## Practice: 382 - Fence

## Scenario: \#1-2-4 Wire Electrified, High Tensile

## Scenario Description:

Typically used to install a 2-4 wire electrified high tensile fence according to state specifications. Assumes posts, wire, fasteners, gates, fence charger, and labor. Fence will allow for implementation of a grazing management that allows for an adequate rest and recovery period, protection of sensitive area, improved water quality, reduction of noxious and invasive weeds.

## Before Situation:

On grazing lands health and vigor are negatively impacted by poor grazing distribution, timing of grazing and inadequate rest and recovery periods. Water quality may be impacted by increased erosion and runoff, livestock access to water bodies may be uncontrolled. Reduced vegetative cover increases the opportunity for encroachment of noxious and invasive weeds.

## After Situation:

Installation of fence will allow for implementation of grazing management that allows for an adequate rest and recovery period, protection of sensitive area, improved water quality, reduction of noxious and invasive weeds. Fence includes posts, wire, fasteners, gates, fence charger, etc... Two to four (three) strand wire is commonly installed. Fence will be installed with wildlife friendly considerations.

## Scenario Feature Measure: Length of Fence

Scenario Unit: Feet
Scenario Typical Size: 2,640
Scenario Cost: \$7,035.25 Scenario Cost/Unit: \$2.66

| Cost Details (by category Component Name |  | Component Description | Unit | Price (\$/unit) | Quantity | Cost |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Equipment/Installation |  |  |  |  |  |  |
| Auger, Post driver attachment |  | Auger or post driver attachment to a tractor or skidsteer. Does not include power unit. Labor not included. | Hour | \$8.59 | 28 | \$240.52 |
| All terrain vehicles, ATV | 965 | Includes equipment, power unit and labor costs. | Hour | \$31.47 | 10 | \$314.70 |
| Tractor, agricultural, 60 HP | 963 | Agricultural tractor with horsepower range of 50 to 90. Equipment and power unit costs. Labor not included. | Hour | \$24.08 | 28 | \$674.24 |
| Truck, Pickup | 939 | Equipment and power unit costs. Labor not included. | Hour | \$38.19 | 20 | \$763.80 |
| Chainsaw | 937 | Equipment and power unit costs. Labor not included. | Hour | \$6.46 | 2 | \$12.92 |

Labor

| Equipment Operators, Light | 232 | Includes: Skid Steer Loaders, Hydraulic Excavators <50 HP, <br> Trenchers <12", Ag Equipment <150 HP, Pickup Trucks, <br> Forklifts, Mulchers | Hour | $\$ 24.30$ | 28 |
| :--- | ---: | :--- | :--- | :--- | :--- |
| General Labor | 231 | Labor performed using basic tools such as power tool, <br> shovels, and other tools that do not require extensive <br> training. Ex. pipe layer, herder, concrete placement, <br> materials spreader, flagger, etc. | Hour | $\$ 24.48$ |  |

Materials

| Wire, High Tensile, 12.5 Gauge, 4,000' roll |  | High Tensile 12.5 gauge, 4,000' roll. Includes materials and shipping only. | Each | \$113.03 | 2 | \$226.06 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fence, Wire Assembly, High Tensile, Electric, 3 Strand | 34 | Brace pins, springs, strainers, battens, clips, crimp sleeves, staples, insulators, wrap around sleeves. Includes materials and shipping only. | Foot | \$0.12 | 2640 | \$316.80 |
| Electric, Energizer, 6 joule | 29 | Electric, Energizer, 6 joule for electric fence. Includes materials and shipping only. | Each | \$321.21 | 1 | \$321.21 |
| Electric, Tester | 26 | Electric, Tester for electric fence. Includes materials and shipping only. | Each | \$40.76 | 1 | \$40.76 |
| Electric, Cutoff Switch | 25 | Electric, Cutoff Switch for electric fence. Includes materials and shipping only. | Each | \$8.45 | 2 | \$16.90 |
| Electric, Power Surge Protector | 24 | Electric, Power Surge Protector for electric fence. Includes materials and shipping only. | Each | \$9.55 | 1 | \$9.55 |
| Electric, Insulated cable | 23 | Electric, Insulated cable for electric fence. Typically in spools of 100 to 200 feet. Includes materials and shipping only. | Each | \$29.70 | 1 | \$29.70 |
| Electric, Lightening Diverter | 22 | Electric, Lightening diverter for electric fence. Includes materials and shipping only. | Each | \$10.17 | 1 | \$10.17 |

## Materials

| Electric, Ground Rod Clamps | 21 | Electric, Ground Rod Clamps for electric fence. Includes materials and shipping only. | Each | \$1.79 | 7 | \$12.53 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Electric, Ground Rods | 20 | Electric, Ground Rod for electric fence. Includes materials and shipping only. | Each | \$10.41 | 7 | \$72.87 |
| Post, Wood, CCA treated, 6" x 8' | 12 | Wood Post, End 6" X 8', CCA Treated. Includes materials and shipping only. | Each | \$14.96 | 26 | \$388.96 |
| Post, Wood, CCA treated, 4" x 8' | 10 | Wood Post, Line 4" X 8', CCA Treated. Includes materials and shipping only. | Each | \$7.99 | 100 | \$799.00 |
| Gate, Pipe, 14' |  | 6 rail tube gate, 16 gauge. Includes materials and shipping only. | Each | \$165.51 | 2 | \$331.02 |

Mobilization

| Mobilization, small equipment | 1138 | Equipment <70 HP but can't be transported by a pick-up <br> truck or with typical weights between 3,500 to 14,000 <br> pounds. | Each | $\$ 176.65$ | 2 | $\$ 353.30$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |

## Practice: 382 - Fence

## Scenario: \#2-5-6 Wire, Electrified, High Tensile

## Scenario Description:

Typically used to install a 5-6 wire electrified high tensile fence according to state specifications. Assumes posts, wire, fasteners, gates, fence charger, and labor. Fence will allow for implementation of a grazing management that allows for an adequate rest and recovery period, protection of sensitive area, improved water quality, reduction of noxious and invasive weeds.

## Before Situation:

On grazing lands health and vigor are negatively impacted by poor grazing distribution, timing of grazing and inadequate rest and recovery periods. Water quality may be impacted by increased erosion and runoff, livestock access to water bodies may be uncontrolled. Reduced vegetative cover increases the opportunity for encroachment of noxious and invasive weeds.

## After Situation:

Installation of fence will allow for implementation of grazing management that allows for an adequate rest and recovery period, protection of sensitive area, improved water quality, reduction of noxious and invasive weeds. Fence includes posts, wire, fasteners, gates, fence charger, etc... 5 or 6 strand wire is commonly installed. Fence will be installed with wildlife friendly considerations.

Scenario Feature Measure: Length of Fence
Scenario Unit: Feet
Scenario Typical Size: 2,640
Scenario Cost: \$7,823.99 Scenario Cost/Unit: \$2.96

| Cost Details (by category <br> Component Name |  | Component Description | Unit | Price (\$/unit) | Quantity | Cost |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Equipment/Installation |  |  |  |  |  |  |
| Truck, Pickup | 939 | Equipment and power unit costs. Labor not included. | Hour | \$38.19 | 20 | \$763.80 |
| All terrain vehicles, ATV | 965 | Includes equipment, power unit and labor costs. | Hour | \$31.47 | 10 | \$314.70 |
| Chainsaw | 937 | Equipment and power unit costs. Labor not included. | Hour | \$6.46 | 2 | \$12.92 |
| Tractor, agricultural, 60 HP | 963 | Agricultural tractor with horsepower range of 50 to 90. Equipment and power unit costs. Labor not included. | Hour | \$24.08 | 28 | \$674.24 |
| Auger, Post driver attachment | 934 | Auger or post driver attachment to a tractor or skidsteer. Does not include power unit. Labor not included. | Hour | \$8.59 | 28 | \$240.52 |

Labor

| Equipment Operators, Light | 232 | Includes: Skid Steer Loaders, Hydraulic Excavators <50 HP, Trenchers <12", Ag Equipment <150 HP, Pickup Trucks, Forklifts, Mulchers | Hour | \$24.30 | 22 | \$534.60 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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. | Hour | \$24.48 | 74 | \$1,811.52 |

Materials

| Post, Wood, CCA treated, 6" x 8' | 12 | Wood Post, End 6" X 8', CCA Treated. Includes materials and shipping only. | Each | \$14.96 | 26 | \$388.96 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Post, Wood, CCA treated, 4" x 8' | 10 | Wood Post, Line 4" X 8', CCA Treated. Includes materials and shipping only. | Each | \$7.99 | 100 | \$799.00 |
| Electric, Ground Rods | 20 | Electric, Ground Rod for electric fence. Includes materials and shipping only. | Each | \$10.41 | 7 | \$72.87 |
| Electric, Ground Rod Clamps | 21 | Electric, Ground Rod Clamps for electric fence. Includes materials and shipping only. | Each | \$1.79 | 7 | \$12.53 |
| Electric, Lightening Diverter | 22 | Electric, Lightening diverter for electric fence. Includes materials and shipping only. | Each | \$10.17 | 1 | \$10.17 |
| Electric, Insulated cable | 23 | Electric, Insulated cable for electric fence. Typically in spools of 100 to 200 feet. Includes materials and shipping only. | Each | \$29.70 | 1 | \$29.70 |
| Electric, Power Surge Protector | 24 | Electric, Power Surge Protector for electric fence. Includes materials and shipping only. | Each | \$9.55 | 1 | \$9.55 |
| Electric, Cutoff Switch | 25 | Electric, Cutoff Switch for electric fence. Includes materials and shipping only. | Each | \$8.45 | 2 | \$16.90 |

## Materials

| Electric, Tester | 26 | Electric, Tester for electric fence. Includes materials and shipping only. | Each | \$40.76 | 1 | \$40.76 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Electric, Energizer, 6 joule | 29 | Electric, Energizer, 6 joule for electric fence. Includes materials and shipping only. | Each | \$321.21 | 1 | \$321.21 |
| Fence, Wire Assembly, High Tensile, Electric, 3 Strand | 34 | Brace pins, springs, strainers, battens, clips, crimp sleeves, staples, insulators, wrap around sleeves. Includes materials and shipping only. | Foot | \$0.12 | 5280 | \$633.60 |
| Gate, Pipe, 14' | 1058 | 6 rail tube gate, 16 gauge. Includes materials and shipping only. | Each | \$165.51 | 2 | \$331.02 |
| Wire, High Tensile, 12.5 Gauge, 4,000' roll |  | High Tensile 12.5 gauge, 4,000' roll. Includes materials and shipping only. | Each | \$113.03 | 4 | \$452.12 |

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 | $\$ 176.65$ | 2 | $\$ 353.30$ |
| :--- | :--- | :--- | :--- |

## Practice: 382 - Fence

## Scenario: \#3 - Woven Wire

## Scenario Description:

Install a woven wire fence that is typically used for sheep, goats, camelids, wildlife exclusion, shelterbelt/tree protection, etc. Woven wire fence includes posts, wire, fasteners, gates, and labor. Fence is installed according to state specifications and typically includes the use of barbed or electrified smooth wire for predator control. Fence will allow for implementation of a grazing management that allows for an adequate rest and recovery period, protection of sensitive areas, improved water quality, and reduction of noxious and invasive weeds. This scenario is the most appropriate for all situations involving horse fencing. Fencing for horses must meet practice standard requirements and also consider the approprate fence style for horse health, safety.

## Before Situation:

On grazing lands health and vigor are negatively impacted by poor grazing distribution, timing of grazing and inadequate rest and recovery periods. Water quality may be impacted by increased erosion and runoff, livestock access to water bodies may be uncontrolled. Reduced vegetative cover increases the opportunity for encroachment of noxious and invasive weeds.

## After Situation:

Installation of fence will allow for implementation of a rotational grazing plan that allows for an adequate rest and recovery period, protection of sensitive area, improved water quality, reduction of noxious and invasive weeds. Woven wire fence includes posts, wire, fasteners, gates, etc.

## Scenario Feature Measure: Length of Fence

Scenario Unit: Feet
Scenario Typical Size: 2,640
Scenario Cost: \$11,399.32 Scenario Cost/Unit: \$4.32

| Cost Details (by category) <br> Component Name |  | Component Description | Unit | Price (\$/unit) | Quantity | Cost |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Equipment/Installation |  |  |  |  |  |  |
| All terrain vehicles, ATV | 965 | Includes equipment, power unit and labor costs. | Hour | \$31.47 | 10 | \$314.70 |
| Tractor, agricultural, 60 HP | 963 | Agricultural tractor with horsepower range of 50 to 90. Equipment and power unit costs. Labor not included. | Hour | \$24.08 | 46 | \$1,107.68 |
| Truck, Pickup | 939 | Equipment and power unit costs. Labor not included. | Hour | \$38.19 | 30 | \$1,145.70 |
| Chainsaw | 937 | Equipment and power unit costs. Labor not included. | Hour | \$6.46 | 2 | \$12.92 |
| Auger, Post driver attachment | 934 | Auger or post driver attachment to a tractor or skidsteer. Does not include power unit. Labor not included. | Hour | \$8.59 | 46 | \$395.14 |
| Labor |  |  |  |  |  |  |
| 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 | \$24.48 | 97 | \$2,374.56 |
| Equipment Operators, Light |  | Includes: Skid Steer Loaders, Hydraulic Excavators <50 HP, Trenchers <12", Ag Equipment <150 HP, Pickup Trucks, Forklifts, Mulchers | Hour | \$24.30 | 45 | \$1,093.50 |

## Materials

| Post, Wood, CCA treated, 4" x 8' | 10 | Wood Post, Line 4" X 8', CCA Treated. Includes materials and shipping only. | Each | \$7.99 | 173 | \$1,382.27 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Wire, Woven, Galvanized, 12.5 Gauge, 32" | 3 | Galvanized 12.5 gauge, 32" - 330' roll. Includes materials and shipping only. | Each | \$174.34 | 8 | \$1,394.72 |
| Wire, High Tensile, 12.5 Gauge, 4,000' roll | 2 | High Tensile 12.5 gauge, 4,000' roll. Includes materials and shipping only. | Each | \$113.03 | 2 | \$226.06 |
| Post, Wood, CCA treated, 6 " x 8' | 12 | Wood Post, End 6" X 8', CCA Treated. Includes materials and shipping only. | Each | \$14.96 | 26 | \$388.96 |
| Electric, Ground Rods | 20 | Electric, Ground Rod for electric fence. Includes materials and shipping only. | Each | \$10.41 | 7 | \$72.87 |
| Electric, Ground Rod Clamps | 21 | Electric, Ground Rod Clamps for electric fence. Includes materials and shipping only. | Each | \$1.79 | 7 | \$12.53 |

Materials

| Electric, Insulated cable | 23 | Electric, Insulated cable for electric fence. Typically in <br> spools of 100 to 200 feet. Includes materials and shipping <br> only. | Each | $\$ 29.70$ | 1 | $\$ 29.70$ |
| :--- | :---: | :--- | :--- | :--- | :--- | :--- |
| Electric, Power Surge Protector | 24 | Electric, Power Surge Protector for electric fence. Includes <br> materials and shipping only. | Each | $\$ 9.55$ | 1 | $\$ 9.55$ |
| Gate, Pipe, 14' | 1058 | ( rail tube gate, 16 gauge. Includes materials and shipping <br> only. | Each | $\$ 165.51$ | 2 | $\$ 331.02$ |
| Electric, Tester | 26Electric, Tester for electric fence. Includes materials and <br> shipping only. | Each | $\$ 40.76$ | 1 | $\$ 40.76$ |  |
| Electric, Energizer, 3-4 joule | 28 | Electric, Energizer, 3-4 joule for electric fence. Includes <br> materials and shipping only. | Each | $\$ 228.01$ | 1 | $\$ 228.01$ |
| Fence, Wire Assembly, Woven <br> Wire | 35 | Brace pins, twist sticks, staples. Includes materials and <br> shipping only. | Foot | $\$ 0.12$ | 2640 | $\$ 316.80$ |
| Fence, Wire Assembly, High <br> Tensile, Electric, 1 Strand | 32 | Brace pins, springs, strainers, battens, clips, crimp sleeves, <br> (staples, insulators, wrap around sleeves. Includes <br> materials and shipping only. | Foot | $\$ 0.02$ | 7920 | $\$ 158.40$ |
| Electric, Lightening Diverter | 22Electric, Lightening diverter for electric fence. Includes <br> materials and shipping only. | Each | $\$ 10.17$ | 1 | $\$ 10.17$ |  |

Mobilization

| Mobilization, small equipment | 1138 | Equipment <70 HP but can't be transported by a pick-up <br> truck or with typical weights between 3,500 to 14,000 <br> pounds. | Each | $\$ 176.65$ | 2 | $\$ 353.30$ |
| :--- | :---: | :--- | :--- | :--- | :--- | :--- |

## Practice: 382 - Fence

## Scenario: \#4 - Barbed Wire

## Scenario Description:

Install a multi-wire barbed wire according to state specifications. Assumes posts, wire, fasteners, gates, fence charger, and labor. Fence will allow for implementation of a grazing management that allows for an adequate rest and recovery period, protection of sensitive area, improved water quality, reduction of noxious and invasive weeds.

## Before Situation:

On grazinglands health and vigor are negatively impacted by poor grazing distribution, timing of grazing and inadequate rest and recovery periods. Water quality is impacted by increased erosion and runoff, cattle access to water bodies is uncontrolled. Reduced vegetative cover increases the opportunity for encroachment of noxious and invasive weeds.

## After Situation:

Installation of fence will allow for implementation of grazing management that allows for an adequate rest and recovery period, protection of sensitive area, improved water quality, reduction of noxious and invasive weeds. Fence includes posts, wire, fasteners, gates, fence charger, etc... Two to three strand wire is commonly installed. Fence will be installed with wildlife friendly considerations.
Scenario Feature Measure: Length of Fence
Scenario Unit: Feet
Scenario Typical Size: 2,640
Scenario Cost: \$8,156.51 Scenario Cost/Unit: \$3.09

| Cost Details (by category Component Name |  | Component Description | Unit | Price (\$/unit) | Quantity | Cost |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Equipment/Installation |  |  |  |  |  |  |
| Auger, Post driver attachment |  | Auger or post driver attachment to a tractor or skidsteer. Does not include power unit. Labor not included. | Hour | \$8.59 | 46 | \$395.14 |
| All terrain vehicles, ATV | 965 | Includes equipment, power unit and labor costs. | Hour | \$31.47 | 10 | \$314.70 |
| Tractor, agricultural, 60 HP | 963 | Agricultural tractor with horsepower range of 50 to 90. Equipment and power unit costs. Labor not included. | Hour | \$24.08 | 46 | \$1,107.68 |
| Chainsaw | 937 | Equipment and power unit costs. Labor not included. | Hour | \$6.46 | 2 | \$12.92 |
| Truck, Pickup | 939 | Equipment and power unit costs. Labor not included. | Hour | \$38.19 | 20 | \$763.80 |

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. | Hour | \$24.48 | 61 | \$1,493.28 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Equipment Operators, Light | 232 | Includes: Skid Steer Loaders, Hydraulic Excavators <50 HP, Trenchers <12", Ag Equipment <150 HP, Pickup Trucks, Forklifts, Mulchers | Hour | \$24.30 | 20 | \$486.00 |

Materials

| Gate, Pipe, 14' | 1058 | 6 rail tube gate, 16 gauge. Includes materials and shipping only. | Each | \$165.51 | 2 | \$331.02 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fence, Wire Assembly, Barbed Wire | 30 | Brace pins, battens, clips, staples. Includes materials and shipping only. | Foot | \$0.16 | 3520 | \$563.20 |
| Post, Wood, CCA treated, 6" x 8' | 12 | Wood Post, End 6" X 8', CCA Treated. Includes materials and shipping only. | Each | \$14.96 | 26 | \$388.96 |
| Post, Wood, CCA treated, 4" x 8' | 10 | Wood Post, Line 4" X 8', CCA Treated. Includes materials and shipping only. | Each | \$7.99 | 173 | \$1,382.27 |
| Wire, Barbed, Galvanized, 12.5 Gauge, 1,320' roll | 1 | Galvanized 12.5 gauge, 1,320' roll. Includes materials and shipping only. | Each | \$70.53 | 8 | \$564.24 |
| 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 | \$176.65 | 2 | \$353.30 |

## Practice: 382 - Fence

## Scenario: \#5 - Interior, electrified

## Scenario Description:

Install permanent or semi-permanent light-duty electrified fence for interior subdivisions for a grazing system. Installation of fence will allow for implementation of a grazing management that allows for an adequate rest and recovery period, protection of sensitive area, improved water quality, reduction of noxious and invasive weeds.

## Before Situation:

On grazing lands health and vigor are negatively impacted by poor grazing distribution, timing of grazing and inadequate rest and recovery periods. Water quality may be impacted by increased erosion and runoff, livestock access to water bodies may be uncontrolled. Reduced vegetative cover increases the opportunity for encroachment of noxious and invasive weeds.

## After Situation:

Installation of interior fence will allow for implementation of grazing management that allows for an adequate rest and recovery period, protection of sensitive area, improved water quality, reduction of noxious and invasive weeds. Fence is used for laneways and/or subdivisions of grazing system.

## Scenario Feature Measure: Length of Fence

Scenario Unit: Feet
Scenario Typical Size: 1,320
Scenario Cost: \$1,647.58 Scenario Cost/Unit: \$1.25

| Cost Details (by category) <br> Component Name |  | Component Description | Unit | Price (\$/unit) | Quantity | Cost |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Equipment/Installation |  |  |  |  |  |  |
| All terrain vehicles, ATV | 965 | Includes equipment, power unit and labor costs. | Hour | \$31.47 | 3 | \$94.41 |
| Auger, Post driver attachment | 934 | Auger or post driver attachment to a tractor or skidsteer. Does not include power unit. Labor not included. | Hour | \$8.59 | 1 | \$8.59 |
| Tractor, agricultural, 60 HP | 963 | Agricultural tractor with horsepower range of 50 to 90. Equipment and power unit costs. Labor not included. | Hour | \$24.08 | 1 | \$24.08 |
| Truck, Pickup | 939 | Equipment and power unit costs. Labor not included. | Hour | \$38.19 | 5 | \$190.95 |

## Labor

| Equipment Operators, Light | 232 | Includes: Skid Steer Loaders, Hydraulic Excavators <50 HP, Trenchers <12", Ag Equipment <150 HP, Pickup Trucks, Forklifts, Mulchers | Hour | \$24.30 | 1 | \$24.30 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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. | Hour | \$24.48 | 12 | \$293.76 |

Materials

| Fence, Wire Assembly, Barbed Wire |  | Brace pins, battens, clips, staples. Includes materials and shipping only. | Foot | \$0.16 | 1320 | \$211.20 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Post, Steel T, 1.33 lbs , 6' |  | Steel Post, Studded 6' - 1.33 lb . Includes materials and shipping only. | Each | \$6.62 | 44 | \$291.28 |
| Post, Wood, CCA treated, 5" x 8' |  | Wood Post, End 5" X 8', CCA Treated. Includes materials and shipping only. | Each | \$11.16 | 12 | \$133.92 |
| Wire, Polytape |  | Wire, Polytape for electric fence. Rolls of 655' to 825'. Includes materials and shipping only. | Each | \$49.61 | 4 | \$198.44 |
| 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 | \$176.65 | 1 | \$176.65 |

## Practice: 382 - Fence

## Scenario: \#6 - Portable

## Scenario Description:

Used for portable electrified fence that is manufactured for managing livestock on grazing systems within the confines of a permanent perimeter fence which supplies the electric charge. Typically used for polywire/tape fencing. Fence is installed according to state specifications and will facilitate implementation of grazing management that allows for an adequate rest and recovery period, protection of sensitive aresa, improved water quality, reduction of noxious and invasive weeds. This fence might also be used as an extension of a permanent fence where seasonal flooding or other conditions dicatate use of a removable fence. Typically one portable fence setup is used for a grazing system, and may be transported to fields within the system.

## Before Situation:

On grazing lands health and vigor are negatively impacted by poor grazing distribution, timing of grazing and inadequate rest and recovery periods. Water quality may be impacted by increased erosion and runoff, livestock access to water bodies may be uncontrolled. Reduced vegetative cover increases the opportunity for encroachment of noxious and invasive weeds.

## After Situation:

Pasture is subdivided into apporpriately-sized paddocks to control animal access to forage. Fence is comprised of materials manufactured for this use, including poly wire, rope, or tape, fiberglass rods, and reels to hold the conductors. Typical pasture is subdivided with a movable system to control livestock and allow for appropriate rest and recovery of forage.

## Scenario Feature Measure: Length of Fence

## Scenario Unit: Foot

Scenario Typical Size: 1,000
Scenario Cost: \$643.16 Scenario Cost/Unit: \$0.64

| Cost Details (by category): |  |  |  | Price (\$/unit) | Quantity | Cost |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Component Name |  | Component Description | Unit |  |  |  |
| Materials |  |  |  |  |  |  |
| Post, Steel T, 1.33 lbs, 6' | 15 | Steel Post, Studded 6' - 1.33 lb . Includes materials and shipping only. | Each | \$6.62 | 2 | \$13.24 |
| Post, Fiberglass, 11/16" X 6' | 19 | Fiberglass line post, 11/16" diameter X 6' length. Includes materials and shipping only. | Each | \$6.44 | 67 | \$431.48 |
| Wire, Polytape | 7 | Wire, Polytape for electric fence. Rolls of 655' to 825'. Includes materials and shipping only. | Each | \$49.61 | 4 | \$198.44 |

## Practice: 382 - Fence

## Scenario: \#7-Confinement

## Scenario Description:

Install a rugged wood board or woven wire fence in confinement areas such as HUA's. Typically used on an areas less than $1 / 4$ to $1 / 2$ acre in size, such as a Heavy Use Area, Vegetated Treatment Area, or other situations where installation of fence reduces resource concerns associated with livestock feeding operations.

## Before Situation:

Lack of HUA and/or appropriate confenement fence results in degradation of pasture, vegetated treatment areas, or other sensitive areas.

## After Situation:

Installation of fence reduces resource concerns associated with livestock access and/or prevents conflicts between humans and threatened, endangered or sensitive species.
Scenario Feature Measure: Length of Fence
Scenario Unit: Feet
Scenario Typical Size: 330
Scenario Cost: \$2,935.24
Scenario Cost/Unit: \$8.89

| Cost Details (by category <br> Component Name |  | Component Description | Unit | Price (\$/unit) | Quantity | Cost |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Equipment/Installation |  |  |  |  |  |  |
| Auger, Post driver attachment | 934 | Auger or post driver attachment to a tractor or skidsteer. Does not include power unit. Labor not included. | Hour | \$8.59 | 11 | \$94.49 |
| Truck, Pickup | 939 | Equipment and power unit costs. Labor not included. | Hour | \$38.19 | 4 | \$152.76 |
| Tractor, agricultural, 60 HP | 963 | Agricultural tractor with horsepower range of 50 to 90. Equipment and power unit costs. Labor not included. | Hour | \$24.08 | 16 | \$385.28 |

## 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. | Hour | \$24.48 | 24 | \$587.52 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Equipment Operators, Light | 232 | Includes: Skid Steer Loaders, Hydraulic Excavators <50 HP, Trenchers <12", Ag Equipment <150 HP, Pickup Trucks, Forklifts, Mulchers | Hour | \$24.30 | 16 | \$388.80 |

## Materials

| Wire, Woven, Galvanized, 12.5 Gauge, 48" |  | Galvanized 12.5 gauge, 48" - 330' roll. Includes materials and shipping only. | Each | \$249.98 | 1 | \$249.98 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Gate, Pipe, 16' | 1059 | 6 rail tube gate, 16 gauge. Includes materials and shipping only. | Each | \$206.61 | 1 | \$206.61 |
| Post, Wood, CCA treated, 6" x $8^{\prime}$ | 12 | Wood Post, End 6" X 8', CCA Treated. Includes materials and shipping only. | Each | \$14.96 | 12 | \$179.52 |
| $\text { Post, Wood, CCA treated, } 5^{\prime \prime} \mathrm{x}$ $8^{\prime}$ | 11 | Wood Post, End 5" X 8', CCA Treated. Includes materials and shipping only. | Each | \$11.16 | 12 | \$133.92 |
| Post, Wood, CCA treated, 4" x 8' | 10 | Wood Post, Line 4" X 8', CCA Treated. Includes materials and shipping only. | Each | \$7.99 | 21 | \$167.79 |
| Wire, Barbed, Galvanized, 12.5 Gauge, 1,320' roll |  | Galvanized 12.5 gauge, 1,320' roll. Includes materials and shipping only. | Each | \$70.53 | 0.5 | \$35.27 |

## Mobilization

Mobilization, small equipment

1138 Equipment <70 HP but can't be transported by a pick-up

| Each | $\$ 176.65$ | 2 | $\$ 353.30$ |
| :--- | :--- | :--- | :--- |

## Practice: 382 - Fence

## Scenario: \#8-Chain Link/Safety

## Scenario Description:

A barrier (fence) implemented on an NRCS constructed waste storage system according to engineering design to exclude human access. Permanently installed fence built to keep humans away from waste ponds \& lagoons.

## Before Situation:

Where a NRCS designed and constructed waste storage pond is planned, and significant risk to human safety is determined to be evident.

## After Situation:

A five foot high chain link fence is installed to exclude humans and livestock from the waste storage pond for safety purposes. The fenced area would typically be 100 wide $\times 175$ long with one gate and installed by a fencing contractor.

Scenario Feature Measure: Length of Fence
Scenario Unit: Feet

## Scenario Typical Size: 500

Scenario Cost: \$7,733.05 Scenario Cost/Unit: \$15.47

| Cost Details (by categ Component Name | D | Component Description | Unit | Price (\$/unit) | Quantity | Cost |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Materials |  |  |  |  |  |  |
| Gate, Chain Link, 18', Slide Gate | 1081 | Chain Link Gate, 18 ' Wide X 5' Tall, Installed in Concrete | Each | \$153.05 | 1 | \$153.05 |
| Fence, Chain Link | 1079 | Fence, Chain Link, 5' High, 9 ga Wire, Posts in Concrete on 10' Centers. Includes all materials, equipment and labor. | Foot | \$15.16 | 500 | \$7,580.00 |

Practice: 382 - Fence

## Scenario: \#9-96 inch exclusion fence

## Scenario Description:

Installation of fence reduces resource concerns associated with livestock feeding operations and/or wildlife access to prevent conflicts between humans and livestock or wildlife species. For AMA: This fence MUST meet the minimum standard design for wildlife exclusion.

## Before Situation:

Wildlife negatively impacting sensitive areas such as riparian areas, windbreaks and shelterbelts or feed storage. Disease transmission from wildlife posses a significant health risk to domestic animals.

## After Situation:

Installation of fence reduces resource concerns associated with livestock and/or wildlife access and prevents conflicts between humans and threatened, endangered or sensitive species. Fence includes posts, wire, fasteners, gates, etc...

## Scenario Feature Measure: Legnth of fence

Scenario Unit: Foot
Scenario Typical Size: 1,320
Scenario Cost: \$12,719.58

## Scenario Cost/Unit: \$9.64

| Cost Details (by category) <br> Component Name |  | Component Description | Unit | Price (\$/unit) | Quantity | Cost |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Equipment/Installation |  |  |  |  |  |  |
| Auger, Post driver attachment | 934 | Auger or post driver attachment to a tractor or skidsteer. Does not include power unit. Labor not included. | Hour | \$8.59 | 40 | \$343.60 |
| Truck, Pickup | 939 | Equipment and power unit costs. Labor not included. | Hour | \$38.19 | 20 | \$763.80 |
| Tractor, agricultural, 60 HP | 963 | Agricultural tractor with horsepower range of 50 to 90. Equipment and power unit costs. Labor not included. | Hour | \$24.08 | 40 | \$963.20 |
| All terrain vehicles, ATV | 965 | Includes equipment, power unit and labor costs. | Hour | \$31.47 | 10 | \$314.70 |

## Labor

| Equipment Operators, Light | 232 | Includes: Skid Steer Loaders, Hydraulic Excavators <50 HP, <br> Trenchers <12", Ag Equipment <150 HP, Pickup Trucks, <br> Forklifts, Mulchers | $\$ 24.30$ | 40 | $\$ 972.00$ |  |
| :--- | :---: | :--- | :--- | :--- | :--- | :--- |
| General Labor | 231 | Labor performed using basic tools such as power tool, <br> shovels, and other tools that do not require extensive <br> training. Ex. pipe layer, herder, concrete placement, <br> materials spreader, flagger, etc. | Hour | $\$ 24.48$ | 105 | $\$ 2,570.40$ |

## Materials

| Wire, Woven, Wildlife, 96" | 6 <br> 6igh Tensile 12.5 gauge, 96" - 330' roll. Includes materials <br> and shipping only. | Each | $\$ 451.18$ | 4 | $\$ 1,804.72$ |
| :--- | ---: | :--- | :--- | :--- | :--- |
| Post, Wood, CCA treated, 6" x <br> $12-14 '$ | 13 | Wood Post, Line/End 6" X 12-14', CCA Treated. Includes <br> materials and shipping only. | Each | $\$ 26.73$ | 102 |
| Fence, Wire Assembly, Woven <br> Wire | 35 | Brace pins, twist sticks, staples. Includes materials and <br> shipping only. | Foot | $\$ 0.12$ | 1320 |
| Gate, Game, 8' High X 16' | 1086 | $\$ 158.40$ |  |  |  |
| 16' Wide Game Gate (8' Tall). Includes materials and <br> shipping only. | Each | $\$ 416.15$ | 2 | $\$ 832.30$ |  |

## Mobilization

| Mobilization, Material, <br> distance $>50$ miles | 1043 | Mobilization cost of materials for special cases where the <br> distance from the supplier delivery point to the job site <br> exceeds 50 miles. The costs for shipping by UPS or bulk <br> freight shipping to a location within 50 miles of the job site <br> have already been i | Dollar | $\$ 1.03$ | 890 | $\$ 916.70$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Mobilization, small equipment | 1138 | Equipment <70 HP but can't be transported by a pick-up <br> truck or with typical weights between 3,500 to 14,000 <br> pounds. | Each | $\$ 176.65$ | 2 | $\$ 353.30$ |

