

Scenario Worksheet

Practice and Scenario Description:

Information Type	Data
Region	Alaska
State	Alaska
Discipline Group	Environmental Engineering
Practice Code/Name	710 - Agricultural Secondary Containment Facility
Scenario ID	2
Scenario Name	Double Wall Tank, remote site
Scenario Description	This practice scenario includes the replacement of an existing single wall fuel storage tank with a new double wall tank anchored to a concrete pad in a remote location. For the purpose of this practice the intention of a remote site definition is one that requires the tank to be purchased and then shipped by either air or barge to its intended location. The purpose of the practice is to address resource concerns related to water quality degradation due to the excessive release of organics into ground and surface waters or excessive sediment and turbidity in surface waters. Associated practices: Heavy Use Area Protection (561).
Before Practice Situation	The agricultural operation has an existing single wall fuel/oil storage tank(s) without any spill prevention protection. The producer has developed an SPCC plan in accordance with EPA requirements, which requires an above ground secondary containment facility for on-farm oil products.
After Practice Situation	This scenario is based on the replacement of an existing single wall tank(s) with a new double wall tank(s). Installation of "used" double wall tank(s) will not be allowed. A 1000 gallon horizontal or vertical antiroll tank (U/L 142-23 Secondary Containment Vessel) double walled which meets EPA regulations will be installed. Payment Schedule is based on the cost difference between a new single wall tank and new double wall tank of the same size. The double wall tank will provide an environmentally safe facility for handling and storage of oil products stored on the farm. Any accidental spills will be contained.
Scenario Feature Measure	Tank volume
Scenario Unit	Gallon
Scenario Typical Size	1000

Cost Summary:

Cost Category	Scenario Cost	Scenario Cost/Unit
Materials	\$4,767.04	\$4.77
Equipment/Installation	\$834.57	\$0.83
Labor	\$555.72	\$0.56
Mobilization	\$3,582.68	\$3.58
Acquisition of Technical Knowledge	\$0.00	\$0.00
Foregone Income	\$0.00	\$0.00
Total	\$9,740.01	\$9.74

Cost Details:

Cost Category	Component ID	Component Name	Component Description	Unit	Price (\$/unit)	Quantity	Cost
Materials	46	Aggregate, Gravel, Graded	Gravel, includes materials, equipment and labor to transport and place. Includes washed and unwashed gravel.	Cubic yard	\$35.22	5	\$176.10
Materials	2260	Tank, storage tank, upgrade to a double wall from a single wall, horizontal, steel, above ground, variable cost portion	variable cost portion of the difference between a single wall and double wall horizontal steel storage tank. Includes cradles, coating, fittings, labor, equipment. Excludes foundations, pumps or piping.	Gallon	\$0.32	1000	\$320.00
Equipment/Installation	37	Concrete, CIP, slab on grade, reinforced	steel reinforced concrete formed and cast-in-place as a slab on grade by chute placement. Typical strength is 3000 to 4000 psi. Includes materials, labor and equipment to transport, place and finish.	Cubic yard	\$372.82	1	\$372.82
Equipment/Installation	49	Earthfill, Roller Compacted	Earthfill, roller or machine compacted, includes equipment and labor	Cubic yard	\$5.02	5	\$25.10
Equipment/Installation	930	Hydraulic Excavator, .5 CY	Track mounted hydraulic excavator with bucket capacity range of 0.3 to 0.8 CY. Equipment and power unit costs. Labor not included.	Hour	\$52.93	1	\$52.93
Equipment/Installation	1734	Crane, truck mounted, hydraulic, 12 ton	12 ton capacity truck mounted hydraulic crane. Equipment cost only.	Hour	\$95.93	4	\$383.72
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	\$30.61	12	\$367.32
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	\$37.68	5	\$188.40
Mobilization	1043	Mobilization, Material, distance > 50 miles	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.	Dollar	\$1.00	2524	\$2,524.00
Mobilization	1139	Mobilization, medium equipment	Equipment with 70-150 HP or typical weights between 14,000 and 30,000 pounds.	Each	\$264.67	4	\$1,058.68
Materials	2275	Tank, storage tank, upgrade to a double wall from a single wall, horizontal, steel, above ground, fixed cost portion	fixed cost portion of the difference between a single wall and double wall horizontal steel storage tank. Includes cradles, coating, fittings, labor, equipment. Excludes foundations, pumps or piping.	Each	\$4,270.94	1	\$4,270.94

Scenario Worksheet

Practice and Scenario Description:

Information Type	Data
Region	Alaska
State	Alaska
Discipline Group	Environmental Engineering
Practice Code/Name	710 - Agricultural Secondary Containment Facility
Scenario ID	1
Scenario Name	Double Wall Tank
Scenario Description	This practice scenario includes the replacement of an existing single wall fuel storage tank with a new double wall tank anchored to a concrete pad. The purpose of the practice is to address resource concerns related to water quality degradation due to the excessive release of organics into ground and surface waters or excessive sediment and turbidity in surface waters. Associated practices: Heavy Use Area Protection (561).
Before Practice Situation	The agricultural operation has an existing single wall fuel/oil storage tank(s) without any spill prevention protection. The producer has developed an SPCC plan in accordance with EPA requirements, which requires an above ground secondary containment facility for on-farm oil products.
After Practice Situation	This scenario is based on the replacement of an existing single wall tank(s) with a new double wall tank(s). Installation of "used" double wall tank(s) will not be allowed. A 1000 gallon horizontal or vertical antirroll tank (U/L 142-23 Secondary Containment Vessel) double walled which meets EPA regulations will be installed. Payment Schedule is based on the cost difference between a new single wall tank and new double wall tank of the same size. The double wall tank will provide an environmentally safe facility for handling and storage of oil products stored on the farm. Any accidental spills will be contained.
Scenario Feature Measure	Tank volume
Scenario Unit	Gallon
Scenario Typical Size	1000

Cost Summary:

Cost Category	Scenario Cost	Scenario Cost/Unit
Materials	\$4,767.04	\$4.77
Equipment/Installation	\$834.57	\$0.83
Labor	\$555.72	\$0.56
Mobilization	\$1,058.68	\$1.06
Acquisition of Technical Knowledge	\$0.00	\$0.00
Foregone Income	\$0.00	\$0.00
Total	\$7,216.01	\$7.22

Cost Details:

Cost Category	Component ID	Component Name	Component Description	Unit	Price (\$/unit)	Quantity	Cost
Materials	46	Aggregate, Gravel, Graded	Gravel, includes materials, equipment and labor to transport and place. Includes washed and unwashed gravel. variable cost portion of the difference	Cubic yard	\$35.22	5	\$176.10
Materials	2260	Tank, storage tank, upgrade to a double wall from a single wall, horizontal, steel, above ground, variable cost portion	between a single wall and double wall horizontal steel storage tank. Includes cradles, coating, fittings, labor, equipment. Excludes foundations, pumps or piping.	Gallon	\$0.32	1000	\$320.00
Equipment/Installation	37	Concrete, CIP, slab on grade, reinforced	steel reinforced concrete formed and cast-in-place as a slab on grade by chute placement. Typical strength is 3000 to 4000 psi. Includes materials, labor and equipment to transport, place and finish.	Cubic yard	\$372.82	1	\$372.82
Equipment/Installation	49	Earthfill, Roller Compacted	Earthfill, roller or machine compacted, includes equipment and labor	Cubic yard	\$5.02	5	\$25.10
Equipment/Installation	930	Hydraulic Excavator, .5 CY	Track mounted hydraulic excavator with bucket capacity range of 0.3 to 0.8 CY. Equipment and power unit costs. Labor not included.	Hour	\$52.93	1	\$52.93
Equipment/Installation	1734	Crane, truck mounted, hydraulic, 12 ton	12 ton capacity truck mounted hydraulic crane. Equipment cost only.	Hour	\$95.93	4	\$383.72
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	\$30.61	12	\$367.32
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	\$37.68	5	\$188.40
Mobilization	1139	Mobilization, medium equipment	Equipment with 70-150 HP or typical weights between 14,000 and 30,000 pounds.	Each	\$264.67	4	\$1,058.68
Materials	2275	Tank, storage tank, upgrade to a double wall from a single wall, horizontal, steel, above ground, fixed cost portion	single wall and double wall horizontal steel storage tank. Includes cradles, coating, fittings, labor, equipment. Excludes foundations, pumps or piping.	Each	\$4,270.94	1	\$4,270.94

Scenario Worksheet

Practice and Scenario Description:

Information Type	Data
Region	Alaska
State	Alaska
Discipline Group	Engineering General
Practice Code/Name	734 - Fish and Wildlife Structure
Scenario ID	7
Scenario Name	Brush and Rock Piles
Scenario Description	Creation of brush piles provides many benefits to a wide variety of wildlife species. Properly constructed brushpiles can provide cover, shelter, escape, nesting and denning, display, roosting and foraging opportunities for seasonal or yearlong use for many species. Brush piles are appropriate for sites which have already received vegetative clearing where little or no ground level escape or habitat cover exists, in forested or wooded sites to be cleared or thinned, or in pastureland, hayland or cropland where there is interest in improving habitat opportunities or create travel corridors. Strutting "log's" can also be constructed in conjunction or by using a brushpile-like structure. These structures are located and constructed to meet focus species biology and life history needs. While size varies, brush piles are typically 10 ft in diameter and 6 ft high (500 to 700 square feet) at the center. Multiples brush piles are better than one larger pile, and two to four piles per acre of area adjacent to woodlands is desirable. Piles are typically 200 to 300 ft apart. Stumps, logs, rocks and pipes are typically placed at the bottom with limbs and leaves placed on top, thereby allowing easy access to the bottom of the pile. These piles can provide nesting habitat, resting areas, concealment, and protection from some
Before Practice Situation	These structures are targeted for areas that lack sufficient overall habitat conditions to support viable populations of targeted species. Insufficient ground cover is available for resting, basking, and escape cover. Existing brushy cover is lacking or not well distributed.
After Practice Situation	The installation of a brush piles and rock piles enhances the overall habitat needs of numerous terrestrial species. These structures/features enhance habitat and improve species survivability. By providing resting, basking, and escape cover, larger open spaces are more effectively used by ground nesting birds, amphibians, reptiles, and small mammals. Increased cover reduces predation.
Scenario Feature Measure	Number of Piles
Scenario Unit	Each
Scenario Typical Size	1

Cost Summary:

Cost Category	Scenario Cost	Scenario Cost/Unit
Materials	\$0.00	\$0.00
Equipment/Installation	\$103.99	\$103.99
Labor	\$153.05	\$153.05
Mobilization	\$25.00	\$25.00
Acquisition of Technical Knowledge	\$0.00	\$0.00
Foregone Income	\$0.00	\$0.00
Total	\$282.04	\$282.04

Cost Details:

Cost Category	Component ID	Component Name	Component Description	Unit	Price (\$/unit)	Quantity	Cost
Equipment/Installation	933	Skidsteer, 80 HP	Skidsteer loader with horsepower range of 60 to 90. Equipment and power unit costs. Labor not included.	Hour	\$40.07	1	\$40.07
Equipment/Installation	965	All terrain vehicles, ATV	Includes equipment, power unit and labor costs.	Hour	\$32.87	1	\$32.87
Equipment/Installation	937	Chainsaw	Equipment and power unit costs. Labor not included.	Hour	\$6.21	5	\$31.05
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	\$30.61	5	\$153.05
Mobilization	1043	Mobilization, Material, distance > 50 miles	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.	Dollar	\$1.00	25	\$25.00

Scenario Worksheet

Practice and Scenario Description:

Information Type	Data
Region	Alaska
State	Alaska
Discipline Group	Engineering General
Practice Code/Name	734 - Fish and Wildlife Structure
Scenario ID	13
Scenario Name	Sign 18x24
Scenario Description	<p>Conservation sign(s) are required to provide explicit information for land use/area management requirements or activities on private lands. For companion wildlife practices to be effective at the site, the public, specific user groups or other individuals are informed of allowable access or restrictions, proper use, goals, benefits and/or other actions or requirements, to promote associated wildlife management activities and structural practices.</p> <p>Sign text is developed to reflect the site information and requirements, operation, goals and benefits of the land management and practice (s) installation identified in the required long-range wildlife or habitat management plan. Graphics reflecting intent, use, directions, assignment of responsibility, or other information relevant or important to the management plan and practice operation may be included, but are not required. Location (GPS) of the sign (s) must be identified in the wildlife or conservation plan. This scenario provides for up to three generally text and graphically identical signs (costed as each) of approximate 2'x1.5' dimensions, with any</p>
Before Practice Situation	Conservation sign(s) are required to provide explicit information for land use/area management requirements or activities on private lands. The public or user groups do not currently or, need to be aware/ approved of structural and management features on the landscape for which wildlife habitat benefits are being addressed or created. indiscriminant use of the landscape by user groups has or will deteriorate quality/ quantity of wildlife habita benefits sought by practice or management intents.
After Practice Situation	Companion wildlife practices and wildlife management is effected at the site where the public, specific user groups or other individuals are now informed of allowable access or restrictions, proper use, goals, benefits and/or other actions or requirements, to promote associated wildlife management activities and structural practices.
Scenario Feature Measure	
Scenario Unit	Each
Scenario Typical Size	1

Cost Summary:

Cost Category	Scenario Cost	Scenario Cost/Unit
Materials	\$146.20	\$146.20
Equipment/Installation	\$37.12	\$37.12
Labor	\$15.31	\$15.31
Mobilization	\$25.00	\$25.00
Acquisition of Technical Knowledge	\$0.00	\$0.00
Foregone Income	\$0.00	\$0.00
Total	\$223.62	\$223.62

Cost Details:

Cost Category	Component ID	Component Name	Component Description	Unit	Price (\$/unit)	Quantity	Cost
Equipment/Installation	934	Auger, Post driver attachment	Auger or post driver attachment to a tractor or skidsteer. Does not include power unit. Labor not included.	Hour	\$8.49	0.5	\$4.25
Equipment/Installation	965	All terrain vehicles, ATV	Includes equipment, power unit and labor costs.	Hour	\$32.87	1	\$32.87
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	\$30.61	0.5	\$15.31
Mobilization	1043	Mobilization, Material, distance > 50 miles	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.	Dollar	\$1.00	25	\$25.00
Materials	2257	Sign, 2' x 1.5'	.125 aluminum, single-sided, with nonreflective, EG reflective or HIP reflective face copy, Posts, 2" x 8' galvanized perforated square steel tube signpost, Anchor, 2.5" x 30" galv. Non-perforated square steel tube anchor for post, and Windbeam Bolt Assembly	Each	\$146.20	1	\$146.20

Scenario Worksheet

Practice and Scenario Description:

Information Type	Data
Region	Alaska
State	Alaska
Discipline Group	Engineering General
Practice Code/Name	734 - Fish and Wildlife Structure
Scenario ID	12
Scenario Name	Conservation Signage 3x2
Scenario Description	Conservation sign(s) are required to provide explicit information for land use/area management requirements or activities on private lands. For companion wildlife practices to be effective at the site, the public, specific user groups or other individuals are informed of allowable access or restrictions, proper use, goals, benefits and/or other actions or requirements, to promote associated wildlife management activities and structural practices. Sign text is developed to reflect the site information and requirements, operation, goals and benefits of the land management and practice (s) installation identified in the required long-range wildlife or habitat management plan. Graphics reflecting intent, use, directions, assignment of responsibility, or other information relevant or important to the management plan and practice operation may be included, but are not required. Location (GPS) of the sign (s) must be identified in the wildlife or conservation plan. This scenario provides for up to three generally text and graphically identical signs (costed as each) of approximate 3'x2' dimensions, with any
Before Practice Situation	Conservation sign(s) are required to provide explicit information for land use/area management requirements or activities on private lands. The public or user groups do not currently or, need to be aware/ approved of structural and management features on the landscape for which wildlife habitat benefits are being addressed or created. indiscriminant use of the landscape by user groups has or will deteriorate quality/ quantity of wildlife habita benefits sought by practice or management intents.
After Practice Situation	Companion wildlife practices and wildlife management is effected at the site where the public, specific user groups or other individuals are now informed of allowable access or restrictions, proper use, goals, benefits and/or other actions or requirements, to promote associated wildlife management activities and structural practices.
Scenario Feature Measure	
Scenario Unit	Each
Scenario Typical Size	1

Cost Summary:

Cost Category	Scenario Cost	Scenario Cost/Unit
Materials	\$292.40	\$292.40
Equipment/Installation	\$39.24	\$39.24
Labor	\$30.61	\$30.61
Mobilization	\$60.00	\$60.00
Acquisition of Technical Knowledge	\$0.00	\$0.00
Foregone Income	\$0.00	\$0.00
Total	\$422.25	\$422.25

Cost Details:

Cost Category	Component ID	Component Name	Component Description	Unit	Price (\$/unit)	Quantity	Cost
Equipment/Installation	934	Auger, Post driver attachment	Auger or post driver attachment to a tractor or skidsteer. Does not include power unit. Labor not included.	Hour	\$8.49	0.75	\$6.37
Equipment/Installation	965	All terrain vehicles, ATV	Includes equipment, power unit and labor costs.	Hour	\$32.87	1	\$32.87
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	\$30.61	1	\$30.61
Mobilization	1043	Mobilization, Material, distance > 50 miles	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.	Dollar	\$1.00	60	\$60.00
Materials	2259	Sign, 3' x 2'	.125 aluminum, single-sided, with nonreflective, EG reflective or HIP reflective face copy, Posts, 2" x 8' galvanized perforated square steel tube signpost, Anchor, 2.5" x 30" galv. Non-perforated square steel tube anchor for post, and Windbeam Bolt Assembly	Each	\$292.40	1	\$292.40

Scenario Worksheet

Practice and Scenario Description:

Information Type	Data
Region	Alaska
State	Alaska
Discipline Group	Engineering General
Practice Code/Name	734 - Fish and Wildlife Structure
Scenario ID	11
Scenario Name	Conservation Signage 5x3
Scenario Description	Conservation sign(s) are required to provide explicit information for land use/area management requirements or activities on private lands. For companion wildlife practices to be effective at the site, the public, specific user groups or other individuals are informed of allowable access or restrictions, proper use, goals, benefits and/or other actions or requirements, to promote associated wildlife management activities and structural practices. Sign text is developed to reflect the site information and requirements, operation, goals and benefits of the land management and practice (s) installation identified in the required long-range wildlife or habitat management plan. Graphics reflecting intent, use, directions, assignment of responsibility, or other information relevant or important to the management plan and practice operation may be included, but are not required. Location (GPS) of the sign (s) must be identified in the wildlife or conservation plan. This scenario provides for Conservation Signs approximately 5'x3' in dimension, with any combination of lettering and graphics. Signs are .125 inch
Before Practice Situation	Conservation sign(s) are required to provide explicit information for land use/area management requirements or activities on private lands. The public or user groups do not currently or, need to be aware/ approved of structural and management features on the landscape for which wildlife habitat benefits are being addressed or created. indiscriminant use of the landscape by user groups has or will deteriorate quality/ quantity of wildlife habita benefits sought by practice or management intents.
After Practice Situation	Companion wildlife practices and wildlife management is effected at the site where the public, specific user groups or other individuals are now informed of allowable access or restrictions, proper use, goals, benefits and/or other actions or requirements, to promote associated wildlife management activities and structural practices.
Scenario Feature Measure	Each
Scenario Unit	Each
Scenario Typical Size	1

Cost Summary:

Cost Category	Scenario Cost	Scenario Cost/Unit
Materials	\$755.60	\$755.60
Equipment/Installation	\$39.24	\$39.24
Labor	\$45.92	\$45.92
Mobilization	\$75.00	\$75.00
Acquisition of Technical Knowledge	\$0.00	\$0.00
Foregone Income	\$0.00	\$0.00
Total	\$915.75	\$915.75

Cost Details:

Cost Category	Component ID	Component Name	Component Description	Unit	Price (\$/unit)	Quantity	Cost
Equipment/Installation	934	Auger, Post driver attachment	Auger or post driver attachment to a tractor or skidsteer. Does not include power unit. Labor not included.	Hour	\$8.49	0.75	\$6.37
Equipment/Installation	965	All terrain vehicles, ATV	Includes equipment, power unit and labor costs.	Hour	\$32.87	1	\$32.87
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	\$30.61	1.5	\$45.92
Mobilization	1043	Mobilization, Material, distance > 50 miles	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.	Dollar	\$1.00	75	\$75.00
Materials	2256	Sign, 5' x 3'	.125 Aluminum, Single-Sided, with Non-Reflective, EG reflective or HIP reflective face copy, Back framing, Posts 2" x 12' galvanized perforated square steel tube signpost, Anchor, 2.5" x 30" galv. Non-perforated square steel tube anchor, and Wind beam Bolt Assembly	Each	\$755.60	1	\$755.60

Scenario Worksheet

Practice and Scenario Description:

Information Type	Data
Region	Alaska
State	Alaska
Discipline Group	Engineering General
Practice Code/Name	734 - Fish and Wildlife Structure
Scenario ID	14
Scenario Name	Conservation Signs, TrailMarkers
Scenario Description	Conservation sign(s) are required to provide explicit information for land use/area management requirements or activities on private lands. For companion wildlife practices to be effective at the site, the public, specific user groups or other individuals are informed of allowable access or restrictions, proper use, goals, benefits and/or other actions or requirements, to promote associated wildlife management activities and structural practices. Trail marker (s) is/are necessary to provide guidance and location of trail course, mark corners or trail sections where special concerns, features or conditions (safety, location, restrictions, etc.) exist, and are necessary to support wildlife practices or habitat management plans and activities. Graphics (decals) or text may be required/ necessary to inform users of special circumstances or other important information. Number and location of the marker (s) must be identified in the an attending wildlife, engineering or conservation plan. Specifications for location and installation requirements will be a part of the install plan design. General
Before Practice Situation	Trail Marking sign(s) are required for trail location purposes or to provide explicit information for land use/area management requirements or activities on private lands. The public or user groups do not currently or, need to be aware/ approved of structural and management features on the landscape for which wildlife habitat benefits are being addressed or created. indiscriminant use of the landscape by user groups has or will deteriorate quality/ quantity of wildlife habita benefits sought by practice or management intents.
After Practice Situation	Trail locations are now identified and thereby reduce indiscriminant off trail disturbances, facilitating companion wildlife practices/ structures and wildlife management at the site where the public, specific user groups or other individuals are now informed of allowable access or restrictions, proper use, goals, benefits and/or other actions or requirements, to promote associated wildlife management activities and structural practices.
Scenario Feature Measure	
Scenario Unit	Each
Scenario Typical Size	1

Cost Summary:

Cost Category	Scenario Cost	Scenario Cost/Unit
Materials	\$26.50	\$26.50
Equipment/Installation	\$11.56	\$11.56
Labor	\$9.18	\$9.18
Mobilization	\$4.00	\$4.00
Acquisition of Technical Knowledge	\$0.00	\$0.00
Foregone Income	\$0.00	\$0.00
Total	\$51.24	\$51.24

Cost Details:

Cost Category	Component ID	Component Name	Component Description	Unit	Price (\$/unit)	Quantity	Cost
Equipment/Installation	934	Auger, Post driver attachment	Auger or post driver attachment to a tractor or skidsteer. Does not include power unit. Labor not included.	Hour	\$8.49	0.2	\$1.70
Equipment/Installation	965	All terrain vehicles, ATV	Includes equipment, power unit and labor costs.	Hour	\$32.87	0.3	\$9.86
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	\$30.61	0.3	\$9.18
Mobilization	1043	Mobilization, Material, distance > 50 miles	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.	Dollar	\$1.00	4	\$4.00
Materials	2258	Trail Marker	Carsonite CRM375 fiberglass utility marker or equivalent, 66" tall by 3.5" wide, available with custom 3"x3" reflective decal applied	Each	\$26.50	1	\$26.50

Scenario Worksheet

Practice and Scenario Description:

Information Type	Data
Region	Alaska
State	Alaska
Discipline Group	Engineering General
Practice Code/Name	734 - Fish and Wildlife Structure
Scenario ID	8
Scenario Name	Escape Ramp
Scenario Description	Retrofit an existing watering trough/tank with an appropriately designed and installed wildlife escape ramp to reduce wildlife mortality and improve wildlife habitat. Typical ramps are built according to 614 practice standard and guidance in "Water for Wildlife" publication: http://www.batcon.org/pdfs/water/bciwaterforwildlife.pdf
Before Practice Situation	These structures are targeted for containers (tank, trough, or other watertight container) or small basins provisioning livestock water that currently restrict birds, small mammals, amphibians and other wildlife species from the ability to escape these confined structures once entered.
After Practice Situation	Watering facilities and basins equipped with escape ramps facilitate movement of the trapped wildlife species across these ramps and safely exist from the watering facility or basin. These structures are constructed along side of the watering facility extending from the to the bottom of the container to the top inside edge. Appropriate placement at an angle and flush to the container wall enhances the successful use of escaping animal.
Scenario Feature Measure	Each Ramp
Scenario Unit	Each
Scenario Typical Size	1

Cost Summary:

Cost Category	Scenario Cost	Scenario Cost/Unit
Materials	\$36.74	\$36.74
Equipment/Installation	\$0.00	\$0.00
Labor	\$30.61	\$30.61
Mobilization	\$0.00	\$0.00
Acquisition of Technical Knowledge	\$0.00	\$0.00
Foregone Income	\$0.00	\$0.00
Total	\$67.35	\$67.35

Cost Details:

Cost Category	Component ID	Component Name	Component Description	Unit	Price (\$/unit)	Quantity	Cost
Materials	242	Wildlife Escape Ramp	Pool size 15' x 30', for small mammals less than one pound	Each	\$36.74	1	\$36.74
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	\$30.61	1	\$30.61

Scenario Worksheet

Practice and Scenario Description:

Information Type	Data
Region	Alaska
State	Alaska
Discipline Group	Engineering General
Practice Code/Name	734 - Fish and Wildlife Structure
Scenario ID	3
Scenario Name	Nesting Box, Large
Scenario Description	A structure is provided to support the nesting and rearing of larger targeted species such as waterfowl, bats and barn owls, and is directly mounted to a tree, building or other structure. These structures are designed to meet targeted species biology and life history needs. Addresses Resource Concern: Inadequate Cover/Shelter.
Before Practice Situation	These structures are targeted for areas that lack sufficient overall habitat conditions to support viable populations of targeted species. Increased predation of target and non-targeted species may or may not be a problem. A suitable location to mount the box is available.
After Practice Situation	The installation of nesting and rearing boxes support the life-cycle needs of targeted species, such as birds, bats and pollinators. Because of suitable location and conditions the nesting box can be directly mounted such as on a tree or building, thereby eliminating the need for mounting poles and predator guards. Species such as cavity dwelling birds and pollinators use this approach, but this treatment is not limited to those species. These structures/features enhance habitat, cover, and improve species survivability.
Scenario Feature Measure	Number
Scenario Unit	Each
Scenario Typical Size	1

Cost Summary:

Cost Category	Scenario Cost	Scenario Cost/Unit
Materials	\$67.87	\$67.87
Equipment/Installation	\$0.00	\$0.00
Labor	\$10.10	\$10.10
Mobilization	\$0.00	\$0.00
Acquisition of Technical Knowledge	\$0.00	\$0.00
Foregone Income	\$0.00	\$0.00
Total	\$77.97	\$77.97

Cost Details:

Cost Category	Component ID	Component Name	Component Description	Unit	Price (\$/unit)	Quantity	Cost
Materials	1449	Habitat Box, waterfowl	Wood Duck Box, typically 24" x 11" x 12" with 4" wide oval entrance, single. Materials only. Labor performed using basic tools such as	Each	\$67.87	1	\$67.87
Labor	231	General Labor	power tool, shovels, and other tools that do not require extensive training. Ex. pipe layer, herder, concrete placement, materials spreader, flagger, etc.	Hour	\$30.61	0.33	\$10.10

Scenario Worksheet

Practice and Scenario Description:

Information Type	Data
Region	Alaska
State	Alaska
Discipline Group	Engineering General
Practice Code/Name	734 - Fish and Wildlife Structure
Scenario ID	4
Scenario Name	Nesting Box, Large, with steel pole
Scenario Description	Constructing a nest box on a steel pole. A structure is provided to support the nesting and rearing of larger targeted species such as waterfowl, bats and barn owls. Trees, buildings, ore other structures are not available on which to install the box. These structures are designed to meet targeted species biology and life history needs. Addresses Resource Concern: Inadequate Cover/Shelter.
Before Practice Situation	These structures are targeted for areas that lack sufficient overall habitat conditions to support viable populations of targeted species. Increased predation of target and non-targeted species may or may not be a problem.
After Practice Situation	The installation nesting and rearing boxes support the life-cycle needs of targeted species such as bats and waterfowl. Location and conditions suggest that predator guards are not needed. These structures/features enhance habitat, cover, and improve species survivability.
Scenario Feature Measure	Number
Scenario Unit	Each
Scenario Typical Size	1

Cost Summary:

Cost Category	Scenario Cost	Scenario Cost/Unit
Materials	\$159.57	\$159.57
Equipment/Installation	\$22.54	\$22.54
Labor	\$45.92	\$45.92
Mobilization	\$0.00	\$0.00
Acquisition of Technical Knowledge	\$0.00	\$0.00
Foregone Income	\$0.00	\$0.00
Total	\$228.02	\$228.02

Cost Details:

Cost Category	Component ID	Component Name	Component Description	Unit	Price (\$/unit)	Quantity	Cost
Materials	256	Pipe, steel, galvanized, threaded, 1½", schedule 40	Spec. A-53, includes coupling and clevis hanger assembly sized for covering, 10' OC	Foot	\$18.34	5	\$91.70
Materials	1449	Habitat Box, waterfowl	Wood Duck Box, typically 24" x 11" x 12" with 4" wide oval entrance, single. Materials only. Non reinforced concrete cast-in-place without forms by chute placement. Typical strength is 3000 to 4000 psi. Includes materials, labor and equipment to transport, place and finish.	Each	\$67.87	1	\$67.87
Equipment/Installation	36	Concrete, CIP, formless, non reinforced		Cubic yard	\$182.91	0.1	\$18.29
Equipment/Installation	934	Auger, Post driver attachment	Auger or post driver attachment to a tractor or skidsteer. Does not include power unit. Labor not included.	Hour	\$8.49	0.5	\$4.25
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	\$30.61	1.5	\$45.92

Scenario Worksheet

Practice and Scenario Description:

Information Type	Data
Region	Alaska
State	Alaska
Discipline Group	Engineering General
Practice Code/Name	734 - Fish and Wildlife Structure
Scenario ID	5
Scenario Name	Nesting Box, Large, with steel pole and predator guard
Scenario Description	Constructing a nest box on a steel pole with a predator guard. A structure is provided to support the nesting and rearing of larger targeted species such as waterfowl, bats and barn owls. These structures are designed to meet targeted species biology and life history needs. Addresses Resource Concern: Inadequate Cover/Shelter.
Before Practice Situation	These structures are targeted for areas that lack sufficient overall habitat conditions to support viable populations of targeted species. Increased predation of target and non-targeted species may also be a problem.
After Practice Situation	The installation of pole mounted nesting and rearing boxes support the life-cycle needs of targeted species, such as bats and waterfowl. Predator guards provide needed protection of target species during nesting and rearing. These structures/features enhance habitat, cover, and reduce predation.
Scenario Feature Measure	Number
Scenario Unit	Each
Scenario Typical Size	1

Cost Summary:

Cost Category	Scenario Cost	Scenario Cost/Unit
Materials	\$191.81	\$191.81
Equipment/Installation	\$22.54	\$22.54
Labor	\$45.92	\$45.92
Mobilization	\$0.00	\$0.00
Acquisition of Technical Knowledge	\$0.00	\$0.00
Foregone Income	\$0.00	\$0.00
Total	\$260.26	\$260.26

Cost Details:

Cost Category	Component ID	Component Name	Component Description	Unit	Price (\$/unit)	Quantity	Cost
Materials	256	Pipe, steel, galvanized, threaded, 1½", schedule 40	Spec. A-53, includes coupling and clevis hanger assembly sized for covering, 10' OC	Foot	\$18.34	5	\$91.70
Materials	1449	Habitat Box, waterfowl	Wood Duck Box, typically 24" x 11" x 12" with 4" wide oval entrance, single. Materials only.	Each	\$67.87	1	\$67.87
Materials	1461	Predator Guard	Predator guards (i.e. stove pipes, cone, hole guard, etc.) for habitat boxes. Materials only	Each	\$32.24	1	\$32.24
Equipment/Installation	36	Concrete, CIP, formless, non reinforced	Non reinforced concrete cast-in-place without forms by chute placement. Typical strength is 3000 to 4000 psi. Includes materials, labor and equipment to transport, place and finish.	Cubic yard	\$182.91	0.1	\$18.29
Equipment/Installation	934	Auger, Post driver attachment	Auger or post driver attachment to a tractor or skidsteer. Does not include power unit. Labor not included.	Hour	\$8.49	0.5	\$4.25
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	\$30.61	1.5	\$45.92

Scenario Worksheet

Practice and Scenario Description:

Information Type	Data
Region	Alaska
State	Alaska
Discipline Group	Engineering General
Practice Code/Name	734 - Fish and Wildlife Structure
Scenario ID	2
Scenario Name	Nesting Box, Small, with wood pole
Scenario Description	Constructing a nest box and mounting on a wooden pole. A structure is provided to support the nesting and rearing of targeted species, such as pollinators and birds. Trees, buildings or other structures are not available. These structures are designed to meet targeted species biology and life history needs. Addresses Resource Concern: Inadequate Cover/Shelter.
Before Practice Situation	These structures are targeted for areas that lack sufficient overall habitat conditions to support viable populations of targeted species. Increased predation of target and non-targeted species may or may not be a problem.
After Practice Situation	The installation nesting and rearing boxes support the life-cycle needs of targeted species, such as blue birds and waterfowl. Location and conditions suggest that predator guards are not needed. These structures/features enhance habitat, cover, and improve species survivability.
Scenario Feature Measure	Number
Scenario Unit	Each
Scenario Typical Size	1

Cost Summary:

Cost Category	Scenario Cost	Scenario Cost/Unit
Materials	\$71.35	\$71.35
Equipment/Installation	\$22.54	\$22.54
Labor	\$20.20	\$20.20
Mobilization	\$0.00	\$0.00
Acquisition of Technical Knowledge	\$0.00	\$0.00
Foregone Income	\$0.00	\$0.00
Total	\$114.09	\$114.09

Cost Details:

Cost Category	Component ID	Component Name	Component Description	Unit	Price (\$/unit)	Quantity	Cost
Materials	251	Habitat Box, Bird	Bluebird nesting box to increase nesting success. Each is 1-1/2" x 6" x 12-1/2" w/ 1-1/2" diameter opening.	Each	\$30.17	1	\$30.17
Materials	13	Post, Wood, CCA treated, 6" x 12-14'	Wood Post, Line/End 6" X 12-14', CCA Treated	Each	\$41.18	1	\$41.18
Equipment/Installation	36	Concrete, CIP, formless, non reinforced	Non reinforced concrete cast-in-place without forms by chute placement. Typical strength is 3000 to 4000 psi. Includes materials, labor and equipment to transport, place and finish.	Cubic yard	\$182.91	0.1	\$18.29
Equipment/Installation	934	Auger, Post driver attachment	Auger or post driver attachment to a tractor or skidsteer. Does not include power unit. Labor not included.	Hour	\$8.49	0.5	\$4.25
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	\$30.61	0.66	\$20.20

Scenario Worksheet

Practice and Scenario Description:

Information Type	Data
Region	Alaska
State	Alaska
Discipline Group	Engineering General
Practice Code/Name	734 - Fish and Wildlife Structure
Scenario ID	1
Scenario Name	Nesting Box, Small
Scenario Description	A structure is provided to support the nesting and rearing of smaller targeted species, such as bees and birds, and is directly mounted to a tree, building or other structure. These structures are designed to meet targeted species biology and life history needs.
Before Practice Situation	These structures are targeted for areas that lack sufficient overall habitat conditions to support viable populations of targeted species. Increased predation of target and non-targeted species may or may not be a problem. A suitable location to mount the box is available.
After Practice Situation	The installation of nesting and rearing boxes support the life-cycle needs of targeted species, such as birds, bats and pollinators. Because of suitable location and conditions the nesting box can be directly mounted such as on a tree or building, thereby eliminating the need for mounting poles and predator guards. Species such as cavity dwelling birds and pollinators use this approach, but this treatment is not limited to those species. These structures/features enhance habitat, cover, and improve species survivability.
Scenario Feature Measure	Number
Scenario Unit	Each
Scenario Typical Size	1

Cost Summary:

Cost Category	Scenario Cost	Scenario Cost/Unit
Materials	\$30.17	\$30.17
Equipment/Installation	\$0.00	\$0.00
Labor	\$10.10	\$10.10
Mobilization	\$0.00	\$0.00
Acquisition of Technical Knowledge	\$0.00	\$0.00
Foregone Income	\$0.00	\$0.00
Total	\$40.27	\$40.27

Cost Details:

Cost Category	Component ID	Component Name	Component Description	Unit	Price (\$/unit)	Quantity	Cost
Materials	251	Habitat Box, Bird	Bluebird nesting box to increase nesting success. Each is 1-1/2" x 6" x 12-1/2" w/ 1-1/2" diameter opening.	Each	\$30.17	1	\$30.17
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	\$30.61	0.33	\$10.10

Scenario Worksheet

Practice and Scenario Description:

Information Type	Data
Region	Alaska
State	Alaska
Discipline Group	Engineering General
Practice Code/Name	734 - Fish and Wildlife Structure
Scenario ID	9
Scenario Name	Nesting Islands
Scenario Description	This practice involves constructing, maintaining, and monitoring loafing structures to provide nesting/loafing cover for waterfowl and shorebirds. This practice applies to construction of sites within or as peninsula's associated with permanent ponds. A habitat appraisal guide has identified that nesting/loafing cover is a limiting factor for shorebirds, waterbirds, waterfowl, or other wetland wildlife and where natural recovery of that habitat element is either unlikely or will take many years to naturally develop. Each island will be a minimum of 800 sqft above the waterline with slopes of between 8:1 and 10:1 with a one foot freeboard. There will be one created island per 10 acres with a minimum of three islands per project. Vegetated areas can be used for breeding waterfowl; encourage non-vegetated areas for breeding shorebirds. Resource Concern: Inadequate Habitat for Fish and Wildlife.
Before Practice Situation	This practice applies to permanent natural or created ponds/ flooded wetlands where a habitat appraisal guide has identified that nesting/loafing cover is a limiting factor for shorebirds, waterfowl, or other wetland wildlife and where natural recovery of that habitat element is either unlikely or will take many years to naturally develop.
After Practice Situation	Each island constructed to a minimum of 800 sqft above the waterline with slopes of between 8:1 and 10:1 with a one foot freeboard. A minimum distance from the island to the permanent shoreline during nesting season is 200', where the water depth is at least 36". Number of islands per treatment unit area will be determined site by site and based on total size of flooded or ponded area. Creating islands provides suitable nesting/ loafing areas within the flooded agricultural fields and offsets the lack of protected uplands for nesting or loafing shorebirds, waterfowl, reptiles, and amphibians.
Scenario Feature Measure	Nesting Islands
Scenario Unit	Each
Scenario Typical Size	1

Cost Summary:

Cost Category	Scenario Cost	Scenario Cost/Unit
Materials	\$0.00	\$0.00
Equipment/Installation	\$1,239.91	\$1,239.91
Labor	\$263.76	\$263.76
Mobilization	\$302.00	\$302.00
Acquisition of Technical Knowledge	\$0.00	\$0.00
Foregone Income	\$0.00	\$0.00
Total	\$1,805.67	\$1,805.67

Cost Details:

Cost Category	Component ID	Component Name	Component Description	Unit	Price (\$/unit)	Quantity	Cost
Equipment/Installation	928	Dozer, 200 HP	Track mounted Dozer with horsepower range of 160 to 250. Equipment and power unit costs. Labor not included.	Hour	\$177.13	7	\$1,239.91
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	\$37.68	7	\$263.76
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	\$37.33	1	\$37.33
Mobilization	1139	Mobilization, medium equipment	Equipment with 70-150 HP or typical weights between 14,000 and 30,000 pounds.	Each	\$264.67	1	\$264.67

Scenario Worksheet

Practice and Scenario Description:

Information Type	Data
Region	Alaska
State	Alaska
Discipline Group	Engineering General
Practice Code/Name	734 - Fish and Wildlife Structure
Scenario ID	10
Scenario Name	Snag Creation
Scenario Description	Create snags from existing live trees to provide nesting, foraging, perching, thermal cover, and display habitat for target species such as cavity nesting birds (woodpeckers, songbirds, wood duck, etc), small mammals (shrew, weasel, flying squirrel, bats, etc.), and bumble bees. Trees must be at least 12" DBH. Resulting snag will be a minimum of 25' tall. Snag creation methods may include girdling, chemical injection, or high topping.
Before Practice Situation	These structures are targeted for areas that lack sufficient snag habitat conditions to support viable populations of targeted species. Insufficient cavity nests, foraging, and perching habitat exists on the planning unit. Existing snag habitat is lacking or not well distributed.
After Practice Situation	Snag creation enhances the overall habitat condition for numerous terrestrial species. These structures/features enhance habitat and improve species survivability. By providing cavity nesting sites, invertebrate foraging area, perching/hunting opportunities, and thermal cover/escape cover, larger open spaces are more effectively used by cavity nesting birds and pollinators, amphibians, reptiles, and small mammals. Increased cover reduces predation.
Scenario Feature Measure	Number of snags
Scenario Unit	Each
Scenario Typical Size	1

Cost Summary:

Cost Category	Scenario Cost	Scenario Cost/Unit
Materials	\$0.00	\$0.00
Equipment/Installation	\$11.32	\$11.32
Labor	\$30.61	\$30.61
Mobilization	\$3.00	\$3.00
Acquisition of Technical Knowledge	\$0.00	\$0.00
Foregone Income	\$0.00	\$0.00
Total	\$44.93	\$44.93

Cost Details:

Cost Category	Component ID	Component Name	Component Description	Unit	Price (\$/unit)	Quantity	Cost
Equipment/Installation	965	All terrain vehicles, ATV	Includes equipment, power unit and labor costs.	Hour	\$32.87	0.25	\$8.22
Equipment/Installation	937	Chainsaw	Equipment and power unit costs. Labor not included.	Hour	\$6.21	0.5	\$3.11
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	\$30.61	1	\$30.61
Mobilization	1043	Mobilization, Material, distance > 50 miles	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.	Dollar	\$1.00	3	\$3.00

Scenario Worksheet

Practice and Scenario Description:

Information Type	Data
Region	Alaska
State	Alaska
Discipline Group	Engineering General
Practice Code/Name	734 - Fish and Wildlife Structure
Scenario ID	6
Scenario Name	Strutting or Display log
Scenario Description	A log or combination of log structures is provided to create or enhance courtship and display behavior for grouse in forested or edge settings. As defined in an approved wildlife habitat management plan, locate drumming logs in areas of early successional mixed forest areas of sparse understory but dense mid-story where stem densities range from 12,000-20,000 stems per acre. Surrounding stem and vegetation shall be a minimum of 8' in height to deter predation from avian species. Insure heights of strutting surface range from 20"- 36" above the ground. Raise logs to achieve required height when necessary. Logs shall be a minimum of 20' in length and 12" in diameter for at least ten feet of the length of the log. Logs shall be limbed to the trunk diameter along the strutting surface (some limbs may be left on the bottom of the log area to help support the log to the appropriate height). De-limb all other surface obstruction on log. Locate up to two logs per acre in the most suitable habitat available. Local site material will be used for construction.
Before Practice Situation	Lack of display and strutting habitat features limit use of suitable habitat areas for ruffed or spruce grouse.
After Practice Situation	The installation of strutting logs now provides grouse species with use of an are for reproductive behavior in a suitable habitat.
Scenario Feature Measure	Number
Scenario Unit	Each
Scenario Typical Size	1

Cost Summary:

Cost Category	Scenario Cost	Scenario Cost/Unit
Materials	\$18.56	\$18.56
Equipment/Installation	\$19.54	\$19.54
Labor	\$30.61	\$30.61
Mobilization	\$6.00	\$6.00
Acquisition of Technical Knowledge	\$0.00	\$0.00
Foregone Income	\$0.00	\$0.00
Total	\$74.71	\$74.71

Cost Details:

Cost Category	Component ID	Component Name	Component Description	Unit	Price (\$/unit)	Quantity	Cost
Materials	2035	Log, un-anchored	Price of log picked up at the Mill. Includes material only.	Ton	\$37.12	0.5	\$18.56
Equipment/Installation	965	All terrain vehicles, ATV	Includes equipment, power unit and labor costs.	Hour	\$32.87	0.5	\$16.44
Equipment/Installation	937	Chainsaw	Equipment and power unit costs. Labor not included.	Hour	\$6.21	0.5	\$3.11
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	\$30.61	1	\$30.61
Mobilization	1043	Mobilization, Material, distance > 50 miles	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.	Dollar	\$1.00	6	\$6.00

Scenario Worksheet

Practice and Scenario Description:

Information Type	Data
Region	Alaska
State	Alaska
Discipline Group	Agronomy
Practice Code/Name	798 - Seasonal High Tunnel for Crops
Scenario ID	2
Scenario Name	Alaska Remote Snow
Scenario Description	Used for urban locations in Alaska (a Non-Contiguous US area) where urban labor is available year round, and commercial shipping is regular. It is not necessary to pay extreme wages for labor and within-state shipping in Alaskan urban areas. A manufactured frame of tubular steel (30 x 72 ft.) with additional bracing for extreme weather events. The frame is covered with 4-year polyethylene of 6 mil thickness. Costs are based on purchase of manufactured kit and landowner installing the structure. Structure must be installed to manufacturer's specifications.
Before Practice Situation	Cropland where extension of the growing season is needed. Additional resource concerns that may need to be addressed include; soil erosion, soil condition, water quality, water quantity, plant condition, and energy use.
After Practice Situation	A seasonal high tunnel has been installed and the growing season has been extended for 2-4 months on average. Plant health and vigor is improved and there is decreased energy use by producing food locally.
Scenario Feature Measure	Area of Tunnel Installed
Scenario Unit	Square Foot
Scenario Typical Size	2160

Cost Summary:

Cost Category	Scenario Cost	Scenario Cost/Unit
Materials	\$6,501.60	\$3.01
Equipment/Installation	\$0.00	\$0.00
Labor	\$3,673.20	\$1.70
Mobilization	\$6,690.00	\$3.10
Acquisition of Technical Knowledge	\$0.00	\$0.00
Foregone Income	\$0.00	\$0.00
Total	\$16,864.80	\$7.81

Cost Details:

Cost Category	Component ID	Component Name	Component Description	Unit	Price (\$/unit)	Quantity	Cost
Materials	1278	Hoop House, gothic style, base package	complete with all predrilled steel, hardware and instructions. Includes 6 mil 4-year polyethylene film to cover tunnel, roll-up sides, lumber, and polylock for sides and ends for a gothic style (peaked top) hoop house. Materials and shipping only, does not include labor.	Square Foot	\$3.01	2160	\$6,501.60
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	\$30.61	120	\$3,673.20
Mobilization	1043	Mobilization, Material, distance > 50 miles	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.	Dollar	\$1.00	3000	\$3,000.00
Mobilization	1142	Mobilization, General labor	Mobilization of general labor: Ex. pipe layer, herder, concrete placement, materials spreader, flagger, etc.	Hour	\$30.75	120	\$3,690.00

Scenario Worksheet

Practice and Scenario Description:

Information Type	Data
Region	Alaska
State	Alaska
Discipline Group	Agronomy
Practice Code/Name	798 - Seasonal High Tunnel for Crops
Scenario ID	2
Scenario Name	Alaska Urban Snow
Scenario Description	Used for urban locations in Alaska (a Non-Contiguous US area) where urban labor is available year round, and commercial shipping is regular. It is not necessary to pay extreme wages for labor and within-state shipping in Alaskan urban areas. A manufactured frame of tubular steel (30 x 72 ft.) with additional bracing for extreme weather events. The frame is covered with 4-year polyethylene of 6 mil thickness. Costs are based on purchase of manufactured kit and landowner installing the structure. Structure must be installed to manufacturer's specifications.
Before Practice Situation	Cropland where extension of the growing season is needed. Additional resource concerns that may need to be addressed include; soil erosion, soil condition, water quality, water quantity, plant condition, and energy use.
After Practice Situation	A seasonal high tunnel has been installed and the growing season has been extended for 2-4 months on average. Plant health and vigor is improved and there is decreased energy use by producing food locally.
Scenario Feature Measure	Area of Tunnel Installed
Scenario Unit	Square Foot
Scenario Typical Size	2160

Cost Summary:

Cost Category	Scenario Cost	Scenario Cost/Unit
Materials	\$6,501.60	\$3.01
Equipment/Installation	\$0.00	\$0.00
Labor	\$3,673.20	\$1.70
Mobilization	\$3,345.00	\$1.55
Acquisition of Technical Knowledge	\$0.00	\$0.00
Foregone Income	\$0.00	\$0.00
Total	\$13,519.80	\$6.26

Cost Details:

Cost Category	Component ID	Component Name	Component Description	Unit	Price (\$/unit)	Quantity	Cost
Materials	1278	Hoop House, gothic style, base package	complete with all predrilled steel, hardware and instructions. Includes 6 mil 4-year polyethylene film to cover tunnel, roll-up sides, lumber, and polylock for sides and ends for a gothic style (peaked top) hoop house. Materials and shipping only, does not include labor.	Square Foot	\$3.01	2160	\$6,501.60
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	\$30.61	120	\$3,673.20
Mobilization	1043	Mobilization, Material, distance > 50 miles	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.	Dollar	\$1.00	1500	\$1,500.00
Mobilization	1142	Mobilization, General labor	Mobilization of general labor: Ex. pipe layer, herder, concrete placement, materials spreader, flagger, etc.	Hour	\$30.75	60	\$1,845.00