

Scenario Worksheet

Practice and Scenario Description:

Information Type	Data
Region	New England
State	Connecticut
Discipline Group	Wildlife Wetland
Practice Code/Name	647 - Early Successional Habitat Development and Management
Scenario ID	1
Scenario Name	Mowing
Scenario Description	This scenario address inadequate habitat for fish and wildlife where setting back succession by mowing incoming woody species will improve habitat for the target species. Mowing can be used to increase structural diversity by creating areas of shorter vegetation preferred by some species or certain life stages of species. The typical setting for this scenario is woodlands and shrublands at the edge of crop fields, in pastures, hayland, at the edge of woodlands or brushy areas, and in odd areas such as pivot corners. Where chemical control of weeds, including invasives, is required to reduce competition for the desired plant community conservation practice 315 herbaceous weed control should be used. Where the seedbank is inadequate for natural regeneration and seeding is required use conservation practice 327 Conservation Cover.
Before Practice Situation	The site is static or trending to later successional plant community. The disturbance regime to maintain an earlier successional plant community is lacking. Pastures are often monotypic, lacking in diversity. Competition for sunlight from dense grass stands prevents seedling establishment. Stands are often dense and inhibit the movements of young wildlife such as game bird chicks. Area lacks diversity in the height of vegetation.
After Practice Situation	Early successional habitat maintained. Mowing has provided more sun light for forb establishment. The heterogeneity of the habitat structure has been increased.
Scenario Feature Measure	width and length of treated area
Scenario Unit	Acres
Scenario Typical Size	2

Cost Summary:

Cost Category	Scenario Cost	Scenario Cost/Unit
Materials	\$0.00	\$0.00
Equipment/Installation	\$172.56	\$86.28
Labor	\$95.60	\$47.80
Mobilization	\$210.90	\$105.45
Acquisition of Technical Knowledge	\$0.00	\$0.00
Foregone Income	\$0.00	\$0.00
Total	\$479.06	\$239.53

Cost Details:

Cost Category	Component ID	Component Name	Component Description	Unit	Price (\$/unit)	Quantity	Cost
Equipment/Installation	940	Mower, Bush Hog	Equipment and power unit costs. Labor not included.	Hour	\$43.14	4	\$172.56
Labor	232	Equipment Operators, Light	Includes: Skid Steer Loaders, Hydraulic Excavators <50 HP, Trenchers <12", Ag Equipment <150 HP, Pickup Trucks, Forklifts, Mulchers	Hour	\$23.90	4	\$95.60
Mobilization	1143	Mobilization, Light Equipment Operator	Mobilization of light equipment operators: Skid Steer Loaders, Hydraulic Excavators <50 HP, Trenchers <12", Ag Equipment <150 HP, Pickup Trucks, Forklifts, Mulchers	Hour	\$23.67	1	\$23.67
Mobilization	1138	Mobilization, small equipment	Equipment <70 HP but can't be transported by a pick-up truck or with typical weights between 3,500 to 14,000 pounds.	Each	\$187.23	1	\$187.23

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Discipline Group	Wildlife Wetland
Practice Code/Name	647 - Early Successional Habitat Development and Management
Scenario ID	4
Scenario Name	Mowing with foregone income
Scenario Description	This scenario address inadequate habitat for fish and wildlife where setting back succession by delayed mowing incoming woody species will improve habitat for the target species. Mowing can be used to increase structural diversity by creating areas of shorter vegetation preferred by some species or certain life stages of species. The typical setting for this scenario is in hay fields, in pastures, at the edge of woodlands or brushy areas, and in odd areas such as pivot corners.
Before Practice Situation	The site is static or trending to later successional plant community. The disturbance regime to maintain an earlier successional plant community is lacking. Pastures are often monotypic, lacking in diversity. Competition for sunlight from dense grass stands prevents seedling establishment. Stands are often dense and inhibit the movements of young wildlife such as game bird chicks. Area lacks diversity in the height of vegetation.
After Practice Situation	Early successional habitat maintained. Mowing has provided more sun light for forb establishment. The heterogeneity of the habitat structure has been increased.
Scenario Feature Measure	width and length of treated area
Scenario Unit	Acres
Scenario Typical Size	5

Cost Summary:

Cost Category	Scenario Cost	Scenario Cost/Unit
Materials	\$0.00	\$0.00
Equipment/Installation	\$215.70	\$43.14
Labor	\$119.50	\$23.90
Mobilization	\$234.57	\$46.91
Acquisition of Technical Knowledge	\$0.00	\$0.00
Foregone Income	\$458.70	\$91.74
Total	\$1,028.47	\$205.69

Cost Details:

Cost Category	Component ID	Component Name	Component Description	Unit	Price (\$/unit)	Quantity	Cost
Equipment/Installation	940	Mower, Bush Hog	Equipment and power unit costs. Labor not included.	Hour	\$43.14	5	\$215.70
Labor	232	Equipment Operators, Light	Includes: Skid Steer Loaders, Hydraulic Excavators <50 HP, Trenchers <12", Ag Equipment <150 HP, Pickup Trucks, Forklifts, Mulchers	Hour	\$23.90	5	\$119.50
Mobilization	1143	Mobilization, Light Equipment Operator	Mobilization of light equipment operators: Skid Steer Loaders, Hydraulic Excavators <50 HP, Trenchers <12", Ag Equipment <150 HP, Pickup Trucks, Forklifts, Mulchers	Hour	\$23.67	2	\$47.34
Mobilization	1138	Mobilization, small equipment	Equipment <70 HP but can't be transported by a pick-up truck or with typical weights between 3,500 to 14,000 pounds.	Each	\$187.23	1	\$187.23
Foregone Income	2079	FI, Grazing AUMs	Grazing is the Primary Land Use	AUM	\$15.29	30	\$458.70

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Practice Code/Name	647 - Early Successional Habitat Development and Management
Scenario ID	2
Scenario Name	Disking
Scenario Description	This practice addresses inadequate wildlife habitat for species requiring early successional habitat. This scenario provides early successional habitat by setting back succession and manipulating species composition by disking vegetation and creating bare ground. The typical setting for this scenario is at the edge of crop fields, in pastures, and in odd areas such as pivot corners. This scenario is applicable nationwide. Where the management of woody plants is required to create or maintain early successional habitat conservation practice 314 brush management or 666 forest stand improvement should be used. Where chemical control of weeds, including invasives, is required to reduce competition for the desired plant community conservation practice 315 herbaceous weed control should be used. Where the seedbank is inadequate for natural regeneration and seeding is required, use conservation practice 550 range seeding or 327 Conservation Cover. Where the need is to create early successional habitat within or at the edge of woodland or forest use conservation practice 666 forest stand improvement to remove trees.
Before Practice Situation	The site is static or trending to higher successional plant species. The disturbance regime to maintain a lower successional stage is lacking. Pastures are often monotypic, lacking in diversity. Bare ground for seedling establishment is absent. Stands are often dense and inhibit the movements of younger wildlife species such as game bird chicks.
After Practice Situation	The application of this scenario improves wildlife habitat for species requiring early successional plant communities by reducing competition and creating bare ground for the establishment of early successional plants. Additionally, brood rearing habitat is improved both by the resultant food resources and the increased openness of the plant community that allows chicks to negotiate the terrain and exploit those food resources.
Scenario Feature Measure	width and length of treated area
Scenario Unit	Acres
Scenario Typical Size	2

Cost Summary:

Cost Category	Scenario Cost	Scenario Cost/Unit
Materials	\$0.00	\$0.00
Equipment/Installation	\$19.26	\$9.63
Labor	\$0.00	\$0.00
Mobilization	\$210.90	\$105.45
Acquisition of Technical Knowledge	\$0.00	\$0.00
Foregone Income	\$0.00	\$0.00
Total	\$230.16	\$115.08

Cost Details:

Cost Category	Component ID	Component Name	Component Description	Unit	Price (\$/unit)	Quantity	Cost
Equipment/Installation	945	Tillage, Light	Includes light disking (tandem) or field cultivator. Includes equipment, power unit and labor costs.	Acre	\$9.63	2	\$19.26
Mobilization	1143	Mobilization, Light Equipment Operator	Mobilization of light equipment operators: Skid Steer Loaders, Hydraulic Excavators <50 HP, Trenchers <12", Ag Equipment <150 HP, Pickup Trucks, Forklifts, Mulchers	Hour	\$23.67	1	\$23.67
Mobilization	1138	Mobilization, small equipment	Equipment <70 HP but can't be transported by a pick-up truck or with typical weights between 3,500 to 14,000 pounds.	Each	\$187.23	1	\$187.23

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Practice Code/Name	647 - Early Successional Habitat Development and Management
Scenario ID	3
Scenario Name	Hand Cutting with Chainsaw
Scenario Description	Using a brush saw and/or chainsaw to clear woody vegetation on pasture or wildlife openings that is 1 to 3" or less in diameter on ground with poor access and/or that is too steep or rocky for rotary mowing. Typical rate 1 acre per day.
Before Practice Situation	The site is static or trending to later successional plant community. The disturbance regime to maintain an earlier successional plant community is lacking. Area lacks diversity in the height of vegetation. Early successional wildlife are leaving the area.
After Practice Situation	Early successional habitat maintained. Colearing has provided more light for early successional vegetation reestablishment. The heterogeneity of the habitat structure has been increased. The early successional wildlife are returning.
Scenario Feature Measure	width and length of treated area
Scenario Unit	Acre
Scenario Typical Size	2

Cost Summary:

Cost Category	Scenario Cost	Scenario Cost/Unit
Materials	\$0.00	\$0.00
Equipment/Installation	\$318.08	\$159.04
Labor	\$1,028.40	\$514.20
Mobilization	\$292.07	\$146.04
Acquisition of Technical Knowledge	\$0.00	\$0.00
Foregone Income	\$0.00	\$0.00
Total	\$1,638.55	\$819.28

Cost Details:

Cost Category	Component ID	Component Name	Component Description	Unit	Price (\$/unit)	Quantity	Cost
Equipment/Installation	937	Chainsaw	Equipment and power unit costs. Labor not included.	Hour	\$5.48	32	\$175.36
Equipment/Installation	938	Brush Chipper, 6" capacity	Brush Chipper, 6" capacity, typically 35 HP. Includes chipper and power unit. Labor not included.	Hour	\$17.84	8	\$142.72
Labor	231	General Labor	Labor performed using basic tools such as power tool, shovels, and other tools that do not require extensive training. Ex. pipe layer, herder, concrete placement, materials spreader, flagger, etc.	Hour	\$25.71	40	\$1,028.40
Mobilization	1142	Mobilization, General labor	Mobilization of general labor: Ex. pipe layer, herder, concrete placement, materials spreader, flagger, etc.	Hour	\$26.21	4	\$104.84
Mobilization	1138	Mobilization, small equipment	Equipment <70 HP but can't be transported by a pick-up truck or with typical weights between 3,500 to 14,000 pounds.	Each	\$187.23	1	\$187.23

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Practice Code/Name	647 - Early Successional Habitat Development and Management
Scenario ID	8
Scenario Name	Heavy Mechanical High intensity cut
Scenario Description	A heavily forested area is cut to achieve early successional vegetation. Control is achieved with a brontosaurus or other mechanical means. Land has limited saw timber or firewood value. Trees are larger than 6 inches DBH and stocking rates are less than desirable.
Before Practice Situation	Area is completely forested. Mechanical treatment is needed to control woody vegetation. Wildlife needing early successional habitat has left the area.
After Practice Situation	Appropriate habitat is restored and wildlife needing early successional habitat is able to return.
Scenario Feature Measure	acrea treated
Scenario Unit	Acre
Scenario Typical Size	10

Cost Summary:

Cost Category	Scenario Cost	Scenario Cost/Unit
Materials	\$0.00	\$0.00
Equipment/Installation	\$12,814.20	\$1,281.42
Labor	\$3,917.72	\$391.77
Mobilization	\$1,446.60	\$144.66
Acquisition of Technical Knowledge	\$0.00	\$0.00
Foregone Income	\$0.00	\$0.00
Total	\$18,178.52	\$1,817.85

Cost Details:

Cost Category	Component ID	Component Name	Component Description	Unit	Price (\$/unit)	Quantity	Cost
Equipment/Installation	943	Mechanical cutter, chopper	Masticator, flail shredder, hydro axe, brush cutter, etc. Equipment and power unit costs. Labor not included.	Hour	\$119.56	90	\$10,760.40
Equipment/Installation	927	Dozer, 140 HP	Track mounted Dozer with horsepower range of 125 to 160. Equipment and power unit costs. Labor not included.	Hour	\$102.69	20	\$2,053.80
Labor	233	Equipment Operators, Heavy	Includes: Cranes, Hydraulic Excavators >=50 HP, Dozers, Paving Machines, Rock Trenchers, Trenchers >=12", Dump Trucks, Ag Equipment >=150 HP, Scrapers, Water Wagons.	Hour	\$34.10	110	\$3,751.00
Labor	234	Supervisor or Manager	Labor involving supervision or management activities. Includes crew supervisors, foremen and farm/ranch managers time required for adopting new technology, etc.	Hour	\$41.68	4	\$166.72
Mobilization	1140	Mobilization, large equipment	Equipment >150HP or typical weights greater than 30,000 pounds or loads requiring over width or over length permits.	Each	\$513.10	2	\$1,026.20
Mobilization	1145	Mobilization, Supervisor or Manager	Mobilization of supervisors or management. Includes crew supervisors, foremen and farm/ranch managers, etc.	Hour	\$41.30	2	\$82.60
Mobilization	1144	Mobilization, Heavy Equipment Operator	Mobilization of heavy equipment operators: Hydraulic Excavators >=50 HP, Dozers, Paving Machines, Rock Trenchers, Trenchers >=12", Dump Trucks, Ag Equipment >=150 HP, Scrapers, Water Wagons.	Hour	\$33.78	10	\$337.80

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Region	New England
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Discipline Group	Wildlife Wetland
Practice Code/Name	647 - Early Successional Habitat Development and Management
Scenario ID	7
Scenario Name	Heavy Mechanical low intensity cut
Scenario Description	A moderately forested area greater than 4 inches DBH is cut to achieve early successional vegetation. Control is achieved with a brontosaurus or other mechanical means. Land has low saw timber value and limited firewood capability and low stocking rates.
Before Practice Situation	Area is completely forested. Mechanical treatment is needed to control woody vegetation. Wildlife needing early successional habitat has left the area.
After Practice Situation	Appropriate habitat is restored and wildlife needing early successional habitat is able to return.
Scenario Feature Measure	acres treated
Scenario Unit	Acre
Scenario Typical Size	10

Cost Summary:

Cost Category	Scenario Cost	Scenario Cost/Unit
Materials	\$0.00	\$0.00
Equipment/Installation	\$8,031.80	\$803.18
Labor	\$2,387.00	\$238.70
Mobilization	\$1,228.88	\$122.89
Acquisition of Technical Knowledge	\$0.00	\$0.00
Foregone Income	\$0.00	\$0.00
Total	\$11,647.68	\$1,164.77

Cost Details:

Cost Category	Component ID	Component Name	Component Description	Unit	Price (\$/unit)	Quantity	Cost
Equipment/Installation	943	Mechanical cutter, chopper	Masticator, flail shredder, hydro axe, brush cutter, etc. Equipment and power unit costs. Labor not included.	Hour	\$119.56	50	\$5,978.00
Equipment/Installation	927	Dozer, 140 HP	Track mounted Dozer with horsepower range of 125 to 160. Equipment and power unit costs. Labor not included.	Hour	\$102.69	20	\$2,053.80
Labor	233	Equipment Operators, Heavy	Includes: Cranes, Hydraulic Excavators >=50 HP, Dozers, Paving Machines, Rock Trenchers, Trenchers >=12", Dump Trucks, Ag Equipment >=150 HP, Scrapers, Water Wagons.	Hour	\$34.10	70	\$2,387.00
Mobilization	1140	Mobilization, large equipment	Equipment >150HP or typical weights greater than 30,000 pounds or loads requiring over width or over length permits.	Each	\$513.10	2	\$1,026.20
Mobilization	1144	Mobilization, Heavy Equipment Operator	Mobilization of heavy equipment operators: Hydraulic Excavators >=50 HP, Dozers, Paving Machines, Rock Trenchers, Trenchers >=12", Dump Trucks, Ag Equipment >=150 HP, Scrapers, Water Wagons.	Hour	\$33.78	6	\$202.68

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Region	New England
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Discipline Group	Wildlife Wetland
Practice Code/Name	647 - Early Successional Habitat Development and Management
Scenario ID	9
Scenario Name	Light Brush hogging
Scenario Description	This scenario address inadequate habitat for wildlife where setting back succession by mowing incoming woody species will improve habitat for the target species. Brush hogging can be used to increase structural diversity by creating areas of shorter vegetation while maintaining brushy beneficial areas preferred by some species or certain life stages of species. The typical setting for this scenario is old fields.
Before Practice Situation	Describe the setting where the practice will be installed. The site is lacking vertical and horizontal diversity and trending to later successional plant community. The disturbance regime to maintain an earlier successional plant community is lacking or is being implemented improperly or during the prime nesting period.
After Practice Situation	The field has been improved through better timed and implemented management to create a vertically and horizontally diverse habitat for species of concern providing necessary cover and nesting/rearing habitat.
Scenario Feature Measure	Acre
Scenario Unit	Acre
Scenario Typical Size	5

Cost Summary:

Cost Category	Scenario Cost	Scenario Cost/Unit
Materials	\$0.00	\$0.00
Equipment/Installation	\$215.70	\$43.14
Labor	\$119.50	\$23.90
Mobilization	\$234.57	\$46.91
Acquisition of Technical Knowledge	\$0.00	\$0.00
Foregone Income	\$0.00	\$0.00
Total	\$569.77	\$113.95

Cost Details:

Cost Category	Component ID	Component Name	Component Description	Unit	Price (\$/unit)	Quantity	Cost
Equipment/Installation	940	Mower, Bush Hog	Equipment and power unit costs. Labor not included.	Hour	\$43.14	5	\$215.70
Labor	232	Equipment Operators, Light	Includes: Skid Steer Loaders, Hydraulic Excavators <50 HP, Trenchers <12", Ag Equipment <150 HP, Pickup Trucks, Forklifts, Mulchers	Hour	\$23.90	5	\$119.50
Mobilization	1143	Mobilization, Light Equipment Operator	Mobilization of light equipment operators: Skid Steer Loaders, Hydraulic Excavators <50 HP, Trenchers <12", Ag Equipment <150 HP, Pickup Trucks, Forklifts, Mulchers	Hour	\$23.67	2	\$47.34
Mobilization	1138	Mobilization, small equipment	Equipment <70 HP but can't be transported by a pick-up truck or with typical weights between 3,500 to 14,000 pounds.	Each	\$187.23	1	\$187.23

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Information Type	Data
Region	New England
State	Connecticut
Discipline Group	Wildlife Wetland
Practice Code/Name	647 - Early Successional Habitat Development and Management
Scenario ID	5
Scenario Name	Light Mechanical
Scenario Description	Practice to be used in old fields and forests where size class is 2 inches DBH or less. Control is achieved with a brontosaurus, Davco mower, gyrotrac or other mechanical means.
Before Practice Situation	Area is reverting to forest from early successional. Mechanical treatment is needed to control woody vegetation. Wildlife needing early successional habitat is leaving the area.
After Practice Situation	Appropriate habitat is restored and wildlife needing early successional habitat is able to return.
Scenario Feature Measure	acre
Scenario Unit	Acre
Scenario Typical Size	20

Cost Summary:

Cost Category	Scenario Cost	Scenario Cost/Unit
Materials	\$0.00	\$0.00
Equipment/Installation	\$7,173.60	\$358.68
Labor	\$2,046.00	\$102.30
Mobilization	\$715.78	\$35.79
Acquisition of Technical Knowledge	\$0.00	\$0.00
Foregone Income	\$0.00	\$0.00
Total	\$9,935.38	\$496.77

Cost Details:

Cost Category	Component ID	Component Name	Component Description	Unit	Price (\$/unit)	Quantity	Cost
Equipment/Installation	943	Mechanical cutter, chopper	Masticator, flail shredder, hydro axe, brush cutter, etc. Equipment and power unit costs. Labor not included.	Hour	\$119.56	60	\$7,173.60
Labor	233	Equipment Operators, Heavy	Includes: Cranes, Hydraulic Excavators >=50 HP, Dozers, Paving Machines, Rock Trenchers, Trenchers >=12", Dump Trucks, Ag Equipment >=150 HP, Scrapers, Water Wagons.	Hour	\$34.10	60	\$2,046.00
Mobilization	1140	Mobilization, large equipment	Equipment >150HP or typical weights greater than 30,000 pounds or loads requiring over width or over length permits.	Each	\$513.10	1	\$513.10
Mobilization	1144	Mobilization, Heavy Equipment Operator	Mobilization of heavy equipment operators: Hydraulic Excavators >=50 HP, Dozers, Paving Machines, Rock Trenchers, Trenchers >=12", Dump Trucks, Ag Equipment >=150 HP, Scrapers, Water Wagons.	Hour	\$33.78	6	\$202.68

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Information Type	Data
Region	New England
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Discipline Group	Wildlife Wetland
Practice Code/Name	647 - Early Successional Habitat Development and Management
Scenario ID	6
Scenario Name	Medium Mechanical
Scenario Description	Practice to be used in old fields and forests where size class is between 2 inches and 4 inches DBH. Control is achieved with a brontosaurus, Davco mower, gyrotrac or other mechanical means and takes more time per acre.
Before Practice Situation	Area is reverting to pole sized forest from early successional. Mechanical treatment is needed to control woody vegetation. Wildlife needing early successional habitat is leaving the area.
After Practice Situation	Appropriate habitat is restored and wildlife needing early successional habitat is able to return.
Scenario Feature Measure	acre of treatment
Scenario Unit	Acre
Scenario Typical Size	10

Cost Summary:

Cost Category	Scenario Cost	Scenario Cost/Unit
Materials	\$0.00	\$0.00
Equipment/Installation	\$6,156.40	\$615.64
Labor	\$1,962.10	\$196.21
Mobilization	\$513.10	\$51.31
Acquisition of Technical Knowledge	\$0.00	\$0.00
Foregone Income	\$0.00	\$0.00
Total	\$8,631.60	\$863.16

Cost Details:

Cost Category	Component ID	Component Name	Component Description	Unit	Price (\$/unit)	Quantity	Cost
Equipment/Installation	938	Brush Chipper, 6" capacity	Brush Chipper, 6" capacity, typically 35 HP. Includes chipper and power unit. Labor not included.	Hour	\$17.84	10	\$178.40
Equipment/Installation	943	Mechanical cutter, chopper	Masticator, flail shredder, hydro axe, brush cutter, etc. Equipment and power unit costs. Labor not included.	Hour	\$119.56	50	\$5,978.00
Labor	233	Equipment Operators, Heavy	Includes: Cranes, Hydraulic Excavators >=50 HP, Dozers, Paving Machines, Rock Trenchers, Trenchers >=12", Dump Trucks, Ag Equipment >=150 HP, Scrapers, Water Wagons.	Hour	\$34.10	50	\$1,705.00
Labor	231	General Labor	Labor performed using basic tools such as power tool, shovels, and other tools that do not require extensive training. Ex. pipe layer, herder, concrete placement, materials spreader, flagger, etc.	Hour	\$25.71	10	\$257.10
Mobilization	1140	Mobilization, large equipment	Equipment >150HP or typical weights greater than 30,000 pounds or loads requiring over width or over length permits.	Each	\$513.10	1	\$513.10