1, EF2, EF3**	**Tree/Shrub Establishment**	**Hardwood Est.-Direct Seeding**	**Acres**	**$896.85**	$672.64	**15**
24MEEF6128	**612**	**8**	**EF1, EF2, EF3**	**Tree/Shrub Establishment**	**Mostly Hardwood Hand Planting-bare root-protected**	**Acres**	**$2,637.47**	$1,978.10	**15**
24MEEF61278	**612**	**78**	**EF1, EF2, EF3**	**Tree/Shrub Establishment**	**Individual tree - hand planting**	**Each**	**$1.19**	$0.89	**15**
24MEEF61279	**612**	**79**	**EF1, EF2, EF3**	**Tree/Shrub Establishment**	**Conifer seeding - hand planting - tree protection**	**Each**	**$2.75**	$2.06	**15**
24MEEF6553	**655**	**3**	**EF1, EF2, EF3**	**Forest Trails and Landings**	**Trail Erosion Control w/o Vegetation, Slopes < 35%**	**Ft**	**$4.36**	$3.27	**5**
24MEEF6554	**655**	**4**	**EF1, EF2, EF3**	**Forest Trails and Landings**	**Trail Erosion Control w/o Vegetation, Slopes >35%**	**Ft**	**$7.12**	$5.34	**5**
24MEEF6555	**655**	**5**	**EF1, EF2, EF3**	**Forest Trails and Landings**	**Grading and Shaping w/ Vegetative Estab.**	**Ft**	**$4.89**	$3.67	**5**
24MEEF6602	**660**	**2**	**EF2**	**Tree-Shrub Pruning**	**Pruning, Low Height**	**Ac**	**$216.92**	$162.69	**10**
24MEEF6603	**660**	**3**	**EF2**	**Tree-Shrub Pruning**	**Pruning, High Height**	**Ac**	**$332.01**	$249.01	**10**
24MEEF6661	**666**	**1**	**EF1, EF2, EF3**	**Forest Stand Improvement**	**Pre-commercial Thinning Pole- Hand tools**	**Ac**	**$557.27**	$417.95	**10**
24MEEF6662	**666**	**2**	**EF1, EF2, EF3**	**Forest Stand Improvement**	**Pre-Commercial Thinning Hardwood - Handtools**	**Ac**	**$819.73**	$614.80	**10**
24MEEF6666	**666**	**6**	**EF1, EF2, EF3**	**Forest Stand Improvement**	**Competition Control - Mcheanical, Light Equip.**	**Ac**	**$779.78**	$584.84	**10**
24MEEF6667	**666**	**7**	**EF1, EF2, EF3**	**Forest Stand Improvement**	**Thinning for Wildlife and Forest Health**	**Ac**	**$707.90**	$530.93	**10**
24MEEF66655	**666**	**5**	**EF1, EF2, EF3**	**Forest Stand Improvement**	**Pre-Commercial Thinning Softwood - Handtools**	**Ac**	$1,151.60	$863.70	**10**
24MEEF66657	**666**	**7**	**EF1, EF2, EF3**	**Forest Stand Improvement**	**Tree Marking Updated**	**Ac**	$142.90	$107.18	**10**

Practice: E315A - Herbaceous weed treatment to create plant communities consistent with the ecological site
Scenario: A1 - Herbaceous weed treatment to create plant communities consistent with the ecological site
Scenario Description:
Mechanical, chemical, or biological, herbaceous weed treatment will be employed to control targeted, herbaceous weeds so as to create, release, or restore desired plant communities that are consistent with achievable, ecological site, steady state descriptions.
Before Situation:
Resources are protected at the minimum level of the Conservation Practice Standard (CPS) 315 - Herbaceous Weed Control
After Situation:
The adoption of this enhancement will provide resource protection above the minimum level as described in Conservation Practice Standard (CPS) 315 - Herbaceous Weed Control
Feature Measure: Acre
Scenario Unit: Acres

Scenario Typical Size: 10.00
Scenario Total Cost: $161.74

Scenario Cost/Unit: $16.17
Cost Details:

Component	ID	Description		Co	Q	Total
Equipment Installation						
Chemical, spot treatment, single stem application	944	Ground applied chemical to individual plants or group of plants, e.g., backpack sprayer treatment. Equipment and labor cost included.	Ho	$80.87	2	$161.74

The use of a combination of hand (chainsaw) and heavy equipment similar to those used in logging to treat slash resulting from catastrophic events such as fire, wind, severe pest outbreak, ice storm, etc. This scenario will remove/treat the larger material the size of which is consistent with the large equipment used. Resource concerns include: Excessive plant pest pressure, Potential emissions of particulate matter, Wildfire hazard from excessive biomass accumulation, and Habitat degradation.
Before Situation:
A large amount of slash and woody residue is created as a result of a non-silvicultural event such as a wind storm, wildfire, ice storm, pest outbreak, etc. Because the slash and residue is created by a catastrophic event that can cause tree-lodging, snags, broken tops, etc.; treatment is both difficult and dangerous. The presence of this material causes adverse effects on the forest include limiting access for management purposes, increasing the wildfire hazard, increasing the risk of potential harm to humans and livestock, and providing harboring sites for pests.
After Situation:
The material resulting from the catastrophic event is reduced to a level that will minimize the resource concerns.
Feature Measure: Acres of affected forest
Scenario Unit: Acres

Scenario Typical Size: 20.00
Scenario Total Cost: $17,362.14

Scenario Cost/Unit: $868.11
Cost Details:

Component	ID	Description		Cost	QTY	Total
Equipment Installation						
Track Loader, 95HP	935	Equipment and power unit costs. Labor not included.	Ho c	$95.93	40	$3,837.20
Chainsaw	937	Equipment and power unit costs. Labor not included.	Ho c	$6.23	80	$498.40
Log skidder	942	Equipment and power unit costs. Labor not included.	Ho c	$60.93	40	$2,437.20
Truck, dump, 8 CY	1401	Dump truck for moving bulk material. Typically capacity is 12 ton or 8 cubic yards. Includes equipment only.	Ho c	$54.59	40	$2,183.60
Labor						
General Labor	231	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.	Ho c	$28.68	80	$2,294.40
Equipment Operators, Light	232	Includes: Skid Steer Loaders, Hydraulic Excavators <50 HP, Trenchers <12 in., Ag Equipment <150 HP, Pickup Trucks, Forklifts, Mulchers	Ho c	$30.76	80	$2,460.80
Equipment Operators, Heavy	233	Includes: Cranes, Hydraulic Excavators >=50 HP, Dozers, Paving Machines, Rock Trenchers, Trenchers >=12 in., Dump Trucks, Ag Equipment >=150 HP, Scrapers, Water Wagons.	Ho	$34.58	40	$1,383.20
Mobilization						
Mobilization, medium equipment	1139	Equipment with 70-150 HP or typical weights between 14,000 and 30,000 pounds.	Ea	$755.78	3	$2,267.34

Treating an area of forest slash to reduce hazardous fuels and the risk of insect and disease, improve organic matter and reduce erosion while improving water quality. Slash is treated with both hand (cutting, lopping, etc.) and mechanically (masticating, chipping, etc.). Typically done by hand and light equipment. Resource concerns include: Wildfire hazard from excessive biomass accumulation and potential Excessive plant pest pressure.

Before Situation:

Woody material resulting from a silvicultural practice such as pruning or a light thinning operation is causing both fire hazard and pest issues.

After Situation:

Fire and pest issues are reduced with slash spread out and in contact with the ground. Additional benefits include reduced soil movement. The soil is protected and/or enhanced.

Feature Measure: Acres treated

Scenario Unit: Acre

Scenario Typical Size: 40.00

Scenario Total Cost: $10,402.98

Scenario Cost/Unit: $260.07

Cost Details:

Component	ID	Description	U	Cost	QTY	Total
Equipment Installation						
Chainsaw	937	Equipment and power unit costs. Labor not included.	H	$6.23	80	$498.40
Truck, Pickup	939	Equipment and power unit costs. Labor not included.	H	$25.07	40	$1,002.80
Mechanical cutter, chopper	943	Forestry mulcher, flail shredder, hydro axe, brush cutter, etc. Equipment and power unit costs. Labor not included.	H	$115.53	40	$4,621.20
Labor						
General Labor	231	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.	H	$28.68	80	$2,294.40
Equipment Operators, Light	232	Includes: Skid Steer Loaders, Hydraulic Excavators <50 HP, Trenchers <12 in., Ag Equipment <150 HP, Pickup Trucks, Forklifts, Mulchers	H	$30.76	40	$1,230.40
Mobilization						
Mobilization, medium equipment	1139	Equipment with 70-150 HP or typical weights between 14,000 and 30,000 pounds.	Ea	$755.78	1	$755.78

Reducing woody waste created during forestry, agroforestry and horticultural activities by gathering, chipping, and hauling off site to achieve management objectives. Does not include transport from property to a commercial facility. Resource concerns include potential Emissions of particulate matter, potential Excessive plant pest pressure, and Wildfire hazard from excessive biomass accumulation .

Before Situation:

Woody residue causes management issues including resource access, fire hazard and sites for harboring pests.

After Situation:

Fire and pest issues are reduced. Air and energy resources are conserved.

Feature Measure: Acres treated

Scenario Unit: Acre

Scenario Typical Size: 20.00

Scenario Total Cost: $6,566.30

Scenario Cost/Unit: $328.32

Cost Details:

Component	ID	Description	U	Cost	QTY	Total
Equipment Installation						
Chainsaw	937	Equipment and power unit costs. Labor not included.	H	$6.23	20	$124.60
Brush Chipper, 6 in. capacity	938	Brush Chipper, 6 inch capacity, typically 35 HP. Includes chipper and power unit. Labor not included.	H	$34.58	20	$691.60
Log skidder	942	Equipment and power unit costs. Labor not included.	H	$60.93	10	$609.30
Truck, dump, 8 CY	1401	Dump truck for moving bulk material. Typically capacity is 12 ton or 8 cubic yards. Includes equipment only.	H	$54.59	20	$1,091.80
Labor						
General Labor	231	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.	H	$28.68	40	$1,147.20
Equipment Operators, Light	232	Includes: Skid Steer Loaders, Hydraulic Excavators <50 HP, Trenchers <12 in., Ag Equipment <150 HP, Pickup Trucks, Forklifts, Mulchers	H	$30.76	60	$1,845.60
Mobilization						
Mobilization, small equipment	1138	Equipment <70 HP but can't be transported by a pick-up truck or with typical weights between 3,500 to 14,000 pounds.	Ea	$300.42	1	$300.42
Mobilization, medium equipment	1139	Equipment with 70-150 HP or typical weights between 14,000 and 30,000 pounds.	Ea	$755.78	1	$755.78

Treating an area of significant woody plant residues to reduce hazardous fuels and the risk of insect and disease, improve organic matter, decrease unwanted habitat, and reduce erosion while improving water quality. Slash is to be lopped/treated/crushed within a foot of the ground or moved off site to meet state fire hazard reduction standards. Typically heavy equipment are used such as masticators, mulchers, drum choppers, etc. Hand work with chainsaws are used on steep slopes. Resource concerns include potential Emission of particulate matter, Wildfire hazard from excessive biomass accumulation, Excessive plant pest pressure, and Habitat degradation.

Before Situation:

Heavy woody material (difficult to walk through) resulting from silvicultural/management operations caused both fire hazard, access, potential harm to humans and animals, and pest issues.

After Situation:

Fire, access, and pest issues are reduced with slash spread out and in contact with the ground. An additional benefit is reduced soil movement.

Feature Measure: Acres treated

Scenario Unit: Acre

Scenario Typical Size: 40.00

Scenario Total Cost: $17,930.10

Scenario Cost/Unit: $448.25

Cost Details:

Component	ID	Description	U	Cost	QTY	Total
Equipment Installation						
Chainsaw	937	Equipment and power unit costs. Labor not included.	H	$6.23	40	$249.20
Truck, Pickup	939	Equipment and power unit costs. Labor not included.	H	$25.07	40	$1,002.80
Heavy mechanical site prep, drum chopping	1316	Mechanical operations that pushing trees and vegetation and crushing them with a water filled roller chopper. Requires heavy equipment such as dozers. Includes equipment, power unit and labor costs.	Ac	$148.15	80	$11,852.00
Labor						
General Labor	231	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.	H	$28.68	40	$1,147.20
Equipment Operators, Heavy	233	Includes: Cranes, Hydraulic Excavators >=50 HP, Dozers, Paving Machines, Rock Trenchers, Trenchers >=12 in., Dump Trucks, Ag Equipment >=150 HP, Scrapers, Water Wagons.	H	$34.58	80	$2,766.40
Mobilization						
Mobilization, large equipment	1140	Equipment >150HP or typical weights greater than 30,000 pounds or loads requiring over width or over length permits.	Ea	$912.50	1	$912.50

This practice involves the use of heavy machinery to treat an area in order to improve site conditions for establishing trees and/or shrubs. Typical sites include trees and brush cover that is not appropriate to the site or providing the desired condition for the landowner. This practice is typically used to address the following resource concerns: degraded plant condition - undesirable plant productivity and health and inadequate structure and composition and soil quality degredation - soil erosion - sheet and rill.

Before Situation:

The site is dominated by undesirable vegetation including herbaceous plants and significant amounts of woody vegetation (trees and brush) occupying the site. There is also a significant component of woody debris onsite. Noxious and invasive species may also be present on the site. Soils are compacted as a result of past heavy equipment activities or from other land uses. Sheet and rill erosion is ocurring in areas where the soil was severely disturbed expsoing bare soil. If left untreated, soil compaction and erosion issues will result in poor survival or reduced growth of trees/shrubs to be established on the site.

After Situation:

Undesirable vegetation has been removed using mechanical methods reducing competition for target trees and/or shrubs. Woody debris has been removed to facilitate tree/shrub planting operations. Soil compaction has been alleviated, allowing penetration of moisture and allowing roots to grow properly. Site conditions are favorable for successful establishment of trees and/or shrubs. The typical size is 40 acres.

Feature Measure: Area of Treatment

Scenario Unit: Acres

Scenario Typical Size: 40.00

Scenario Total Cost: $9,508.18

Scenario Cost/Unit: $237.70

Cost Details:

Component	ID	Description		Cost	QTY	Total
Equipment Installation						
Heavy mechanical site prep, shearing, V-blade, K-G blading	1314	Mechanical operations that shear trees and vegetation. Requires heavy equipment such as dozers, Includes equipment, power unit and labor costs.	A c -	$168.95	24	$4,054.80
Heavy mechanical site prep, raking	1317	Mechanical operations that pushing and raking trees and vegetation. Requires heavy equipment such as dozers. Includes equipment, power unit and labor costs.	A	$160.81	24	$3,859.44
Labor						
General Labor	231	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.	H c L	$28.68	8	$229.44
Supervisor or Manager	234	Labor involving supervision or management activities. Includes crew supervisors, foremen and farm/ranch managers time required for adopting new technology, etc.	H c	$45.20	10	$452.00
Mobilization						
Mobilization, large equipment	1140	Equipment >150HP or typical weights greater than 30,000 pounds or loads requiring over width or over length permits.	E a	$912.50	1	$912.50

This practice involves the use of light/moderate machinery to clear above ground vegetation and to also rip/cut/lift underground root systems in order to improve site conditions for establishing trees and/or shrubs. Typical sites include abandoned fields, pastures, rangelands, agricultural fields or forestlands that have been harvested. This following resource concerns: soil quality degredation - compaction, soil erosion - sheet and rill, and degraded plant condition - undesirable plant productivity and health and inadequate structure and composition.

Before Situation:

Undesirable vegetation is present on the site including herbaceous plants and sparse woody competition. Noxious and invasive species may also be present on the site. If left uncontrolled, undesirable vegetation will inhibit successful establishment of target species of trees and/or shrubs. Soils are compacted as a result of harvesting heavy equipment activities or other land uses.

After Situation:

Undesirable vegetation has been removed using a bush hog to knock down stand vegetation and heavy tillage equipment is used to breakup and lift root systems, breakup plow pans (<18' deep), thus enhancing the conditions for planting and survival of trees and/or shrubs. Soil compaction has been alleviated, allowing penetration of moisture and allowing roots to grow properly. Site conditions are favorable for successful establishment of trees and/or shrubs. The typical size of the practice is 40 acres.

Feature Measure: Area of Treatment

Scenario Unit: Acres

Scenario Typical Size: 40.00

Scenario Total Cost: $3,929.86

Scenario Cost/Unit: $98.25

Cost Details:

Component	ID	Description		Cost	QTY	Total
Equipment Installation						
Mower, Bush Hog	940	Equipment and power unit costs. Labor not included.	H c	$31.23	20	$624.60
Tillage, Primary	946	Includes heavy disking (offset) or chisel plow. Includes equipment, power unit and labor costs.	A c	$22.45	30	$673.50
Labor						
General Labor	231	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.	H	$28.68	5	$143.40
Equipment Operators, Light	232	Includes: Skid Steer Loaders, Hydraulic Excavators <50 HP, Trenchers <12 in., Ag Equipment <150 HP, Pickup Trucks, Forklifts, Mulchers	H c	$30.76	20	$615.20
Supervisor or Manager	234	Labor involving supervision or management activities. Includes crew supervisors, foremen and farm/ranch managers time required for adopting new technology, etc.	H	$45.20	8	$361.60
Mobilization						
Mobilization, medium equipment	1139	Equipment with 70-150 HP or typical weights between 14,000 and 30,000 pounds.	E	$755.78	2	$1,511.56

This practice involves the use of various herbicides applied using ground-based machinery (and some hack-n-squirt treatment of select trees) in order to remove undesirable vegetation and improve site conditions for establishing trees and/or shrubs. Typical sites include abandoned fields, pastures, rangelands, agricultural fields or forestland that was recently harvested. This practice is typically used to address the following resource concerns: degraded plant condition - undesirable plant productivity and health and inadequate structure and composition.

Before Situation:

Undesirable vegetation is present on the site including herbaceous plants and woody vegetation. Noxious and invasive species may also be present on the site. If left uncontrolled, undesirable vegetation will inhibit successful establishment of target species of trees and/or shrubs.

After Situation:

Undesirable vegetation has been treated using appropriate herbicides, reducing competition for target trees and/or shrubs. Site conditions are favorable for successful establishment of trees and/or shrubs. The typical size of the practice is 40 acres.

Feature Measure: Area of Treatment

Scenario Unit: Acres

Scenario Typical Size: 40.00

Scenario Total Cost: $8,434.62

Scenario Cost/Unit: $210.87

Cost Details:

Component	ID	Description		Cost	QTY	Total
Equipment Installation						
Chemical, spot treatment, single stem application	964	Ground applied chemical to individual plants or group of plants, e.g., backpack sprayer treatment. Equipment and labor cost included.	H c -	$80.87	20	$1,617.40
Chemical, ground application, forested land	1313	Chemical application performed by ground equipment where trees and terrain impede passage of wide boom sprayers. Utilizes forestry application methods that include heavy equipment such as skidders. Includes material, equipment, power unit and labor costs.	A	$111.25	40	$4,450.00
Labor						
Supervisor or Manager	234	Labor involving supervision or management activities. Includes crew supervisors, foremen and farm/ranch managers time required for adopting new technology, etc.	H	$45.20	20	$904.00
Materials						
Herbicide, Glyphosate	334	A broad-spectrum, non-selective systemic herbicide. Refer to WIN-PST for product names and active ingredients. Includes materials and shipping only.	A	$12.66	40	$506.40
Herbicide, Triclopyor	338	Refer to WIN-PST for product names and active ingredients. Materials and shipping	A	$34.16	4	$136.64
Herbicide, Surfactant	1095	Surfactants reduce the surface tension of water to produce more uniform coverage and penetration of herbicides, and weed killers. Paraffin Based Petroleum Surfactant. Refer to WIN-PST for product names and active ingredients. Includes materials and shipping only.	A c	$1.61	40	$64.40
Mobilization						
Mobilization, medium equipment	1139	Equipment with 70-150 HP or typical weights between 14,000 and 30,000 pounds.	E a	$755.78	1	$755.78

Practice: 490 - Tree/Shrub Site Preparation
Scenario: 46 - Hand site preparation
Scenario Description:

Scenario Code: MEEF4906

This practice typically involves grubbing all vegetation from the area of ground prior to the establishment of trees and/or shrubs. Typical sites include land such as old fields, pastures, rangelands, agricultural fields, or abandoned forests that are mostly grass or weed covered. This practice is typically used to address the following resource concerns: degraded plant condition - undesirable plant productivity and health and inadequate structure.

Before Situation:
The site contains undesirable vegetation including herbaceous and woody plants. Noxious and invasive species may also be present on the site. If left uncontrolled, undesirable vegetation will inhibit successful establishment of target species of trees and/or shrubs. Soils are compacted as a result of recent timber harvesting activities or other land uses. If left untreated poor survival or reduced growth of trees/shrubs will occur and wildlife habitat conditions will not improve.

After Situation:
All undesirable vegetation has been grubbed out of a 4 ft by 4 ft area, leaving bare soil, at each planting spot. Tree seedlings and/or shrubs are planted at each spot. Adequate moisture, space and light is available allowing plants to grow properly. Site conditions are favorable for successful establishment of trees and/or shrubs. The typical size is 10 acres.

Feature Measure: Area of Treatment
Scenario Unit: Acres

Scenario Typical Size: 10.00
Scenario Total Cost: $2,662.20

Scenario Cost/Unit: $266.22

Cost Details:

Component	ID	Description	U	Cost	QTY	Total
Labor						
General Labor	231	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.	Hours	$28.68	55	$1,577.40
Supervisor or Manager and farm/ranch managers time required for adopting new technology, etc.	234	Labor involving supervision or management activities. Includes crew	Hours	$45.20	24	$1,084.80 supervisors, foremen

Remove and disposal of brush and trees > 6 inches in diameter by demolition, excavation or other means required for removal. Dispose of all brush and trees so that it does not impede subsequent work or cause onsite or offsite damage. Dispose of all brush and trees by removal to an approved landfill, wood chipping and or land distribution, or recycling center, burial at an approved location or burning. If burning is used, implement appropriate smoke management to protect public health and safety. Remove and dispose of brush and trees in order to apply conservation practices or facilitate the planned land use. Brush and tree removal will address the resource concerns of the prevention or hindrance to the installation of conservation practices or present a hazard to their use and enjoyment.

Before Situation:
On any land where existing obstructions interfere with planned land use development, public safety or infrastructure. The site may be abandoned mine lands, construction sites, recreation areas, farms, ranches, and areas affected by natural disasters. This is not intended for the removal of obstructions from aquatic environments.

After Situation:
The typical area will be a 2.0 acre impaired area. The removal of brush and trees > 6 inch diameter will be performed with the use of equipment and hand labor. Dispose of all brush and trees from the obstruction removal so that it does not impede subsequent work or cause onsite or offsite damage. Revegetate or otherwise protect from erosion disturbed areas as soon as possible. Refer to NRCS Conservation Practice Standard 342, Critical Area Planting for seedbed preparation, seeding, fertilizing, and mulching requirements. The practice is to improve site conditions in order to apply conservation practices or facilitate better use of the landscape.

Feature Measure: Land Area
Scenario Unit: Acres

Scenario Typical Size: 2.00
Scenario Total Cost: $4,696.77

Scenario Cost/Unit: $2,348.39

Cost Details:

Component	ID	Description	U	Cost	QTY	Total
Equipment Installation						
Dozer, 200 HP	928	Track mounted Dozer with horsepower range of 160 to 250. Equipment and power unit costs. Labor not included.	H c	$180.75	12	$2,169.00
Truck, Pickup	939	Equipment and power unit costs. Labor not included.	H c	$25.07	12	$300.84
Brush Chipper, 15 in. capacity	1868	Brush Chipper, 15 inch capacity, typically 165 HP. Includes chipper and power unit. Does not include labor.	H c	$75.11	12	$901.32
Labor						
Skilled Labor	230	Labor requiring a high level skill set: Includes carpenters, welders, electricians, conservation professionals involved with data collection, monitoring, and or record keeping, etc.	H c L	$38.71	13	$503.23
General Labor	231	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.	H c	$28.68	13	$372.84
Equipment Operators, Heavy	233	Includes: Cranes, Hydraulic Excavators >=50 HP, Dozers, Paving Machines, Rock Trenchers, Trenchers >=12 in., Dump Trucks, Ag Equipment >=150 HP, Scrapers, Water Wagons.	H c	$34.58	13	$449.54

Remove and disposal of brush and trees < 6 inches in diameter by demolition, excavation or other means required for removal. Dispose of all brush and trees so that it does not impede subsequent work or cause onsite or offsite damage. Dispose of all brush and trees by removal to an approved landfill, wood chipping and or land distribution, or recycling center, burial at an approved location or burning. If burning is used, implement appropriate smoke management to protect public health and safety. Remove and dispose of brush and trees in order to apply conservation practices or facilitate the planned land use. Brush and tree removal will address the resource concerns of the prevention or hindrance to the installation of conservation practices or present a hazard to their use and enjoyment.

Before Situation:
On any land where existing obstructions interfere with planned land use development, public safety or infrastructure. The site may be abandoned mine lands, construction sites, recreation areas, farms, ranches, and areas affected by natural disasters. This is not intended for the removal of obstructions from aquatic environments.

After Situation:
The typical area will be a 2.0 acre impaired area. The removal of brush and trees < 6 inch diameter will be performed with the use of equipment and hand labor. Dispose of all brush and trees from the obstruction removal so that it does not impede subsequent work or cause onsite or offsite damage. Revegetate or otherwise protect from erosion disturbed areas as soon as possible. Refer to NRCS Conservation Practice Standard 342, Critical Area Planting for seedbed preparation, seeding, fertilizing, and mulching requirements. The practice is to improve site conditions in order to apply conservation practices or facilitate better use of the landscape.

Feature Measure: Land Area
Scenario Unit: Acres

Scenario Typical Size: 2.00
Scenario Total Cost: $2,878.37

Scenario Cost/Unit: $1,439.19

Cost Details:

Component	ID	Description	U	Cost	QTY	Total
Equipment Installation						
Dozer, 140 HP	927	Track mounted Dozer with horsepower range of 125 to 160. Equipment and power unit costs. Labor not included.	H c	$99.10	8	$792.80
Brush Chipper, 6 in. capacity	938	Brush Chipper, 6 inch capacity, typically 35 HP. Includes chipper and power unit. Labor not included.	H	$34.58	8	$276.64
Truck, Pickup	939	Equipment and power unit costs. Labor not included.	H	$25.07	8	$200.56
Labor						
Skilled Labor	230	Labor requiring a high level skill set: Includes carpenters, welders, electricians, conservation professionals involved with data collection, monitoring, and or record keeping, etc.	H c	$38.71	9	$348.39
General Labor	231	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.	H c	$28.68	9	$258.12
Equipment Operators, Light	232	Includes: Skid Steer Loaders, Hydraulic Excavators <50 HP, Trenchers <12 in., Ag Equipment <150 HP, Pickup Trucks, Forklifts, Mulchers	H c	$30.76	8	$246.08
Mobilization						
Mobilization, medium equipment	1139	Equipment with 70-150 HP or typical weights between 14,000 and 30,000 pounds.	E	$755.78	1	$755.78

Repair and rehabilitation of compacted earth road in existing alignment in dry, level terrain. Terrain should be considered level for slopes of 0-5%. The extent of construction work over an existing alignment is assumed to average 30% of the work for a new installation. A properly constructed, well defined access road will address resource concerns related with compaction, emissions of fugitive dust, and excessive sediment in surface water. It also improves the plant productivity, vigor and health and substantially reduces the chance of wild fire hazards. Short term air quality deterioration may result if proper dust control measures are not implemented during the practice installation. Costs include excavation, shaping, grading, surface material, vegetation of disturbed areas, and all equipment, labor and incidental materials necessary to install the practice.

Before Situation:

An agricultural enterprise with an existing access road which is beyond its useful lifespan, can no longer be used as intended without rehabilitation. If left in its current condition , it will result in continued compaction, excessive sediment in surface water and emissions of fugitive dusts. This scenario is applicable where the resource activity areas with an existing but dilapidated access road consist of relatively dry and level terrain lands.

After Situation:

The damaged portions of the road will be repaired to a full 14 feet width at the top, mostly in embankment less than 3 feet in height, (average 2 ft), typical side slopes 2:1. A properly repaired access road will greatly reduce or eliminate compaction in land use areas where it is harmful, reduce emissions of fugitive dust and also reduce excessive sediment in surface water by reducing uncontrolled sediment transport and improving drainage of irrigated lands. Planned grades will include all dips and water bars. If clearing and grubbing of land in the alignment area is required, use Land Clearing (460). Pipe culverts installed as part of access road should be covered by either Structures for Water Control (587) or Stream Crossings (578) depending on the type of structure. Earthfill embankment above the culvert structure would still be covered by this Practice. Diversions constructed as part of access road should be covered by Diversion (362). All seeding or revegetation of disturbed areas is provided. Dust control must be addressed under Dust Control on Unpaved Roads and Surfaces (373). Mulching should be addressed under Mulching (484).

Feature Measure: Length of Roadway

Scenario Unit: Feet

Scenario Typical Size: 500.00

Scenario Total Cost: $2,577.61

Scenario Cost/Unit: $5.16

Cost Details:

Component	ID	Description	U	Cost	QTY	Total
Equipment Installation						
Excavation, Common Earth, side cast, small equipment	48	Bulk excavation and side casting of common earth with hydraulic excavator with less than 1 CY capacity. Includes equipment and labor.	Cubic Yards	$2.46	65	$159.90
Earthfill, Roller Compacted	49	Earthfill, roller or machine compacted, includes equipment and labor	Cubic Yards	$3.90	205	$799.50
Fertilizer, ground application, dry bulk	950	Dry bulk fertilizer application performed by ground equipment. Includes equipment, power unit and labor costs.	A c	$7.52	0.12	$0.90
Lime application	953	Lime application performed by ground equipment. Includes equipment, power unit and labor costs.	A c	$9.13	0.12	$1.10
Labor						
Skilled Labor	230	Labor requiring a high level skill set: Includes carpenters, welders, electricians, conservation professionals involved with data collection, monitoring, and or record keeping, etc.	H c	$38.71	10	$387.10
Materials						
Native Perennial Grasses, Low Density	2750	Native perennial grasses, may include a small percentage of annual species for establishment purposes and/or if allowed by the CPS. Planted at lower to medium density (40 pure live seeds/sq ft and less). Includes material and shipping.	A c	$134.97	0.12	$16.20
Mobilization						
Mobilization, small equipment	1138	Equipment <70 HP but can't be transported by a pick-up truck or with typical weights between 3,500 to 14,000 pounds.	E a	$300.42	1	$300.42
Mobilization, large equipment	1140	Equipment >150HP or typical weights greater than 30,000 pounds or loads requiring over width or over length permits.	E a	$912.50	1	$912.50

Repair and rehabilitation of a compacted earth or gravel road where it is determined that gravel is needed for the repair with min. 12 inch thick compacted gravel surface over geotextile on existing alignment in soft, level terrain. Terrain should be considered level for slopes of 0-5%. The extent of construction work over an existing alignment is assumed to average 30% of the work for a new installation. A properly constructed, well defined access road will address resource concerns related with compaction, emissions of fugitive dust, and excessive sediment in surface water. It also improves the plant productivity, vigor and health and substantially reduces the chance of wild fire hazards. Short term air quality deterioration may result if proper dust control measures are not implemented during the practice installation. Costs include excavation, shaping, grading, surface materials, vegetation of disturbed areas, and all equipment, labor and incidental materials necessary to install the practice.

Before Situation:

An agricultural enterprise with an existing access road which is beyond its useful lifespan, can no longer be used as intended without rehabilitation. If left in its current condition , it will result in continued compaction, excessive sediment in surface water and emissions of fugitive dusts. This scenario is applicable where the resource activity areas with an existing but dilapidated access road consist of relatively wet and swampy but level terrain lands.

After Situation:

The damaged portions of the road will be repaired to a full 14 feet width with a geotextile and 12' gravel surface at the top, mostly in embankment less than 3 feet in height, (average 2 ft), typical side slopes 2:1. A properly repaired access road will greatly reduce or eliminate compaction in land use areas where it is harmful, reduce emissions of fugitive dust and also reduce excessive sediment in surface water by reducing uncontrolled sediment transport and improving drainage of irrigated lands. Planned grades will include all dips and water bars. If clearing and grubbing of land in the alignment area is required, use Land Clearing (460). Pipe culverts installed as part of access road should be covered by either Structures for Water Control (587) or Stream Crossings (578) depending on the type of structure. Earthfill embankment above the culvert structure would still be covered by this Practice. Diversions constructed as part of access road should be covered by Diversion (362). All seeding or revegetation of disturbed areas is provided.. Dust control must be addressed under Dust Control on Unpaved Roads and Surfaces (373). Mulching should be addressed under Mulching (484).

Feature Measure: Length of Roadway

Scenario Unit: Feet

Scenario Typical Size: 500.00

Scenario Total Cost: $5,634.34

Scenario Cost/Unit: $11.27

Cost Details:

Component	ID	Description	U	Cost	QTY	Total
Equipment Installation						
Geotextile, woven	42	Woven Geotextile Fabric. Includes materials, equipment and labor	Square Yard	$1.10	300	$330.00
Earthfill, Roller Compacted	49	Earthfill, roller or machine compacted, includes equipment and labor	Cubic Yards	$3.90	125	$487.50
Fertilizer, ground application, dry bulk	950	Dry bulk fertilizer application performed by ground equipment. Includes equipment, power unit and labor costs.	A c	$7.52	0.12	$0.90
Lime application	953	Lime application performed by ground equipment. Includes equipment, power unit and labor costs.	A c	$9.13	0.12	$1.10
Excavation, common earth, wet, side cast, large equipment	1228	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 Yards	$4.59	65	$298.35
Labor						
Skilled Labor	230	Labor requiring a high level skill set: Includes carpenters, welders, electricians, conservation professionals involved with data collection, monitoring, and or record keeping, etc.	H c u	$38.71	10	$387.10
Materials						
Aggregate, Gravel, Ungraded, Quarry Run	1099	Includes materials and local delivery within 20 miles of quarry or pit. Placement costs are not included.	Cubic Yards	$26.92	85	$2,288.20
Native Perennial Grasses, Low Density	2750	Native perennial grasses, may include a small percentage of annual species for establishment purposes and/or if allowed by the CPS. Planted at lower to medium density (40 pure live seeds/sq ft and less). Includes material and shipping.	A c	$134.97	0.12	$16.20
Mobilization						
Mobilization, large equipment	1140	Equipment >150HP or typical weights greater than 30,000 pounds or loads requiring over width or over length permits.	E a	$912.50	2	$1,825.00

Repair and rehabilitation of compacted earth, gravel, or geocell road where it is determined that geocell is required for the repair with min. 6 inch thick compacted gravel with geocell surface on existing alignment in soft, level terrain. Terrain should be considered level for slopes of 0-5%. The extent of construction work over an existing alignment is assumed to average 30% of the work for a new installation. A properly constructed, well defined access road will address resource concerns related with compaction, emissions of fugitive dust, and excessive sediment in surface water. It also improves the plant productivity, vigor and health and substantially reduces the chance of wild fire hazards. Short term air quality deterioration may result if proper dust control measures are not implemented during the practice installation. Costs include excavation, shaping, grading, surface material, vegetation of disturbed areas, and all equipment, labor and incidental materials necessary to install the practice.

Before Situation:

An agricultural enterprise with an existing access road which is beyond its useful lifespan, can no longer be used as intended without rehabilitation. If left in its current condition , it will result in continued compaction, excessive sediment in surface water and emissions of fugitive dusts. This scenario is applicable where the resource activity areas with an existing but dilapidated access road consist of relatively wet and swampy but level terrain lands.

After Situation:

The road will be 14 feet wide with geotextile, 6 inch gravel, and geocell surfacing. It is mostly in embankment less than 3 feet in height, (average 2 ft) typical side slopes 2:1. A properly constructed, well defined access road will greatly reduce sheet, rill and wind erosion, eliminate compaction in land use areas where it is harmful, reduce emissions of particulate matter (PM) and PM precursors and also reduce excessive sediment in surface water by reducing uncontrolled sediment transport. Planned grades will include all dips and water bars. If clearing and grubbing of land in the alignment area is required, use Land Clearing (460). Pipe culverts installed as part of access road should be covered by either Structures for Water Control (587) or Stream Crossings (578) depending on the type of structure. Earthfill embankment above the culvert structure would still be covered by this Practice. Diversions constructed as part of access road should be covered by Diversion (362). All seeding or revegetation of disturbed areas is provided. Dust control must be addressed under Dust Control on Unpaved Roads and Surfaces (373). Mulching should be addressed under Mulching (484).

Feature Measure: Length of Roadway

Scenario Unit: Feet

Scenario Typical Size: 500.00

Scenario Total Cost: $11,407.54

Scenario Cost/Unit: $22.82

Cost Details:

Component	ID	Description	U	Cost	QTY	Total
Equipment Installation						
Geotextile, woven	42	Woven Geotextile Fabric. Includes materials, equipment and labor	Square Yard	$1.10	300	$330.00
Earthfill, Roller Compacted	49	Earthfill, roller or machine compacted, includes equipment and labor	Cubic Yards	$3.90	125	$487.50
Fertilizer, ground application, dry bulk	950	Dry bulk fertilizer application performed by ground equipment. Includes equipment, power unit and labor costs.	A c	$7.52	0.12	$0.90
Lime application	953	Lime application performed by ground equipment. Includes equipment, power unit and labor costs.	A c	$9.13	0.12	$1.10
Excavation, common earth, wet, side cast, large equipment	1228	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 Yards	$4.59	65	$298.35
Labor						
Skilled Labor	230	Labor requiring a high level skill set: Includes carpenters, welders, electricians, conservation professionals involved with data collection, monitoring, and or record keeping, etc.	H c L	$38.71	10	$387.10
Materials						
Aggregate, Gravel, Ungraded, Quarry Run	1099	Includes materials and local delivery within 20 miles of quarry or pit. Placement costs are not included.	Cubic Yards	$26.92	55	$1,480.60
Geocell, 6 inch	1842	6-inch thick cellular confinement system, three-dimensional, expandable panels made from high-density polyethylene (HDPE), polyester or another polymer material. Includes materials, labor and equipment for the geocell only, does not include backfill.	Square Yard	$27.42	240	$6,580.80
Native Perennial Grasses, Low Density	2750	Native perennial grasses, may include a small percentage of annual species for establishment purposes and/or if allowed by the CPS. Planted at lower to medium density (40 pure live seeds/sq ft and less). Includes material and shipping.	A	$134.97	0.12	$16.20
Mobilization						
Mobilization, large equipment	1140	Equipment >150HP or typical weights greater than 30,000 pounds or loads requiring over width or over length permits.	E a	$912.50	2	$1,825.00

United States Department of Agriculture Natural Resources Conservation Service

Scenario Code: MEEF56010

Maine Practice Scenarios - Fiscal Year 2024

Practice: 560 - Access Road

Scenario: #10 - Rehabilitation of existing earth road in soft, sloped terrain

Scenario Description:

Repair and rehabilitation of compacted earth road in existing alignment in relatively soft soil conditions on a steep sloped terrain. Terrain should be considered sloped for slopes of >5%. The extent of construction work over an existing alignment is assumed to average 30% of the work for a new installation. A properly constructed, well defined access road will address resource concerns related with compaction, emissions of fugitive dust, and excessive sediment in surface water. It also improves the plant productivity, vigor and health and substantially reduces the chance of wild fire hazards. Short term air quality deterioration may result if proper dust control measures are not implemented during the practice installation. Costs include excavation, shaping, grading, some surfacing material, vegetation of disturbed areas, and all equipment, labor and incidental materials necessary to install the practice.

Before Situation:

An agricultural enterprise with an existing access road which is beyond its useful lifespan, can no longer be used as intended without rehabilitation. If left in its current condition , it will result in continued compaction, excessive sediment in surface water and emissions of fugitive dusts. This scenario is applicable where the resource activity areas with an existing but dilapidated access road consist of relatively dry lands with steep sloped terrain.

After Situation:

The damaged portions of the road will be repaired to a full 14 feet width at the top, 50% in embankment and 50% in excavation less than 3 feet in height, (average 2 ft), typical side slopes 2:1. Out of total excavation, 60% is considered common earth excavation and 40% hard dig or rocks. A properly repaired access road will greatly reduce or eliminate compaction in land use areas where it is harmful, reduce emissions of fugitive dust and also reduce excessive sediment in surface water by reducing uncontrolled sediment transport and improving drainage of irrigated lands. Planned grades will include all dips and water bars. If clearing and grubbing of land in the alignment area is required, use Land Clearing (460). Pipe culverts installed as part of access road should be covered by either Structures for Water Control (587) or Stream Crossings (578) depending on the type of structure. Earthfill embankment above the culvert structure would still be covered by this Practice. Diversions constructed as part of access road should be covered by Diversion (362). All seeding or revegetation of disturbed areas is provided. Dust control must be addressed under Dust Control on Unpaved Roads and Surfaces (373). Mulching should be addressed under Mulching (484).

Feature Measure: Length of Roadway

Scenario Unit: Feet

Scenario Typical Size: 500.00

Scenario Total Cost: $3,032.61

Scenario Cost/Unit: $6.07

Cost Details:

Component	ID	Description	U	Cost	QTY	Total
Equipment Installation						
Excavation, Rock, Ripping	47	Excavation, rock, mechanical ripping, includes equipment and labor	Cubic Yards	$4.24	80	$339.20
Excavation, Common Earth, side cast, small equipment	48	Bulk excavation and side casting of common earth with hydraulic excavator with less than 1 CY capacity. Includes equipment and labor.	Cubic Yards	$2.46	120	$295.20
Earthfill, Roller Compacted	49	Earthfill, roller or machine compacted, includes equipment and labor	Cubic Yards	$3.90	200	$780.00
Fertilizer, ground application, dry bulk	950	Dry bulk fertilizer application performed by ground equipment. Includes equipment, power unit and labor costs.	A c	$7.52	0.12	$0.90
Lime application	953	Lime application performed by ground equipment. Includes equipment, power unit and labor costs.	A c	$9.13	0.12	$1.10
Labor						
Skilled Labor	230	Labor requiring a high level skill set: Includes carpenters, welders, electricians, conservation professionals involved with data collection, monitoring, and or record keeping, etc.	H	$38.71	10	$387.10
Materials						
Native Perennial Grasses, Low Density	2750	Native perennial grasses, may include a small percentage of annual species for establishment purposes and/or if allowed by the CPS. Planted at lower to medium density (40 pure live seeds/sq ft and less). Includes material and shipping.	A	$134.97	0.12	$16.20
Mobilization						
Mobilization, small equipment	1138	Equipment <70 HP but can't be transported by a pick-up truck or with typical weights between 3,500 to 14,000 pounds.	E	$300.42	1	$300.42
Mobilization, large equipment	1140	Equipment >150HP or typical weights greater than 30,000 pounds or loads requiring over width or over length permits.	E a	$912.50	1	$912.50

United States Department of Agriculture Natural Resources Conservation Service

Scenario Code: MEEF56011

Maine Practice Scenarios - Fiscal Year 2024

Practice: 560 - Access Road

Scenario: #11 - Rehabilitation of existing road using gravel in soft, sloped terrain

Scenario Description:

Repair and rehabilitation of compacted earth or gravel road where it is determined that gravel is needed for the repair with min. 12 inch thick compacted gravel surface over geotextile on existing alignment in soft, steep sloped terrain. Terrain should be considered sloped for slopes of >5%. The extent of construction work over an existing alignment is assumed to average 30% of the work for a new installation. A properly constructed, well defined access road will address resource concerns related with compaction, emissions of fugitive dust, and excessive sediment in surface water. It also improves the plant productivity, vigor and health and substantially reduces the chance of wild fire hazards. Short term air quality deterioration may result if proper dust control measures are not implemented during the practice installation. Costs include excavation, shaping, grading, surface material, vegetation of disturbed areas, and all equipment, labor and incidental materials necessary to install the practice.

Before Situation:

An agricultural enterprise with an existing access road which is beyond its useful lifespan, can no longer be used as intended without rehabilitation. If left in its current condition , it will result in continued compaction, excessive sediment in surface water and emissions of fugitive dust. This scenario is applicable where the resource activity areas with an existing but dilapidated access road consist of relatively wet and swampy land with steep sloped terrain.

After Situation:

The damaged portions of the road will be repaired to a full 14 feet width with a geotextile and 12' gravel surface at the top, 50% in embankment and 50% in excavation less than 3 feet in height, (average 2 ft), typical side slopes 2:1. Out of total excavation, 60% is considered common earth and 40% hard dig or rocks. A properly repaired access road will greatly reduce or eliminate compaction in land use areas where it is harmful, reduce emissions of fugitive dust and also reduce excessive sediment in surface water by reducing uncontrolled sediment transport and improving drainage of irrigated lands. Planned grades will include all dips and water bars. If clearing and grubbing of land in the alignment area is required, use Land Clearing (460). Pipe culverts installed as part of access road should be covered by either Structures for Water Control (587) or Stream Crossings (578) depending on the type of structure. Earthfill embankment above the culvert structure would still be covered by this Practice.
Diversions constructed as part of access road should be covered by Diversion (362). All seeding or revegetation of disturbed areas is provided. Dust control must be addressed under Dust Control on Unpaved Roads and Surfaces (373). Mulching should be addressed under Mulching (484).

Feature Measure: Length of Roadway

Scenario Unit: Feet

Scenario Typical Size: 500.00

Scenario Total Cost: $6,225.99

Scenario Cost/Unit: $12.45

Cost Details:

Component	ID	Description	U	Cost	QTY	Total
Equipment Installation						
Geotextile, woven	42	Woven Geotextile Fabric. Includes materials, equipment and labor	Square Yard	$1.10	300	$330.00
Excavation, Rock, Ripping	47	Excavation, rock, mechanical ripping, includes equipment and labor	Cubic Yards	$4.24	80	$339.20
Earthfill, Roller Compacted	49	Earthfill, roller or machine compacted, includes equipment and labor	Cubic Yards	$3.90	125	$487.50
Fertilizer, ground application, dry bulk	950	Dry bulk fertilizer application performed by ground equipment. Includes equipment, power unit and labor costs.	A c	$7.52	0.12	$0.90
Lime application	953	Lime application performed by ground equipment. Includes equipment, power unit and labor costs.	A c	$9.13	0.12	$1.10
Excavation, common earth, wet, side cast, large equipment	1228	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 Yards	$4.59	120	$550.80
Labor						
Skilled Labor	230	Labor requiring a high level skill set: Includes carpenters, welders, electricians, conservation professionals involved with data collection, monitoring, and or record keeping, etc.	H	$38.71	10	$387.10
Materials						
Aggregate, Gravel, Ungraded, Quarry Run	1099	Includes materials and local delivery within 20 miles of quarry or pit. Placement costs are not included.	Cubic Yards	$26.92	85	$2,288.20
Native Perennial Grasses, Low Density	2750	Native perennial grasses, may include a small percentage of annual species for establishment purposes and/or if allowed by the CPS. Planted at lower to medium density (40 pure live seeds/sq ft and less). Includes material and shipping.	A c r	$134.97	0.12	$16.20
Mobilization						
Mobilization, large equipment	1140	Equipment >150HP or typical weights greater than 30,000 pounds or loads requiring over width or over length permits.	E a	$912.50	2	$1,825.00

Practice: 560 - Access Road

Scenario: #12 - Rehabilitation of existing road using geocell in soft, sloped terrain

Scenario Description:

Repair and rehabilitation of compacted earth, gravel, or geocell road where it is determined that geocell is needed for the repair with min. 6 inch thick compacted gravel with geocell surface on existing alignment in soft, steep sloped terrain. Terrain should be considered sloped for slopes of >5%. The extent of construction work over an existing alignment is assumed to average 30% of the work for a new installation. A properly constructed, well defined access road will address resource concerns related with compaction, emissions of fugitive dust, and excessive sediment in surface water. It also improves the plant productivity, vigor and health and substantially reduces the chance of wild fire hazards. Short term air quality deterioration may result if proper dust control measures are not implemented during the practice installation. Costs include excavation, shaping, grading, surface material, vegetation of disturbed areas, and all equipment, labor and incidental materials necessary to install the practice.

Before Situation:

An agricultural enterprise with an existing access road which is beyond its useful lifespan, can no longer be used as intended without rehabilitation. If left in its current condition , it will result in continued compaction, excessive sediment in surface water and emissions of fugitive dusts. This scenario is applicable where the resource activity areas with an existing but dilapidated access road consist of relatively wet and swampy but level terrain lands.

After Situation:

The road will be 14 feet wide with geotextile, 6 inch gravel, and geocell surfacing. It is mostly in embankment less than 3 feet in height, (average 2 ft) typical side slopes 2:1. Out of total excavation, 60% is considered common earth and 40% hard dig or rocks. A properly constructed, well defined access road will greatly reduce sheet, rill and wind erosion, eliminate compaction in land use areas where it is harmful, reduce emissions of particulate matter (PM) and PM precursors and also reduce excessive sediment in surface water by reducing uncontrolled sediment transport. Planned grades will include all dips and water bars. If clearing and grubbing of land in the alignment area is required, use Land Clearing (460). Pipe culverts installed as part of access road should be covered by either Structures for Water Control (587) or Stream Crossings (578) depending on the type of structure. Earthfill embankment above the culvert structure would still be covered by this Practice. Diversions constructed as part of access road should be covered by Diversion (362). All seeding or revegetation of disturbed areas is provided. Dust control must be addressed under Dust Control on Unpaved Roads and Surfaces (373). Mulching should be addressed under Mulching (484).

Feature Measure: Length of Roadway

Scenario Unit: Feet

Scenario Typical Size: 500.00

Scenario Total Cost: $11,999.19

Scenario Cost/Unit: $24.00

Cost Details:

Component	ID	Description		Cost	QTY	Total
Equipment Installation						
Geotextile, woven	42	Woven Geotextile Fabric. Includes materials, equipment and labor	Square Yard	$1.10	300	$330.00
Excavation, Rock, Ripping	47	Excavation, rock, mechanical ripping, includes equipment and labor	Cubic Yards	$4.24	80	$339.20
Earthfill, Roller Compacted	49	Earthfill, roller or machine compacted, includes equipment and labor	Cubic Yards	$3.90	125	$487.50
Fertilizer, ground application, dry bulk	950	Dry bulk fertilizer application performed by ground equipment. Includes equipment, power unit and labor costs.	A c	$7.52	0.12	$0.90
Lime application	953	Lime application performed by ground equipment. Includes equipment, power unit and labor costs.	A c	$9.13	0.12	$1.10
Excavation, common earth, wet, side cast, large equipment	1228	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 Yards	$4.59	120	$550.80
Labor						
Skilled Labor	230	Labor requiring a high level skill set: Includes carpenters, welders, electricians, conservation professionals involved with data collection, monitoring, and or record keeping, etc.	H	$38.71	10	$387.10
Materials						
Aggregate, Gravel, Ungraded, Quarry Run	1099	Includes materials and local delivery within 20 miles of quarry or pit. Placement costs are not included.	Cubic Yards	$26.92	55	$1,480.60
Geocell, 6 inch	1842	6-inch thick cellular confinement system, three-dimensional, expandable panels made from high-density polyethylene (HDPE), polyester or another polymer material. Includes materials, labor and equipment for the geocell only, does not include backfill.	Square Yard	$27.42	240	$6,580.80
Native Perennial Grasses, Low Density	2750	Native perennial grasses, may include a small percentage of annual species for establishment purposes and/or if allowed by the CPS. Planted at lower to medium density (40 pure live seeds/sq ft and less). Includes material and shipping.	A c	$134.97	0.12	$16.20
Mobilization						
Mobilization, large equipment	1140	Equipment >150HP or typical weights greater than 30,000 pounds or loads requiring over width or over length permits.	E	$912.50	2	$1,825.00

Scenario: #1 - Riprap

Scenario Description:

Protection of streambanks using riprap to stabilize and protect banks of streams against scour and erosion. The purpose of this practice is to maintain, improve, or restore physical, chemical, and biological functions of a stream to provide diverse aquatic communities to improve habitat for desired aquatic species. Payment cost include shaping bank, geotextile, and furnishing and placing rock rip rap. Typical scenario is a 2.0 feet thick blanket of rock riprap, placed on a 1.5 to 1 slope, installed on an eroded streambank which is 200 feet long. Streambank is typically 6 feet high. Riprap toe is excavated 3 feet into stream bottom. The bank above the riprap will be graded to a stable slope and revegetated.Resource Concerns: Soil Erosion - Excessive Bank Erosion from Streams, Shoreline and Water Conveyance Channels; Water
Quality Degradation - Excessive Sediment in Surface Waters; Water Quality Degradation - Elevated Water Temperature; Excess/Insufficient Water - Excessive Sediment in Surface Waters; Inadequate Habitat for Fish and Wildlife- Habitat Degradation.Associated Practices include: 560 - Access Road; 342 - Critical Area Planting; 382 - Fence;
391 - Riparian Forest Buffer; 390 - Riparian Herbaceous Cover; 395 - Stream Habitat Improvement and Management; 614 - Watering Facility; 484-Mulching; 570- Stromwater Runoff Control.

Before Situation:

A stream bisects the agricultural property and has had all of the woody vegetation removed due to overgrazing or human manipulation; the stream has severely degraded streambanks that are unstable and show signs of active erosion. Soil Erosion: The streambank is unstable.Water Quality Degradation: The sediment load has increased
in the stream resulting in elevated water temperatures.Excess/Insufficient Water: The excessive sediment load has reduced the water conveyance capacity, storage capacity and flow within the stream.Inadequate Habitat for Fish and Wildlife: The deficiencies in the stream's habitat limit survival, growth, reproduction, and/or diversity of aquatic organisms within the stream.

After Situation:

The streambank is stable against further erosion and encourages natural sediment transport and deposition. Loss of riparian areas and sediment load is reduced in the stream.For Soil Erosion: The streambank is stable.For Water Quality Degradation: The sediment load has decreased in the stream resulting in improved aquatic habitat.For Excess/Insufficient Water: The water conveyance capacity, storage capacity and flow within the stream has been stabilized.For Inadequate Habitat for Fish and Wildlife: The reduction in the sediment load promotes survival, growth, reproduction, and/or diversity of aquatic organisms within the stream's habitat.

Feature Measure: Volume of Riprap

Scenario Unit: Cubic Yards

Scenario Typical Size: 240.00

Scenario Total Cost: $35,409.50

Scenario Cost/Unit: $147.54

Cost Details:

Component	ID	Description		Co	Q	Total
Equipment Installation						
Hydraulic Excavator, 1 CY	931	Track mounted hydraulic excavator with bucket capacity range of 0.8 to 1.5 CY. Equipment and power unit costs. Labor not included.	H c	*****		$1,290.00
Labor						
Equipment Operators, Heavy	233	Includes: Cranes, Hydraulic Excavators >=50 HP, Dozers, Paving Machines, Rock Trenchers, Trenchers >=12 in., Dump Trucks, Ag Equipment >=150 HP, Scrapers, Water Wagons.	H c L	*****		$345.80
Supervisor or Manager	234	Labor involving supervision or management activities. Includes crew supervisors, foremen and farm/ranch managers time required for adopting new technology, etc.	H c L	*****	5	$226.00
Materials						
Rock Riprap, Placed with geotextile	44	Rock Riprap, placed with geotextile. Includes materials, local delivery within 20 miles of quarry, and placement.	Cubic Yards	*****	240	$32,635.20
Mobilization						
Mobilization, large equipment	*****	Equipment >150HP or typical weights greater than 30,000 pounds or loads requiring over width or over length permits.	Eac	$912.50	1	$912.50

Scenario: #2 - Bioengineered

Scenario Description:

Bioengineering consist of non-structural measures such as facines, wattles, woody cuttings, revetments and other non-structural measures to stabilize and protect the streambank against scour and erosion. Soil bioengineering is a system of living plant materials that are installed to provide immediate protection and reinforcement of the soil along the streambank. Bioengineering is generally installed on the streambank above structural measures or toe protection such as rock riprap. Vegetation in the form of trees, bushes, grass re-establishment is covered under 342 - Critical Area Planting. In addition, soil bioengineering systems create resistance to sliding or shear displacement in a streambank as they develop roots or fibrous inclusions. Environmental benefits derived from bioengineering materials include diverse and productive riparian habitats, shade, organic additions to the stream, cover for fish, and improvements in aesthetic value and water quality. Soil bioengineering installations work best in conjunction with structural measures such as rock riprap to provide more permanent protection and healthy function, enhance aesthetics, and create a more environmentally acceptable product. Soil bioengineering systems normally use unrooted plant parts in the form of cut branches and rooted plants. For streambanks, living systems include brushmattresses, live stakes, joint plantings, vegetated geogrids, branchpacking, and live fascines. Typical bioengineering scenario is a plot of land which is 200' long by 10' wide (2000 sf) installed on the upper part of the streambank.Resource Concerns: Soil Erosion - Excessive Bank Erosion from Streams, Shoreline and
Water Conveyance Channels; Water Quality Degradation - Excessive Sediment in Surface Waters; Water Quality Degradation - Elevated Water Temperature; Excess/Insufficient Water - Excessive Sediment in Surface Waters; Inadequate Habitat for Fish and Wildlife- Habitat Degradation.Associated Practices include: 560 -
Access Road; 342 - Critical Area Planting; 382 - Fence; 391 - Riparian Forest Buffer; 390 - Riparian Herbaceous Cover; 395 - Stream Habitat Improvement and Management; 614 - Watering Facility; 484-Mulching; 570-Stromwater Runoff Control.

Before Situation:

A stream bisects the agricultural property and has had all of the woody vegetation removed due to overgrazing or human manipulation; the upper part of the streambank is degraded, unstable and show signs of active erosion. Generally installed above more permanent structual measures such as rock riprap.Soil Erosion: The streambank
is unstable.Water Quality Degradation: The sediment load has increased in the stream resulting in elevated water temperatures.Excess/Insufficient Water: The excessive sediment load has reduced the water conveyance capacity, storage capacity and flow within the stream.Inadequate Habitat for Fish and Wildlife: The deficiencies in the stream's habitat limit survival, growth, reproduction, and/or diversity of aquatic organisms within the stream.

After Situation:

The streambank is stable against further erosion and encourages natural sediment transport and deposition. Loss of riparian areas and sediment load is reduced in the stream.For Soil Erosion: The streambank is stable.For Water Quality Degradation: The sediment load has decreased in the stream resulting in improved aquatic habitat.For Excess/Insufficient Water: The water conveyance capacity, storage capacity and flow within the stream has been stabilized.For Inadequate Habitat for Fish and Wildlife: The reduction in the sediment load promotes survival, growth, reproduction, and/or diversity of aquatic organisms within the stream's habitat.

Feature Measure: Area of Bio-Engineering Applied

Scenario Unit: Square Feet
Scenario Typical Size: 2,000.00
Scenario Total Cost: $10,169.46
Scenario Cost/Unit: $5.08

Cost Details:

Component	ID	Description	U	Cost	QTY	Total
Equipment Installation						
Backhoe, 80 HP	926	Wheel mounted backhoe excavator with horsepower range of 60 to 90. Equipment and power unit costs. Labor not included.	H	$65.42	10	$654.20
Tractor, agricultural, 120 HP	962	Agricultural tractor with horsepower range of 90 to 140. Equipment and power unit costs. Labor not included.	H	$74.25	10	$742.50
Labor						
General Labor	231	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.	H	$28.68	20	$573.60
Equipment Operators, Light	232	Includes: Skid Steer Loaders, Hydraulic Excavators <50 HP, Trenchers <12 in., Ag Equipment <150 HP, Pickup Trucks, Forklifts, Mulchers	H	$30.76	10	$307.60
Supervisor or Manager	234	Labor involving supervision or management activities. Includes crew supervisors, foremen and farm/ranch managers time required for adopting new technology, etc.	H	$45.20	10	$452.00
Materials						
Tree & Shrub, Woody, Cuttings, Medium	1308	Woody cuttings, live stakes or whips typically 1/4 to 1 inch diameter and 24 to 48 inches long. Includes materials and shipping only.	E	$2.01	200	$402.00
Wattles or fascines, 4 to 5 inch diameter	1903	Fascines, or wattles: bundles of live tree stems of species that sprout roots, bound together, 4-5 inch diameter. Includes materials and shipping only.	Fe	$5.49	200	$1,098.00
Wattles or fascines, 6 to 8 inch diameter	1904	Fascines, or wattles: bundles of live tree stems of species that sprout roots, bound together, 6-8 inch diameter. Includes materials and shipping only.	Fe	$9.16	200	$1,832.00
Wattles or fascines, 9 to 12 inch diameter	1905	Fascines, or wattles: bundles of live tree stems of species that sprout roots, bound together, 9-12 inch diameter. Includes materials and shipping only.	Fe	$12.98	200	$2,596.00

Scenario: 329 - Vegetative
Scenario Description:
Protection of streambanks consisting of conventional plantings of vegetation to stabilize and protect against scour and erosion. The purpose of this practice is to maintain, improve, or restore physical, chemical, and biological functions of a stream to provide diverse aquatic communities to improve habitat for desired aquatic species. Payment cost include shaping bank, critical area vegetation and erosion control fabric; a 6-foot high bank at 3(H):1(V) slope for 1000 linear feet (0.46 acres) is used for estimation purposes.Resource Concerns: Soil Erosion - Excessive Bank Erosion from Streams, Shoreline and Water Conveyance Channels; Water Quality Degradation - Excessive Sediment in Surface Waters; Water Quality Degradation - Elevated Water Temperature; Excess/Insufficient Water - Excessive Sediment in Surface Waters; Inadequate Habitat for Fish and Wildlife- Habitat Degradation.Associated Practices include: 560 - Access Road; 342 - Critical Area Planting; 382 - Fence; 391 - Riparian Forest Buffer; 390 - Riparian Herbaceous Cover; 395 - Stream Habitat Improvement and Management; 614 - Watering Facility
Before Situation:
A stream bisects the agricultural property and has had all of the woody vegetation removed due to overgrazing or human manipulation; the stream has marginally degraded streambanks that are unstable and show signs of active erosion. Soil Erosion: The streambank is unstable.Water Quality Degradation: The sediment load has increased in the stream resulting in elevated water temperatures.Excess/Insufficient Water: The excessive sediment load has reduced the water conveyance capacity, storage capacity and flow within the stream.Inadequate Habitat for Fish and Wildlife: The deficiencies in the stream's habitat limit survival, growth, reproduction, and/or diversity of aquatic organisms within the stream.
After Situation:
The streambank is stable against further erosion and encourages natural sediment transport and deposition. Loss of riparian areas and sediment load is reduced in the stream.For Soil Erosion: The streambank is stable.For Water Quality Degradation: The sediment load has decreased in the stream resulting in improved aquatic habitat.For Excess/Insufficient Water: The water conveyance capacity, storage capacity and flow within the stream has been stabilized.For Inadequate Habitat for Fish and Wildlife: The reduction in the sediment load promotes survival, growth, reproduction, and/or diversity of aquatic organisms within the stream's habitat.
Feature Measure: Linear Feet of Streambank/Shoreli
Scenario Unit: Feet

Scenario Typical Size: 1,000.00
Scenario Total Cost: $27,607.89
Scenario Cost/Unit: $27.61

Cost Details:

Component	ID	Description	U	Cost	QTY	Total
Equipment Installation						
Excavation, Common Earth, side cast, small equipment	48	Bulk excavation and side casting of common earth with hydraulic excavator with less than 1 CY capacity. Includes equipment and labor.	Cubic Yards	$2.46	2500	$6,150.00
Dozer, 80 HP	929	Track mounted Dozer with horsepower range of 60 to 90. Equipment and power unit costs. Labor not included.	H	$77.39	16	$1,238.24
Seeding Operation, Broadcast, Ground	959	Broadcast seed via ground operation. May require post tillage operation to incorporate seed. Includes equipment, power unit and labor costs.	A	$13.85	0.46	$6.37
Labor						
General Labor	231	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.	H	$28.68	252	$7,227.36
Equipment Operators, Light	232	Includes: Skid Steer Loaders, Hydraulic Excavators <50 HP, Trenchers <12 in., Ag Equipment <150 HP, Pickup Trucks, Forklifts, Mulchers	H	$30.76	16	$492.16
Supervisor or Manager	234	Labor involving supervision or management activities. Includes crew supervisors, foremen and farm/ranch managers time required for adopting new technology, etc.	H	$45.20	63	$2,847.60
Materials						
Erosion Control Blanket, biodegradable	1213	Biodegradable erosion control blanket, typically a composite of natural fibers with reinforcing polymer netting. Materials and shipping only.	Square Yard	$1.69	2222	$3,755.18
Annual Grasses	2730	Annual grasses, one or more species, mostly introduced but may be native. Used for temporary cover or cover crops. Includes material and shipping.	A	$40.79	100	$4,079.00
Mobilization						
Mobilization, small equipment	1138	Equipment <70 HP but can't be transported by a pick-up truck or with typical weights between 3,500 to 14,000 pounds.	E	$300.42	1	$300.42
Mobilization, medium equipment	1139	Equipment with 70-150 HP or typical weights between 14,000 and 30,000 pounds.	E	$755.78	2	$1,511.56

Scenario: 560 - Streambank and Shoreline Protection
Scenario Description:

Scenario Code: MEEF58030

Protection of streambanks using structural measures such as riprap, concrete block, gabions, etc. to stabilize and protect banks of streams or excavated channels against scour and erosion. Additional structural measures may also include tree revetments; log, rootwad and boulder revetments; dormant post plantings; piling revetments with wire or geotextile fencing; piling revetments with slotted fencing; jacks or jack fields; rock riprap; stream jetties; stream barbs; and gabions. The purpose of this practice is to maintain, improve, or restore physical, chemical, and biological functions of a stream to provide diverse aquatic communities to improve habitat for desired aquatic species. Payment cost include shaping bank, critical area vegetation, geotextile, and rock rip rap; a 6-foot high bank at 3(H):1(V) slope for 1000 linear feet (0.46 acres) is used for estimation purposes. The rock toe will be 3' thick and 5' high. The bank above the riprap will be graded to a stable slope and revegetated.Resource Concerns: Soil Erosion - Excessive Bank Erosion from Streams, Shoreline and Water Conveyance Channels; Water Quality Degradation - Excessive Sediment in Surface Waters; Water Quality Degradation - Elevated Water Temperature; Excess/Insufficient Water - Excessive Sediment in Surface Waters; Inadequate Habitat for Fish and Wildlife- Habitat Degradation.Associated Practices include: 560 - Access Road; 342 - Critical Area Planting; 382 - Fence; 391 - Riparian Forest Buffer; 390 - Riparian Herbaceous Cover; 395 - Stream Habitat Improvement and Management; 614 - Watering Facility
Before Situation:
A stream bisects the agricultural property and has had all of the woody vegetation removed due to overgrazing or human manipulation; the stream has severely degraded streambanks that are unstable and show signs of active erosion. Soil Erosion: The streambank is unstable.Water Quality Degradation: The sediment load has increased in the stream resulting in elevated water temperatures.Excess/Insufficient Water: The excessive sediment load has reduced the water conveyance capacity, storage capacity and flow within the stream.Inadequate Habitat for Fish and Wildlife: The deficiencies in the stream's habitat limit survival, growth, reproduction, and/or diversity of aquatic organisms within the stream.
After Situation:
The streambank is stable against further erosion and encourages natural sediment transport and deposition. Loss of riparian areas and sediment load is reduced in the stream.For Soil Erosion: The streambank is stable.For Water Quality Degradation: The sediment load has decreased in the stream resulting in improved aquatic habitat.For Excess/Insufficient Water: The water conveyance capacity, storage capacity and flow within the stream has been stabilized.For Inadequate Habitat for Fish and Wildlife: The reduction in the sediment load promotes survival, growth, reproduction, and/or diversity of aquatic organisms within the stream's habitat.
Feature Measure: Linear Feet of Streambank/Shoreli
Scenario Unit: Feet

Scenario Typical Size: 1,000.00
Scenario Total Cost: $267,956.61
Scenario Cost/Unit: $267.96

Cost Details:

Component	ID	Description	U	Cost	QTY	Total
Equipment Installation						
Earthfill, Roller Compacted	49	Earthfill, roller or machine compacted, includes equipment and labor	Cubic Yards	$3.90	2500	$9,750.00
Dozer, 80 HP	929	Track mounted Dozer with horsepower range of 60 to 90. Equipment and power unit costs. Labor not included.	H	$77.39	16	$1,238.24
Seeding Operation, Broadcast, Ground	959	Broadcast seed via ground operation. May require post tillage operation to incorporate seed. Includes equipment, power unit and labor costs.	A	$13.85	0.12	$1.66
Excavation, common earth, wet, side cast, large equipment	1228	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 Yards	$4.59	2500	$11,475.00
Labor						
General Labor	231	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.	H	$28.68	360	$10,324.80
Equipment Operators, Light	232	Includes: Skid Steer Loaders, Hydraulic Excavators <50 HP, Trenchers <12 in., Ag Equipment <150 HP, Pickup Trucks, Forklifts, Mulchers	H	$30.76	16	$492.16

Supervisor or Manager	234	Labor involving supervision or management activities. Includes crew supervisors, foremen and farm/ranch managers time required for adopting new technology, etc.	H c u	$45.20	90	$4,068.00
Materials						
Rock Riprap, Placed with geotextile	44	Rock Riprap, placed with geotextile. Includes materials, local delivery within 20 miles of quarry, and placement.	Cubic Yards	$135.98	1667	$226,678.66
Erosion Control Blanket, biodegradable	1213	Biodegradable erosion control blanket, typically a composite of natural fibers with reinforcing polymer netting. Materials and shipping only.	Square Yard	$1.69	556	$939.64
Annual Grasses	2730	Annual grasses, one or more species, mostly introduced but may be native. Used for temporary cover or cover crops. Includes material and shipping.	A	$40.79	25	$1,019.75
Mobilization						

United States Department of Agriculture

Natural Resources Conservation Service

Scenario Code: MEEF5874

Maine

Practice Scenarios - Fiscal Year 2024

Practice: SR7 - Structure for Water Control
Scenario: #4 - Culvert <30 inches HDPE
Scenario Description:
Install a new HDPE culvert under 30 inches in diameter to convey water under roads or other barriers. A typical scenario would be an 24 inch diameter pipe, 40 feet in length. Work includes site preparation, acquiring and installing culvert pipe with gravel bedding and fill (compacted), and riprap protection of side slopes. Use (396) Aquatic Organism Passage when the primary intent is biological concerns, not hydrologic. Use (578) Stream Crossing for culverts ??? 30 inches or perennial flow.
Before Situation:
Water flow needs to be conveyed under an access road, ditch or other barrier. Water must be conveyed in a controlled fashion.
After Situation:
Water is conveyed in a controlled manner. Associated practices could be Access Road (560), Animal Trails and Walkways (575), Critical Area Planting (342), Drainage Water Management (554), Irrigation Canal or Lateral (320), Irrigation Pipeline (430), Irrigation Reservoir (436), Irrigation System, Surface and Subsurface (443), Irrigation System, Tailwater Recovery (447), Irrigation Water Management (449), Lined Waterway or Outlet (468), Obstruction Removal (500), Pond (378), Stormwater Runoff Control (570), Surface Drain, Field Ditch (607), Surface Drain, Main or Lateral (608), and Trails and Walkways (568).
Feature Measure: Pipe Diameter (in) x Pipe Length (ft)

Scenario Unit: Inch-Foot
Scenario Typical Size: 960.00
Scenario Total Cost: $3,611.38
Scenario Cost/Unit: $3.76

Cost Details:

Component	ID	Description	U	Co	QTY	Total
Equipment Installation						
Excavation, Common Earth, side cast, small equipment	48	Bulk excavation and side casting of common earth with hydraulic excavator with less than 1 CY capacity. Includes equipment and labor.	Cubic Yards	$2.46	5	$12.30
Earthfill, Manually Compacted	50	Earthfill, manually compacted, includes equipment and labor	Cubic Yards	$6.08	45	$273.60
Labor						
General Labor	231	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.	H c	$28.68	10	$286.80
Materials						
Rock Riprap, Placed with geotextile	44	Rock Riprap, placed with geotextile. Includes materials, local delivery within 20 miles of quarry, and placement.	Cubic Yards	$135.98	2	$271.96
Aggregate, Gravel, Graded	46	Gravel. includes materials and local delivery within 20 miles of quarry or pit. Placement costs are not included.	Cubic Yards	$35.04	5	$175.20
Pipe, HDPE, corrugated double wall, GTE 15 in., soil tight, weight priced	1588	High Density Polyethylene (HDPE) compound manufactured into double wall corrugated pipe Greater Than or Equal to 15 inch diameter. Materials only.	F c	$2.45	440.8	$1,079.96
Mobilization						
Mobilization, medium equipment	1139	Equipment with 70-150 HP or typical weights between 14,000 and 30,000 pounds.	E a	$755.78	2	$1,511.56

United States Department of Agriculture Natural Resources Conservation Service

Scenario Code: MEEF5875

Maine Practice Scenarios - Fiscal Year 2024

Practice: SR7 - Structure for Water Control
Scenario: #5 - Culvert <30 inches CMP
Scenario Description:
Install a new Corrugated Metal Pipe (CMP) culvert under 30 inches in diameter to convey water under roads or other barriers. A typical scenario would be an 24 inch diameter pipe, 40 feet in length. Work includes site preparation, acquiring and installing culvert pipe with gravel bedding and fill (compacted), and riprap protection of side slopes. Use (396) Aquatic Organism Passage when the primary intent is biological concerns, not hydrologic. Use (578) Stream Crossing instead for culverts ??? 30 inches or perennial flow.
Before Situation:
Water flow needs to be conveyed under an access road, ditch or other barrier. Water must be conveyed in a controlled fashion.
After Situation:
Water is conveyed in a controlled manner. Associated practices could be Access Road (560), Animal Trails and Walkways (575), Critical Area Planting (342), Drainage Water Management (554), Irrigation Canal or Lateral (320), Irrigation Pipeline (430), Irrigation Reservoir (436), Irrigation System, Surface and Subsurface (443), Irrigation System, Tailwater Recovery (447), Irrigation Water Management (449), Lined Waterway or Outlet (468), Obstruction Removal (500), Pond (378), Stormwater Runoff Control (570), Surface Drain, Field Ditch (607), Surface Drain, Main or Lateral (608), and Trails and Walkways (568).
Feature Measure: Pipe Diameter (in) x Pipe Length (ft)

Scenario Unit: Inch-Foot
Scenario Typical Size: 960.00
Scenario Total Cost: $3,798.62
Scenario Cost/Unit: $3.96

Cost Details:

Component	ID	Description	U	Co	QTY	Total
Equipment Installation						
Excavation, Common Earth, side cast, small equipment	48	Bulk excavation and side casting of common earth with hydraulic excavator with less than 1 CY capacity. Includes equipment and labor.	Cubic Yards	$2.46	5	$12.30
Earthfill, Manually Compacted	50	Earthfill, manually compacted, includes equipment and labor	Cubic Yards	$6.08	45	$273.60
Labor						
General Labor	231	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.	H	$28.68	10	$286.80
Materials						
Rock Riprap, Placed with geotextile	44	Rock Riprap, placed with geotextile. Includes materials, local delivery within 20 miles of quarry, and placement.	Cubic Yards	$135.98	2	$271.96
Aggregate, Gravel, Graded	46	Gravel. includes materials and local delivery within 20 miles of quarry or pit. Placement costs are not included.	Cubic Yards	$35.04	5	$175.20
Pipe, CMP, 14-12 gauge, weight priced	1589	14 and 12 gauge galvanized helical corrugated metal pipe priced by the weight of the pipe materials. Materials only.	F c	$0.96	1320	$1,267.20
Mobilization						
Mobilization, medium equipment	1139	Equipment with 70-150 HP or typical weights between 14,000 and 30,000 pounds.	E a	$755.78	2	$1,511.56

Improving the hardwood forest setting by hand planting hardwood tree seedlings. Seedlings are protected from deer browsing. The number of trees to plant is lower than establishing a new forest. Resource concerns are degraded plant condition - undesireable productivity and health, and inadequate structure and composition; inadequate habitat for fish and wildlife - habitat degradation.
Before Situation:
In an existing upland forest the present trees are poor quality, at low stocking levels, or are undesirable species. Existing conditions do not meet landowner objectives of growing high quality trees. Wildlife habitat is poor due to the above described conditions. Resource concerns are degrade plant condition - undesireable productivity and health, and inadequate structure and composition; inadequate habitat for fish and wildlife - habitat degradation. Prior to planting any needed vegetation control will be conducted first.
After Situation:
The area of treatment is 10 acres. Bare root hardwood seedlings are planted by hand in the best locations for seedling survival. Solid tree tubes are installed to protect seedlings from animal browsing damage. Post planting vegetation control is planned to ensure seedling survival.
Feature Measure: Area of Treatment
Scenario Unit: Acres

Scenario Typical Size: 10.00
Scenario Total Cost: $7,341.39
Scenario Cost/Unit: $734.14

Cost Details:

Component	ID	Description	U	Cost	QTY	Total
Equipment Installation						
Truck, Pickup	939	Equipment and power unit costs. Labor not included.	Hours	$25.07	25	$626.75
All terrain vehicles, ATV	965	Includes equipment, power unit and labor costs.	Hours	$17.92	25	$448.00
Trailer, flatbed, small	1505	Small flatbed trailer (typically less than 30' in length) pulled by a pickup to transport materials and equipment. Truck not included.	Hours	$10.24	25	$256.00
Hand tools, tree planting	1590	Various hand tools for digging holes and planting trees such as augers, dibble bars, planting shovel, hoe-dad. Equipment only. Labor not included.	Hours	$12.51	50	$625.50
Water tank, portable	1602	Portable water tank transported in a pick up truck. Typically with 200 gallon capacity includes tank with pump, hose and sprayer. Does not include the pickup truck. Equipment only.	Hours	$12.70	25	$317.50
Labor						

	General Labor	231	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.	Hours	$28.68	50	$1,434.00
	Supervisor or Manager	234	Labor involving supervision or management activities. Includes crew supervisors, foremen and farm/ranch managers time required for adopting new technology, etc.	Hours	$45.20	4	$180.80
Materials							
	Shrub, Seedling, Large	1508	Bare root shrub seedling, 36 to 60 inches tall; includes containerized seedlings larger than 20 cubic inches. Includes materials and shipping only.	Each	$4.01	300	$1,203.00
	Tree shelter, solid tube type, 4 in. x 48 in.	1566	4 inch x 48 inch tree tube for protection from animal damage. Materials and shipping only.	Each	$5.29	300	$1,587.00
	Planting gel, polymer	1576	Polymer planting gel that retains water around seedling roots. Materials only.	Pound	$11.42	1	$11.42
	Stakes, wood, 3/4 in. x 3/4 in. x 36 in.	1581	3/4 in. x 3/4 in. x 36 in. wood stakes to fasten items in place. Includes materials only.	Each	$1.17	300	$351.00
Mobilization							
	Mobilization, small equipment	1138	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	$300.42	1	$300.42

Native seed (acorns, nuts, etc) from natvie tree species are directly planted in the soil. Site preparation is completed (discing to eliminate competing vegetation). The native seed are collected/purchased locally so as to get trees known to be adapted to local conditions. Resource concerns are degraded plant condition, inadequate habitat for fish and wildlife.

Before Situation:

The hardwood forest is degrading. High value species, lumber and wildlife habitat, are not regenerating due to changes in the natural disturbance regime or past harvesting. Unwanted shade tolerant tree species have regenerated and are in the overstory competing with desirable species as well as in the mid and understory where they will eventually out-compete with desirable species.

After Situation:

Seed from native species are collected or purchased and planted at prescribed rates. Site preparation is done prior to direct seeding. Degraded plant condition is on an upward trend and habitat for wildlife will improve.

Feature Measure: Area of Treatment

Scenario Unit: Acres

Scenario Typical Size: 2.00

Scenario Total Cost: $1,793.70

Scenario Cost/Unit: $896.85

Cost Details:

Component	ID	Description	U	Cost	QTY	Total
Equipment Installation						
Truck, Pickup	939	Equipment and power unit costs. Labor not included.	Hours	$25.07	12	$300.84
All terrain vehicles, ATV	965	Includes equipment, power unit and labor costs.	Hours	$17.92	12	$215.04
Trailer, flatbed, small	1505	Small flatbed trailer (typically less than 30' in length) pulled by a pickup to transport materials and equipment. Truck not included.	Hours	$10.24	12	$122.88
Hand tools, tree planting	1590	Various hand tools for digging holes and planting trees such as augers, dibble bars, planting shovel, hoe-dad. Equipment only. Labor not included.	Hours	$12.51	12	$150.12
Labor						
General Labor	231	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.	Hours	$28.68	12	$344.16
Supervisor or Manager	234	Labor involving supervision or management activities. Includes crew supervisors, foremen and farm/ranch managers time required for adopting new technology, etc.	Hours	$45.20	3	$135.60
Materials						
Trees and shrubs, seed	1871	Tree or shrub seed, e.g., acorns, to establish trees. Includes materials and shipping only.	Pound	$9.36	24	$224.64
Mobilization						
Mobilization, small equipment	1138	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	$300.42	1	$300.42

Improving a highly degraded site by hand planting tree seedlings, appropriate to the site. Seedlings are protected from deer browsing. The number of trees to plant is a minimum of 200 plants/ac. Resource concerns are degraded plant condition - undesireable productivity and health, and Inadequate structure and composition; inadequate habitat for fish and wildlife - habitat degradation.

Before Situation:

In an existing upland forest the present overstory trees are poor quality, at low stocking levels, or are undesirable species. Dense invasive species in the understory have prevented natural regeneration of native tree and shrub species. Existing conditions do not meet landowner objectives of growing high quality trees for the future.

Wildlife habitat is poor due to the above described conditions. Resource concerns are degrade plant condition - undesirable productivity and health, and Inadequate structure and composition; inadequate habitat for fish and wildlife - habitat degradation. Prior to planting any needed vegetation control will be conducted first.

After Situation:

The area of treatment is 10 acres. First, the invasive species are adequately controlled under a different conservation practice. The existing overstory canopy is also treated per the forester's recommendation in order to create the optimal light conditions for the new tree seedlings. Bare root hardwood and/or softwood seedlings are planted by hand at a minimum of 200 plants/ac. The species and planting rate are recommended by a forester in the forest management plan. Solid tree tubes are installed to protect seedlings from animal browsing damage. Post planting vegetation control is planned to ensure seedling survival.

Feature Measure: Area of Treatment

Scenario Unit: Acres

Scenario Typical Size: 10.00

Scenario Total Cost: $26,374.74

Scenario Cost/Unit: $2,637.47

Cost Details:

Component	ID	Description	U	Cost	QTY	Total
Equipment Installation						
Truck, Pickup	939	Equipment and power unit costs. Labor not included.	Hours	$25.07	20	$501.40
All terrain vehicles, ATV	965	Includes equipment, power unit and labor costs.	Hours	$17.92	20	$358.40
Trailer, flatbed, small	1505	Small flatbed trailer (typically less than 30' in length) pulled by a pickup to transport materials and equipment. Truck not included.	Hours	$10.24	20	$204.80
Hand tools, tree planting	1590	Various hand tools for digging holes and planting trees such as augers, dibble bars, planting shovel, hoe-dad. Equipment only. Labor not included.	Hours	$12.51	80	$1,000.80
Water tank, portable	1602	Portable water tank transported in a pick up truck. Typically with 200 gallon capacity includes tank with pump, hose and sprayer. Does not include the pickup truck. Equipment only.	Hours	$12.70	20	$254.00
Labor						
General Labor	231	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.	Hours	$28.68	80	$2,294.40
Supervisor or Manager	234	Labor involving supervision or management activities. Includes crew supervisors, foremen and farm/ranch managers time required for adopting new technology, etc.	Hours	$45.20	10	$452.00
Materials						
Shrub, Seedling, Large	1508	Bare root shrub seedling, 36 to 60 inches tall; includes containerized seedlings larger than 20 cubic inches. Includes materials and shipping only.	Each	$4.01	2000	$8,020.00
Tree shelter, solid tube type, 4 in. x 48 in.	1566	4 inch x 48 inch tree tube for protection from animal damage. Materials and shipping only.	Each	$5.29	2000	$10,580.00
Planting gel, polymer	1576	Polymer planting gel that retains water around seedling roots. Materials only.	Pound	$11.42	6	$68.52
Stakes, wood, 3/4 in. x 3/4 in. x in.	1581	3/4 in. x 3/4 in. x 36 in. wood stakes to fasten items in place. Includes materials only.	Each	$1.17	2000	$2,340.00
Mobilization						
Mobilization, small equipment	1138	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	$300.42	1	$300.42

Tree seedlings will be hand planted in the forested area where few or no forest trees are growing, the existing stand of trees needs underplanting, or the previously planted seedling tree stocking level is below desirable conditions. Wildlife habitat is degraded by loss of forest conditions. This resource concern addressed is degraded plant condition -- and inadequate structure and composition, and inadequate wildlife & fish habitat.

Before Situation:

The stocking level of the forest does not meet the minimum recommended number of trees per acre. The existing condition of the forest stand does not meet the landowners objectives. To be a viable forest additional seedlings need planting. Wildlife habitat is rated poor.

After Situation:

The prescribed number of trees are hand planted on 20 acres, and the objectives of the landowner are met. The forest will provide wildlife habitat, provide a long term ground cover, and capture atmospheric carbon.

Feature Measure: Area Planted

Scenario Unit: Each

Scenario Typical Size: 6,000.00
Scenario Total Cost: $7,130.62

Scenario Cost/Unit: $1.19

Cost Details:

Component	ID	Description	U	Cost	QTY	Total
Equipment Installation						
Truck, Pickup	939	Equipment and power unit costs. Labor not included.	Hours	$25.07	8	$200.56
Hand tools, tree planting	1590	Various hand tools for digging holes and planting trees such as augers, dibble bars, planting shovel, hoe-dad. Equipment only. Labor not included.	Hours	$12.51	10	$125.10
Labor						
General Labor	231	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.	Hours	$28.68	12	$344.16
Supervisor or Manager	234	Labor involving supervision or management activities. Includes crew supervisors, foremen and farm/ranch managers time required for adopting new technology, etc.	Hours	$45.20	4	$180.80
Materials						
Tree, Conifer, Seedling, Medium	1514	Containerized conifer seedlings, 8 or 10 cubic inches; or bare root conifer seedlings 1+1 (two-year old seedlings that grew one year in the original seedbed and another year in a transplant bed), or bare root seedlings 2+0 (two-year old seedlings grown in their original seedbed). Includes materials and shipping only.	Each	$1.03	6000	$6,180.00
Mobilization						
Mobilization, Material, distance > 50 miles	1043	Mobilization cost of materials for special cases where the distance from the supplier delivery point to the job site exceeds 50 miles. The costs for shipping by UPS or bulk freight shipping to a location within 50 miles of the job site have already been included in the component price.	Dollars	$1.00	100	$100.00

Conifer tree seedlings will be hand planted in an area where forest is the objective. The area either lacks the desired number and species of forest trees, the existing stand will benefit from underplanting, and/or the previously planted seedling tree stocking level is below desirable conditions. Wildlife habitat will be improved by establishment of new trees. Standard forestry methods will be used to protect planted seedlings from environmental conditions. Resource concerns addressed are: Degraded Plant Condition - Inadequate structure and composition, and Inadequate wildlife & fish habitat.

Before Situation:
The stocking level does not meet the minimum recommended number of trees per acre and does not meet landowner objectives. Wildlife habitat is inadequate. Plant condition will not improve unless tree seedlings are planted. Environmental conditions are adverse to seedling survival and protection will be needed.

After Situation:
The prescribed number of trees are hand planted on 20 acres, and the objectives of the landowner are met. Seedlings are protected by tree shelters to improve survival rates. The future forest will provide wildlife habitat, long-term ground cover, and carbon sequestration/storage.

Feature Measure: Each-Planted Seedling
Scenario Unit: Each

Scenario Typical Size: 6,000.00
Scenario Total Cost: $16,525.76

Scenario Cost/Unit: $2.75

Cost Details:

Component	ID	Description	U	Cost	QTY	Total
Equipment Installation						
Truck, Pickup	939	Equipment and power unit costs. Labor not included.	Hours	$25.07	4	$100.28
Hand tools, tree planting	1590	Various hand tools for digging holes and planting trees such as augers, dibble bars, planting shovel, hoe-dad. Equipment only. Labor not included.	Hours	$12.51	12	$150.12
Labor						
General Labor	231	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.	Hours	$28.68	112	$3,212.16
Supervisor or Manager	234	Labor involving supervision or management activities. Includes crew supervisors, foremen and farm/ranch managers time required for adopting new technology, etc.	Hours	$45.20	16	$723.20
Materials						
Tree, Conifer, Seedling, Medium	1514	Containerized conifer seedlings, 8 or 10 cubic inches; or bare root conifer seedlings 1+1 (two-year old seedlings that grew one year in the original seedbed and another year in a transplant bed), or bare root seedlings 2+0 (two-year old seedlings grown in their original seedbed). Includes materials and shipping only.	Each	$1.03	6000	$6,180.00
Tree shelter, mesh tree tube, 24 in.	1555	24 inch tall vexar or other open weave tubular tree shelter to protect from animal damage. Materials only.	Each	$0.53	6000	$3,180.00
Stake, bamboo, 3/8 in. x 36 in.	1584	3/8 in. x 36 in. bamboo stakes to anchor items in place. Inlcudes materials and shipping only.	Each	$0.24	12000	$2,880.00
Mobilization						
Mobilization, Material, distance > 50 miles	1043	Mobilization cost of materials for special cases where the distance from the supplier delivery point to the job site exceeds 50 miles. The costs for shipping by UPS or bulk freight shipping to a location within 50 miles of the job site have already been included in the component price.	Dollars	$1.00	100	$100.00

Practice: 655 - Forest Trails and Landings
Scenario: #2 - Trail Erosion Control w/o Vegetation, Slopes < 35%
Scenario Description:
Rehabilitation of existing forest access trail segments on a 20% slope and a 4% grade by addressing legacy resource issues for long-term use. Typically the trail is a single lane (16-18-foot wide, including cut and fill), seasonal prism requiring sustained erosion control measures installed by using heavy equipment such as dozers, graders, backhoes, and/or excavators. The purpose is to hydrologically disconnect the existing trail/landing system from streams and natural drainages. This scenario includes designing and installing measures such as cross drains, rock drains, relief drains, out sloping (or changing surface drainage), rolling dips and water bars and ditch outs as needed, and applies to only those segments of the trail system that have resource concerns requiring rehabilitation. Some hand work (chainsaw) will be needed to allow the use of the equipment. Installation will be supervised. Other practices such as Stream Crossing, and Critical Area Planting, Access Road, and Structure for Water Control can be adjacent/appurtenant but not part of this practice scenario. Treatments are for long-term reduction of sediment, restoration of fish habitat, creation of fire access, and the removal of routes off unstable slopes. Resource concerns include: Excessive sedimentation in surface waters, Concentrated flow erosion, Sheet and rill erosion, and Degradation of wildlife species.

Before Situation:
Trails are delivering sediment to waterways, impacting riparian areas and wetlands and possibly affecting T&E species. The system's usefulness for access is also being compromised by inadequate erosion and drainage control systems. However rehabilitation over abandonment is an acceptable course of action.

After Situation:
Trails and landings provide access and do not adversely affect the resources concerns.

Feature Measure: Length of trail treated
Scenario Unit: Feet

Scenario Typical Size: 1,000.00
Scenario Total Cost: $4,358.34

Scenario Cost/Unit: $4.36

Cost Details:

Component	ID	Description	U	Cost	QTY	Total
Equipment Installation						
Hydraulic Excavator, 1 CY	931	Track mounted hydraulic excavator with bucket capacity range of 0.8 to 1.5 CY. Equipment and power unit costs. Labor not included.	Hour	$129.00	16	$2,064.00
Truck, Pickup	939	Equipment and power unit costs. Labor not included.	Hour	$25.07	1	
Water Bars	1500	Installation of graded trail water controling structures such as water bars, broad based dips for erosion control. Typical cross section is 1.5 feet high with 4:1 side slopes yielding about 0.33 CY/ft of length.	Feet	$3.08	156	
Labor						
Equipment Operators, Heavy	233	Includes: Cranes, Hydraulic Excavators >=50 HP, Dozers, Paving Machines, Rock Trenchers, Trenchers >=12 in., Dump Trucks, Ag Equipment >=150 HP, Scrapers, Water Wagons.	Hour	$34.58	16	
Specialist Labor	235	Labor requiring a specialized skill set: Includes Agronomists, Foresters, Biologists, etc. to provide additional technical information during the planning and implementation of the practice. Does not include NRCS or TSP services.	Hour	$107.67	3	
Mobilization						
Mobilization, large equipment	1140	Equipment >150HP or typical weights greater than 30,000 pounds or loads requiring over width or over length permits.	Each	$912.50	1	

Practice: 655 - Forest Trails and Landings
Scenario: #4 - Trail Erosion Control w/o Vegetation, Slopes >35%
Scenario Description:
Rehabilitation of existing forest trails and landings by addressing legacy resource issues such as gully erosion and sedimentation, for infrequent use. Typically the trail is a single lane, existing 10-12 foot wide skid trail on a steep (45%) slope on forestland requiring sustained erosion control measures applied by using heavy equipment such as dozers, backhoes, or excavators. The purpose is to hydrologically disconnect existing trail/landing system from the streams and natural drainages and reduce soil erosion. This includes the design and installation of drains, out sloping (or changing road surface drainage), water bars and ditch outs as needed This scenario applies to only those segments of the trail system that have resource concerns requiring rehabilitation. A typical water bar or rolling dip installed in this scenario is on a 30 foot spacing with a depth of about 2-3 foot (closeout style). Some hand work (chainsaw) will be needed to allow the use of the equipment. The work will be supervised. Other practices such as Stream Crossing, and Critical Area Planting, Access Road, Lined Waterway or Outlet and Structure for Water Control can be adjacent/appurtenant but not part of this practice scenario . Resource concerns include: Excessive sedimentation in surface waters, Concentrated flow erosion, Classic Gully erosion, and Degradation of wildlife species.
Before Situation:
Trails are delivering sediment to waterways, impacting riparian/wetlands and/or possibly affecting fish/T&E species. The usefulness of the trail/landing system is being adversely affected by erosion.
After Situation:
Trails and landings provide access and do not adversely affect the resources concerns. Erosion from the trail is controlled.
Feature Measure: Length of trail treated
Scenario Unit: Feet

Scenario Typical Size: 500.00
Scenario Total Cost: $3,562.09
Scenario Cost/Unit: $7.12

Cost Details:

Component	ID	Description	U	Cost	QTY	Total
Equipment Installation						
Hydraulic Excavator, 1 CY	931	Track mounted hydraulic excavator with bucket capacity range of 0.8 to 1.5 CY. Equipment and power unit costs. Labor not included.	H c	$129.00	10	$1,290.00
Truck, Pickup	939	Equipment and power unit costs. Labor not included.	H c	$25.07	2	$50.14
Water Bars	1500	Installation of graded trail water controlling structures such as water bars, broad based dips for erosion control. Typical cross section is 1.5 feet high with 4:1 side slopes yielding about 0.33 CY/ft of length.	F e	$3.08	208	$640.64
Labor						
Equipment Operators, Heavy	233	Includes: Cranes, Hydraulic Excavators >=50 HP, Dozers, Paving Machines, Rock Trenchers, Trenchers >=12 in., Dump Trucks, Ag Equipment >=150 HP, Scrapers, Water Wagons.	H c L	$34.58	10	$345.80
Specialist Labor	235	Labor requiring a specialized skill set: Includes Agronomists, Foresters, Biologists, etc. to provide additional technical information during the planning and implementation of the practice. Does not include NRCS or TSP services.	H	$107.67	3	$323.01
Mobilization						
Mobilization, large equipment	1140	Equipment >150HP or typical weights greater than 30,000 pounds or loads requiring over width or over length permits.	E a	$912.50	1	$912.50

Practice: 655 - Forest Trails and Landings
Scenario: #5 - Grading and Shaping with Vegetative Establishment
Scenario Description:
Rehabilitation of existing forest access trails and landings on a medium slope by addressing rutting, erosion, and sedimentation. Typically the trail is a single, existing 16 - 18-foot wide (including cut and fill) seasonal road prism on gently sloping terrain requiring sustained erosion control measures applied with heavy equipment such as dozers, graders, backhoes, and/or excavators. The purpose is to hydrologically disconnect the existing trail/landing system from streams and natural drainages and to establish a vegetative cover. This scenario includes designing and installation measures such as cross drains, rock drains, relief drainage, out sloping (or changing surface drainage), rolling dips and water bars and ditch outs as needed, and applies to only those segments of the trail system that have resource concerns requiring rehabilitation.The trail will be seeded down with an appropriate herbaceous seed mixture for the site. Some hand work will be needed to allow the use of the equipment. The work will be supervised. Other practices such as Stream Crossing, and Critical Area Planting. Access Road and Structure for Water Control can be adjacent/appurtenant but not part of the practice scenario. Treatments are for long-term reduction of sediment, restore fish habitat, create fire access and to move routes off unstable slopes. Resource concerns include: Excessive sediment in surface waters, Concentrated and Sheet & rill flow erosion, Soil compaction, and Habitat degradation.
Before Situation:
Trail/landings are delivering sediment to waterways, impacting riparian/wetlands and/or possibly affecting fish/T&E species. The usefulness of the trail/landing system is being adversely affected by erosion.
After Situation:
A trail system is installed that provides access to the forested tract and does not cause excessive erosion or water quality concerns.
Feature Measure: Length of trail treated
Scenario Unit: Feet

Scenario Typical Size: 1,000.00
Scenario Total Cost: $4,891.19
Scenario Cost/Unit: $4.89

Cost Details:

Component	ID	Description	U	Cost	QTY	Total
Equipment Installation						
Hydraulic Excavator, 1 CY	931	Track mounted hydraulic excavator with bucket capacity range of 0.8 to 1.5 CY. Equipment and power unit costs. Labor not included.	H c	$129.00	16	$2,064.00
Truck, Pickup	939	Equipment and power unit costs. Labor not included.	H c	$25.07	6	$150.42
Seeding Operation, Broadcast, Ground	959	Broadcast seed via ground operation. May require post tillage operation to incorporate seed. Includes equipment, power unit and labor costs.	A c r	$13.85	0.4	$5.54
Water Bars	1500	Installation of graded trail water controlling structures such as water bars, broad based dips for erosion control. Typical cross section is 1.5 feet high with 4:1 side slopes yielding about 0.33 CY/ft of length.	F e	$3.08	156	$480.48
Labor						
General Labor	231	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.	H c L	$28.68	8	$229.44
Equipment Operators, Heavy	233	Includes: Cranes, Hydraulic Excavators >=50 HP, Dozers, Paving Machines, Rock Trenchers, Trenchers >=12 in., Dump Trucks, Ag Equipment >=150 HP, Scrapers, Water Wagons.	H	$34.58	16	$553.28
Specialist Labor	235	Labor requiring a specialized skill set: Includes Agronomists, Foresters, Biologists, etc. to provide additional technical information during the planning and implementation of the practice. Does not include NRCS or TSP services.	H c	$107.67	3	$323.01
Materials						
Straw	1237	Small grain straw (non organic and certified organic). Includes materials only.	T c	$137.00	1	$137.00
Native and Introduced Perennial Grasses, Legumes and/or Forbs, Low Density	2502	A mix of native and introduced perennial grasses, legumes, and/or forbs, grasses typically greater than 50% of the mix, may include biennials and a small percentage of annual species for establishment purposes and/or if allowed by the CPS. Planted at lower to medium density (40 pure live seeds/sq ft and less). Includes material and shipping.	A	$88.80	0.4	$35.52
Mobilization						
Mobilization, large equipment	1140	Equipment >150HP or typical weights greater than 30,000 pounds or loads requiring over width or over length permits.	E a	$912.50	1	$912.50

Practice: 660 - Tree-Shrub Pruning
Scenario: #2 - Pruning-Low Height
Scenario Description:
Pruning is done by hand with chain saws, tree loppers, hand shears, or hand saws. Trees are identified for pruning. To improve the quality of the stem wood, branches are pruned from the trees. Trees are growing at a fast pace, with leader growth on trees anywhere from 1.5 Feet to 4 feet in length.
Before Situation:
Trees are retaining lower limbs along the entire tree bole, reducing wood quality. Pruning height will be based on overall stand diameter and height. Stand has been thinned and crop trees are identified for pruning. Degrade plant condition- undesirable plant productivity and health is the resource concern.
After Situation:
The typical forest pruning treatment is 20 acres. Trees are pruned to the desirable height of 8-10 feet. Pruned branches are treated if they are a hazard, see Woody Residue Treatment standard.
Feature Measure: Area of treatment
Scenario Unit: Acres

Scenario Typical Size: 20.00
Scenario Total Cost: $4,338.40
Scenario Cost/Unit: $216.92

Cost Details:

Component Name	ID	Description	U	Cost	QTY	Total
Equipment Installation						
Chainsaw	937	Equipment and power unit costs. Labor not included.	H c	$6.23	80	$498.40
Pruning tools, hand tools		Pruning tools, hand tools, shears, loppers, pole saw, handsaw. Material costs only. Labor not included.	H c	$2.31	20	$46.20
Labor						
General Labor	231	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.	H c	$28.68	100	$2,868.00
Supervisor or Manager	234	Labor involving supervision or management activities. Includes crew supervisors, foremen and farm/ranch managers time required for adopting new technology, etc.	H c L	$45.20	15	$678.00
Materials						
Tree Marking Paint	313	Trees to be cut through tree marking are physically identified through	A	$12.39	20	$247.80

the application of paint on the tree. Typically one quart of paint is used to mark one acre of trees. Includes materials and shipping only.

United States Department of Agriculture

Scenario Code: MEEF6603

Maine

Natural Resources Conservation Service

Practice Scenarios - Fiscal Year 2024

Practice: 660 - Tree-Shrub Pruning
Scenario: #3 - Pruning- High Height
Scenario Description:
Pruning is done by hand with pole saws or with gas pole saw. Crop trees are identified for pruning. The forest is on highly productive soils. Trees are growing at a fast pace, with leader growth on trees anywhere from 1.5 feet to 4 feet in length. To improve the quality of the stem wood, branches are pruned from the trees.
Before Situation:
Trees are retaining limbs mostly along the mid to upper section of the tree bole, reducing quality. Lower branches (0-8 feet) may have already been pruned, have naturally self pruned to differing heights. Pruning height is at least to eighteen (18) feet above the ground. Degrade plant condition- undesirable plant productivity and health is the resource concern.
After Situation:
The typical forest pruning treatment is 20 acres. Trees are pruned to the height of 18 feet or more. Pruned branches are treated so they do not become a fire or health hazard.
Feature Measure: area of treatment
Scenario Unit: Acres

Scenario Typical Size: 20.00
Scenario Total Cost: $6,640.20
Scenario Cost/Unit: $332.01

Cost Details:

Component Name	ID	Description		Cost	QTY	Total
Equipment Installation						
Chainsaw	937	Equipment and power unit costs. Labor not included.	Hc	$6.23	40	
Pruning tools, hand tools		Pruning tools, hand tools, shears, loppers, pole saw, handsaw. Material costs only. Labor not included.	Hc	$2.31	40	
Pruning tool, pole saw		Gasoline powered pole chainsaw. Labor not included.	Hc	$9.80	80	
Labor						
General Labor	231	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.	Hcu	$28.68	160	$4,588.80
Supervisor or Manager	234	Labor involving supervision or management activities. Includes crew supervisors, foremen and farm/ranch managers time required for adopting new technology, etc.	Hc	$45.20	15	
Materials						
Tree Marking Paint	313	Trees to be cut through tree marking are physically identified through the application of paint on the tree. Typically one quart of paint is used to mark one acre of trees. Includes materials and shipping only.	Ac	$12.39	20	

United States Department of Agriculture Natural Resources Conservation Service

Scenario Code: MEEF6661

Maine Practice Scenarios - Fiscal Year 2024

Practice: 666 - Forest Stand Improvement
Scenario: #1 - Pre-commercial Thinning Pole- Hand tools
Scenario Description:
Adjusting the stocking of a young, non-merchantable stand of trees. The operation is supervised by a consultant forester and is carried out using hand tools such as chainsaws. Resource concerns include Undesirable plant productivity and health; Wildlife habitat degradation; Wildfire hazard; and Inadequate structure and composition.
Before Situation:
The stocking of a stand of trees that are too small to make a commercial thinning exceeds the recommended fully stocked level for the species and site. The effect is much slower growth than is reasonable or expected for the site, increased susceptibility to insects and disease, and an unacceptable devastating wildfire risk.
After Situation:
After adjusting the stocking to an acceptable level, stand growth, condition, and overall quality is improved. In addition, wildlife habitat is improved with the resulting increase of sunlight reaching the forest floor.
Feature Measure: Area treated
Scenario Unit: Acres

Scenario Typical Size: 10.00
Scenario Total Cost: $5,572.69
Scenario Cost/Unit: $557.27

Cost Details:

Component	ID	Description		Cost	QTY	Total
Equipment Installation						
Chainsaw	937	Equipment and power unit costs. Labor not included.	Hc	$6.23	70	$436.10
Truck, Pickup	939	Equipment and power unit costs. Labor not included.	H	$25.07	12	$300.84
Labor						
Skilled Labor	230	Labor requiring a high level skill set: Includes carpenters, welders, electricians, conservation professionals involved with data collection, monitoring, and or record keeping, etc.	Hc	$38.71	80	$3,096.80
Specialist Labor	235	Labor requiring a specialized skill set: Includes Agronomists, Foresters, Biologists, etc. to provide additional technical information during the planning and implementation of the practice. Does not include NRCS or TSP services.	Hcu	$107.67	15	$1,615.05
Materials						
Tree Marking Paint	313	Trees to be cut through tree marking are physically identified through the application of paint on the tree. Typically one quart of paint is used to mark one acre of trees. Includes materials and shipping only.	Ac	$12.39	10	$123.90

Adjusting the stocking of a 'Young Over Stocked Hardwood Stands.' The operation is supervised by a consultant forester and is carried out using hand tools such as chainsaws, loppers and/or machetes. Resource concerns include undesirable plant productivity and health; inadequate tree structure, composition, and spacing; and wildlife habitat degradation (i.e., ESH lifespan has passed).
Before Situation:
The stocking and size class of a stand of trees such that the conditions exceed the recommended fully stocked level for the species and site. The effect is slower growth than is reasonable or expected for the site, increased susceptibility to insects and disease, and a potential risk to wildfire.
After Situation:
After adjusting the stocking to an acceptable level of spacing or trees/ac. --stand growth, condition, and overall quality are improved and desirable wildlife habitat is achieved. The resulting stand condition will have sufficient growing space to increase diameter growth and expand live tree crowns.
Feature Measure: Area treated
Scenario Unit: Acres

Scenario Typical Size: 10.00
Scenario Total Cost: $8,197.32
Scenario Cost/Unit: $819.73

Cost Details:

Component	ID	Description		Cost	QTY	Total
Equipment Installation						
Chainsaw	937	Equipment and power unit costs. Labor not included.	Hc	$6.23	100	$623.00
Truck, Pickup	939	Equipment and power unit costs. Labor not included.	H	$25.07	26	$651.82
Labor						
Skilled Labor	230	Labor requiring a high level skill set: Includes carpenters, welders, electricians, conservation professionals involved with data collection, monitoring, and or record keeping, etc.	H	$38.71	120	$4,645.20
Specialist Labor	235	Labor requiring a specialized skill set: Includes Agronomists, Foresters, Biologists, etc. to provide additional technical information during the planning and implementation of the practice. Does not include NRCS or TSP services.	H	$107.67	20	$2,153.40
Materials						
Tree Marking Paint	313	Trees to be cut through tree marking are physically identified through the application of paint on the tree. Typically one quart of paint is used to mark one acre of trees. Includes materials and shipping only.	Acr	$12.39	10	$123.90

Using light equipment such as a tractor with brush hog to control vegetation that is competing with desirable trees and species or to reduce the stocking level of a stand of desirable trees. Trees to be removed will be marked by a Forester. Resource concerns include Undesirable plant productivity and health; Wildlife habitat degradation; Wildfire hazard; and Inadequate structure and composition.

Before Situation:

A stand of young, desirable trees is adversely affected by competition either from undesirable species or because the stand is overstocked. The vegetation to be controlled is small enough that it can be mowed or shredded. The work can be done by mowing or shredding strips through the stand, mowing between planted rows, etc.

After Situation:

After adjusting the stocking to an acceptable level and/or controlling the competing vegetation, stand growth, condition, and overall quality is improved. In addition, wildlife habitat is improved with the resulting increase of sunlight reaching the forest floor.

Feature Measure: Area Treated

Scenario Unit: Acres

Scenario Typical Size: 10.00

Scenario Total Cost: $7,797.83

Scenario Cost/Unit: $779.78

Cost Details:

Component	ID	Description		Cost	QTY	Total
Equipment Installation						
Truck, Pickup	939	Equipment and power unit costs. Labor not included.	H c	$25.07	15	$376.05
Mechanical cutter, chopper	943	Forestry mulcher, flail shredder, hydro axe, brush cutter, etc. Equipment and power unit costs. Labor not included.	H	$115.53	30	$3,465.90
Labor						
Equipment Operators, Light	232	Includes: Skid Steer Loaders, Hydraulic Excavators <50 HP, Trenchers <12 in., Ag Equipment <150 HP, Pickup Trucks, Forklifts, Mulchers	H c	$30.76	30	$922.80
Specialist Labor	235	Labor requiring a specialized skill set: Includes Agronomists, Foresters, Biologists, etc. to provide additional technical information during the planning and implementation of the practice. Does not include NRCS or TSP services.	H	$107.67	20	$2,153.40
Materials						
Tree Marking Paint	313	Trees to be cut through tree marking are physically identified through the application of paint on the tree. Typically one quart of paint is used to mark one acre of trees. Includes materials and shipping only.	A c r	$12.39	10	$123.90
Mobilization						
Mobilization, medium equipment	1139	Equipment with 70-150 HP or typical weights between 14,000 and 30,000 pounds.	E	$755.78	1	$755.78

A certified forester will mark a stand for area-wide thinning. Non-commercial area-wide thinning is used to adjust the stocking of an overstocked stand to a recommended level -- generally equivalent to a 'B-Line' stocking -- by lowing the overall basal area of the stand. Treatments are used to improve residual tree spacing that enhances the forest's ability to increase diameter growth and live crown expansion. The size of the material cut and/or the density of cut material is such that moving of forest products is not required. All cut material is left on the forest floor for nutrient recycling. Larger equipment is not necessary, additional time is spent lopping slash. Resource concerns include: Inadequate structure and composition, Undesirable plant productivity and health, and Habitat degradation.

Before Situation:

The stand of pole-sized to overly mature trees is overstocked resulting in over competition, thus inhibiting growth potential and forest health. This condition is causing a lack of tree structure and composition as well as species diversity that is needed to meet the landowner's objective. Under the supervision of a consultant forester, the stand will be marked for thinning and timber stand improvement.

After Situation:

The stand will have adequate stocking that improves the overall residual tree growth and vigor. This is accomplished by removing defected and malformed, undesirable trees leaving only the best-formed and highest quality trees in the stand. The result will be a more resilient and fully stocked stand to mature into a healthy and viable forest.

Feature Measure: Acres treated

Scenario Unit: Acres

Scenario Typical Size: 10.00

Scenario Total Cost: $7,078.95

Scenario Cost/Unit: $707.90

Cost Details:

Component Nam e	ID	Description		Cost	QTY	Total
Equipment Installation						
Chainsaw	937	Equipment and power unit costs. Labor not included.	H c	$6.23	80	$498.40
All terrain vehicles, ATV	965	Includes equipment, power unit and labor costs.	H	$17.92	40	$716.80
Labor						
Skilled Labor	230	Labor requiring a high level skill set: Includes carpenters, welders, electricians, conservation professionals involved with data collection, monitoring, and or record keeping, etc.	H	$38.71	88	$3,406.48
Specialist Labor	235	Labor requiring a specialized skill set: Includes Agronomists, Foresters, Biologists, etc. to provide additional technical information during the planning and implementation of the practice. Does not include NRCS or TSP services.	H c	$107.67	20	$2,153.40
Materials						
Tree Marking Paint	313	Trees to be cut through tree marking are physically identified through the application of paint on the tree. Typically one quart of paint is used to mark one acre of trees. Includes materials and shipping only.	A	$12.39	10	$123.90
Mobilization						
Mobilization, very small equipment		Equipment that is small enough to be transported by a pick-up truck with typical weights less than 3,500 pounds. Can be multiple pieces of equipment if all hauled simultaneously.	E a	$179.97	1	$179.97

Adjusting the stocking of a young, non-merchantable softwood trees. The operation is supervised by a consultant forester and is carried out using hand tools such as chainsaws, loppers and/or machettes. Resource concerns include undesirable plant productivity and health; inadequate structure and composition; and wildlife habitat degradation.

Before Situation:

The stocking and size class of a stand of trees such that the conditions exceed the recommended fully stocked level for the species and site. The effect is slower growth than is reasonable or expected for the site, increased susceptibility to insects and disease, and a potential risk to wildfire.

After Situation:

After adjusting the stocking to an acceptable level of spacing or trees/ac. --stand growth, condition, and overall quality are improved and desirable wildlife habitat is achieved. The resulting stand condition will have sufficient growing space to increase diameter growth and expand live tree crowns.

Feature Measure: Area treated

Scenario Unit: Acres

Scenario Typical Size: 10.00

Scenario Total Cost: $11,516.00

Scenario Cost/Unit: $1,151.60

Cost Details:

Component	ID	Description		Cost	QTY	Total
Equipment Installation						
Chainsaw	937	Equipment and power unit costs. Labor not included.	H c	$6.23	200	$1,246.00
Truck, Pickup	939	Equipment and power unit costs. Labor not included.	H -	$25.07	10	$250.70
Labor						
Skilled Labor	230	Labor requiring a high level skill set: Includes carpenters, welders, electricians, conservation professionals involved with data collection, monitoring, and or record keeping, etc.	H	$38.71	200	$7,742.00
Specialist Labor	235	Labor requiring a specialized skill set: Includes Agronomists, Foresters, Biologists, etc. to provide additional technical information during the planning and implementation of the practice. Does not include NRCS or TSP services.	H	$107.67	20	$2,153.40
Materials						
Tree Marking Paint	313	Trees to be cut through tree marking are physically identified through the application of paint on the tree. Typically one quart of paint is used to mark one acre of trees. Includes materials and shipping only.	A c r	$12.39	10	$123.90

'Trees within a forest stand are marked for removal by a professional forester, in accordance with recommendations in an approved Forest Management Plan, to improve the health, productivity, composition and/or structure of the stand, to improve wildlife habitat, reduce wildfire hazard, and/or address concerns for soil erosion and water quality. The cost for this scenario is based on the labor for a professional forester to provide timber marking to ensure that the treatment is silviculturally sound, damage to the residual stand is minimized, and implementation accomplishes the desired improvements for resource concerns. Costs for removing undesirable trees are not included, as this will be accomplished through a commercial operation. NOTE: payment for this tree marking scenario cannot be made until the conservation activity (tree removal) has been properly installed and certified. Resource concerns include: Degraded Plant Condition - Undesirable plant productivity and health, Inadequate structure and composition, and Wildfire Hazard, Excessive Biomass Accumulation;Soil Erosion - Concentrated flow erosion, Ephemeral gully erosion, and Classic gully erosion; Fish and Wildlife - Inadequate Habitat - Cover/Shelter, and Food; and, Water Quality - Excessive sediment in surface waters.'

Before Situation:

A forest stand is excessively dense (overstocked) and/or lacks desired attributes of species composition, structure, and/or health, and may have additional soil and water resource concerns. Wildlife habitat may lack desired tree species composition, structure, and/or understory vegetative conditions. There is a likelihood that trees could be cut and removed without the benefit of professional assistance, resulting in resource damage.

After Situation:

Trees within the stand have been appropriately marked by a professional forester for a treatment recommended in an approved Forest Management Plan. The treatment will be implemented through a commercial operation without excessive damage to the residual trees and site.

Feature Measure: Area treated

Scenario Unit: Acres

Scenario Typical Size: 10.00

Scenario Total Cost: $1,429.04

Scenario Cost/Unit: $142.90

Cost Details:

Com e	ID	Description		Co	Q	Total
Equipment Installation						
All terrain vehicles, ATV	965	Includes equipment, power unit and labor costs.	Hours	$17.92	8	$143.36
Labor						
Specialist Labor	2	Labor requiring a specialized skill set: Includes Agronomists, Foresters, Biologists,	Ho	$107.6	8	$861.36
Materials	3	etc. to provide additional technical information during the planning and	urs	7	10	$123.90
Tree Marking Paint	5	implementation of the practice. Does not include NRCS or TSP services.	Acr	$12.39		
	3	Trees to be cut through tree marking are physically identified through the	es			
	1	application of paint on the tree. Typically one quart of paint is used to mark one				
	3	acre of trees. Includes materials and shipping only.				
Mobilization						
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.	Eac	$300.42	1	$300.42