

INTRODUCTION

SECTION I – COST DATA

The initial phase of evaluating the effectiveness of conservation measures is the collection, analysis, and use of current information on costs and prices. The prices are appropriate to use in estimating the beneficial and/or adverse effects of installing conservation practices. To be effective in working with individuals, field personnel must have knowledge of these costs and prices.

Section I – Cost Data, contains general economic reference data and has been prepared to aid Natural Resources Conservation Service personnel in providing economic information to farmers, ranchers, and others who make land use and land treatment decisions. The economic data will be used to evaluate alternative Conservation Management Systems (CMS).

The general economic reference data contained herein contains current information on costs for items such as seed, fertilizers, farm or ranch supplies, farm machinery, tractors, and other materials that may be used in crop or livestock production. Other factors that make up a farming or ranching operation are also included such as labor, construction, and operation and maintenance of Resource Management Systems (RMS).

Information should be used only for evaluating the consequences of alternative CMS. The information is not intended to be an analysis of a crop or livestock enterprise or of the total farm business. If a land user desires farm management assistance, he/she should be referred to the Extension Service or other farm management assistance. For the purpose of making RMS evaluations, the production costs, costs of conservation practice(s), and prices to be used are the most recent published data. Other costs and prices may be used if they are reasonable or to illustrate the effect of price changes. Other costs and prices are contained in the current issue of North Dakota Agricultural Statistics, located in eFOTG Section I - Reference Subjects - Economics, Ag Statistics subfolder, in the pdf document "List of Economics and Ag Stats References." Other costs and prices cannot be used if cost-shared programs are involved.

COST-SHARING DEFINITION

Methods and policy on cost-sharing, development of average cost data, and procedures for establishing cost-share rates are discussed in General Manual (GM), Title 120, Part 404, Subpart D, 404.30, 404.31, and 404.32.

Average Cost (AC) – Average costs are used, unless cost data cannot be obtained. Average costs are developed for each practice or component of a practice identified for financial assistance. **Costs shown in Section I, Cost Data are average costs, unless otherwise identified by abbreviation following the cost values.** (Receipts are not required for payment – include if available for updating future cost lists.)

Actual Cost Not to Exceed Average Cost (AA) – The Actual Cost Not to Exceed Average Cost method applies to situations involving volume discounts, unusually large jobs subject to competitive bids, materials, or services subject to volatile price fluctuations, and installation of used materials as allowed under GM, Title 120, Part 404, Subpart F 404.58. (Receipts are required for payment.)

Actual Cost Not to Exceed a Specified Maximum Cost (AM) – The AM method applies to insufficient or unreliable average cost data, difficulty or impracticality in measuring quantities, or the need for a definite limit on a particular practice. All practices and identifiable components cost-shared according to specified maximum cost must be supported by acceptable itemized receipts, invoices, or cost statements. The established specified maximum for all prior year cost-share designations of AM will be the current average cost, unless a specified maximum has been made a part of the cost table. (Receipts are required for payment.)

Flat Rate (FR) – Flat Rate method is used to encourage adoption of conservation practices where it is difficult to establish actual cost. (Receipts are not required for payment – include if available for updating future cost lists.)

SECTION I – COST DATA

TABLE OF CONTENTS

	<u>Page</u>
TABLE A - EARTHMOVING AND RELATED COSTS.....	5
EARTH EXCAVATION.....	5
IRRIGATION LAND LEVELING	5
SITE CLEARING OR OBSTRUCTION REMOVAL	5
EARTHFILL	5
TERRACE CONSTRUCTION	6
WATERWAY CONSTRUCTION.....	6
TRENCHING FOR PIPELINES	6
CRITICAL AREA TREATMENT	7
TABLE B - PIPE AND RELATED COSTS.....	8
SMALL DIAMETER PIPE	8
LARGE DIAMETER PIPE	8
CORRUGATED PLASTIC PIPE.....	9
CORRUGATED METAL PIPE	10
PIPE FOR IRRIGATION WATER CONVEYANCE - GATED PIPE.....	11
IRRIGATION SYSTEM REORGANIZATION	11
ANTI-SEEP COLLAR, BUTYL RUBBER/NEOPRENE WITH WOOD FRAME.....	11
VALVES, GATES, AND PIPE APPURTENANCES	11
TABLE C - CONSTRUCTION MATERIALS, WELLS, AND STORAGE FACILITIES	12
CONCRETE.....	12
LUMBER AND STRUCTURAL STEEL	12
RIPRAP	12
GEOTEXTILE FABRIC	12
GRAVEL OR SCORIA	12
RESERVOIR SEALING	12
WELLS.....	12
DECOMMISSIONING ABANDONED WELLS	14
LIVESTOCK WATER FACILITIES.....	14
ANIMAL WASTE STORAGE AND TREATMENT FACILITIES	14
ROOF RUNOFF STRUCTURE.....	14
GRADE STABILIZATION STRUCTURES, STREAMBANK PROTECTION, STREAM CHANNEL STABILIZATION, LINED WATERWAY OR OUTLET, AND STRUCTURAL RENOVATIONS.....	14
TABLE D - VEGETATIVE ESTABLISHMENT AND RELATED COSTS	15
SEEDBED PREPARATION.....	15
SEEDING OPERATIONS	15
CRITICAL AREA PREPARATION.....	15
FERTILIZATION	15
WEED OR PEST CONTROL	15

TABLE E - SEED COSTS16
GRASS SEED16
VEGETATIVE PLUGS.....16

TABLE F - AVERAGE COSTS FOR ESTABLISHING OR REESTABLISHING TREES OR SHRUBS.....17
SITE PREPARATION17
PLANTING COSTS.....17
PLANT MAINTENANCE / MANAGEMENT.....17
RENOVATION.....17

TABLE G - GRASSLAND PRACTICES18
BRUSH CONTROL18
FENCE CONSTRUCTION.....18

CROP BUDGET AND CUSTOM RATE INFORMATION.....19

TABLE A - EARTHMOVING AND RELATED COSTS

EARTH EXCAVATION

	<u>Per Cubic Yard</u>
Excavation Dry	\$1.30
Excavation Wet <u>1/</u>	1.60
Excavation for Small Conservation Structures <u>2/</u>	5.00
Borrow Development <u>3/</u>	Engineer's Estimate AM

IRRIGATION LAND LEVELING

\$125/acre AM

SITE CLEARING OR OBSTRUCTION REMOVAL

Site clearing or Structure Removal	\$1,000.00/acre AA
Fence removal	
Feedlot Fence	3.50 /ft
Feedlot Fence for wind protection	5.50 /ft
Other fence	0.50/ft
Fence removal and salvage	
Feedlot Fence	4.50 /ft
Feedlot Fence for wind protection	7.00 /ft
Other fence	0.65 /ft

EARTHFILL

	<u>Per Cubic Yard</u>
Hand Compaction <u>4/</u>	\$5.00
Machine Compaction	1.60
Roller Compaction	2.00
	<u>Per Project</u>
Compaction Quality Control (includes moisture, density and permeability tests)	\$3,000.00 AM
	<u>Per Square Yard</u>
Top Soil (salvage and re-spreading)	\$0.30
	<u>Per Structure</u>
Wetland Restoration - Ditch Plug <u>5/</u>	\$250.00
Water for Earthfill Moisture Control	12.00/1000 gallons

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- 1/ Wet excavation normally occurs in high water table dugouts, core trenches, wetlands, etc. Material is in a near saturated condition. If over 30% of a dugout is wet (over half the depth), figure the entire dugout is wet. If a reach of a channel or core trench is wet, pay for wet excavation for that reach. Sound individual judgment is required in determining what is wet excavation.
- 2/ Use for structural excavation for small conservation structures.
- 3/ Average costs shall be based on site specific engineer's estimates for providing borrow materials transported in from off-site sources or requiring abnormal on-site development.
- 4/ Use for compaction of fill around small structures or when specified for structure installation.
- 5/ Earth excavation and earthfill per cubic yard costs may be used for flat channel level terraces, terrace reconstruction, and wetland restorations.

TABLE A - EARTHMOVING AND RELATED COSTS (CONTINUED)

TERRACE CONSTRUCTION 1/

Broadbase terrace - (per lineal foot)	
frontslope of 20 feet or less, excluding any cost of tile and/or intakes and/or outlets	\$0.70
frontslope greater than 20 feet, excluding any cost of tile and/or intakes and/or outlets	\$0.85
Grassed backslope terrace - (per lineal foot)	
frontslope of 20 feet or less, excluding any cost of tile and/or intakes and/or outlets	\$1.00
frontslope greater than 20 feet, excluding any cost of tile and/or intakes and/or outlets	\$1.82
Intake – (per structure)	
Includes 6-foot perforated riser and an elbow or tee. See Table B for corrugated drain pipe	\$100.00
Corrugated metal pipe (cmp) – (per diameter inch per lineal foot)	
For last section of terrace outlets (includes predator guard).	\$0.80

WATERWAY CONSTRUCTION

1. The cost-share for grading, shaping, or filling operations for grassed waterways will be based on cubic yards of excavation for waterways with drainage areas more than 40 acres using site specific designs. Waterways with drainage areas of 40 acres or less using the standard waterway design as set forth in the FOTG will be based on area in acres taken up by the waterway. Those sites that have site specific designs will be based on cubic yards of excavation, the same as the waterways with drainage areas of more than 40 acres.
 - A. For waterways where the drainage area exceeds 40 acres, cost-share will be based on cubic yards of excavation (see Table A).
 - B. For waterways where the drainage area is 40 acres or less, cost-share rates will be as follows:
 - (1) Cost-shared based on cubic yards of excavation (see Table A), or
 - (2) Cost-shared at a rate of \$600.00/acre. When the construction of one or multiple waterways on the same farm tract totals less than 0.6 acres, the minimum rate will be \$360.00.
2. Obstruction removal - use cost shown in Table A.

1/ Earth excavation and earthfill per cubic yard costs may be used for flat channel level terraces, terrace reconstruction, and wetland restorations.

TABLE A - EARTHMOVING AND RELATED COSTS (CONTINUED)

TRENCHING FOR PIPELINES

per lineal foot of trench

Stockwater pipelines

0'-3' depth (plowed)	0.30
0'-3' depth (shallow trench)	0.50
6' depth (frost protected)	1.20
7' depth (frost protected)	1.30
8' depth (frost protected)	1.40
per foot depth greater than 8'	0.10

Backhoe installed pipelines

0'-3' depth (shallow)	1.25
6' depth (frost protected)	1.75
7' depth (frost protected)	2.25
8' depth (frost protected)	2.75
per foot depth greater than 8'	0.50

Sections with rocky conditions, highwater table conditions or where bank and stability is a serious problem.

0 - 6' depth	2.50
7' depth	3.00
8' depth	3.50
per foot depth greater than 8'	0.50

Irrigation, Spring Development, Ag Waste Pipelines, Underground Outlet Pipelines, and Offset Wells from Reservoirs

0 - 6' depth	2.00
7' depth	2.50
8' depth	3.00
per foot depth greater than 8'	0.50

Boring (roadways and stream crossings)

15.00

Excavation for Spring Boxes and Spring Collection Systems

10.00/cu.yd. (limited to 150 cu. yd.)

CRITICAL AREA TREATMENT

Grading, shaping, and filling - (limited to extent needed for seedbed or use of area for intended purpose).

		<u>Per Acre</u>
Heavy	For areas requiring moving substantial quantities of earth some distance. (This work is generally done by earthmoving contractors using scrapers or other larger earthmoving equipment).	600.00
Light	For areas prepared by normal farm tillage equipment. (While this work is generally done with farm tillage equipment, road patrols and/or small bulldozers may be used).	240.00

Note: Cost for seeding areas once they are shaped is covered under Table D – Vegetative Establishment and Related Costs.

TABLE B - PIPE AND RELATED COSTS

SMALL DIAMETER PIPE

\$2.00 per ft AM

LARGE DIAMETER PIPE 1/ 2/ 3/

Pipe Diameter	RATED PRESSURE					
	Head 50 ft 22 psi	SDR-81 50 psi	SDR-51 80 psi	SDR-41 100 psi	SDR-32.5 125 psi	SDR-26 160 psi
6"	0.85	1.10	1.50	1.75	2.05	3.05
8"	1.10	1.85	2.45	2.90	3.50	4.85
10"	1.60	2.60	3.60	4.30	5.25	7.50
12"	1.90	3.30	4.95	5.60	7.50	10.50
15"	3.00	5.05	7.90	9.60	12.00	15.10
18"		9.00	12.00	14.40	18.10	
21"		13.00	17.30	21.20	26.25	
24"		15.00	21.85	26.80	33.25	

- 1/ Any type pipe that meets the required specifications for the applicable practice may be used, but cost-share shall be based on the above cost. This table is based on the lowest per lineal foot cost of materials that meet specifications. See Table A for trenching costs.
- 2/ The cost of each Tee, Y, or elbow is equal to the cost of 35 feet of equivalent pipe in the table. The costs of other accessories are included in the costs shown.
- 3/ Perforated pipe price same as solid pipe through 6 inch diameter. Add 1.50 per foot for 8, 10, 12 inch perforated pipe.

TABLE B - PIPE AND RELATED COSTS (CONTINUED)

CORRUGATED PLASTIC PIPE

	3 inch	4 inch	5 inch	6 inch	8 inch	10 inch	12 inch	15 inch	18 inch	24 inch
DUAL-WALL PIPE ^{1/}	---	0.85	---	1.80	2.95	4.35	5.55	6.70	10.70	16.25
Split Coupler	---	1.15	---	1.90	3.05	3.60	5.30	9.40	14.10	23.45
Soil-Tight Split Coupler	---	---	---	---	---	16.20	17.55	18.90	26.95	40.45
Gasketed Sleeve Coupler	---	---	---	---	---	---	26.50	38.60	52.45	162.00
Cross	---	31.90	---	47.35	70.65	93.85	120.20	141.4	212.40	339.25
Elbow, 22½ degrees	---	6.75	---	9.75	17.30	22.60	27.55	38.90	54.55	100.55
45 degrees	---	8.25	---	13.30	18.95	24.55	31.00	41.50	64.20	114.00
90 degrees (2 part)	---	10.20	---	14.65	23.10	32.75	38.35	50.60	82.25	140.40
90 degrees (3 part)	---	17.85	---	21.30	36.40	44.70	92.35	107.05	149.00	188.60
Tee	---	17.55	---	23.40	35.55	54.05	61.20	90.20	135.10	207.50
Wye	---	50.60	---	82.75	137.90	154.80	174.65	202.25	303.55	459.60
Reducer X 4 inch	---	---	---	32.25	42.95	49.15	54.95	73.95	87.70	139.35
X 6 inch	---	---	---	---	42.00	53.70	58.05	76.55	94.60	142.15
X 8 inch	---	---	---	---	---	59.20	63.55	82.55	98.50	151.00
X 10 inch	---	---	---	---	---	---	81.00	96.20	117.75	161.65
X 12 inch	---	---	---	---	---	---	---	87.10	128.15	165.50
X 15 inch	---	---	---	---	---	---	---	---	130.30	171.30
X 18 inch	---	---	---	---	---	---	---	---	---	181.00
TUBING/CULVERTS ^{1/}	0.30	0.30	0.50	0.75	1.35	2.65	3.50	5.20	8.40	13.35
With Polyester Fabric (sock)	0.45	0.50	0.70	1.00	1.65	3.00	3.95	6.50	8.90	13.90
Split Coupler	---	1.25	2.40	2.25	3.30	4.60	5.95	10.25	13.80	22.35
Wye, 45 degree	3.00	3.90	5.45	7.25	24.75	---	---	---	---	---
Reducer X 3 & 4 inch	---	2.25	3.15	3.60	4.25	5.95	---	---	---	---
X 5 & 6 inch	---	---	---	2.20	4.25	---	---	---	---	---
X 8 & 10 inch	---	---	---	---	7.10	9.65	---	---	---	---
X 12 inch	---	---	---	---	---	---	---	11.85	---	---
End Plug	1.30	1.40	1.60	1.80	2.95	5.05	10.70	9.80	22.50	63.80
Blind or Reducing Tee (Elbow, Use Blind Tee)	2.85	2.85	4.50	5.35	8.45	13.40	23.20	67.50	120.25	210.00
MISCELLANEOUS										
Plastic Anti-Seep Collar (4x4)	---	117.45	---	117.4 5	121.50	125.55	133.65	141.75	145.80	162.00
Beehive Inlet	---	---	16.20	16.20	19.70	25.15	20.65	39.40	35.00	87.50
End Section	---	---	---	---	54.70	60.15	70.00	87.50	114.85	169.50
Rodent Guard	---	11.90	---	13.50	16.90	21.75	27.95	41.40	70.80	91.70
Hickenbottom Intake:										
1" or 5/16" holes	---	---	12.15	15.55	23.50	36.05	102.10	---	---	---
1" X 4" slots	---	---	17.00	22.70	32.40	46.20	117.45	---	---	---
Special blind tee	---	---	12.15	14.10	25.95	34.45	102.10	---	---	---
Restrictor	---	---	3.25	4.90	7.85	---	---	---	---	---

^{1/} Cost per foot.

TABLE B - PIPE AND RELATED COSTS (CONTINUED)

CORRUGATED METAL PIPE

PIPE: 1/			
Steel, Standard Galvanized (SG) - also includes concrete and fiberglass			1.15
SG Steel, Close Riveted/Caulked Seams (CR/CS)			1.50
Steel, Polymeric Coated (PC)			1.65
PC Steel, CR/CS			1.95
Standard Aluminum			1.35
Aluminum, CR/CS			1.70
CONNECTING BAND: 2/			
	7½" wide	12" wide	24" wide
Steel, Standard Galvanized (SG)	1.15	1.45	2.90
Steel, Polymeric Coated (PC)	1.45	2.10	4.30
Aluminum	1.15	1.70	3.35
Watertight SG Steel, incl. 4 rods/lugs	---	---	5.75
Watertight PC Steel, incl. 4 rods/lugs	---	---	7.50
ANTI-SEEP DIAPHRAGM: 3/			
SG Steel, 2 piece, with watertight coupling, rods/lugs			26.00
PC Steel, 2 piece, with watertight coupling, rods/lugs			36.40
SPLITTER TYPE ANTI-VORTEX WALL: 3/			
SG Steel, size based on riser diameter (not barrel)			6.50
HOODED INLET BAFFLE PLATE: 3/			
SG Steel, double angle iron			12.00
END SECTION: 3/			
SG Steel, 12 inch through 24 inch diameter			6.50
SG Steel, 30 inch through 36 inch diameter			10.40
SG Steel, 42 inch through 54 inch diameter			19.50
SG Steel, 60 inch diameter and larger			26.00
SCREEN OR END CAP: 3/			
SG Steel			6.50
FLAP GATE: 3/			
SG Steel			15.60
CONICAL TRASH RACK: 3/			
SG Steel, based on riser diameter, 36 inch and less			31.20
SG Steel, based on riser diameter, 42 inch and over			52.00
WEIR BOX TRASH RACK: 3/			
SG Steel, for hooded inlets			10.40
FABRICATED TRASH RACK: 3/			
SG Steel, based on riser diameter			15.60
ANTI-VORTEX VANE: 3/			
SG Steel, for hooded inlets			2.60
FABRICATION (LABOR ONLY): 4/			
Tees, Wyes, and Riser Stubs			10.40
Elbows			7.80
Skewed or Beveled Ends			4.60

1/ Pipe costs are listed per diameter inch, per lineal foot, 16-gauge thickness.

Use above costs X 1.20 for 14 gauge, 1.50 for 12 gauge, and 1.90 for 10 gauge.

Examples: 20 ft., 24 in. dia. steel, CR/CS, 16 ga. = (1.50) X (24 in. dia.) X (20 ft.) = 720.00

20 ft., 24 in. dia. steel, CR/CS, 14 ga. = (1.50 X 1.20) X (24 in. dia.) X (20 ft.) = 864.00

2/ Connecting band costs are listed for the band width listed, per diameter inch, 16 gauge thickness. Use above costs X 1.20 for 14 gauge, and 1.70 for 12 gauge.

Examples: 12 in. wide steel band, PC, 16 ga., 24 in. dia. = (2.10) X (24 in. dia.) = 50.40

24 in. steel watertight band, SG, 12 ga., 48 in. dia. = (5.75 X 1.70) X (48 in. dia.) = 469.20

3/ Costs are per diameter inch of pipe, any gauge (no added factors for gauge).

4/ Cost per diameter inch. For riser/stub assemblies, use stub diameter. Fabrication does NOT include any material costs.

TABLE B - PIPE AND RELATED COSTS (CONTINUED)

PIPE FOR IRRIGATION WATER CONVEYANCE - GATED PIPE \$4.00 per foot AM

IRRIGATION SYSTEM REORGANIZATION

Conversions that result in a net water saving in current irrigation method (Example: High pressure to low pressure, sprinkler; flood to surge irrigation)	\$125/Acre AM
Conversion to a more efficient irrigation water application method (Example: flood irrigation to sprinkler)	\$500/Acre AM

ANTI-SEEP COLLAR, BUTYL RUBBER/NEOPRENE WITH WOOD FRAME

<u>Size</u>	<u>Price</u>
2x2 feet	15.00
4x4 feet	35.00
5x5 feet	55.00
6x6 feet	65.00

VALVES, GATES, AND PIPE APPURTENANCES ^{1/}

Flow Meter	100.00 per diameter inch
Gate Valves or Combination Gate/Check	50.00 per diameter inch
Hand Opening Slide Gate	8.00 per diameter inch
Wheel Opening Slide Gate	45.00 per diameter inch
Reverse Flow Check Valve	35.00 per diameter inch
Air Relief Valve	40.00 per diameter inch
Pressure Relief Valve	60.00 per diameter inch
Coated Steel Grade Transition Section	50.00 per diameter inch
Alfalfa Valves 8" to 12" installed	20.00 per diameter inch
Surge Valves 6" to 12" installed	225.00 per diameter inch
Butterfly Valves	35.00 per diameter inch

^{1/} Not applicable to small diameter livestock pipelines.

TABLE C - CONSTRUCTION MATERIALS, WELLS, AND STORAGE FACILITIES

CONCRETE

Concrete and steel reinforcing, formed in place	\$400.00/cu.yd.AA
Concrete slabs with steel reinforcing, in place	250.00/cu.yd.AA
Nonreinforced concrete or soil cement for bedding or grouting	150.00/cu.yd.
Concrete Quality Control (includes air, slump, & compressive strength testing)	\$1,500.00 / project AM

LUMBER AND STRUCTURAL STEEL

Cedar, Redwood or preservation-treated lumber	\$1.40/bd.ft.
Wood piling or construction poles per diameter inch of butt thickness	0.50/ln.ft.
Structural steel including fabrication	2.50/lb.

RIPRAP

Riprap in place including bedding	\$25.00/cu.yd.
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GEOTEXTILE FABRIC

Woven or non-woven fabric in place	\$2.00/sq.yd AA
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GRAVEL OR SCORIA

Gravel, sand, or scoria (pit run)	\$10.00/cu.yd.
Gravel (washed and graded)	18.00/cu.yd.

RESERVOIR SEALING

Material to reduce seepage in place (membrane, bentonite, or salt)	\$0.25/sq.ft.
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WELLS

Drilling and casing less than 4 inches Artesian <u>1/</u>	\$24.00/ft.
Drilling and casing 4 inches and over Artesian <u>1/</u>	28.00/ft.
Drilling and casing less than 4 inches <u>1/</u>	15.00/ft.
Drilling and casing 4 inches and over <u>1/</u>	20.00/ft.
Drilling and casing 4 inches and over (plastic) <u>1/</u>	18.00/ft.
Drilling in consolidated material not requiring casing	10.00/ft.
Bored or dug and cased 12 inches or larger <u>1/</u>	25.00/ft.
Well screen, stainless steel or brass installed <u>2/</u>	80.00/ft.
Well screen, plastic or galvanized steel installed <u>2/</u>	25.00/ft.
Rural Water System Hookups	\$750.00 AM
Water Pump – installed <u>3/</u>	1000.00 AM
Pitless Well Units (Steel) <u>3/ 4/</u>	110.00 per diameter inch
Vault, Complete with Pressure Tank, Switches, Controls <u>3/ 4/ 5/</u>	1,200.00
Alternative Pumping Plant Power Source (windmills and solar panels)	\$5,000 AM

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- 1/ Costs as shown are installed costs including but not limited to such things as cement, cement basket, lead packing, gravel, and other permanently installed items necessary for drilling and casing the well.
- 2/ Costs as shown are installed costs and include drilling. Costs are for manufactured screens.
- 3/ Livestock water only. Pumps, vaults, and pitless units shall be eligible for cost share only when installed by a certified water well contractor or water well pump installer.
- 4/ These items are also eligible for cost-share on new livestock water pipelines connected to existing wells.

| 5/ In-well devices such as the "No-Tank" may be substituted for the vault, pressure tank, switches, and controls.

TABLE C - CONSTRUCTION MATERIALS, WELLS, AND STORAGE FACILITIES (CONTINUED)

DECOMMISSIONING ABANDONED WELLS 1/

Well diameter less than 4 inches	2.55/ln.ft.
Well diameter less than 4 inches (flowing)	3.55/ln.ft.
Well diameter - 4 inches	2.70/ln.ft.
Well diameter - 5 inches	4.60/ln.ft.
Well diameter - 6 to 11 inches	8.44/ln.ft.
Well diameter - 12 to 29 inches	8.75/ln.ft.
Well diameter - 30 to 36 inches	25.00/ln.ft.
Well diameter - larger than 36 inches	30.00/ln.ft.

LIVESTOCK WATER FACILITIES

Storage tank – New – Complete Installation 2/	\$1.00/gal.
Storage tank, Frost Free – New – Complete Installation 2/	3.00/gal.
Nose Pump	\$500.00 / Each AM

ANIMAL WASTE STORAGE AND TREATMENT FACILITIES

Subsurface investigation – soil boring, testing, and report	\$6,000 per Ag Waste Facility AM
Average costs shall be based on site specific engineer's estimates for complete installation of the structure. Earthmoving components of the estimate shall be taken from Table A. Costs for other construction material components previously covered in Table C shall be used to develop the engineer's estimate. Cost of construction materials not covered in the tables will be determined by utilizing available local market prices.	Engineer's Estimate - AM

ROOF RUNOFF STRUCTURE

Average costs shall be based on site specific engineer's estimates for complete installation of the gutters and outlet system. Earthmoving components of the estimate shall be taken from Table A. Costs for other construction material components previously covered in Tables B and C shall be used to develop the engineer's estimate. Cost of construction materials not covered in the tables will be determined by utilizing available local market prices.	Engineer's Estimate - AM
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GRADE STABILIZATION STRUCTURES, STREAMBANK PROTECTION, STREAM CHANNEL STABILIZATION, LINED WATERWAY OR OUTLET, AND STRUCTURAL RENOVATIONS 3/

Average costs shall be based on site specific engineer's estimates for complete installation of the structure. Earthmoving components of the estimate shall be taken from Table A. Costs for other construction material components previously covered in Table C shall be used to develop the engineer's estimate. Cost of construction materials not covered in the tables will be determined by utilizing available local market prices.	Engineer's Estimate - AM
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1/ Costs as shown are installed costs and includes but not limited to such things as sanitizing chemicals, bentonite, cement, sand, and other permanently installed items necessary for sanitizing and sealing the abandoned well.

2/ Complete installation includes necessary components, accessories, labor, etc. to cover the entire installation costs. Does not include concrete apron.

3/ This is not to be used for initial installations of reinforced concrete and closed conduit pipe structures.

TABLE D - VEGETATIVE ESTABLISHMENT AND RELATED COSTS

SEEDBED PREPARATION

	Per Acre
Chemical seedbed preparation, without tillage:	
Chemicals (Cost-share for chemicals is limited to the following per acre AM cost, regardless of the number of applications)	\$20.00 AM
Ground Application (limited to 2 applications)	\$4.00
Aerial Application (limited to 2 applications)	\$5.00
Mechanical seedbed preparation (Includes 1 or more packing operations)	\$ 8.30
Seedbed preparation, EWP and WRP	\$30.00 AM

SEEDING OPERATIONS

	Per Acre
Grass drill	\$11.00
Grain drill	\$ 8.00
Grass drill, EWP and WRP seedings	\$20.00
Temporary Cover	\$19.00

CRITICAL AREA PREPARATION

	Per. Sq. Yd.
Mulch Blankets	\$0.50
Anchored mulch w/netting	\$0.25
Anchored mulch w/treader	\$0.05
Hydroseeder, seeding and mulch	\$0.20
Sod in-place	\$1.00
Turf reinforcing materials	\$3.50 AM

FERTILIZATION

Application of fertilizer	\$2.00 per acre
Nitrogen (N ₂)	\$0.24 per lb., actual
Phosphate (P ₂ O ₅)	\$0.25 per lb., actual
Potash (K ₂ O)	\$0.10 per lb., actual

WEED OR PEST CONTROL

	Per Acre
Mechanical weed control	\$5.75
Chemical weed or pest control:	
Chemical for weed or pest control	\$8.00
Ground Application (limited to 2 applications)	\$4.00
Aerial Application (limited to 2 applications)	\$5.00

TABLE E - SEED COSTS

GRASS SEED

Introduced Species	30.00/ac AM
Introduced / Native Species Mixture	50.00/ac AM
Native Species (grass only)	80.00/ac AM
Native Species (mixtures with shrub and/or forbs seed)	120.00/ac AM

VEGETATIVE PLUGS

Individual Vegetative Plug (Planted)	1.00/ea AM
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TABLE F - AVERAGE COSTS FOR ESTABLISHING OR REESTABLISHING TREES OR SHRUBS

SITE PREPARATION

	Per Acre
Chemical site preparation, without tillage	
Chemicals (Cost-share for chemicals is limited to the following per acre AM cost, regardless of the number of applications)	\$20.00 AM
Ground Application (limited to 2 applications)	\$4.00
Aerial Application (limited to 2 applications)	\$5.00
Mechanical site preparation	\$20.00
Site Preparation, EWP flood plain easement	\$30.00 AM
Heavy site preparation (dozed, sheared, clipped, etc.)	\$106.00

PLANTING COSTS (includes planting and materials)

Machine Planting (bare root or containerized – also includes sod scalped)	20.00 per 100-ft. row AM
Hand Planted (bare root or container)	1.10 per tree AM
Hand Planted (Unrooted Cuttings)	0.40 per tree AM

PLANT MAINTENACE / MANAGEMENT

Competition Control	
Mechanical (4 to 6-foot band with in-the-row equipment, 1 cultivation)	\$2.40 per 100-ft. row AM
Chemical (3- to 4-foot band with in-the-row)	4.60 per 100-ft. row AM
Synthetic Weed Barrier (6 feet wide)	45.00 per 100-ft. row AM
Synthetic Weed Barrier Squares (4' x 4' minimum)	2.80 per square AM
Supplemental Water System	\$2.10 per emitter AM
(This pertains to a drip irrigation system and the price includes emitter, pipe, and other appurtenances but does not include pipeline from water source to tree planting.)	
Tree shelter:	
2 foot	\$2.10 per shelter AM
3 foot	\$2.90 per shelter AM
4 foot	\$3.30 per shelter AM

RENOVATION

Removal of entire tree and/or shrub row	\$100.00 per 100-ft. row AM
Bury trees and/or shrubs	\$25.00 per 100-ft. row AM
Thinning of trees and/or shrubs	7.50 per 100-ft. row AM

TABLE G - GRASSLAND PRACTICES

BRUSH CONTROL

	<u>Per Acre</u>
Approved <u>chemical</u> for control of competitive shrubs on non-cropland see table D – Weed or Pest Control for application rates)	\$10.00
Mechanical Brush Control	\$10.00

FENCE CONSTRUCTION

New materials for all purposes

	<u>Per LF</u>
Barbed or smooth wire	0.85
Chain link fence (minimum height 6')	12.00
Feedlot Fence	7.00 AM
Feedlot Fence for wind protection	11.00 AM
Power (Electric) fence (multiple wires)	0.50
Power (Electric) fence (1 wire)	0.25
Woven wire	1.25 AM
	<u>Each</u>
Power (Electric) Fence Energizers	500.00 AM
Solar Panel for Power (Electric) Fence	\$500.00 AM
See Table A for Obstruction Removal (fence)	

CROP BUDGET AND CUSTOM RATE INFORMATION

Crop Budget information can be accessed at the following website:
www.ext.nodak.edu/extpubs/ecguides.htm. Budgets can be printed and completed on the hard copy.

North Dakota Custom Rates can be accessed at the following website:
www.nass.usda.gov/nd/custom.htm.