

| Practice | Code | Description (from Practice Standard) | Typical Installation | Unit | Cost Per Unit | design lifespan | Average Annual Maintenance | Total Average Annual Cost per Unit @ 2.8% |
|--------------------------------|------|---|--|------|---------------|-----------------|----------------------------|---|
| Access Control | 472 | Excluding animals, people, or vehicles from an area. | Control of animal, people, and/or vehicular access to of sensitive forest or surface water areas. | Ac. | \$ 2.32 | 10 | \$0.07 | \$0.34 |
| Access Road | 560 | A travel-way for equipment and vehicles constructed as part of a conservation plan. | 14 ft wide including shoulders. 22A gravel 6" deep. Geotextile. includes on 15 inch diameter culvert in the 500 ft of lane. | Ft. | \$ 14.54 | 10 | \$0.44 | \$2.12 |
| Agrichemical Handling Facility | 309 | An impermeable barrier and containment placed or constructed on the ground where agricultural storage, loading, mixing, and clean-up occur. | poly pad and portable pad set up for greenhouse, etc. | No. | \$ 955.00 | 15 | \$28.65 | \$107.49 |
| Agrichemical Handling Facility | 309 | An impermeable barrier and containment placed or constructed on the ground where agricultural storage, loading, mixing, and clean-up occur. | Pesticide storage. Small prefabricated building with liner inside the building. Typical building 12' x 12' with a wooden floor and flexible membrane liner. 14' x 20' Mix load pad for containment included. 6" Concrete mix load surface is treated with an impervious coating. | No. | \$ 4,850.00 | 15 | \$145.50 | \$545.91 |
| Agrichemical Handling Facility | 309 | An impermeable barrier and containment placed or constructed on the ground where agricultural storage, loading, mixing, and clean-up occur. | Pole style building, 6" reinforced concrete floor over 4" compacted sand and sump area. Average size 30' x 30'. epoxy coating. | No. | \$ 28,246.00 | 15 | \$847.38 | \$3,179.36 |
| Agrichemical Handling Facility | 309 | An impermeable barrier and containment placed or constructed on the ground where agricultural storage, loading, mixing, and clean-up occur. | Storage of pesticides in a building with reinforced concrete floor (6" concrete over 4" compacted sand) including the mix load pad and epoxy coating. Typical is a 32' x 24' building with 4 sides. Typical Mix load pad with sump is 12' x 32'. | No. | \$ 27,763.00 | 15 | \$832.89 | \$3,124.99 |
| Agrichemical Handling Facility | 309 | An impermeable barrier and containment placed or constructed on the ground where agricultural storage, loading, mixing, and clean-up occur. | Liquid fertilizer facility. Typical size is 30' x 40' lined with flexible membrane liner walls with modular block walls stacked 2 height (4'), operational pad is 20' x 30' (6" of concrete over 4 " compacted sand). | No. | \$ 13,018.00 | 15 | \$390.54 | \$1,465.30 |

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| Agrichemical Handling Facility | 309 | An impermeable barrier and containment placed or constructed on the ground where agricultural storage, loading, mixing, and clean-up occur. | Dry fertilizer facility. Typical is 3 sided facility with a bin typical 32' X 40' with 6' R/C walls and R/C floor. Operational pad is 6" of concrete over 4" compacted sand typical size 12' x 20' . No roof, fertilizer is covered with a tarp. | No. | \$ 14,755.00 | 15 | \$442.65 | \$1,660.82 |
| Agrichemical Handling Facility | 309 | An impermeable barrier and containment placed or constructed on the ground where agricultural storage, loading, mixing, and clean-up occur. | Dry fertilizer facility. Typical is 3 sided facility with a bin typical 32' X 40' with 6' R/C walls and R/C floor. Operational pad is 6" of concrete over 4" compacted sand typical size 12' x 20' . Roof 32 x 40. | No. | \$ 24,995.00 | 15 | \$749.85 | \$2,813.42 |
| Agrichemical Handling Facility | 309 | An impermeable barrier and containment placed or constructed on the ground where agricultural storage, loading, mixing, and clean-up occur. | Mix load pad only. Typical includes 6" concrete slab with flexible membrane liner. Includes curbing and shaping. Typical size is 12' x 20' | Sq Ft. | \$ 9.50 | 15 | \$0.29 | \$1.07 |
| Agrichemical Handling Facility | 309 | An impermeable barrier and containment placed or constructed on the ground where agricultural storage, loading, mixing, and clean-up occur. | Operational area/pad only. 8" Reinforced concrete surface includes shaping, typical size is 20' x 30' | Sq Ft. | \$ 9.00 | 15 | \$0.27 | \$1.01 |
| Agrichemical Handling Facility | 309 | An impermeable barrier and containment placed or constructed on the ground where agricultural storage, loading, mixing, and clean-up occur. | Install floor, sump and curbing with 896 sq. ft. epoxy coated for pesticide and mix load, 384 sq. ft. for fertilizer storage w/ no epoxy coating (32' x 40' floor) | Sq Ft. | \$ 8.19 | 15 | \$0.25 | \$0.92 |
| Alley Cropping | 311 | Trees or shrubs planted in single or multiple rows with agronomic, horticultural, or forage crops cultivated in the alleys between the rows of woody plants. | 10 acre (660'x660') site. 26 rows of red oak trees with 25' spacing between rows, and 10' spacing within rows. | Ac. | \$ 215.50 | 15 | \$6.47 | \$24.26 |
| Alley Cropping | 311 | Trees or shrubs planted in single or multiple rows with agronomic, horticultural, or forage crops cultivated in the alleys between the rows of woody plants. | 10 acre (660'x660') site. 26 rows of red oak trees with 25' spacing between rows, and 10' spacing within rows. Shelters installed to protect seedlings from deer browse damage. | Ac. | \$ 1,017.00 | 15 | \$30.51 | \$114.47 |

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| Anaerobic Digester - Controlled Temperature | 366 | A managed temperature waste treatment facility. | Anaerobic Digester. Get an Engineer's design cost estimate. | No. | \$ 284,000.00 | 25 | \$8,520.00 | \$24,468.21 |
| Animal Mortality Facility | 316 | An on-farm facility for the treatment or disposal of livestock and poultry carcasses for routine and catastrophic mortality events. | Composter, Refrigeration, Incinerator/Gasifier, Burial Pit as per practice standard. See engineer for specific cost estimate based on type of facility. Basic composting facility cost. | No. | \$ 33,997.00 | 15 | \$1,019.91 | \$3,826.68 |
| Animal Trails and Walkways | 575 | Established lanes or travel-ways that facilitate animal movement. | 1000 feet of vegetated surface 16 feet wide, grading and shaping, seeding and mulching. Fence not included. | Ft. | \$ 2.45 | 10 | \$0.07 | \$0.36 |
| Animal Trails and Walkways | 575 | Established lanes or travel-ways that facilitate animal movement. | 600 feet of MDOT 22A gravel surface 6" thick, 16 feet wide grading and shaping, geotextile, seeding and mulching. Fence not included. | Ft. | \$ 19.34 | 10 | \$0.58 | \$2.82 |
| Aquaculture Ponds | 397 | A water impoundment constructed and managed for commercial aquaculture production. | Embankment in or off channel (above ground embankments cost more depending on design and fill materials) or Excavated. Range of \$115,100 to \$185,900 for 3-5 acre ponds. Get an Engineer's design cost estimate. | Ac. | \$ 34,000.00 | 10 | \$1,020.00 | \$4,965.26 |
| Aquatic Organism Passage | 396 | Modification or removal of barriers that restrict or prevent movement or migration of fish. | box culvert. Replace culvert with passable culvert - 4' x 10'. Includes excavation, backfill and outlet protection, not road surface. | No. | \$ 49,556.00 | 5 | \$1,486.68 | \$12,245.74 |
| Aquatic Organism Passage | 396 | Modification or removal of barriers that restrict or prevent movement or migration of fish. | Replace culvert with passable culvert - 54" diameter. Includes excavation, backfill and outlet protection, not road surface. By Mile of passage installed. | No. | \$ 25,821.00 | 5 | \$774.63 | \$6,380.61 |
| Aquatic Organism Passage | 396 | Modification or removal of barriers that restrict or prevent movement or migration of fish. | Replace culvert with passable culvert - 36" diameter. Includes excavation, backfill and outlet protection, not road surface. | No. | \$ 19,424.00 | 5 | \$582.72 | \$4,799.85 |
| Aquatic Organism Passage | 396 | Modification or removal of barriers that restrict or prevent movement or migration of fish. | install arch culvert with stream gravel/ fish friendly bottom. Remove old culvert with fish blockage and install arch culvert. | No. | \$ 54,727.00 | 5 | \$1,641.81 | \$13,523.54 |

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| Aquatic Organism Passage | 396 | Modification or removal of barriers that restrict or prevent movement or migration of fish. | Install arch culvert with slope needing cellular confinement system. | No. | \$ 63,874.00 | 5 | \$1,916.22 | \$15,783.85 |
| Aquatic Organism Passage | 396 | Modification or removal of barriers that restrict or prevent movement or migration of fish. | Rock scour hole protection - 16 tons riprap plus geotextile, shaping | No. | \$ 2,689.00 | 5 | \$80.67 | \$664.48 |
| Aquatic Organism Passage | 396 | Modification or removal of barriers that restrict or prevent movement or migration of fish. | Timber Bridge, single lane | No. | \$ 4,500.00 | 5 | \$135.00 | \$1,111.99 |
| Aquatic Organism Passage | 396 | Modification or removal of barriers that restrict or prevent movement or migration of fish. | Timber Bridge, Two lane | No. | \$ 6,100.00 | 5 | \$183.00 | \$1,507.37 |
| Brush Management | 314 | Removal, reduction, or manipulation of non-herbaceous plants. | Flail type mower or bush-hog with tractor, some handwork for removal of undesirable species scattered throughout pasture acres. Typical pasture treatment on 20 acres with < 20% shrubs >2 inches. | Ac. | \$ 55.41 | 5 | \$1.66 | \$13.69 |
| Brush Management | 314 | Removal, reduction, or manipulation of non-herbaceous plants. | Typical forestland or wildlife habitat treatment on 5 acres. Organic method or combination of mechanical and/or chemical treatment of brush foliage, stem, bark as spot spraying handwork; injection with or without cutting; stump treatment immediate to cutting; | Ac. | \$ 55.86 | 5 | \$1.68 | \$13.80 |
| Brush Management | 314 | Removal, reduction, or manipulation of non-herbaceous plants. | Livestock trained to browse target species and/or biological agents identified as feeding on or otherwise disrupting target species function. Treatment on less than 5 acres. | Ac. | \$ 52.62 | 5 | \$1.58 | \$13.00 |
| Brush Management | 314 | Removal, reduction, or manipulation of non-herbaceous plants. | tractor and chain to pull smaller plants and dozer to push larger and grub stumps. Typical pasture treatment area 10 acres with target species >40% of plant cover. | Ac. | \$ 427.81 | 5 | \$12.83 | \$105.72 |

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| Channel Bed Stabilization | 584 | Measure(s) used to stabilize the bed or bottom of a channel. | Installation of channel bottom armoring (lining). Riprap D50 = 6-inch angular rock for armoring. Minor clearing of channel to remove deadfall, stumps, trees, and debris. Design based on the geomorphic assessment and analysis of channel bed. On site disposal of materials. 12 foot wide channel. 200 lin. feet. Does not include cost of DEQ Hydraulic review. | Ft. | \$ 50.74 | 10 | \$1.52 | \$7.41 |
| Channel Bed Stabilization | 584 | Measure(s) used to stabilize the bed or bottom of a channel. | Installation of grade control structures in the channel bottom. Rock ramp structure with D50 = 12 inch cubical rock riprap. 55 foot chute length. Minor clearing of channel to remove deadfall, stumps, trees, and debris. Design based on the geomorphic assessment and analysis of channel bed. On site disposal of materials. 15 foot wide channel. 500 lin. feet. One structure per 500 lin. ft. of stream. Does not include cost of DEQ Hydraulic review. | Ft. | \$ 15.40 | 10 | \$0.46 | \$2.25 |
| Combustion System Improvement | 372 | Installing, replacing, or retrofitting agricultural combustion systems and/or related components or devices for air quality and energy efficiency improvement. | Addition of a variable frequency drive to a 100 HP electric motor that is replacing an older diesel pump motor with fuel tank and lines used for an irrigation pump. | HP | \$ 197.16 | 10 | \$5.91 | \$28.79 |
| Composting Facility | 317 | This is a treatment component of an agricultural management system for the biological stabilization of organic material. | For composting manure, vegetable or other crop materials ONLY. Gravel (5") surface over compacted sand (4"). Typical is 8,000sq.ft | Sq Ft. | \$ 1.62 | 15 | \$0.05 | \$0.18 |
| Composting Facility | 317 | This is a treatment component of an agricultural management system for the biological stabilization of organic material. | Concrete pad for composting manure, vegetable or other crop material ONLY. Typical cost is concrete (5") over 4" compacted sand. Typical is 8,000sq.ft. | Sq. Ft. | \$ 3.49 | 15 | \$0.10 | \$0.39 |

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| Composting Facility | 317 | This is a treatment component of an agricultural management system for the biological stabilization of organic material. | Animal mortality composting facility ONLY. Concrete surface with a roof structure over the composting material only. Typical system is a 30' x 75' facility with a roof, 4' R/C walls. 5" concrete over 4" compacted sand with loading apron. | No. | \$ 33,997.00 | 15 | \$1,019.91 | \$3,826.68 |
| Conservation Cover | 327 | Establishing and maintaining permanent vegetative cover to protect soil and water resources. | Cool season grass and legume mix 3 from practice standard 5 lbs per ac red clover and 8 lb per acre smooth brome grass. | Ac. | \$ 222.00 | 5 | \$6.66 | \$54.86 |
| Conservation Cover | 327 | Establishing and maintaining permanent vegetative cover to protect soil and water resources. | Warm season grass and Michigan pollinator wildflower mix | Ac. | \$ 600.00 | 5 | \$18.00 | \$148.27 |
| Conservation Cover | 327 | Establishing and maintaining permanent vegetative cover to protect soil and water resources. | Warm season grass mix | Ac. | \$ 270.80 | 5 | \$8.12 | \$66.92 |
| Conservation Cover | 327 | Establishing and maintaining permanent vegetative cover to protect soil and water resources. | Warm season grass and wildflower mix | Ac. | \$ 350.00 | 5 | \$10.50 | \$86.49 |
| Conservation Crop Rotation | 328 | Growing crops in a recurring sequence on the same field. | 3-4 crops in rotation, analysis of crops, and acreages to determine rotation. Includes analysis of the recordkeeping of fields and crops to create crop rotations. | Ac. | \$ 5.00 | 1 | \$0.15 | \$5.00 |
| Conservation Crop Rotation | 328 | Growing crops in a recurring sequence on the same field. | 6-8 crops in rotation, analysis of crops, and acreages to determine rotation. Includes analysis of the recordkeeping of fields and crops to determine rotations. | Ac. | \$ 20.00 | 1 | \$0.60 | \$20.00 |
| Contour Buffer Strips | 332 | Narrow strips of permanent, herbaceous vegetative cover established across the slope and alternated down the slope with parallel, wider cropped strips. | Warm season buffer strip | Ac. | \$ 253.15 | 5 | \$7.59 | \$62.56 |

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| Contour Buffer Strips | 332 | Narrow strips of permanent, herbaceous vegetative cover established across the slope and alternated down the slope with parallel, wider cropped strips. | cool season buffer strip | Ac. | \$ 118.73 | 5 | \$3.56 | \$29.34 |
| Contour Buffer Strips | 332 | Narrow strips of permanent, herbaceous vegetative cover established across the slope and alternated down the slope with parallel, wider cropped strips. | Organic buffer strip | Ac. | \$ 124.09 | 5 | \$3.72 | \$30.66 |
| Contour Farming | 330 | Tillage, planting, and other farming operations performed on or near the contour of the field slope. | typical 20 ac crop field. Measure out and mark contours for farming operations. Document contours. | Ac. | \$ 5.92 | 5 | \$0.18 | \$1.46 |
| Contour Orchard or Other Fruit Area | 331 | Planting orchards, vineyards, or small fruits so that all cultural practices are done on the contour. | typical 10 acre orchard. Measure out and mark contours before planting new orchard. Document actions | Ac. | \$ 12.00 | 10 | \$0.36 | \$1.75 |
| Cover Crop | 340 | Grasses, legumes, forbs, or other herbaceous plants established for seasonal cover and conservation purposes. | Non-Legume Cover Crop (cereal grain) | Ac. | \$ 27.04 | 1 | \$0.81 | \$27.04 |
| Cover Crop | 340 | Grasses, legumes, forbs, or other herbaceous plants established for seasonal cover and conservation purposes. | Organic Non-Legume Cover Crop (cereal grain) | Ac. | \$ 29.36 | 1 | \$0.88 | \$29.36 |
| Cover Crop | 340 | Grasses, legumes, forbs, or other herbaceous plants established for seasonal cover and conservation purposes. | legume cover crop for crop and/or vegetable crop fields. Regular, aerial, or manure slurry seeding. | Ac. | \$ 49.94 | 1 | \$1.50 | \$49.94 |
| Cover Crop | 340 | Grasses, legumes, forbs, or other herbaceous plants established for seasonal cover and conservation purposes. | organic legume cover crop for crop and/or vegetable crop fields. Regular, aerial, or manure slurry seeding. | Ac. | \$ 61.97 | 1 | \$1.86 | \$61.97 |
| Cross Wind Trap Strip - Filter or Field | 589C | Herbaceous cover resistant to wind erosion, established adjacent to surface drainage ditches across the prevailing wind erosion direction. | one or more strips across prevailing wind direction, typical 25 ft wide less than 1 ft tall. 1742 ft per acre. | Ac. | \$ 125.55 | 5 | \$3.77 | \$31.02 |

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| Cross Wind Trap Strip - Filter or Field | 589C | Herbaceous cover resistant to wind erosion, established adjacent to surface drainage ditches across the prevailing wind erosion direction. | Organic, one or more strips across prevailing wind direction, typical 25 ft wide less than 1 ft tall. 1742 ft per acre. | Ac. | \$ 219.15 | 5 | \$6.57 | \$54.15 |
| Deep Tillage | 324 | Performing tillage operations below the normal tillage depth to modify the physical or chemical properties of a soil. | Subsoiling and/or V-ripping used to relieve compaction. | Ac. | \$ 18.00 | 1 | \$0.54 | \$18.00 |
| Dike | 356 | A barrier constructed of earth or manufactured materials. | Excavation and compaction of earthfill. Get an Engineer's design cost estimate. | Cu. Yd. | \$ 4.50 | 20 | \$0.14 | \$0.43 |
| Diversion | 362 | A channel constructed across the slope generally with a supporting ridge on the lower side. | Combination earth dike 1 foot high and channel cut 1 foot deep, 8 foot bottom width with 4:1 uphill slope, 8 foot top width on fill, topsoil stripping under fill, seeded and mulched | Ft. | \$ 4.54 | 10 | \$0.14 | \$0.66 |
| Diversion | 362 | A channel constructed across the slope generally with a supporting ridge on the lower side. | Concrete Curb and channel for diverting water from animal operations 1 foot high with graded channel | Ft. | \$ 26.13 | 10 | \$0.78 | \$3.82 |
| Drainage Water Management (Ac.) | 554 | Control of water surface elevations and discharge from surface and subsurface drainage systems. | 6 adjustments per year with 1 water control structure in a nearly flat tile drained crop field from November 1 through March 15. Control and management of water surface elevation, including adjustment of water control device according to Drainage Water Management plan. Installation of any structural measures identified in the plan will be done using 587 - Structure for Water Control. | Ac. | \$ 8.85 | 1 | \$0.27 | \$8.85 |
| Dry Hydrant (No.) | 432 | A non-pressurized permanent pipe assembly system installed into dependable water source that permits the withdrawal of water by suction. | Get an Engineer's design cost estimate. | No. | \$ 35,000.00 | 15 | \$1,050.00 | \$3,939.58 |

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| Early Successional Habitat Development/Management | 647 | Manage early plant succession to benefit desired wildlife or natural communities. | Mow strips 50-100 feet wide with bobcat fitted fecon head (or similar equipment) approximately 1-5 acres in size with five strips. | Ac. | \$ 404.18 | 5 | \$12.13 | \$99.88 |
| Early Successional Habitat Development/Management | 647 | Manage early plant succession to benefit desired wildlife or natural communities. | clear cut aspen areas - regeneration. labor and equipment for clear cut. | Ac. | \$ 500.34 | 5 | \$15.01 | \$123.64 |
| Early Successional Habitat Development/Management | 647 | Manage early plant succession to benefit desired wildlife or natural communities. | Mowing, raking, and removal of material from grassland area. | Ac. | \$ 105.67 | 5 | \$3.17 | \$26.11 |
| Early Successional Habitat Development/Management | 647 | Manage early plant succession to benefit desired wildlife or natural communities. | Spot spraying of 6 acres per 25 acres of grassland area (approx. 25%). | Ac. | \$ 5.41 | 5 | \$0.16 | \$1.34 |
| Farmstead Energy Improvement | 374 | This practice may be applied as part of a conservation management system to reduce energy use. | Removal of 400W Mercury Vapor (455W total input watt) fixtures and replace with high-efficiency PSMH lighting system includes materials and installation. | No. | \$ 175.00 | 10 | \$5.25 | \$25.56 |
| Farmstead Energy Improvement | 374 | This practice may be applied as part of a conservation management system to reduce energy use. | variable frequency drive and appurtances attached to a electric motor used to drive a ventilation fan, irrigation pumps, vacuum pump, or similar equipment with 5 to 30 HP motors involved with agricultural production. | HP | \$ 215.00 | 10 | \$6.45 | \$31.40 |
| Farmstead Energy Improvement | 374 | This practice may be applied as part of a conservation management system to reduce energy use. | Install screens / energy curtains in a greenhouse. The mechanical energy screen system consists of a drive motor, support cables, controls, and shade material, which may be woven, knitted, or non-woven strips of aluminum fiber, polyethylene, nylon or other synthetic material. | Sq Ft. | \$ 1.66 | 10 | \$0.05 | \$0.24 |

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| Farmstead Energy Improvement | 374 | This practice may be applied as part of a conservation management system to reduce energy use. | Replacement of conventional 48" circulation fan with 48" panel circulation fan with a thrust of 30.62 (lbf) and a thrust efficiency of 25.6 (lbf/kW) . | No. | \$ 450.00 | 10 | \$13.50 | \$65.72 |
| Farmstead Energy Improvement | 374 | This practice may be applied as part of a conservation management system to reduce energy use. | High-efficiency heating systems include any heating unit with efficiency rating of 80%+ for fuel oil and 90%+ for natural gas and propane. | Btu output | \$ 0.02 | 10 | \$0.001 | \$0.00 |
| Farmstead Energy Improvement | 374 | This practice may be applied as part of a conservation management system to reduce energy use. | a 10 HP vacuum pump used for milking facility that is replaced with a new NEMA premium pump motor | No. | \$ 673.00 | 10 | \$20.19 | \$98.28 |
| Farmstead Energy Improvement | 374 | This practice may be applied as part of a conservation management system to reduce energy use. | Install plate cooler ahead of the milk storage tank to reduce milk temperatures 55°F to 70°F before it enters the refrigerated storage tank. | No. | \$ 2,455.00 | 10 | \$73.65 | \$358.52 |
| Fence | 382 | A constructed barrier to animals or people. | Interior high tensile electric and non-electric, or barbed wire. 3/4 mile per standard with 2 strand; metal t posts in line, wood post corner and braces and line boss. Light sight prep <30% of installation area hand removal of shrubs. 1 wire gates. 4 corners. | Ft. | \$ 1.41 | 20 | \$0.04 | \$0.14 |
| Fence | 382 | A constructed barrier to animals or people. | 10' Woven wire for exclusion of deer, etc from feed storage. TB concern. 66'x660', 1452 lin ft with 1 gate. 20 ft post spacing. | Ft. | \$ 4.00 | 20 | \$0.12 | \$0.38 |
| Fence | 382 | A constructed barrier to animals or people. | Permanent Safety fence around waste storage as required per standard 313; 4 strand HT smooth, polycoated, barbed or regular barbed wire for livestock safety; gates every 150 ft for access and agitation. | Ft. | \$ 3.06 | 20 | \$0.09 | \$0.29 |
| Field Border | 386 | A strip of permanent vegetation established at the edge or around the perimeter of a field. | cool season, on farm equipment, seed, fertilizer, herbicide, drill, 2 mowing to establish. | Ft. | \$ 157.42 | 10 | \$4.72 | \$22.99 |

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| Field Border | 386 | A strip of permanent vegetation established at the edge or around the perimeter of a field. | Organic cool season, on farm equipment, seed, fertilizer, herbicide, drill, 2 mowing to establish. | Ft. | \$ 262.56 | 10 | \$7.88 | \$38.34 |
| Filter Strip | 393 | A strip of grass or other permanent vegetation used to reduce sediment, organics, nutrients, pesticides, and other contaminants. | cool season grass, lime, fertilizer and installed | Ac. | \$ 121.57 | 10 | \$3.65 | \$17.75 |
| Filter Strip | 393 | A strip of grass or other permanent vegetation used to reduce sediment, organics, nutrients, pesticides, and other contaminants. | Organic cool season grass, lime, fertilizer and installed | Ac. | \$ 242.77 | 10 | \$7.28 | \$35.45 |
| Firebreak | 394 | A strip of bare land or vegetation that retards fire. | 30' wide permanent cool season grass firebreak. | Ft. | \$ 0.0761 | 5 | \$0.00 | \$0.02 |
| Firebreak | 394 | A strip of bare land or vegetation that retards fire. | Disking to create firebreak for Prescribed burning of a grassland site. 15ft wide | Ft. | \$ 0.0087 | 5 | \$0.00 | \$0.00 |
| Fish Raceway or Tank | 398 | A channel or tank with a continuous flow of water constructed or used for high-density fish production. | Fiberglass or other material tank with fittings. | each | \$ 3,000.00 | 10 | \$90.00 | \$438.11 |
| Fish Raceway or Tank | 398 | A channel or tank with a continuous flow of water constructed or used for high-density fish production. | Concrete raceway by linear ft of raceway based on typical 4' wide and 4' deep concrete lined. | Ft. | \$ 120.00 | 10 | \$3.60 | \$17.52 |
| Fishpond Management | 399 | Managing impounded water for the production of fish or other aquatic organisms (non-commercial use). | management of 1/2 acre pond for production of fish, 20 hr per yr @ \$28 to carry out practice standard. Does not include operation/production and maintenance time. | No. | \$ 560.00 | 1 | \$16.80 | \$560.00 |
| Forage and Biomass Planting | 512 | Establishing native or introduced forage species. | annual forages for pasture. | Ac. | \$ 75.62 | 5 | \$2.27 | \$18.69 |
| Forage and Biomass Planting | 512 | Establishing native or introduced forage species. | organic annual forages for pasture | Ac. | \$ 75.70 | 5 | \$2.27 | \$18.71 |

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| Forage and Biomass Planting | 512 | Establishing native or introduced forage species. | cool season grasses and/or legumes | Ac. | \$ 136.53 | 5 | \$4.10 | \$33.74 |
| Forage and Biomass Planting | 512 | Establishing native or introduced forage species. | Organic cool season grasses and/or legumes | Ac. | \$ 125.00 | 5 | \$3.75 | \$30.89 |
| Forage and Biomass Planting | 512 | Establishing native or introduced forage species. | Interseeding or overseeding of cool season grasses and/or legumes into existing pasture | Ac. | \$ 113.75 | 5 | \$3.41 | \$28.11 |
| Forage and Biomass Planting | 512 | Establishing native or introduced forage species. | Interseeding or overseeding of organic cool season grasses and/or legumes into existing pasture | Ac. | \$ 99.71 | 5 | \$2.99 | \$24.64 |
| Forage and Biomass Planting | 512 | Establishing native or introduced forage species. | warm season grass or grass mixes for pasture | Ac. | \$ 305.42 | 5 | \$9.16 | \$75.47 |
| Forage Harvest Management | 511 | The timely cutting and removal of forages from the field such as hay, green-chop, or ensilage. This does not include harvest by grazing livestock. | Timely cutting, harvest and removal of forage from field as hay, green-chop or ensilage. Promotes plant vigor, optimize yield and quality. Maintain stand longevity and desired species. Typical scenario includes management of forage dry down for hay. Frequency of harvest ranges from once per year to 3 times per year. Site is 40 acres of cropland or pasture. | Ac. | \$ 11.52 | 1 | \$0.35 | \$11.52 |
| Forest Stand Improvement | 666 | Manipulation of species composition, stand structure, and stocking by cutting or killing selected trees and understory vegetation. | analysis (inventory), marking, and removal of undesirable trees in a high density, uneven-aged hardwood stand to increase productivity, health, and vigor. Basal area is reduced from 100 to 75 sq. ft./acre. Timber revenue covers cost of removal. | Ac. | \$ 41.28 | 10 | \$1.24 | \$6.03 |
| Forest Stand Improvement | 666 | Manipulation of species composition, stand structure, and stocking by cutting or killing selected trees and understory vegetation. | Analysis (inventory), marking, and removal of undesirable trees in a high density, uneven-aged hardwood stand, to increase stand productivity, healthy, and vigor. Basal area is reduced from 100 to 75 sq. ft./acre. Cut trees are disposed of locally (e.g. firewood) and not sold commercially. | Ac. | \$ 276.93 | 10 | \$8.31 | \$40.44 |

| Practice | Code | Description (from Practice Standard) | Typical Installation | Unit | Cost Per Unit | design lifespan | Average Annual Maintenance | Total Average Annual Cost per Unit @ 2.8% |
|---------------------------------------|------|--|--|------|---------------|-----------------|----------------------------|---|
| Forest Stand Improvement | 666 | Manipulation of species composition, stand structure, and stocking by cutting or killing selected trees and understory vegetation. | Analysis (inventory), marking, and removal of every third row in a 20 year old red pine plantation to increase productivity, health, and vigor. Removed trees are sold commercially. Timber revenue covers cost of removal. | Ac. | \$ 20.40 | 10 | \$0.61 | \$2.98 |
| Forest Stand Improvement | 666 | Manipulation of species composition, stand structure, and stocking by cutting or killing selected trees and understory vegetation. | Analysis (inventory), marking, and removal of every third row in a 20 year old red pine plantation to increase productivity, health, and vigor. Cut trees are disposed of locally (e.g. firewood) and not sold commercially. | Ac. | \$ 90.05 | 10 | \$2.70 | \$13.15 |
| Forest Trails and Landings | 655 | Laying out, constructing, and using forest harvest trails and landings. | New trail to access forest for installation of other forestry practices, and to address soil erosion, water quality, compaction, and plant health through proper layout of trail and installation of waterbars and/or broadbased dips. Trail is 16 ft wide 1500 ft long. | Ac. | \$ 3,493.00 | 5 | \$104.79 | \$863.15 |
| Fueling Facility Above-Ground Storage | 713 | Permanently located above ground facilities designed to provide safe storage of on-farm oil products. | Tanks and fueling area are placed on a reinforced concrete pad to collect any spills and drips. Tanks protected by guard posts. Surface and ground water protected. 600 sq ft | No. | \$ 3,900.00 | 0 | \$117.00 | \$3,900.00 |
| Fueling Facility Above-Ground Storage | 713 | Permanently located above ground facilities designed to provide safe storage of on-farm oil products. | New dual wall tanks and fueling area are placed on a reinforced concrete pad to collect any spills and drips. Tanks protected by guard posts. | No. | \$ 7,022.00 | 0 | \$210.66 | \$7,022.00 |
| Grade Stabilization Structure | 410 | A structure used to control the channel grade in natural or constructed watercourses. | Geotextile vegetated chute | No. | \$ 974.00 | 15 | \$29.22 | \$109.63 |
| Grade Stabilization Structure | 410 | A structure used to control the channel grade in natural or constructed watercourses. | Rock/Block Chute | No. | \$ 4,655.00 | 15 | \$139.65 | \$523.96 |

| Practice | Code | Description (from Practice Standard) | Typical Installation | Unit | Cost Per Unit | design lifespan | Average Annual Maintenance | Total Average Annual Cost per Unit @ 2.8% |
|-------------------------------|------|---|--|------|---------------|-----------------|----------------------------|---|
| Grade Stabilization Structure | 410 | A structure used to control the channel grade in natural or constructed watercourses. | Pipe drop structure with 40 feet of 30 inch dia. Corr. Plastic pipe with 42 inch diam. Drop inlet 8 feet tall, anti swirl baffle, grading and filling, seeding and mulching | No. | \$ 4,193.00 | 15 | \$125.79 | \$471.96 |
| Grade Stabilization Structure | 410 | A structure used to control the channel grade in natural or constructed watercourses. | Structure with 10 foot weir, 4 foot drop, riprap outlet, made of 2X2X6 concrete blocks, 2:1 DS slopes, geotextile and sand or gravel backfill, grading and filling, riprap basin, seeding and mulching | No. | \$ 6,353.00 | 15 | \$190.59 | \$715.09 |
| Grassed Waterway | 412 | A natural or constructed channel that is shaped or graded to required dimensions and established with suitable vegetation. | New grassed waterway without drainage tubing. Grading , shaping, seeding and mulching. Mulch netting in center 1/3 of waterway. | Ac. | \$ 3,572.48 | 10 | \$107.17 | \$521.71 |
| Grassed Waterway | 412 | A natural or constructed channel that is shaped or graded to required dimensions and established with suitable vegetation. | Reshape existing grassed waterway without drainage tubing. Grading , shaping, seeding and mulching. Mulch netting in center 1/3 of waterway. | Ac. | \$ 2,899.48 | 10 | \$86.98 | \$423.43 |
| Grassed Waterway | 412 | A natural or constructed channel that is shaped or graded to required dimensions and established with suitable vegetation. | New grassed waterway 30 ft X 1450 ft with drainage tubing. Grading , shaping, seeding and mulching. Mulch netting in center 1/3 of waterway. | Ac. | \$ 5,097.48 | 10 | \$152.92 | \$744.42 |
| Grassed Waterway | 412 | A natural or constructed channel that is shaped or graded to required dimensions and established with suitable vegetation. | Grassed waterway with rock center. 40 foot width, rock 6" d50, 6 feet wide and 1 foot deep Grading , shaping, seeding and mulching. | Ac. | \$ 27,549.00 | 10 | \$826.47 | \$4,023.18 |
| Heavy Use Area Protection | 561 | The stabilization of areas frequently and intensively used by people, animals, or vehicles by establishing vegetative cover, by surfacing with suitable materials, and/or installing needed structures. | Gravel surface with geotextile base. 1,600 square feet, 9" thick, compacted in place. | Ac. | \$ 76,665.60 | 10 | \$2,299.97 | \$11,196.02 |

| Practice | Code | Description (from Practice Standard) | Typical Installation | Unit | Cost Per Unit | design lifespan | Average Annual Maintenance | Total Average Annual Cost per Unit @ 2.8% |
|---------------------------|------|---|--|------|---------------|-----------------|----------------------------|---|
| Heavy Use Area Protection | 561 | The stabilization of areas frequently and intensively used by people, animals, or vehicles by establishing vegetative cover, by surfacing with suitable materials, and/or installing needed structures. | 2000 sq ft (40 ft. x 50 ft.) with 5" concrete over 4"compacted sand. | Ac. | \$ 159,865.20 | 10 | \$4,795.96 | \$23,346.25 |
| Heavy Use Area Protection | 561 | The stabilization of areas frequently and intensively used by people, animals, or vehicles by establishing vegetative cover, by surfacing with suitable materials, and/or installing needed structures. | 2000 sq ft (40 ft. x 50 ft.) with 5" concrete over 4"compacted sand. 1 ft reinforced concrete wall. | Ac. | \$ 192,535.20 | 10 | \$5,776.06 | \$28,117.28 |
| Heavy Use Area Protection | 561 | The stabilization of areas frequently and intensively used by people, animals, or vehicles by establishing vegetative cover, by surfacing with suitable materials, and/or installing needed structures. | 2000 sq ft (40 ft. x 50 ft.) with 5" concrete over 4"compacted sand. 2ft reinforced concrete wall. | Ac. | \$ 290,545.20 | 10 | \$8,716.36 | \$42,430.38 |
| Hedgerow Planting | 422 | Establishing a linear planting of shrubs or trees in, across, or around a field. | One row of trees (10' spacing within row) and one row of shrubs (6' spacing within row) with 12' spacing between rows or mixed trees/shrubs within each row. Includes initial herbicide treatment plus second and third year herbicide treatments. 612' x 24' wide. | Ft. | \$ 0.74 | 15 | \$0.02 | \$0.08 |
| Hedgerow Planting | 422 | Establishing a linear planting of shrubs or trees in, across, or around a field. | One row of trees (10' spacing within row), one row of small trees (8' spacing within row) and one row of shrubs (6' spacing within row) with 16' spacing between tree and small tree rows and 12' spacing between small tree and shrub rows or mixed trees/shrubs within each row. Includes initial herbicide treatment plus second and third year herbicide treatments. | Ft. | \$ 0.87 | 15 | \$0.03 | \$0.10 |

| Practice | Code | Description (from Practice Standard) | Typical Installation | Unit | Cost Per Unit | design lifespan | Average Annual Maintenance | Total Average Annual Cost per Unit @ 2.8% |
|-------------------------|------|---|---|------|---------------|-----------------|----------------------------|---|
| Hedgerow Planting | 422 | Establishing a linear planting of shrubs or trees in, across, or around a field. | Wildlife corridor, minimum 66 ft wide. One row of trees (10' spacing within row), two rows of small trees (8' spacing within row) and three rows of shrubs (6' spacing within row) with 16' spacing between tree and small tree rows and 12' spacing between small tree and two shrub rows or mixed trees/shrubs within each row. Includes initial herbicide treatment plus second and third year herbicide treatments. | Ft. | \$ 1.83 | 15 | \$0.05 | \$0.21 |
| Herbaceous Weed Control | 315 | The removal or control of herbaceous weeds including invasive, noxious and prohibited plants. | The removal or control of herbaceous weeds including invasive, noxious and prohibited plants with chemical treatment using spot spraying in 36" diameter spots around individual trees, to reduce weed competition in sites where desirable trees and/or shrubs have been planted to establish natural habitat site. Setting is land that has a new tree/shrub planting that needs protection from herbaceous weeds and is not active cropland in Michigan. Site is strip or irregular shape area that is a 4 acre in size. | Ac. | \$ 32.56 | 5 | \$0.98 | \$8.05 |
| Herbaceous Weed Control | 315 | The removal or control of herbaceous weeds including invasive, noxious and prohibited plants. | The removal or control of herbaceous weeds including invasive, noxious and prohibited plants with livestock grazing and browsing management for weed control only. Natural habitat site to restore or release native or create desired plant communities and wildlife habitats consistent with the ecological site. Setting is land that is not active cropland in Michigan. Site is strip or irregular shape area that is a 4 acre in size. | Ac. | \$ 73.53 | 5 | \$2.21 | \$18.17 |

| Practice | Code | Description (from Practice Standard) | Typical Installation | Unit | Cost Per Unit | design lifespan | Average Annual Maintenance | Total Average Annual Cost per Unit @ 2.8% |
|----------------------------|------|---|---|------|---------------|-----------------|----------------------------|---|
| Herbaceous Weed Control | 315 | The removal or control of herbaceous weeds including invasive, noxious and prohibited plants. | The removal or control of herbaceous weeds including invasive, noxious and prohibited plants with mechanical treatment in natural habitat site to restore or release native or create desired plant communities and wildlife habitats consistent with the ecological site, tractor with brush hog and hand tools on quad runner. Setting is land that is not active cropland in Michigan. Site is strip or irregular shape area that is a 4 acre in size. | Ac. | \$ 52.35 | 5 | \$1.57 | \$12.94 |
| Herbaceous Weed Control | 315 | The removal or control of herbaceous weeds including invasive, noxious and prohibited plants. | The removal or control of herbaceous weeds including invasive, noxious and prohibited plants with chemical treatment to reduce weed competition in sites to establish natural habitat site. Setting is not active cropland in Michigan. Site is strip or irregular shape area that is a 4 acre in size. | Ac. | \$ 51.15 | 5 | \$1.53 | \$12.64 |
| Herbaceous Wind Barriers | 603 | Herbaceous vegetation established in rows or narrow strips in the field across the prevailing wind direction. | Rows or strips of herbaceous vegetation, annual or perennial, across prevailing wind direction to control soil erosion, particulate matter and snow. Typical 1/2 mile strips or rows. 2 rows spaced 3 ft apart, vegetation >0.5 ft tall. Herbaceous Wind Barriers across prevailing wind direction. | Ft. | \$ 0.24 | 5 | \$0.01 | \$0.06 |
| Integrated Pest Management | 595 | Utilizing environmentally-sensitive prevention, avoidance, monitoring, and suppression strategies to manage weeds, insects, diseases, animals, and other organisms (including invasive and non-invasive species) that directly or indirectly cause damage or annoyance. | Forage and Field Crops, Basic | Ac. | \$ 23.27 | 1 | \$0.70 | \$23.27 |

| Practice | Code | Description (from Practice Standard) | Typical Installation | Unit | Cost Per Unit | design lifespan | Average Annual Maintenance | Total Average Annual Cost per Unit @ 2.8% |
|----------------------------|-------------|---|--|-------------|----------------------|------------------------|-----------------------------------|--|
| Integrated Pest Management | 595 | Utilizing environmentally-sensitive prevention, avoidance, monitoring, and suppression strategies to manage weeds, insects, diseases, animals, and other organisms (including invasive and non-invasive species) that directly or indirectly cause damage or annoyance. | Forage and Field Crops, Enhanced | Ac. | \$ 29.69 | 1 | \$0.89 | \$29.69 |
| Integrated Pest Management | 595 | Utilizing environmentally-sensitive prevention, avoidance, monitoring, and suppression strategies to manage weeds, insects, diseases, animals, and other organisms (including invasive and non-invasive species) that directly or indirectly cause damage or annoyance. | Orchards, Basic | Ac. | \$ 173.07 | 1 | \$5.19 | \$173.07 |
| Integrated Pest Management | 595 | Utilizing environmentally-sensitive prevention, avoidance, monitoring, and suppression strategies to manage weeds, insects, diseases, animals, and other organisms (including invasive and non-invasive species) that directly or indirectly cause damage or annoyance. | Orchards, Enhanced | Ac. | \$ 213.72 | 1 | \$6.41 | \$213.72 |
| Integrated Pest Management | 595 | Utilizing environmentally-sensitive prevention, avoidance, monitoring, and suppression strategies to manage weeds, insects, diseases, animals, and other organisms (including invasive and non-invasive species) that directly or indirectly cause damage or annoyance. | Small Fruit, Vegetable, and Specialty Crops, Basic | Ac. | \$ 114.12 | 1 | \$3.42 | \$114.12 |

| Practice | Code | Description (from Practice Standard) | Typical Installation | Unit | Cost Per Unit | design lifespan | Average Annual Maintenance | Total Average Annual Cost per Unit @ 2.8% |
|------------------------------------|------|---|---|---------|---------------|-----------------|----------------------------|---|
| Integrated Pest Management | 595 | Utilizing environmentally-sensitive prevention, avoidance, monitoring, and suppression strategies to manage weeds, insects, diseases, animals, and other organisms (including invasive and non-invasive species) that directly or indirectly cause damage or annoyance. | Small Fruit, Vegetable, and Specialty Crops, Enhanced | Ac. | \$ 143.41 | 1 | \$4.30 | \$143.41 |
| Irrigation Pipeline | 430 | A pipeline and appurtenances installed to convey water for storage or application, as part of an irrigation water system. | Plastic pipeline installed underground between the location of the water pump and the area of irrigation. Typical is 400 lin ft of pipeline installed with trencher serving an micro irrigation system on a 2 acre field. | Ft. | \$ 2.81 | 20 | \$0.08 | \$0.27 |
| Irrigation Reservoir | 436 | An irrigation water storage structure made by constructing a dam, embankment, or pit. | See engineer or get bids for site specific cost information. | Ac. Ft. | | 15 | \$0.00 | \$0.00 |
| Irrigation System, Microirrigation | 441 | An irrigation system for distribution of water directly to the plant root zone by means of surface or subsurface applicators. | two small 2178 sq ft hoop houses fro seasonal growing. Complete micro system for water use to effieciently provide water for crop produciton. | Sq Ft. | \$ 0.19 | 15 | \$0.01 | \$0.02 |
| Irrigation System, Sprinkler | 442 | An irrigation system in which all necessary equipment and facilities are installed for efficiently applying water by means of nozzles operated under pressure. | Upgrade sprinkler package for center pivot or linear move irrigation systems | Ft. | \$ 6.02 | 15 | \$0.18 | \$0.68 |
| Irrigation System, Sprinkler | 442 | An irrigation system in which all necessary equipment and facilities are installed for efficiently applying water by means of nozzles operated under pressure. | Upgrade sprinkler package for fixed solid set or periodic move irrigation systems. | Ac. | \$ 5.91 | 15 | \$0.18 | \$0.67 |

| Practice | Code | Description (from Practice Standard) | Typical Installation | Unit | Cost Per Unit | design lifespan | Average Annual Maintenance | Total Average Annual Cost per Unit @ 2.8% |
|---|------|--|---|------|---------------|-----------------|----------------------------|---|
| Irrigation System, Surface and Subsurface | 443 | A system in which all necessary water-control structures have been installed for the efficient distribution of water by surface means, such as furrows, borders, contour levees, or contour ditches, or by subsurface means. | See engineer or get bids for site specific cost information. | Ac. | | 15 | \$0.00 | \$0.00 |
| Irrigation Water Management | 449 | The process of determining and controlling the volume, frequency, and application rate of irrigation water in a planned, efficient manner. | Conduct in-field system evaluation AND implementation of an Irrigation Water Management Plan. \$19.65 to \$280 per acre depending on irrigation type and operation size. Typical is 72 acres of crops with pivot system. | Ac. | \$ 19.65 | 1 | \$0.59 | \$19.65 |
| Land Reclamation, Abandoned Mined Land | 543 | Restoring land and water areas that are adversely affected by past mining practices and increasing the productivity of the areas for a beneficial use. | Removal of wood and other debris; grade and shape site to address future runoff considerations after covering, etc.; place appropriate soil cap 6" thick and establish basic vegetation. 5 acre site, 6" cover thickness. | Ac. | \$ 14,989.53 | 15 | \$449.69 | \$1,687.21 |
| Land Reclamation, Abandoned Mined Land | 543 | Restoring land and water areas that are adversely affected by past mining practices and increasing the productivity of the areas for a beneficial use. | Removal of wood and other debris; grade and shape site to address future runoff considerations after covering, etc.; add 1000 cu. yd. cover material to create 80 earth mounds; place appropriate soil cover and establish basic vegetation with tree clumps. 1 acre site. Minimum cover thickness of 6" over whole site. | Ac. | \$ 29,574.06 | 15 | \$887.22 | \$3,328.84 |
| Land Reclamation, Abandoned Mined Land | 543 | Restoring land and water areas that are adversely affected by past mining practices and increasing the productivity of the areas for a beneficial use. | Establish vegetation with indigenous tree clumps, 320 trees per acre. 1 acre site. | Ac. | \$ 4,072.00 | 15 | \$122.16 | \$458.34 |

| Practice | Code | Description (from Practice Standard) | Typical Installation | Unit | Cost Per Unit | design lifespan | Average Annual Maintenance | Total Average Annual Cost per Unit @ 2.8% |
|--|------|--|---|------|---------------|-----------------|----------------------------|---|
| Land Reclamation, Currently Mined Land | 544 | Restoring currently mined land to an acceptable form and planned use. | Removal of wood and other debris; grade and shape site to address future runoff considerations after covering, etc.; place appropriate soil cap 6" thick and establish basic vegetation. 5 acre site, 6" cover thickness. | Ac. | \$ 14,989.53 | 15 | \$449.69 | \$1,687.21 |
| Land Reclamation, Currently Mined Land | 544 | Restoring currently mined land to an acceptable form and planned use. | Removal of wood and other debris; grade and shape site to address future runoff considerations after covering, etc.; add 1000 cu. yd. cover material to create 80 earth mounds; place appropriate soil cover and establish basic vegetation with tree clumps. 1 acre site. Minimum cover thickness of 6" over whole site. | Ac. | \$ 29,574.06 | 15 | \$887.22 | \$3,328.84 |
| Land Reclamation, Currently Mined Land | 544 | Restoring currently mined land to an acceptable form and planned use. | Establish vegetation with indigenous tree clumps, 320 trees per acre. 1 acre site. | Ac. | \$ 4,072.00 | 15 | \$122.16 | \$458.34 |
| Land Smoothing | 466 | Removing irregularities on the land surface. | small dozer for 4 hr on site with mob and demob works smaller areas within 10 acre field | Ac. | \$ 98.00 | 10 | \$2.94 | \$14.31 |
| Lined Waterway or Outlet | 468 | A waterway or outlet having an erosion-resistant lining of concrete, stone, synthetic turf reinforcement fabrics, or other permanent material. | 12 foot wide X 200 foot long rock lined waterway with 6" d50, 8 oz nonwoven geotextile, seeding and mulching disturbed areas at edge, seeding at edge = rock area | Ft. | \$ 3.93 | 15 | \$0.12 | \$0.44 |
| Lined Waterway or Outlet | 468 | A waterway or outlet having an erosion-resistant lining of concrete, stone, synthetic turf reinforcement fabrics, or other permanent material. | 100 foot X 12 foot turf reinforcement lined waterway without drainage. Seeding, mulching and netting. Seeding = total 2 X TRF area. Grading and shaping | Ft. | \$ 2.67 | 15 | \$0.08 | \$0.30 |
| Lined Waterway or Outlet | 468 | A waterway or outlet having an erosion-resistant lining of concrete, stone, synthetic turf reinforcement fabrics, or other permanent material. | 100 X 12 foot turf reinforcement lined waterway with 4" drain tubing. Seeding, mulching and netting. Seeding = 2X TRF area. Grading and shaping | Ft. | \$ 3.07 | 15 | \$0.09 | \$0.35 |

| Practice | Code | Description (from Practice Standard) | Typical Installation | Unit | Cost Per Unit | design lifespan | Average Annual Maintenance | Total Average Annual Cost per Unit @ 2.8% |
|-----------------------------|------|---|--|------|---------------|-----------------|----------------------------|---|
| Mine Shaft and Adit Closing | 457 | Closure of underground mine opening by filling, plugging, capping, installing barriers, gating, or fencing. | Chain Link Fencing, 8-10 foot height | Ft. | \$ 41.43 | 15 | \$1.24 | \$4.66 |
| Mine Shaft and Adit Closing | 457 | Closure of underground mine opening by filling, plugging, capping, installing barriers, gating, or fencing. | small adit Framed steel plate with door and slot, or grate for openings of 50 sq. ft., excavation at entrance, rock scaling for stability, using BCI bats and mines publication recommendations | No. | \$ 7,910.00 | 15 | \$237.30 | \$890.35 |
| Mine Shaft and Adit Closing | 457 | Closure of underground mine opening by filling, plugging, capping, installing barriers, gating, or fencing. | Adit closure grate for openings of more than 75 sq. feet to 120 sq. ft. excavation at entrance, rock scaling for stability, opening closed using BCI bats and mines publication recommendations | No. | \$ 15,820.00 | 15 | \$474.60 | \$1,780.69 |
| Mine Shaft and Adit Closing | 457 | Closure of underground mine opening by filling, plugging, capping, installing barriers, gating, or fencing. | Adit closure grate for openings of greater than 120 sq. ft. excavation at entrance, rock scaling for stability, opening closed using BCI bats and mines publication recommendations | No. | \$ 23,730.00 | 15 | \$711.90 | \$2,671.04 |
| Mine Shaft and Adit Closing | 457 | Closure of underground mine opening by filling, plugging, capping, installing barriers, gating, or fencing. | Shaft closure using 54" diam steel pipe and cupola. excavation at entrance, rock scaling for stability, opening closed using BCI bats and mines publication recommendations | No. | \$ 16,950.00 | 15 | \$508.50 | \$1,907.88 |
| Mine Shaft and Adit Closing | 457 | Closure of underground mine opening by filling, plugging, capping, installing barriers, gating, or fencing. | Shaft closure using 54" diam steel pipe 30 foot in length or more and cupola. excavation at entrance, difficult site to access, unstable opening requiring extra care to obtain stability, rock scaling for stability, opening closed using BCI bats and mines publication recommendations | No. | \$ 28,250.00 | 15 | \$847.50 | \$3,179.81 |
| Mulching | 484 | Applying plant residues or other suitable materials not produced on the site to the soil surface. | Straw, hay, wood chip, or bark chip mulch hand spread in rows for moisture and weed control. Typical vegetable or small fruit production with material between rows or plastic mulch material on raised beds. | Ac. | \$ 44.06 | 1 | \$1.32 | \$44.06 |

| Practice | Code | Description (from Practice Standard) | Typical Installation | Unit | Cost Per Unit | design lifespan | Average Annual Maintenance | Total Average Annual Cost per Unit @ 2.8% |
|---------------------|------|---|--|------|---------------|-----------------|----------------------------|---|
| Mulching | 484 | Applying plant residues or other suitable materials not produced on the site to the soil surface. | Organic Straw, hay, wood chip, or bark chip mulch hand spread in rows for moisture and weed control. Typical vegetable or small fruit production with material between rows or plastic mulch material on raised beds. | Ac. | \$ 48.56 | 1 | \$1.46 | \$48.56 |
| Mulching | 484 | Applying plant residues or other suitable materials not produced on the site to the soil surface. | Straw, hay, wood chip, or bark chip mulch. Small construction sites where critical area planting is not used, but ground protection is needed to address a soil erosion or runoff resource concern. | Ac. | \$ 21,344.00 | 1 | \$640.32 | \$21,344.00 |
| Mulching | 484 | Applying plant residues or other suitable materials not produced on the site to the soil surface. | Weed barrier fabric squares 36" x 36" installed with 5 sod staples each, around individual trees and shrubs to control weed competition. 305 trees/shrubs per acre on 4-acre planting site (1220 trees/shrubs). Organic. | Ac. | \$ 476.60 | 1 | \$14.30 | \$476.60 |
| Mulching | 484 | Applying plant residues or other suitable materials not produced on the site to the soil surface. | Wood chip or bark chip mulch in 36" diameter circle, 3" deep, around base of individual trees and shrubs (3.5 cu. ft. of mulch/plant) to control weed competition. 305 trees/shrubs per acre on 4-acre planting site (1220 trees/shrubs). Organic. | Ac. | \$ 516.25 | 1 | \$15.49 | \$516.25 |
| Nutrient Management | 590 | Managing the amount, source, placement, form, and timing of the application of nutrients and soil amendments. | Basic Field Crops and Forages (Organic and Non-Organic Production). | Ac. | \$ 8.01 | 1 | \$0.24 | \$8.01 |
| Nutrient Management | 590 | Managing the amount, source, placement, form, and timing of the application of nutrients and soil amendments. | Enhanced Field Crops and Forages (Organic and Non-Organic Production). | Ac. | \$ 24.31 | 1 | \$0.73 | \$24.31 |
| Nutrient Management | 590 | Managing the amount, source, placement, form, and timing of the application of nutrients and soil amendments. | Nitrate Analysis. Field Crops and Forages without manure applications (Organic and Non-Organic Production). | No. | \$ 747.70 | 1 | \$22.43 | \$747.70 |
| Nutrient Management | 590 | Managing the amount, source, placement, form, and timing of the application of nutrients and soil amendments. | Vegetables, Small Fruits and/or other Specialty Crops | Ac. | \$ 34.51 | 1 | \$1.04 | \$34.51 |

| Practice | Code | Description (from Practice Standard) | Typical Installation | Unit | Cost Per Unit | design lifespan | Average Annual Maintenance | Total Average Annual Cost per Unit @ 2.8% |
|---------------------|------|---|--|------|---------------|-----------------|----------------------------|---|
| Nutrient Management | 590 | Managing the amount, source, placement, form, and timing of the application of nutrients and soil amendments. | Enhanced Vegetables, Small Fruits and/or other Specialty Crops | Ac. | \$ 40.85 | 1 | \$1.23 | \$40.85 |
| Nutrient Management | 590 | Managing the amount, source, placement, form, and timing of the application of nutrients and soil amendments. | Tree Fruit and/or Grapes | Ac. | \$ 30.93 | 1 | \$0.93 | \$30.93 |
| Nutrient Management | 590 | Managing the amount, source, placement, form, and timing of the application of nutrients and soil amendments. | Enhanced Tree Fruit and/or Grapes | Ac. | \$ 34.88 | 1 | \$1.05 | \$34.88 |
| Obstruction Removal | 500 | Removal and disposal of unwanted, unsightly, or hazardous buildings, structures, vegetation, landscape features, and other materials. | Mob. & Demob. Plus 70 - 250 HP dozer @ 6 hr per 1/2 acre. On site disposal. | Ac. | \$ 2,223.28 | 10 | \$66.70 | \$324.68 |
| Open Channel | 582 | Constructing or improving a channel, either natural or artificial, in which water flows with a free surface. | Create 2 stage ditch from existing open channel. 1500 ft long, excavation and shaping. Includes seed & mulch of construction site. | Ft. | \$ 11.33 | 15 | \$0.34 | \$1.28 |
| Pipeline | 516 | Pipeline having an inside diameter of 8 inches (203 mm) or less. | Above ground pipeline for livestock water. 1 1/4" pipe at 160 psi, 3,000 ft long with 300 ft of 2" overflow pipe from watering tanks to safe outlet. | Ft. | \$ 1.09 | 20 | \$0.03 | \$0.10 |
| Pipeline | 516 | Pipeline having an inside diameter of 8 inches (203 mm) or less. | Shallow buried pipeline for livestock water. Buried 18" deep. 1 1/4" pipe at 160 psi, 1,800 ft long with 200 ft of 2" overflow pipe from watering tanks to safe outlet.. | Ft. | \$ 1.25 | 20 | \$0.04 | \$0.12 |
| Pipeline | 516 | Pipeline having an inside diameter of 8 inches (203 mm) or less. | Pipeline from plate cooler water tank to reuse endpoint. Gravity flow, 2" pipe at 100psi, 200 ft long. | Ft. | \$ 2.11 | 20 | \$0.06 | \$0.20 |
| Pipeline | 516 | Pipeline having an inside diameter of 8 inches (203 mm) or less. | Pipeline Aquaculture Pond | Ft. | \$ 9.07 | 20 | \$0.27 | \$0.87 |
| Pipeline | 516 | Pipeline having an inside diameter of 8 inches (203 mm) or less. | Pipeline Buried (Year Round Use) | Ft. | \$ 2.66 | 20 | \$0.08 | \$0.26 |

| Practice | Code | Description (from Practice Standard) | Typical Installation | Unit | Cost Per Unit | design lifespan | Average Annual Maintenance | Total Average Annual Cost per Unit @ 2.8% |
|--|------|--|--|--------|---------------|-----------------|----------------------------|---|
| Pond | 378 | A water impoundment made by constructing a dam or an embankment, or by excavating a pit or dugout. | Excavated pond 1/4 acre, 6 foot average depth, with 2 foot high embankment, Rock Chute spillway, shallow core trench, seeding and mulching | No. | \$ 9,947.00 | 20 | \$298.41 | \$954.70 |
| Pond | 378 | A water impoundment made by constructing a dam or an embankment, or by excavating a pit or dugout. | Embankment pond with 12 in diameter principal spillway, 18 inch riser w/ anti swirl baffle, 2500 cubic yard, 15 foot tall earthfill and excavation, 10 foot top width, shallow core trench, sand filter diaphragm, seeding and mulching | No. | \$ 11,197.00 | 20 | \$335.91 | \$1,074.68 |
| Pond Sealing or Lining - Bentonite Treatment | 521C | A liner for a pond or waste impoundment consisting of a compacted soil-bentonite mixture. | Aquaculture pond line only. Bentonite treatment. 25,000 sq.ft. pond top dimensions surface area. 6 foot average water depth. Silty sand soils. Use existing outlet structure and harvest kettle. 1 foot of earthfill compacted over bentonite layer. reline pond after empty and cleaned out post harvest. | No. | \$ 19,755.00 | 15 | \$592.65 | \$2,223.61 |
| Pond Sealing or Lining - Flexible Membrane | 521A | A manufactured hydraulic barrier consisting of a functionally continuous sheet of synthetic or partially synthetic, flexible material. | 43,560 sq.ft. (two-0.5 ac) pond top dimensions surface area. 45 mil LLDPE liner. 8 oz. nonwoven geotextile installed under the liner for protection. A gas venting system installed consisting of 12" wide J-Drain on 50 ft spacing in both directions. | Sq Ft. | \$ 1.65 | 20 | \$0.05 | \$0.16 |
| Pond Sealing or Lining - Soil Dispersant | 521B | A liner for a pond or waste impoundment consisting of a compacted soil-dispersant mixture. | Aquacultural pond relining. Soil Dispersant (soda ash) treatment. 25,000 sq.ft. pond top dimensions surface area. 6 foot average water depth. Silty sand soils. Use existing outlet structure and harvest kettle. | No. | \$ 4,750.00 | 20 | \$142.50 | \$455.90 |
| Prescribed Burning | 338 | Apply controlled fire to predetermined area. | Small Prescribed burning on 15 acres of grassland or forestland to control undesirable plants, reduce wildfire risk by removing fuel, and encourage regeneration of desirable plants. Crew of approx. 5 people. Burn approx. 5 hours. | Ac. | \$ 749.75 | 1 | \$22.49 | \$749.75 |

| Practice | Code | Description (from Practice Standard) | Typical Installation | Unit | Cost Per Unit | design lifespan | Average Annual Maintenance | Total Average Annual Cost per Unit @ 2.8% |
|-------------------------------------|------|---|--|------|---------------|-----------------|----------------------------|---|
| Prescribed Burning | 338 | Apply controlled fire to predetermined area. | Large Prescribed burning on 30 acres of grassland or forestland to control undesirable plants, reduce wildfire risk by removing fuel, and encourage regeneration of desirable plants. Crew of approximately 7 people. Burn approx 6 hours. | Ac. | \$ 1,274.53 | 1 | \$38.24 | \$1,274.53 |
| Prescribed Grazing | 528 | Managing the controlled harvest of vegetation with grazing animals. | Prescribed grazing and/or browsing to harvest vegetation to improve species composition and vigor over extensive grazing. | Ac. | \$ 65.64 | 1 | \$1.97 | \$65.64 |
| Prescribed Grazing | 528 | Managing the controlled harvest of vegetation with grazing animals. | Prescribed grazing and/or browsing to harvest vegetation to improve or maintain quantity and quality of forage when changing from confinement to grazing. | Ac. | \$ 86.64 | 1 | \$2.60 | \$86.64 |
| Pumping Plant | 533 | A pumping facility installed to transfer water for a conservation need. | 10 HP diesel with 4" output, electric start. Pipeline contracted separately. | No. | \$ 3,300.00 | 15 | \$99.00 | \$371.45 |
| Pumping Plant | 533 | A pumping facility installed to transfer water for a conservation need. | Add variable frequency drive to existing irrigation pump electric motor or to new electric motor that is replacing a diesel pump motor. | No. | \$ 20,000.00 | 15 | \$600.00 | \$2,251.19 |
| Pumping Plant | 533 | A pumping facility installed to transfer water for a conservation need. | 10 HP diesel with 4" output, electric start for aquacultural pond. Pipeline contracted separately | No. | \$ 6,800.00 | 15 | \$204.00 | \$765.40 |
| Recreation Land Grading and Shaping | 566 | Reshaping the surface of the land to support recreational land use. | Dozer with Mob. & DeMob for 8 hr day | day | \$ 1,027.00 | 15 | \$30.81 | \$115.60 |
| Residue Management, Mulch-Till | 345 | Managing the amount, orientation, and distribution of crop and other plant residue on the soil surface year-round, while limiting the soil-disturbing activities used to grow crops in systems where the field surface is tilled prior to planting. | Gathering data on residue cover, analysis of data and crop rotations and keeping records of residue management. | Ac. | \$ 12.20 | 1 | \$0.37 | \$12.20 |

| Practice | Code | Description (from Practice Standard) | Typical Installation | Unit | Cost Per Unit | design lifespan | Average Annual Maintenance | Total Average Annual Cost per Unit @ 2.8% |
|--|------|--|---|------|---------------|-----------------|----------------------------|---|
| Residue Management, No-Till/Strip Till/Direct Seed | 329 | Managing the amount, orientation, and distribution of crop and other plant residue on the soil surface year-round, while growing crops in previously untilled soil or residue. | No-Till Drill/Planter rental rate plus mobilization | Ac. | \$ 16.68 | 1 | \$0.50 | \$16.68 |
| Residue Management, Ridge Till | 346 | Managing the amount, orientation, and distribution of crop residue and other plant residues on the soil surface year-round, while growing crops on preformed ridges alternated with furrows protected by crop residue. | Gathering data on residue cover, analysis of data and crop rotations and keeping records of residue management. Use on farm equipment to do ridge tillage. | Ac. | \$ 23.40 | 1 | \$0.70 | \$23.40 |
| Residue Management, Seasonal | 344 | Managing the amount, orientation, and distribution of crop and other plant residues on the soil surface during part of the year, while growing crops in a clean tilled seedbed. | Gathering data on residue cover, analysis of data and crop rotations and keeping records of residue management. | Ac. | \$ 12.20 | 1 | \$0.37 | \$12.20 |
| Restoration and Management of Declining Habitats | 643 | Restoring and conserving rare or declining native vegetative communities and associated wildlife species to conserve biodiversity. | Includes site preparation to prepare for prairie seeding. This includes one pass with a chisel plow, two passes with a disk and two passes with a cultipacker to prepare the seed bed. Chemical and mechanical treatments for weed control are not included here and should be included under supporting practice 315. Mesic Tallgrass Prairie Seed mixture of Michigan genotype with 5 lb of 7 native warm season grasses and 3 lbs of 27 forbs wildflower mixture per acre. | Ac. | \$ 1,081.65 | 15 | \$32.45 | \$121.75 |

| Practice | Code | Description (from Practice Standard) | Typical Installation | Unit | Cost Per Unit | design lifespan | Average Annual Maintenance | Total Average Annual Cost per Unit @ 2.8% |
|--|------|--|---|------|---------------|-----------------|----------------------------|---|
| Restoration and Management of Declining Habitats | 643 | Restoring and conserving rare or declining native vegetative communities and associated wildlife species to conserve biodiversity. | Restoration of oak savanna which includes tall grass prairie establishment on the entire acreage plus oak trees and shrubs planted in clumps on approximately 25% of the area. Includes site preparation consisting of one pass with a chisel plow, two passes with a disk and two passes with a cultipacker to prepare seed bed. Chemical and mechanical treatments for weed control are not included here and should be included under supporting practice 315. Plant 20 trees and 5 shrubs in a clump at 5 clumps per acre. Spacing for trees and shrubs will be between 12' x 12' and 16' x 16'. Includes dry short grass prairie mix with grasses and forbs suited to restoration. | Ac. | \$ 1,332.59 | 15 | \$39.98 | \$150.00 |

| Practice | Code | Description (from Practice Standard) | Typical Installation | Unit | Cost Per Unit | design lifespan | Average Annual Maintenance | Total Average Annual Cost per Unit @ 2.8% |
|--|------|---|---|------|---------------|-----------------|----------------------------|---|
| Restoration and Management of Declining Habitats | 643 | Restoring and conserving rare or declining native vegetative communities and associated wildlife species to conserve biodiversity. | Restoration of oak savanna which includes tall grass prairie establishment on the entire acreage plus oak trees and shrubs planted in clumps on approximately 25% of the area. Includes site preparation consisting of one pass with a chisel plow, two passes with a disk and two passes with a cultipacker to prepare seed bed. Chemical and mechanical treatments for weed control are not included here and should be included under supporting practice 315. Plant 20 trees and 5 shrubs in a clump at 5 clumps per acre. Spacing for trees and shrubs will be between 12' x 12' and 16' x 16'. A total of 100 oaks will be planted per acre. Shelters are placed on the oaks to protect seedlings from deer browse damage, and help ensure tree seedling survival. Includes dry short grass prairie mix with grasses and forbs suited to restoration. | Ac. | \$ 1,769.26 | 15 | \$53.08 | \$199.15 |
| Riparian Forest Buffer | 391 | An area of predominantly trees and/or shrubs located adjacent to and up-gradient from watercourses or water bodies. | Trees and shrubs planting. 5 rows of lg hardwoods with 12' spacing and 80% with tree protectors. 2 rows of med. trees @ 10' spacing. 2 row of shrubs @ 8' spacing. 104 ft wide (including 20' upgradient buffer) x 1210 ft long. | Ac. | \$ 1,276.64 | 15 | \$38.30 | \$143.70 |
| Riparian Herbaceous Cover | 390 | Riparian herbaceous cover is an area of grass or grass-like plants and forbs that are tolerant of intermittent flooding or saturated soils and that are established or managed in the transitional zone between terrestrial and aquatic habitats. | Introduced / cool season cover. | Ac. | \$ 324.16 | 5 | \$9.72 | \$80.10 |

| Practice | Code | Description (from Practice Standard) | Typical Installation | Unit | Cost Per Unit | design lifespan | Average Annual Maintenance | Total Average Annual Cost per Unit @ 2.8% |
|--|------|---|---|---------|---------------|-----------------|----------------------------|---|
| Riparian Herbaceous Cover | 390 | Riparian herbaceous cover is an area of grass or grass-like plants and forbs that are tolerant of intermittent flooding or saturated soils and that are established or managed in the transitional zone between terrestrial and aquatic habitats. | native planting / warm season cover. | Ac. | \$ 434.50 | 5 | \$13.04 | \$107.37 |
| Road/Trail/Landing Closure and Treatment | 654 | The closure, decommissioning, or abandonment of roads, trails, and/or landings and associated treatment to achieve conservation objectives. | 4 hr work by each a dozer and backhoe with mob and demob shape site with on-site soils to prepare site for natural regeneration of forest vegetation and block access and use. | each | \$ 1,240.00 | 10 | \$37.20 | \$181.09 |
| Roof Runoff Structure | 558 | A facility for collecting, controlling, and disposing of runoff water from roofs. | Roof Runoff Structure with gutter cross section of 24 or more sq inches by feet of gutter. Includes downspouts. | Ft. | \$ 13.05 | 15 | \$0.39 | \$1.47 |
| Roof Runoff Structure | 558 | A facility for collecting, controlling, and disposing of runoff water from roofs. | Gutters and downspouts less than 24 sq in. of gutter cross section. Gutter & downspouts or other measures, 120 ft roof gutters with 4 downspouts that empty onto the ground surface or into an underground outlet. | Ft. | \$ 12.60 | 15 | \$0.38 | \$1.42 |
| Roof Runoff Structure | 558 | A facility for collecting, controlling, and disposing of runoff water from roofs. | French drain is 2' x 2' trench with geotextile, 4" tile, 80 ft long. | Ft. | \$ 21.75 | 15 | \$0.65 | \$2.45 |
| Roofs and Covers | 367 | A fabricated rigid, semi-rigid, or flexible membrane over a waste treatment or storage facility. | flexible membrane cover material | Sq. Ft. | \$ 2.04 | 15 | \$0.06 | \$0.23 |
| Roofs and Covers | 367 | A fabricated rigid, semi-rigid, or flexible membrane over a waste treatment or storage facility. | Hoop Roof Structure with fabric cover for Dry Stacking Waste Storage Facilities. Typical size is 58' x 70' over a typical 50' x 70' dry stacking facility with modular block walls. Roof to be measured by sq ft of facility footprint. | Sq. Ft. | \$ 4.81 | 15 | \$0.14 | \$0.54 |

| Practice | Code | Description (from Practice Standard) | Typical Installation | Unit | Cost Per Unit | design lifespan | Average Annual Maintenance | Total Average Annual Cost per Unit @ 2.8% |
|--|------|---|---|---------|---------------|-----------------|----------------------------|---|
| Roofs and Covers | 367 | A fabricated rigid, semi-rigid, or flexible membrane over a waste treatment or storage facility. | Rigid Roof structure. By sq ft of facility footprint | Sq. Ft. | \$ 9.89 | 15 | \$0.30 | \$1.11 |
| Seasonal High Tunnel System for Crops | 798 | A seasonal polyethylene covered structure with no electrical, heating, and/or mechanical ventilation systems that is used to cover crops to extend the growing season in an environmentally sound manner. | seasonal movable high tunnel from supplier covers. 30x96 of vegetable crop field. Without electrical, heat, ventilation, etc. as per standard. Not a hoop house/ greenhouse. Headquarters or cropland setting use to extend growing season. | Sq. Ft. | \$ 2.98 | 4 | \$0.09 | \$0.89 |
| Sediment Basin | 350 | A basin constructed to collect and store debris or sediment. | Excavated sediment basin - may have up to 1/2 excavated material used in fill. Seeding and mulching, corrugated plastic pipe outlet, assume 500 cu yd | No. | \$ 3,145.00 | 20 | \$94.35 | \$301.85 |
| Sediment Basin | 350 | A basin constructed to collect and store debris or sediment. | Earthfill sediment basin Grading and shaping, Seeding and mulching, corrugated 8" pipe outlet with 12" riser, assume 300 cu yd fill | No. | \$ 2,488.00 | 20 | \$74.64 | \$238.80 |
| Shallow Water Development and Management | 646 | The inundation of land to provide habitat for fish and/or wildlife. | Shallow Water development, push out and locate spoil on site to create 18" water. Small site where hydrology and topography facilitate shallow water for wildlife habitat and feeding. | Ac. | \$ 1,198.00 | 5 | \$35.94 | \$296.04 |

| Practice | Code | Description (from Practice Standard) | Typical Installation | Unit | Cost Per Unit | design lifespan | Average Annual Maintenance | Total Average Annual Cost per Unit @ 2.8% |
|---|------|---|---|------|---------------|-----------------|----------------------------|---|
| Solid/Liquid Waste Separation Facility | 632 | A filtration or screening device, settling tank, settling basin, or settling channel used to separate a portion of solids from a liquid waste stream. | Typical setting is headquarters on a dairy Farm with sand bedding. Typical 16ft wide by 200 ft long concrete lane on a 0.25% slope with 2 ft walls on 1 side, 4 ft head wall at inlet. Includes concrete apron for the sand recover area. Used to address a nutrient management resource concern. Construction includes 4" compacted sand under 2 ft wall and footer, sand lane and 4ft inlet footer/ wall, and solid recovery area- installed; concrete for the 5" plain concrete settling lane, 14 ft x 200 ft installed, 4 ft wall at inlet to settling lane, 4 ft reinforced concrete wall on 3 sides at the inlet to the settling lane, and plain concrete ramp from settling lane and solid recovery area, 80 ft x 200 ft, and a reinforced concrete wall on 1-side of sand lane, 2 ft reinforced concrete on 1side, 3 ft footer backfilled- installed. | No. | \$ 89,625.56 | 15 | \$2,688.77 | \$10,088.21 |
| Spring Development | 574 | Utilizing springs and seeps to provide water for conservation need. | Spring development with an interceptor tile with a collection trench cross slope to catch seep with restrictive barrier downstream and spring box. Include discharge pipe to safe outlet. Contract 516, Pipeline and 614, Watering Facility separately. | No. | \$ 3,501.40 | 20 | \$105.04 | \$336.06 |
| Stream Crossing | 578 | A stabilized area or structure constructed across a stream to provide a travel-way for people, livestock, equipment, or vehicles. | Aggregate is 20 feet wide by 100 feet long, 1ft. depth. Geotextile under aggregate. Includes fence or other confinement measures to control livestock travel. | No. | \$ 5,486.56 | 10 | \$164.60 | \$801.24 |
| Stream Habitat Improvement and Management | 395 | Maintain, improve, or restore the physical, chemical, and biological functions of a stream. | Root wad and gravel bar placement to provide aquatic habitat and provide channel morphology for desired species. | Ac. | \$ 41,700.00 | 5 | \$1,251.00 | \$10,304.45 |

| Practice | Code | Description (from Practice Standard) | Typical Installation | Unit | Cost Per Unit | design lifespan | Average Annual Maintenance | Total Average Annual Cost per Unit @ 2.8% |
|---|------|--|---|------|---------------|-----------------|----------------------------|---|
| Stream Habitat Improvement and Management | 395 | Maintain, improve, or restore the physical, chemical, and biological functions of a stream. | Rock placement to provide aquatic habitat and provide channel morphology for desired species. | Ac. | \$ 23,052.00 | 5 | \$691.56 | \$5,696.36 |
| Streambank and Shoreline Protection | 580 | Treatment(s) used to stabilize and protect banks of streams or constructed channels, and shorelines of lakes, reservoirs, or estuaries. | Wave and ice protection. Riprap D50 = 6 inch angular rock. With geotextile. 4H:1V shore slope. 4 feet vertical protection. 250 lin. Feet | Ft. | \$ 77.00 | 20 | \$2.31 | \$7.39 |
| Stripcropping | 585 | Growing row crops, forages, small grains, or fallow in a systematic arrangement of equal width strips across a field. | measurement and alignment of tillage and planting operations to follow the designed strip layout. Documentation of practice implementation. Typical 20 acre field. | Ac. | \$ 4.07 | 5 | \$0.12 | \$1.01 |
| Structure for Water Control | 587 | A structure in a water management system that conveys water, controls the direction or rate of flow, maintains a desired water surface elevation, or measures water. | 70 feet of 15-inch dia plastic pipe, Agridrain in-line water control structure 6 foot tall, D50 = 6-inch riprap at inlet and outlet, rodent guard. | No. | \$ 4,585.51 | 20 | \$137.57 | \$440.11 |
| Structure for Water Control | 587 | A structure in a water management system that conveys water, controls the direction or rate of flow, maintains a desired water surface elevation, or measures water. | Drainage water management water level control structure on an 8" tile, 6' high in a nearly flat 80 acre tile-drained crop field. 20 feet of solid pipe are installed. | No. | \$ 1,284.35 | 20 | \$38.53 | \$123.27 |
| Structure for Water Control | 587 | A structure in a water management system that conveys water, controls the direction or rate of flow, maintains a desired water surface elevation, or measures water. | Rock Chute Riprap D50 = 6 inch, geotextile, seeding and mulching edges, shaping, 12' X 50'. | No. | \$ 3,855.50 | 20 | \$115.67 | \$370.05 |
| Structure for Water Control | 587 | A structure in a water management system that conveys water, controls the direction or rate of flow, maintains a desired water surface elevation, or measures water. | Prefabricated in-line water control structure for water table management: 10 feet of 12-inch dia CPT dual-wall pipe, Agridrain in-line water control structure 6 foot tall. | No. | \$ 1,347.00 | 20 | \$40.41 | \$129.28 |
| Subsurface Drain | 606 | A conduit, such as corrugated plastic tubing, tile, or pipe, installed beneath the ground surface to collect and/or convey drainage water. | | Ft. | | 20 | \$0.00 | \$0.00 |

| Practice | Code | Description (from Practice Standard) | Typical Installation | Unit | Cost Per Unit | design lifespan | Average Annual Maintenance | Total Average Annual Cost per Unit @ 2.8% |
|-----------------------------------|------|---|---|------|---------------|-----------------|----------------------------|---|
| Surface Drainage, Field Ditch | 607 | A graded ditch for collecting excess water in a field. | | Ft. | | 15 | \$0.00 | \$0.00 |
| Surface Drainage, Main or Lateral | 608 | An open drainage ditch constructed to a designed size and grade. | | Ft. | | 15 | \$0.00 | \$0.00 |
| Terrace | 600 | An earth embankment, or a combination ridge and channel, constructed across the field slope. | | Ft. | \$ 12.00 | 10 | \$0.36 | \$1.75 |
| Trails and Walkways | 568 | A pathway for pedestrian, equestrian, bicycle, and other off-road modes of travel through or to recreation resources. | | Ft. | | 15 | \$0.00 | \$0.00 |
| Tree/Shrub Establishment | 612 | Establishing woody plants by planting seedlings, container/potted stock, cuttings, direct seeding, or natural regeneration. | Planting hardwood, conifer and shrub mix at 12' x 12' spacing (302 plants per acre) on 4 acres to develop renewable energy systems, improve wildlife habitat, and restore a natural plant community. Planting consists of red oak, red pine, and mixed shrub mix. 50% hardwoods, 25% pine, 25% shrubs. Organic. | Ac. | \$ 492.50 | 15 | \$14.78 | \$55.44 |
| Tree/Shrub Establishment | 612 | Establishing woody plants by planting seedlings, container/potted stock, cuttings, direct seeding, or natural regeneration. | Planting hardwood, conifer and shrub mix at 12' x 12' spacing (302 plants per acre) on 4 acres to develop renewable energy systems, improve wildlife habitat, and restore a natural plant community. Planting consists of red oak, red pine, and mixed shrub mix. 50% hardwoods, 25% pine, 25% shrubs. Organic. Shelters are placed on the hardwoods. Shelters installed to protect seedlings from deer browse damage, and help ensure tree seedling survival | Ac. | \$ 1,197.15 | 15 | \$35.91 | \$134.75 |

| Practice | Code | Description (from Practice Standard) | Typical Installation | Unit | Cost Per Unit | design lifespan | Average Annual Maintenance | Total Average Annual Cost per Unit @ 2.8% |
|-----------------------------|------|---|--|------|---------------|-----------------|----------------------------|---|
| Tree/Shrub Establishment | 612 | Establishing woody plants by planting seedlings, container/potted stock, cuttings, direct seeding, or natural regeneration. | Supplemental under planting on 4 acres of understocked hardwood stand to develop renewable energy systems, improve wildlife habitat, and restore a natural plant community. Add new desirable species and/or increase stand density. 200 added trees/shrubs per acre, 75% hardwoods, 25% shrubs. Organic. | Ac. | \$ 301.86 | 15 | \$9.06 | \$33.98 |
| Tree/Shrub Establishment | 612 | Establishing woody plants by planting seedlings, container/potted stock, cuttings, direct seeding, or natural regeneration. | Supplemental under planting on 4 acres of understocked hardwood stand to develop renewable energy systems, improve wildlife habitat, and restore a natural plant community. Add new desirable species and/or increase stand density. 200 added trees/shrubs per acre, 75% hardwoods, 25% shrubs. Organic. | Ac. | \$ 1,002.61 | 15 | \$30.08 | \$112.85 |
| Tree/Shrub Pruning | 660 | Removing all or parts of selected branches or leaders from trees and shrubs. | | Ac. | | 10 | \$0.00 | \$0.00 |
| Tree/Shrub Site Preparation | 490 | Treating acres to improve site conditions for establishing a forest. | In areas with dense sod, or other dense, aggressive vegetation, use both tillage and herbicide for tree/shrub site preparation. Apply both to the entire planning unit. Multiple tillage passes and herbicide applications may be necessary. Cultipack to create a smooth, firm planting bed, prior to planting. | Ac. | \$ 66.60 | 1 | \$2.00 | \$66.60 |
| Tree/Shrub Site Preparation | 490 | Treating acres to improve site conditions for establishing a forest. | Herbicide site preparation, in 36" wide bands on land with slight to moderate herbaceous or grass cover (e.g., recently farmed or tilled). Bands are spaced every 10', centered on tree rows, such that herbicide is applied to 30% of total acreage. | Ac. | \$ 28.55 | 1 | \$0.86 | \$28.55 |

| Practice | Code | Description (from Practice Standard) | Typical Installation | Unit | Cost Per Unit | design lifespan | Average Annual Maintenance | Total Average Annual Cost per Unit @ 2.8% |
|------------------------------------|------|--|--|------|---------------|-----------------|----------------------------|---|
| Tree/Shrub Site Preparation | 490 | Treating acres to improve site conditions for establishing a forest. | Tillage site preparation on land with slight to moderate herbaceous or grass cover (e.g., recently farmed or tilled). Multiple passes may be required. Cultipack to create smooth, firm planting bed prior to planting. Organic. | Ac. | \$ 38.05 | 1 | \$1.14 | \$38.05 |
| Underground Outlet | 620 | A conduit installed beneath the surface of the ground to collect surface water and convey it to a suitable outlet. | 8-inch diameter CPT, single-wall pipe; 250 lin. feet; backhoe excavated trench | Ft. | \$ 5.29 | 20 | \$0.16 | \$0.51 |
| Underground Outlet | 620 | A conduit installed beneath the surface of the ground to collect surface water and convey it to a suitable outlet. | 8-inch diameter CPT, single-wall pipe; 1,000 lin. feet; tiling machine installation. | Ft. | \$ 4.03 | 20 | \$0.12 | \$0.39 |
| Underground Outlet | 620 | A conduit installed beneath the surface of the ground to collect surface water and convey it to a suitable outlet. | 10-inch diameter CPT, dual-wall pipe; 250 lin. feet; backhoe excavated trench | Ft. | \$ 8.23 | 20 | \$0.25 | \$0.79 |
| Underground Outlet | 620 | A conduit installed beneath the surface of the ground to collect surface water and convey it to a suitable outlet. | Pipe underground 12-inch diameter CMP; 20 lin. feet; backhoe excavated trench; D50 = 4-inch rock rip rap at outlet; 3 sites per field | Ft. | \$ 640.00 | 20 | \$19.20 | \$61.43 |
| Upland Wildlife Habitat Management | 645 | Provide and manage upland habitats and connectivity within the landscape for wildlife. | add bee tubes where natural habitat is inadequate for habitat. Add 2 bundles of 20-25 per acre. | Ac. | \$ 50.42 | 1 | \$1.51 | \$50.42 |
| Upland Wildlife Habitat Management | 645 | Provide and manage upland habitats and connectivity within the landscape for wildlife. | Construct brush piles as per NRCS Biology Technical Note #18 | Ac. | \$ 27.78 | 1 | \$0.83 | \$27.78 |
| Upland Wildlife Habitat Management | 645 | Provide and manage upland habitats and connectivity within the landscape for wildlife. | Large Bird Boxes | Each | \$ 78.52 | 1 | \$2.36 | \$78.52 |
| Upland Wildlife Habitat Management | 645 | Provide and manage upland habitats and connectivity within the landscape for wildlife. | Add small bird boxes plus mounting pole and associated hardware for tree swallow, house wren, bluebird, etc. at 2 boxes per 4 acres. | Each | \$ 48.89 | 1 | \$1.47 | \$48.89 |

| Practice | Code | Description (from Practice Standard) | Typical Installation | Unit | Cost Per Unit | design lifespan | Average Annual Maintenance | Total Average Annual Cost per Unit @ 2.8% |
|------------------------------------|------|---|---|------|---------------|-----------------|----------------------------|---|
| Upland Wildlife Habitat Management | 645 | Provide and manage upland habitats and connectivity within the landscape for wildlife. | add bat boxes, mounting post and associated hardware at 2 per acre where natural habitat is inadequate. | Ac. | \$ 168.52 | 1 | \$5.06 | \$168.52 |
| Upland Wildlife Habitat Management | 645 | Provide and manage upland habitats and connectivity within the landscape for wildlife. | Baiting and Monitoring Feral Swine Traps | each | \$ 246.00 | 1 | \$7.38 | \$246.00 |
| Upland Wildlife Habitat Management | 645 | Provide and manage upland habitats and connectivity within the landscape for wildlife. | Feral Swine Scouting | each | \$ 871.00 | 1 | \$26.13 | \$871.00 |
| Vegetated Treatment Area | 635 | A treatment component of an agricultural waste management system consisting of a strip or area of herbaceous vegetation. | 0.5 ac. contributing area. Grass channel 40 ft wide, 300 ft long (12,000 s.f.) with 1.5 ft x 2 ft. rock checks every 100 ft. Concrete collection system 60' x 25' with 2 ft walls on 3 sides with slots on one side and a 10H:1V interior clean-out ramp on one side. No outlet storage area. | Ac. | \$ 30,729.00 | 10 | \$921.87 | \$4,487.57 |
| Vegetative Barrier | 601 | Permanent strips of stiff, dense vegetation along the general contour of slopes or across concentrated flow areas. | Vegetative barrier with plugs and transplants in center section and seeding at ends. Three rows spaced across the field. Plugs at 3" spacing for 400 plants per 100' of strip plus seeding at ends | Ft. | \$ 4.37 | 5 | \$0.13 | \$1.08 |
| Waste Facility Closure | 360 | The closure of waste impoundments (treatment lagoons and liquid storage facilities), that are no longer used for their intended purpose, in an environmentally-safe manner. | Embankment or excavated waste impoundments - After manure has been removed using Nutrient Management or Waste Utilization. Removal of residual waste, backfill of impoundment with leveling and seeding. Includes removal of embankment (or fill to bank grade), and shaping. Approx size 110' x 100', 6 feet deep with 4 foot berms. | No. | \$ 3,967.00 | 15 | \$119.01 | \$446.52 |

| Practice | Code | Description (from Practice Standard) | Typical Installation | Unit | Cost Per Unit | design lifespan | Average Annual Maintenance | Total Average Annual Cost per Unit @ 2.8% |
|------------------------|------|---|---|------|---------------|-----------------|----------------------------|---|
| Waste Facility Closure | 360 | The closure of waste impoundments (treatment lagoons and liquid storage facilities), that are no longer used for their intended purpose, in an environmentally-safe manner. | Embankment or excavated waste impoundments - After manure has been removed using Nutrient Management or Waste Utilization. Removal of residual waste, backfill of impoundment. Includes removal of embankment (or fill to bank grade), and shaping. Reception pit structure - After the removal of manure using Nutrient Management or Waste Utilization. Removal of residual waste, removal of materials, fill hole in with sand. Stabilization of site. Reception pit 10x10x6, and decommission of outlet pipe. | No. | \$ 867.00 | 15 | \$26.01 | \$97.59 |
| Waste Recycling | 633 | Using agricultural wastes such as manure and wastewater or other organic residues. | Management of Anaerobic Digester to utilize waste in an energy efficient manner. Based on a controlled temperature digester. 800 AU total on farm with raised replacements. Liquid manure system. | No. | \$ 2,114.84 | 1 | \$63.45 | \$2,114.84 |
| Waste Storage Facility | 313 | A waste storage impoundment made by constructing an embankment and/or excavating a pit or dugout, or by fabricating a structure. | Dry Stacking Facility without roof Typical is based on 50 A.U. beef cow operation with bedding 50' X70' with 4 ft walls, stacked 6ft. | No. | \$ 22,757.00 | 15 | \$682.71 | \$2,561.52 |
| Waste Storage Facility | 313 | A waste storage impoundment made by constructing an embankment and/or excavating a pit or dugout, or by fabricating a structure. | Excavated and Lined Liquid Storage pit (no roof). Volume based on AWM output report, Structural Volume. Typical is a LLDPE Membrane liner 250'x150' with 26,000 sq ft liner. 12' deep with geocomposite drainage/venting system on side slopes and bottom. Includes a concrete bottom, concrete ramp, 1:1 push off, 100 ft long with safety cable. | No. | \$ 173,394.00 | 15 | \$5,201.82 | \$19,517.14 |

| Practice | Code | Description (from Practice Standard) | Typical Installation | Unit | Cost Per Unit | design lifespan | Average Annual Maintenance | Total Average Annual Cost per Unit @ 2.8% |
|------------------------|------|--|--|------|---------------|-----------------|----------------------------|---|
| Waste Storage Facility | 313 | A waste storage impoundment made by constructing an embankment and/or excavating a pit or dugout, or by fabricating a structure. | Prefabricated or cast in place reinforced concrete panel/tank under barn, based on AWM output report, Structural Volume. Typical is ADL tank with slats that is 40'x120'x10' deep built 8 ft into the ground. Structural Volume is 48,000 cu ft. Includes concrete slats on top of structure and columns for slat support. | No. | \$ 173,656.00 | 15 | \$5,209.68 | \$19,546.63 |
| Waste Storage Facility | 313 | A waste storage impoundment made by constructing an embankment and/or excavating a pit or dugout, or by fabricating a structure. | Relining of existing excavated storage pond. Volume based on AWM output report, Structural Volume. Typical is relining with 5" concrete on side slopes. Typical size is 100' x 200' x 10' top dimensions. Assuming existing concrete bottom and concrete ramp. | No. | \$ 68,565.00 | 15 | \$2,056.95 | \$7,717.64 |
| Waste Storage Facility | 313 | A waste storage impoundment made by constructing an embankment and/or excavating a pit or dugout, or by fabricating a structure. | Above Ground Fabricated Liquid Manure Storage Structure. Volume based on AWM output report, Structural Volume. Typical is a Slurrystore or large concrete tank. Based on 100,000 cu.ft. storage (81' dia. x 19' high). Concrete foundation and steel walls are included. | No. | \$ 225,164.00 | 15 | \$6,754.92 | \$25,344.34 |
| Waste Transfer | 634 | A manure conveyance system using structures, conducts, or equipment. | Convey manure to storage. 8 ft x 20 ft x 8 ft reinforced concrete tank with 100 feet of 30" smooth walled pipe. | No. | \$ 18,632.52 | 15 | \$558.98 | \$2,097.27 |
| Waste Transfer | 634 | A manure conveyance system using structures, conducts, or equipment. | Convey manure to storage. 14 ft x 14 ft x 8 ft reinforced tank with centrifugal pump, 100 feet of 8" PVC discharge pipe. | No. | \$ 49,221.88 | 15 | \$1,476.66 | \$5,540.39 |

| Practice | Code | Description (from Practice Standard) | Typical Installation | Unit | Cost Per Unit | design lifespan | Average Annual Maintenance | Total Average Annual Cost per Unit @ 2.8% |
|----------------|------|--|---|------|---------------|-----------------|----------------------------|---|
| Waste Transfer | 634 | A manure conveyance system using structures, conducts, or equipment. | Conveyor belt system consisting of 3 conveyors. 50 ft collection conveyor to a 10 ft x 10 ft lean-to with a concrete floor and metal walls on the outside of the animal housing building to a 100 ft long vertical lift conveyor that drops to a 100 ft long plow off conveyor in the manure storage facility for stacking of litter. | No. | \$ 21,930.00 | 15 | \$657.90 | \$2,468.43 |
| Waste Transfer | 634 | A manure conveyance system using structures, conducts, or equipment. | Trapezoid channel, plain concrete 5 in. thick with 4 in. compacted sand. 100 ft long, 8 ft bottom, 5" depth. 10H:1V side slope so can cross with vehicle. | No. | \$ 6,185.46 | 15 | \$185.56 | \$696.23 |
| Waste Transfer | 634 | A manure conveyance system using structures, conducts, or equipment. | 20 ft x 20 ft x 3ft walls ramped concrete settling basin with 2 ft reinforced divider wall in center of basin. Runoff fills one cell and then flows around end into second cell of settling basin. 6" PVC pipe 50 ft. from second settling basin cell to 2000 gallon septic tank/pump chamber with sewage pump set with floats and an alarm panel. Runoff is pumped into a 2" discharge pipe 150 ft. to the waste storage facility. Detention basin is constructed adjacent to second cell of settling basin with a 4 ft wide weir for outflow. The detention basin is concrete lined circular in shape 90 ft diameter, 2 ft deep (12,723 cu.ft capacity) with a 36" catch basin to a 6" PVC pipe 300 ft. gravity flow to 2000 gallon septic tank/pump chamber. | No. | \$ 36,729.90 | 15 | \$1,101.90 | \$4,134.30 |

| Practice | Code | Description (from Practice Standard) | Typical Installation | Unit | Cost Per Unit | design lifespan | Average Annual Maintenance | Total Average Annual Cost per Unit @ 2.8% |
|---|------|---|--|------|---------------|-----------------|----------------------------|---|
| Waste Transfer | 634 | A manure conveyance system using structures, conducts, or equipment. | 20 ft x 20 ft x 3 ft walls ramped concrete settling basin with 2 ft reinforced divider wall in center of basin. Runoff fills one cell and then flows around the end into second cell of settling basin. A 12" smooth walled pipe from second settling basin cell to the waste storage facility 100 ft long. Detention basin is constructed adjacent to second cell of settling basin with a 4 ft wide weir for outflow. The detention basin is concrete lined circular in shape, 90 ft diameter, 2 ft deep (12,723 cu.ft. capacity) with a 36" catch basin to a 10" smooth walled pipe to the waste storage facility, 150 ft long. | No. | \$ 31,834.40 | 15 | \$955.03 | \$3,583.26 |
| Waste Transfer | 634 | A manure conveyance system using structures, conducts, or equipment. | Milk house plate cooler waste water reuse system. System includes pipeline and pump from plate cooler to water holding tank. Variable speed pump with plate cooler with 900 gallons per hour capacity. | No. | \$ 3,071.90 | 15 | \$92.16 | \$345.77 |
| Water and Sediment Control Basin (WASCOB) | 638 | An earth embankment or a combination ridge and channel generally constructed across the slope and minor watercourses to form a sediment trap and water detention basin. | 4 foot fill with 200 foot length, outlet structure, 10:1 front slope, 2:1 back slope, seeding and mulching | No. | \$ 2,062.50 | 10 | \$61.88 | \$301.20 |
| Water and Sediment Control Basin (WASCOB) | 638 | An earth embankment or a combination ridge and channel generally constructed across the slope and minor watercourses to form a sediment trap and water detention basin. | 4 foot fill with 200 foot length, outlet structure, 10:1 front slope and 10:1 back slope | No. | \$ 3,238.50 | 10 | \$97.16 | \$472.94 |

| Practice | Code | Description (from Practice Standard) | Typical Installation | Unit | Cost Per Unit | design lifespan | Average Annual Maintenance | Total Average Annual Cost per Unit @ 2.8% |
|---|------|---|---|------|---------------|-----------------|----------------------------|---|
| Water and Sediment Control Basin (WASCOB) | 638 | An earth embankment or a combination ridge and channel generally constructed across the slope and minor watercourses to form a sediment trap and water detention basin. | 6 foot fill height with 200 foot length, outlet structure, 10:1 front slope, 2:1 back slope, seeding and mulching, 540 cu yd typical | No. | \$ 3,630.00 | 10 | \$108.90 | \$530.11 |
| Water and Sediment Control Basin (WASCOB) | 638 | An earth embankment or a combination ridge and channel generally constructed across the slope and minor watercourses to form a sediment trap and water detention basin. | 6 foot fill with 200 foot length, outlet structure, 10:1 front slope and 10:1 back slope, 1100 Cu Yd typical size. | No. | \$ 5,600.00 | 10 | \$168.00 | \$817.81 |
| Water Well | 642 | A hole drilled, driven, bored, jetted, or otherwise constructed to an aquifer. | 50 foot deep well with casing, includes pump, drop pipe, pipe to pressure tank, and pressure tank. (Does not include cost of power supply to pump.) | No. | \$ 3,380.00 | 20 | \$101.40 | \$324.41 |
| Water Well | 642 | A hole drilled, driven, bored, jetted, or otherwise constructed to an aquifer. | 150 feet deep, includes pump, drop pipe, pipe to pressure tank, and pressure tank. (Does not include cost of power supply to pump.) | No. | \$ 7,775.00 | 20 | \$233.25 | \$746.24 |
| Water Well Decommissioning | 351 | The plugging and permanent closure of a well no longer in use. | Headquarters site where closing unused well addresses a water quality resource concern. Dug Well - 12 feet deep; shored with stone, timber or brick; 3-foot diameter; some foreign debris in well to be removed | No. | \$ 830.00 | 20 | \$24.90 | \$79.66 |
| Water Well Decommissioning | 351 | The plugging and permanent closure of a well no longer in use. | Dug Well - 15 feet deep; shored with stone, timber or brick; 3-foot diameter; some foreign debris in well to be removed | No. | \$ 1,168.00 | 20 | \$35.04 | \$112.10 |
| Water Well Decommissioning | 351 | The plugging and permanent closure of a well no longer in use. | Dug Well - 25 feet deep; shored with stone, timber or brick; 3-foot diameter; some foreign debris in well to be removed | No. | \$ 1,761.00 | 20 | \$52.83 | \$169.02 |
| Water Well Decommissioning | 351 | The plugging and permanent closure of a well no longer in use. | Drilled or Driven Well - 100 feet deep; 2-inch diameter casing | No. | \$ 845.00 | 20 | \$25.35 | \$81.10 |

| Practice | Code | Description (from Practice Standard) | Typical Installation | Unit | Cost Per Unit | design lifespan | Average Annual Maintenance | Total Average Annual Cost per Unit @ 2.8% |
|--------------------------------------|------|--|---|------|---------------|-----------------|----------------------------|---|
| Watering Facility | 614 | A device (tank, trough, or other watertight container) for providing animal access to water. | Access for livestock watering without a crossing. 15 feet wide by 40 feet long, excavation, geotextile and 1 foot aggregate with fence. | No. | \$ 2,082.00 | 20 | \$62.46 | \$199.83 |
| Watering Facility | 614 | A device (tank, trough, or other watertight container) for providing animal access to water. | 300 gallon tank with fittings | No. | \$ 700.00 | 20 | \$21.00 | \$67.19 |
| Watering Facility | 614 | A device (tank, trough, or other watertight container) for providing animal access to water. | 50-100 gallon poly tank with fittings including quick connects | No. | \$ 175.00 | 20 | \$5.25 | \$16.80 |
| Wetland Creation | 658 | A wetland created on a site which historically was not a wetland or is a wetland but the site will be converted to a wetland with a different hydrology, vegetation type, or function than naturally occurred on the site. | | Ac. | | 15 | \$0.00 | \$0.00 |
| Wetland Enhancement | 659 | The rehabilitation or reestablishment of a degraded wetland, and/or the modification of an existing wetland. | | Ac. | | 15 | \$0.00 | \$0.00 |
| Wetland Restoration | 657 | A rehabilitation of a degraded wetland or the reestablishment of a wetland so that soils, hydrology, vegetative community, and habitat are close approximation of the original natural condition that existed prior to modification to the extent practicable. | | Ac. | | 15 | \$0.00 | \$0.00 |
| Wetland Wildlife Habitat Management | 644 | Retaining, developing, or managing wetland habitat for wetland wildlife. | Add nesting structures for habitat where natural nesting cavities are insufficient. Large bird box for wood duck plus mounting post, predator guard and necessary hardware @ 1 box per 8 acres. | Each | \$ 78.52 | 1 | \$2.36 | \$78.52 |
| Windbreak/Shelter belt Establishment | 380 | Linear planting of single or multiple rows of trees or shrubs established for environmental purposes. | 1-row white spruce windbreak, 1320' long. Trees planted every 10' along length of windbreak. | Ft. | \$ 0.37 | 15 | \$0.01 | \$0.04 |

| Practice | Code | Description (from Practice Standard) | Typical Installation | Unit | Cost Per Unit | design lifespan | Average Annual Maintenance | Total Average Annual Cost per Unit @ 2.8% |
|--------------------------------------|------|--|--|------|---------------|-----------------|----------------------------|---|
| Windbreak/Shelter belt Establishment | 380 | Linear planting of single or multiple rows of trees or shrubs established for environmental purposes. | 2-row windbreak, with one row of white spruce and one row of mixed shrubs (3-5 spp.) 1320' long. Trees planted every 10' and shrubs planted every 6' along length of windbreak. Rows approx. 12' apart. | Ft. | \$ 0.69 | 15 | \$0.02 | \$0.08 |
| Windbreak/Shelter belt Establishment | 380 | Linear planting of single or multiple rows of trees or shrubs established for environmental purposes. | 3-row windbreak, with two rows of white spruce and one row of mixed shrubs (3-5 spp.) 1320' long. Trees planted every 10' and shrubs planted every 6' along length of windbreak. Rows approx. 12' apart. | Ft. | \$ 0.91 | 15 | \$0.03 | \$0.10 |
| Windbreak/Shelter belt Establishment | 380 | Linear planting of single or multiple rows of trees or shrubs established for environmental purposes. | 4-row windbreak, with two rows of deciduous trees (3-5 spp.) and two row of mixed shrubs (3-5 spp.) 1320' long. Trees planted every 10' and shrubs planted every 6' along length of windbreak. Rows approx. 16' apart (between trees) and 12' apart (bet. trees and shrubs). | Ft. | \$ 1.21 | 15 | \$0.04 | \$0.14 |
| Windbreak/Shelter belt Establishment | 380 | Linear planting of single or multiple rows of trees or shrubs established for environmental purposes. | 4-row windbreak, with two rows of deciduous trees (3-5 spp.) and two row of mixed shrubs (3-5 spp.) 1320' long. Trees planted every 10' and shrubs planted every 6' along length of windbreak. Rows approx. 16' apart (between trees) and 12' apart (bet. trees and shrubs). Shelters on deciduous trees only. | Ft. | \$ 2.14 | 15 | \$0.06 | \$0.24 |
| Windbreak/Shelter belt Renovation | 650 | Widening, partial replanting, removing, and replacing selected trees and shrubs to improve an existing windbreak or shelterbelt. | reinforcement, supplemental planting & thinning existing. Repair existing select few trees to be removed and replaced. | Ft. | \$ 5.34 | 15 | \$0.16 | \$0.60 |
| Windbreak/Shelter belt Renovation | 650 | Widening, partial replanting, removing, and replacing selected trees and shrubs to improve an existing windbreak or shelterbelt. | Remove trees in rows and replace with 3 - 5' trees and shrubs. on site disposal pile and burn. 30% dead and damaged trees that need to be removed and replaced. | Ft. | \$ 10.27 | 15 | \$0.31 | \$1.16 |

| Practice | Code | Description (from Practice Standard) | Typical Installation | Unit | Cost Per Unit | design lifespan | Average Annual Maintenance | Total Average Annual Cost per Unit @ 2.8% |
|-----------------------------------|------|--|--|------|---------------|-----------------|----------------------------|---|
| Windbreak/Shelter belt Renovation | 650 | Widening, partial replanting, removing, and replacing selected trees and shrubs to improve an existing windbreak or shelterbelt. | Remove single row and replace with poplar whips for cherry orchard site. 1/4 mile for 40 acre site. Spacing 10', on site disposal pile and burn. | Ft. | \$ 6.57 | 15 | \$0.20 | \$0.74 |

| <u>Practice</u> | <u>Code</u> | <u>Description (from Practice Standard)</u> | <u>Unit</u> | <u>lifespan</u> | <u>Discipline specialist</u> | <u>Current Staff person (lead contact for cost development scenarios)</u> | <u>Practice Activity type</u> |
|---|-------------|--|-------------|-----------------|------------------------------|---|-------------------------------|
| Access Control | 472 | Excluding animals, people, or vehicles from an area. | Ac. | 10 | Forester | Andy Henriksen | Vegetative |
| Access Road | 560 | A travel-way for equipment and vehicles constructed as part of a conservation plan. | Ft. | 10 | Engineer | Steve Davis | Structural |
| Agrichemical Handling Facility | 309 | An impermeable barrier and containment placed or constructed on the ground where agricultural storage, loading, mixing, and clean-up occur. | No. | 15 | Engineer | Steve Davis | Structural |
| Alley Cropping | 311 | Trees or shrubs planted in single or multiple rows with agronomic, horticultural, or forage crops cultivated in the alleys between the rows of woody plants. | Ac. | 15 | Forester | Andy Henriksen | Vegetative |
| Anaerobic Digester - Controlled Temperature | 366 | A managed temperature waste treatment facility. | No. | 25 | Engineer | Steve Davis | Structural |
| Animal Mortality Facility | 316 | An on-farm facility for the treatment or disposal of livestock and poultry carcasses for routine and catastrophic mortality events. | No. | 15 | Engineer | Suzanne Reamer | Structural |
| Animal Trails and Walkways | 575 | Established lanes or travel-ways that facilitate animal movement. | Ft. | 10 | Engineer | Steve Davis | Structural |
| Aquaculture Ponds | 397 | A water impoundment constructed and managed for commercial aquaculture production. | Ac. | 10 | Engineer | Steve Davis | Structural |
| Aquatic Organism Passage | 396 | Modification or removal of barriers that restrict or prevent movement or migration of fish. | Mile | 5 | Biologist / Engineer | Chris Reidy | Structural |
| Brush Management | 314 | Removal, reduction, or manipulation of non-herbaceous plants. | Ac. | 5 | Grazing Land Specialist | Betsy Dierberger | Vegetative |
| Channel Bed Stabilization | 584 | Measure(s) used to stabilize the bed or bottom of a channel. | Ft. | 10 | Engineer | Steve Davis | Structural |
| Clearing and Snagging | 326 | Removing snags, drifts, or other obstructions from a channel or drainage way. | Ft. | 5 | Engineer | Steve Davis | Structural |
| Combustion System Improvement | 372 | Installing, replacing, or retrofitting agricultural combustion systems and/or related components or devices for air quality and energy efficiency improvement. | No. | 10 | Engineer | Steve Davis | Structural |
| Composting Facility | 317 | This is a treatment component of an agricultural management system for the biological stabilization of organic material. | No. | 15 | Engineer | Suzanne Reamer | Structural |
| Conservation Cover | 327 | Establishing and maintaining permanent vegetative cover to protect soil and water resources. | Ac. | 5 | Agronomist | Jerry Grigar | Vegetative |

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|---|------|---|-----|----|-------------------------|------------------|------------|
| Conservation Crop Rotation | 328 | Growing crops in a recurring sequence on the same field. | Ac. | 1 | Agronomist | Jerry Grigar | Management |
| Constructed Wetland | 656 | A constructed shallow water ecosystem designed to simulate natural wetlands. | No. | 15 | Biologist | Chris Reidy | Structural |
| Contour Buffer Strips | 332 | Narrow strips of permanent, herbaceous vegetative cover established across the slope and alternated down the slope with parallel, wider cropped strips. | Ac. | 5 | Agronomist | Jerry Grigar | Vegetative |
| Contour Farming | 330 | Tillage, planting, and other farming operations performed on or near the contour of the field slope. | Ac. | 5 | Agronomist | Jerry Grigar | Vegetative |
| Contour Orchard or Other Fruit Area | 331 | Planting orchards, vineyards, or small fruits so that all cultural practices are done on the contour. | Ac. | 10 | Agronomist | Jerry Grigar | Vegetative |
| Cover Crop | 340 | Grasses, legumes, forbs, or other herbaceous plants established for seasonal cover and conservation purposes. | Ac. | 1 | Agronomist | Jerry Grigar | Vegetative |
| Critical Area Planting | 342 | Establishing permanent vegetation on sites that have physical, chemical, or biological conditions that prevent the establishment of vegetation with normal practices. | Ac. | 10 | Agronomist | Jerry Grigar | Vegetative |
| Cross Wind Trap Strip - Filter or Field | 589C | Herbaceous cover resistant to wind erosion, established adjacent to surface drainage ditches across the prevailing wind erosion direction. | Ac. | 5 | Agronomist | Jerry Grigar | Vegetative |
| Deep Tillage | 324 | Performing tillage operations below the normal tillage depth to modify the physical or chemical properties of a soil. | Ac. | 1 | Agronomist | Jerry Grigar | Vegetative |
| Dike | 356 | A barrier constructed of earth or manufactured materials. | Ft. | 20 | Engineer | Steve Davis | Structural |
| Diversion | 362 | A channel constructed across the slope generally with a supporting ridge on the lower side. | Ft. | 10 | Engineer | Steve Davis | Structural |
| Drainage Water Management (Ac.) | 554 | Control of water surface elevations and discharge from surface and subsurface drainage systems. | Ac. | 1 | Engineer | Steve Davis | Management |
| Dry Hydrant (No.) | 432 | A non-pressurized permanent pipe assembly system installed into dependable water source that permits the withdrawal of water by suction. | No. | 15 | Engineer | Steve Davis | Structural |
| Early Successional Habitat Development/Management | 647 | Manage early plant succession to benefit desired wildlife or natural communities. | Ac. | 5 | Biologist | Chris Reidy | Vegetative |
| Farmstead Energy Improvement | 374 | This practice may be applied as part of a conservation management system to reduce energy use. | No. | 10 | Engineer | | Structural |
| Fence | 382 | A constructed barrier to animals or people. | Ft. | 20 | Grazing Land Specialist | Betsy Dierberger | Structural |

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|---------------------------------------|-----|---|-----|----|-------------------------|------------------|------------|
| Field Border | 386 | A strip of permanent vegetation established at the edge or around the perimeter of a field. | Ft. | 10 | Agronomist | Jerry Grigar | Vegetative |
| Filter Strip | 393 | A strip of grass or other permanent vegetation used to reduce sediment, organics, nutrients, pesticides, and other contaminants. | Ac. | 10 | Agronomist | Jerry Grigar | Vegetative |
| Firebreak | 394 | A strip of bare land or vegetation that retards fire. | Ft. | 5 | Forester | Andy Henriksen | Vegetative |
| Fish Raceway or Tank | 398 | A channel or tank with a continuous flow of water constructed or used for high-density fish production. | Ft. | 10 | Biologist / Engineer | Chris Reidy | Structural |
| Fishpond Management | 399 | Managing impounded water for the production of fish or other aquatic organisms (non-commercial use). | No. | 1 | Biologist | Chris Reidy | Management |
| Forage and Biomass Planting | 512 | Establishing native or introduced forage species. | Ac. | 5 | Grazing Land Specialist | Betsy Dierberger | Vegetative |
| Forage Harvest Management | 511 | The timely cutting and removal of forages from the field such as hay, green-chop, or ensilage. This does not include harvest by grazing livestock. | Ac. | 1 | Grazing Land Specialist | Betsy Dierberger | Vegetative |
| Forest Stand Improvement | 666 | Manipulation of species composition, stand structure, and stocking by cutting or killing selected trees and understory vegetation. | Ac. | 10 | Forester | Andy Henriksen | Vegetative |
| Forest Trails and Landings | 655 | Laying out, constructing, and using forest harvest trails and landings. | Ac. | 5 | Forester | Andy Henriksen | Vegetative |
| Fueling Facility Above-Ground Storage | 713 | Permanently located above ground facilities designed to provide safe storage of on-farm oil products. | No. | | Engineer | Steve Davis | Structural |
| Grade Stabilization Structure | 410 | A structure used to control the channel grade in natural or constructed watercourses. | No. | 15 | Engineer | Steve Davis | Structural |
| Grassed Waterway | 412 | A natural or constructed channel that is shaped or graded to required dimensions and established with suitable vegetation. | Ac. | 10 | Agronomist / Engineer | Jerry Grigar | Structural |
| Heavy Use Area Protection | 561 | The stabilization of areas frequently and intensively used by people, animals, or vehicles by establishing vegetative cover, by surfacing with suitable materials, and/or installing needed structures. | Ac. | 10 | Engineer | Steve Davis | Structural |
| Hedgerow Planting | 422 | Establishing a linear planting of shrubs or trees in, across, or around a field. | Ft. | 15 | Biologist | Chris Reidy | Vegetative |
| Herbaceous Weed Control | 315 | The removal or control of herbaceous weeds including invasive, noxious and prohibited plants. | Ac. | 5 | Forester | Andy Henriksen | Vegetative |

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|---|-----|---|---------|----|--------------------------|--------------|------------|
| Herbaceous Wind Barriers | 603 | Herbaceous vegetation established in rows or narrow strips in the field across the prevailing wind direction. | Ft. | 5 | Agronomist | Jerry Grigar | Vegetative |
| Integrated Pest Management | 595 | Utilizing environmentally-sensitive prevention, avoidance, monitoring, and suppression strategies to manage weeds, insects, diseases, animals, and other organisms (including invasive and non-invasive species) that directly or indirectly cause damage or annoyance. | Ac. | 1 | Water Quality Specialist | Ruth Shaffer | Management |
| Irrigation Pipeline | 430 | A pipeline and appurtenances installed to convey water for storage or application, as part of an irrigation water system. | Ft. | 20 | Engineer | Steve Davis | Structural |
| Irrigation Reservoir | 436 | An irrigation water storage structure made by constructing a dam, embankment, or pit. | Ac. Ft. | 15 | Engineer | Steve Davis | Structural |
| Irrigation System, Microirrigation | 441 | An irrigation system for distribution of water directly to the plant root zone by means of surface or subsurface applicators. | Ac. | 15 | Engineer | Steve Davis | Structural |
| Irrigation System, Sprinkler | 442 | An irrigation system in which all necessary equipment and facilities are installed for efficiently applying water by means of nozzles operated under pressure. | Ac. | 15 | Engineer | Steve Davis | Structural |
| Irrigation System, Surface and Subsurface | 443 | A system in which all necessary water-control structures have been installed for the efficient distribution of water by surface means, such as furrows, borders, contour levees, or contour ditches, or by subsurface means. | Ac. | 15 | Engineer | Steve Davis | Structural |
| Irrigation Water Management | 449 | The process of determining and controlling the volume, frequency, and application rate of irrigation water in a planned, efficient manner. | Ac. | 1 | Engineer | Steve Davis | Management |
| Land Reclamation, Abandoned Mined Land | 543 | Restoring land and water areas that are adversely affected by past mining practices and increasing the productivity of the areas for a beneficial use. | Ac. | 15 | Agronomist / Engineer | Jerry Grigar | Vegetative |
| Land Reclamation, Currently Mined Land | 544 | Restoring currently mined land to an acceptable form and planned use. | Ac. | 15 | Agronomist | Jerry Grigar | Vegetative |
| Land Smoothing | 466 | Removing irregularities on the land surface. | Ac. | 10 | Engineer | Steve Davis | Vegetative |
| Lined Waterway or Outlet | 468 | A waterway or outlet having an erosion-resistant lining of concrete, stone, synthetic turf reinforcement fabrics, or other permanent material. | Ft. | 15 | Engineer | Steve Davis | Structural |
| Mine Shaft and Adit Closing | 457 | Closure of underground mine opening by filling, plugging, capping, installing barriers, gating, or fencing. | No. | 15 | Engineer | Fred Gasper | Structural |

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|--|------|---|-----|----|--------------------------|------------------|------------|
| Mulching | 484 | Applying plant residues or other suitable materials not produced on the site to the soil surface. | Ac. | 1 | Agronomist | Jerry Grigar | Vegetative |
| Nutrient Management | 590 | Managing the amount, source, placement, form, and timing of the application of nutrients and soil amendments. | Ac. | 1 | Water Quality Specialist | Ruth Shaffer | Management |
| Obstruction Removal | 500 | Removal and disposal of unwanted, unsightly, or hazardous buildings, structures, vegetation, landscape features, and other materials. | Ac. | 10 | Engineer | Steve Davis | Structural |
| Open Channel | 582 | Constructing or improving a channel, either natural or artificial, in which water flows with a free surface. | Ft. | 15 | Engineer | Steve Davis | Structural |
| Pipeline | 516 | Pipeline having an inside diameter of 8 inches (203 mm) or less. | Ft. | 20 | Engineer | Suzanne Reamer | Structural |
| Pond | 378 | A water impoundment made by constructing a dam or an embankment, or by excavating a pit or dugout. | No. | 20 | Engineer | Steve Davis | Structural |
| Pond Sealing or Lining - Bentonite Treatment | 521C | A liner for a pond or waste impoundment consisting of a compacted soil-betonies mixture. | No. | 15 | Engineer | Steve Davis | Structural |
| Pond Sealing or Lining - Flexible Membrane | 521A | A manufactured hydraulic barrier consisting of a functionally continuous sheet of synthetic or partially synthetic, flexible material. | No. | 20 | Engineer | Steve Davis | Structural |
| Pond Sealing or Lining - Soil Dispersant | 521B | A liner for a pond or waste impoundment consisting of a compacted soil-dispersant mixture. | No. | 20 | Engineer | Steve Davis | Structural |
| Prescribed Burning | 338 | Apply controlled fire to predetermined area. | Ac. | 1 | Forester | Andy Henriksen | Vegetative |
| Prescribed Grazing | 528 | Managing the controlled harvest of vegetation with grazing animals. | Ac. | 1 | Grazing Land Specialist | Betsy Dierberger | Vegetative |
| Pumping Plant | 533 | A pumping facility installed to transfer water for a conservation need. | No. | 15 | Engineer | Steve Davis | Structural |
| Recreation Area Improvement | 562 | | Ac. | 15 | Engineer | Steve Davis | Structural |
| Recreation Land Grading and Shaping | 566 | Reshaping the surface of the land to support recreational land use. | Ac. | 15 | Engineer | Steve Davis | Structural |
| Residue Management, Mulch-Till | 345 | Managing the amount, orientation, and distribution of crop and other plant residue on the soil surface year-round, while limiting the soil-disturbing activities used to grow crops in systems where the field surface is tilled prior to planting. | Ac. | 1 | Agronomist | Jerry Grigar | Management |
| Residue Management, No-Till/Strip Till/Direct Seed | 329 | Managing the amount, orientation, and distribution of crop and other plant residue on the soil surface year-round, while growing crops in previously untilled soil or residue. | Ac. | 1 | Agronomist | Jerry Grigar | Management |

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| Residue Management, Ridge Till | 346 | Managing the amount, orientation, and distribution of crop residue and other plant residues on the soil surface year-round, while growing crops on preformed ridges alternated with furrows protected by crop residue. | Ac. | 1 | Agronomist | Jerry Grigar | Management |
| Residue Management, Seasonal | 344 | Managing the amount, orientation, and distribution of crop and other plant residues on the soil surface during part of the year, while growing crops in a clean tilled seedbed. | Ac. | 1 | Agronomist | Jerry Grigar | Management |
| Restoration and Management of Declining Habitats | 643 | Restoring and conserving rare or declining native vegetative communities and associated wildlife species to conserve biodiversity. | Ac. | 15 | Biologist | Chris Reidy | Vegetative |
| Riparian Forest Buffer | 391 | An area of predominantly trees and/or shrubs located adjacent to and up-gradient from watercourses or water bodies. | Ac. | 15 | Forester | Andy Henriksen | Vegetative |
| Riparian Herbaceous Cover | 390 | Riparian herbaceous cover is an area of grass or grass-like plants and forbs that are tolerant of intermittent flooding or saturated soils and that are established or managed in the transitional zone between terrestrial and aquatic habitats. | Ac. | 5 | Biologist | Chris Reidy | Vegetative |
| Road/Trail/Landing Closure and Treatment | 654 | The closure, decommissioning, or abandonment of roads, trails, and/or landings and associated treatment to achieve conservation objectives. | Ft. | 10 | Forester | Andy Henriksen | Vegetative |
| Roof Runoff Structure | 558 | A facility for collecting, controlling, and disposing of runoff water from roofs. | No. | 15 | Engineer | Steve Davis | Structural |
| Roofs and Covers | 367 | A fabricated rigid, semi-rigid, or flexible membrane over a waste treatment or storage facility. | No. | 15 | Engineer | Suzanne Reamer | Structural |
| Seasonal High Tunnel System for Crops | 798 | A seasonal polyethylene covered structure with no electrical, heating, and/or mechanical ventilation systems that is used to cover crops to extend the growing season in an environmentally sound manner. | Sq. Ft. | 4 | | Ruth Shaffer | Vegetative |
| Sediment Basin | 350 | A basin constructed to collect and store debris or sediment. | No. | 20 | Engineer | Steve Davis | Structural |
| Shallow Water Development and Management | 646 | The inundation of land to provide habitat for fish and/or wildlife. | Ac. | 5 | Biologist | Chris Reidy | Vegetative |
| Solid/Liquid Waste Separation Facility | 632 | A filtration or screening device, settling tank, settling basin, or settling channel used to separate a portion of solids from a liquid waste stream. | No. | 15 | Engineer | Suzanne Reamer | Structural |

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| Spring Development | 574 | Utilizing springs and seeps to provide water for conservation need. | No. | 20 | Engineer | Steve Davis | Structural |
| Stream Crossing | 578 | A stabilized area or structure constructed across a stream to provide a travel-way for people, livestock, equipment, or vehicles. | No. | 10 | Engineer | Suzanne Reamer | Structural |
| Stream Habitat Improvement and Management | 395 | Maintain, improve, or restore the physical, chemical, and biological functions of a stream. | Ac. | 5 | Biologist | Chris Reidy | Vegetative |
| Streambank and Shoreline Protection | 580 | Treatment(s) used to stabilize and protect banks of streams or constructed channels, and shorelines of lakes, reservoirs, or estuaries. | Ft. | 20 | Engineer | Steve Davis | Structural |
| Stripcropping | 585 | Growing row crops, forages, small grains, or fallow in a systematic arrangement of equal width strips across a field. | Ac. | 5 | Agronomist | Jerry Grigar | Vegetative |
| Structure for Water Control | 587 | A structure in a water management system that conveys water, controls the direction or rate of flow, maintains a desired water surface elevation, or measures water. | No. | 20 | Engineer | Steve Davis | Structural |
| Subsurface Drain | 606 | A conduit, such as corrugated plastic tubing, tile, or pipe, installed beneath the ground surface to collect and/or convey drainage water. | Ft. | 20 | Engineer | Steve Davis | Structural |
| Surface Drainage, Field Ditch | 607 | A graded ditch for collecting excess water in a field. | Ft. | 15 | Engineer | Steve Davis | Structural |
| Surface Drainage, Main or Lateral | 608 | An open drainage ditch constructed to a designed size and grade. | Ft. | 15 | Engineer | Steve Davis | Structural |
| Terrace | 600 | An earth embankment, or a combination ridge and channel, constructed across the field slope. | Ft. | 10 | Engineer | Steve Davis | Structural |
| Trails and Walkways | 568 | A pathway for pedestrian, equestrian, bicycle, and other off-road modes of travel through or to recreation resources. | Ft. | 15 | Engineer | Steve Davis | Structural |
| Tree/Shrub Establishment | 612 | Establishing woody plants by planting seedlings, container/potted stock, cuttings, direct seeding, or natural regeneration. | Ac. | 15 | Forester | Andy Henriksen | Vegetative |
| Tree/Shrub Pruning | 660 | Removing all or parts of selected branches or leaders from trees and shrubs. | Ac. | 10 | Forester | Andy Henriksen | Vegetative |
| Tree/Shrub Site Preparation | 490 | Treating acres to improve site conditions for establishing a forest. | Ac. | 1 | Forester | Andy Henriksen | Vegetative |
| Underground Outlet | 620 | A conduit installed beneath the surface of the ground to collect surface water and convey it to a suitable outlet. | Ft. | 20 | Engineer | Steve Davis | Structural |
| Upland Wildlife Habitat Management | 645 | Provide and manage upland habitats and connectivity within the landscape for wildlife. | Ac. | 1 | Biologist | Chris Reidy | Management |

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| Vegetated Treatment Area | 635 | A treatment component of an agricultural waste management system consisting of a strip or area of herbaceous vegetation. | Ac. | 10 | Engineer | Steve Davis | Vegetative |
| Vegetative Barrier | 601 | Permanent strips of stiff, dense vegetation along the general contour of slopes or across concentrated flow areas. | Ft. | 5 | Agronomist | Jerry Grigar | Structural |
| Waste Facility Closure | 360 | The closure of waste impoundments (treatment lagoons and liquid storage facilities), that are no longer used for their intended purpose, in an environmentally-safe manner. | No. | 15 | Engineer | Steve Davis | Structural |
| Waste Recycling | 633 | Using agricultural wastes such as manure and wastewater or other organic residues. | Ac. | 1 | Water Quality Specialist | Ruth Shaffer | Vegetative |
| Waste Storage Facility | 313 | A waste storage impoundment made by constructing an embankment and/or excavating a pit or dugout, or by fabricating a structure. | No. | 15 | Engineer | Suzanne Reamer | Structural |
| Waste Transfer | 634 | A manure conveyance system using structures, conducts, or equipment. | No. | 15 | Engineer | Suzanne Reamer | Structural |
| Water and Sediment Control Basin (WASCOB) | 638 | An earth embankment or a combination ridge and channel generally constructed across the slope and minor watercourses to form a sediment trap and water detention basin. | No. | 10 | Engineer | Steve Davis | Structural |
| Water Well | 642 | A hole drilled, driven, bored, jetted, or otherwise constructed to an aquifer. | No. | 20 | Engineer | Steve Davis | Structural |
| Water Well Decommissioning | 351 | The plugging and permanent closure of a well no longer in use. | No. | 20 | Engineer | Steve Davis | Structural |
| Watering Facility | 614 | A device (tank, trough, or other watertight container) for providing animal access to water. | No. | 20 | Engineer | Suzanne Reamer | Structural |
| Wetland Creation | 658 | A wetland created on a site which historically was not a wetland or is a wetland but the site will be converted to a wetland with a different hydrology, vegetation type, or function than naturally occurred on the site. | Ac. | 15 | Biologist | Chris Reidy | Vegetative |
| Wetland Enhancement | 659 | The rehabilitation or reestablishment of a degraded wetland, and/or the modification of an existing wetland. | Ac. | 15 | Biologist / Engineer | Chris Reidy | Vegetative |
| Wetland Restoration | 657 | A rehabilitation of a degraded wetland or the reestablishment of a wetland so that soils, hydrology, vegetative community, and habitat are close approximation of the original natural condition that existed prior to modification to the extent practicable. | Ac. | 15 | Biologist / Engineer | Chris Reidy | Vegetative |
| Wetland Wildlife Habitat Management | 644 | Retaining, developing, or managing wetland habitat for wetland wildlife. | Ac. | 1 | Biologist | Chris Reidy | Management |

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| Windbreak/Shelterbelt Establishment | 380 | Linear planting of single or multiple rows of trees or shrubs established for environmental purposes. | Ft. | 15 | Forester | Andy Henriksen | Vegetative |
| Windbreak/Shelterbelt Renovation | 650 | Widening, partial replanting, removing, and replacing selected trees and shrubs to improve an existing windbreak or shelterbelt. | Ft. | 15 | Forester | Andy Henriksen | Vegetative |