

MINNESOTA TECHNICAL GUIDE SECTION III
CONSERVATION MANAGEMENT SYSTEM (CMS) GUIDANCE DOCUMENT

Landuse Type Cropland Resource Setting No. 1 MLRA 102 FIELD OFFICE _____

| | | | | | | | | |
|--|--------------------------|---------------|---------------------------|------------------------|-----------------------------|--------------------------------|--------------------------------|-------------------------------|
| Resource Setting: Soil – Silt Loam (SiL) – Slope 6-12%. Sheet and Rill Erosion at 12T/AC/Yr. Wind Erosion at 7T/Ac/Yr. Gully Erosion and Soil Compaction. Pest pressures on crops. No Upland Game Birds. Pesticides/Nutrients in stream. Rotation C-SB. | | | | | | | | |
| REFERENCE FROM CPPE AND RESOURCE CONSIDERATIONS | | | | | | | | |
| Resource: | Soil | | | | | | Water | |
| | A-1-a Sheet & Rill | A-1-b Wind | A-1-d Classic Gully | A-2-a Soil Tilth | A-2-b Soil Compaction | A-3-b Offsite Deposition | B-2-g Contami. Pesticide | B-2-h Contami. Nutrient |
| RMS # 2 Practice # And Name: | | | | | | | | |
| 328-Corn, Soybeans | | | | | | | | |
| 329-Cons. Till. | SIG+ | SIG+ | O | MOD+ | MOD+ | MOD+ | SLI+ | SLI+ |
| 600s-Terrace | SLI+ | SLI+ | SIG+ | SLI+ | SLI- | SIG+ | MOD+ | MOD+ |
| 620-Underground Outlet | F | F | F | F | F | F | F | F |
| 685c-Pest Management | O | O | O | O | O | O | MOD+ | O |
| 680b-Nutrient Mgt. | O | O | O | O | O | O | O | SIG+ |
| 645-Upland Wildlife Mgt. | MOD+ | MOD+ | NEG | MOD+ | MOD+ | SLI+ | MOD+ | MOD+ |

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Landuse Type Cropland Resource Setting No. 1 MLRA 56 FIELD OFFICE Red Lake Falls Tech Guide

| | | | | | | | | |
|---|--------------|---------------|----------------|----------------|-----------------|---|-------------------|--|
| Resource Setting: Major Soil Type: Fine Sandy Loam, "T" Values 86 and 134, "T" Value = 5t/ac/yr, Slope Range: 0-2% Major Resource concern: Wind Erosion, Resulting in on and offsite damage on adjacent roads. Producer concerns: Increased productivity in crops, reduction in drain. maint. Cost. | | | | | | | | |
| REFERENCE FROM CPPE AND RESOURCE CONSIDERATIONS | | | | | | | | |
| Resource: | Soil | | | Air | | | | |
| | Wind Erosion | Damage Onsite | Damage Offsite | Quality Onsite | Quality Offsite | Airborne Sediment Particles Causing Conveyance Problems | Airborne Chemical | |
| | A-1-b | A-3-a | A-3-b | C-1-a | C-1-b | C-1-g | C-1-h | |
| RMS # 2 Practice # And Name: | | | | | | | | |
| 328-Conservation Crop Sequence | | | | | | | | |
| 329-Cons. Till. (Mulch) | SIG+ | SIG+ | MOD+ | SIG+ | MOD+ | SIG+ | MOD+ | |
| 340 Cover/Green Manure | MOD+ | MOD+ | SLI+ | MOD+ | MOD+ | SLI+ | NA | |
| 680 Nutrient Management | SLI+ | SLI+ | SLI+ | SLI+ | NEG | SLI+ | NEG | |
| 685-Pest Management Chem | NEG | NEG | NEG | SLI+ | SLI+ | SLI+ | SLI+ | |
| 645 Wild Up Management | SLI+ | NEG | NEG | NA | NA | NA | NA | |
| | | | | | | | | |

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Landuse Type Cropland Resource Setting No. 1 MLRA 56 FIELD OFFICE Red Lake Falls Tech Guide

Resource Setting:
 Soil – Silt Loam (SiL) – Slope 6-12%. Sheet and Rill Erosion at 12T/AC/Yr.
 Wind Erosion at 7T/Ac/Yr. Gully Erosion and Soil Compaction. Pest pressures on crops.
 No Upland Game Birds. Pesticides/Nutrients in stream. Rotation C-SB.

REFERENCE FROM CPPE AND RESOURCE CONSIDERATIONS

| Resource: | Plants | Animals | | | | | | |
|---------------------------------|--|----------------------|--|--|--|--|--|--|
| | Establishment Growth and Harvest | Cover and Shelter | | | | | | |
| | D-3-a | E-1-b | | | | | | |
| RMS # 1 Practice # And Name: | | | | | | | | |
| 328-Conservation Cropping Seq | | | | | | | | |
| 329-Cons. Till. (Mulch) | NEG | SLI+ | | | | | | |
| 340 Cover/Green Manure | SLI+ | SLI+ | | | | | | |
| 680 Nutrient Management | MOD+ | MOD+ | | | | | | |
| 685 Pest Management Chem | SLI+ | MOD- | | | | | | |
| 645 Wild Up Management | NA | NA | | | | | | |
| | | | | | | | | |

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Landuse Type Cropland Resource Setting No. 1 MLRA 56 FIELD OFFICE Crookston

| Resource Setting: Soils are Fine sandy loam, slopes 0-1%, I=134. Crop rotation is a continuous small grain with an occasional summer fallow. This is not irrigated. Wind erosion occurs at 20 tons/ac./year. Land owner objectives are growing crops for economic return and lower costs for ditch maintenance. | | | | | | | | |
|---|--------------|--------------------|---------------------|--|---|------------------------------------|---------------------|-----------------|
| REFERENCE FROM CPPE AND RESOURCE CONSIDERATIONS | | | | | | | | |
| Resource: | Soil | | | Water | | Plant | | |
| | Wind Erosion | Deposition On Site | Deposition Off Site | Quantity Restricted Cap. Deposit On Site | Quantity Restricted Cap. Deposit Off Site | Management Est. Growth and Harvest | Management Nutrient | Management Pest |
| | A-1-b | A-3-a | A-3-b | B-1-g | B-1-h | D-3-a | D-3-b | D-3-c |
| RMS # 1 Practice # And Name: | | | | | | | | |
| 328-Conservation Cropping Seq | | | | | | | | |
| 329-Cons. Till. (Mulch) | SIG+ | SIG+ | SIG+ | MOD+ | MOD+ | NEG | NEG | NEG |
| 392 Field Windbreak | MOD+ | MOD+ | SIG+ | MOD+ | MOD+ | SIG+ | SIG+ | NEG |
| 340 Coves/Green Manure | SIG+ | MOD+ | SLI+ | SLI+ | SLI+ | SLI+ | MOD+ | MOD+ |
| 660a Nutrient Management | SLI+ | SLI+ | SLI+ | SLI+ | SLI+ | SIG+ | SIG+ | SLI+ |
| 685c Pest Management | SLI+ | NEG | NEG | NEG | NEG | SIG+ | 0 | SIG+ |
| 645 Wildlife Upland Management | SLI+ | NEG | NEG | SLI+ | SLI+ | SL+ | SL+ | SL+ |

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Landuse Type Cropland Resource Setting No. 1 MLRA 56 FIELD OFFICE Crookston

Resource Setting: Soil – Silt Loam (SiL) – Slope 6-12%. Sheet and Rill Erosion at 12T/AC/Yr.
 Wind Erosion at 7T/Ac/Yr. Gully Erosion and Soil Compaction. Pest pressures on crops.
 No Upland Game Birds. Pesticides/Nutrients in stream. Rotation C-SB.

REFERENCE FROM CPPE AND RESOURCE CONSIDERATIONS

| | | | | | | | | |
|---------------------------------|-------------------|--|--|--|--|--|--|--|
| Resource: | Animal | | | | | | | |
| | Cover and Shelter | | | | | | | |
| | E-1-b | | | | | | | |
| RMS # 1 Practice # And Name: | | | | | | | | |
| 328-Conservation Cropping Seq | | | | | | | | |
| 329-Cons. Till. (Mulch) | Slight + | | | | | | | |
| 392 Field Windbreak | MOD+ | | | | | | | |
| 340 Cover/Green Manure | Slight+ | | | | | | | |
| 680a Nutrient Management | SI+ | | | | | | | |
| 685c Pest Management | MOD- | | | | | | | |
| 645 Wildlife Upland Management | SIG+ | | | | | | | |

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Landuse Type Cropland Resource Setting No. 1 MLRA 56 FIELD OFFICE Breckenridge

Resource Setting: This is non-irrigated cropland. The major sols are loamy fine sand. The cropping sequence is small grain and soybeans. The landowner is experiencing wind erosion. Soil blowing across the road is causing a safety hazard. Ground water contamination potential exists from improper nutrient and pest management. Producer also has a concern in improving wildlife habitat.

REFERENCE FROM CPPE AND RESOURCE CONSIDERATIONS

| Resource: | Soil | | | Water | | Air | Plant | |
|---------------------------------|--------------|---------------------------|----------------------------|-------------------------|----------------------|-------------------------|---------------------|--|
| | Wind Erosion | Deposition On Site Damage | Deposition Off Site Damage | Ground Water Pesticides | Nutrients & Organics | Airborne Safety Offsite | Nutrient Management | |
| | A-1-b | A-3-a | A-3-b | B-2-a | B-2-b | C-1-b | D-3-b | |
| RMS # 2 Practice # And Name: | | | | | | | | |
| 328-CCS (sg, sq, sg, sb) | | | | | | | | |
| 329-No Tillage | SIG+ | SIG+ | SIG+ | SLI+ | SLI- | MOD+ | SLI- | |
| 392 Field Windbreak | SIG+ | MOD+ | MOD+ | SLI+ | SLI- | MOD+ | MOD+ | |
| 645-Wild Up Management | SIL+ | NEG | NEG | SLI+ | SLI+ | SLI+ | SLI+ | |
| 644-Wild Wet Hab. Management | SL+ | SL+ | SL+ | SLI+ | SLI+ | SL+ | NA | |
| 680e-Nutrient Management | NEG | NEG | NEG | NEG | SIG+ | NEG | SIG+ | |
| 685c-Pest Management | SLI+ | NEG | NEG | SIG+ | NEG | SLT+ | NA | |

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Landuse Type Cropland Resource Setting No. 1 MLRA 56 FIELD OFFICE Breckenridge

Resource Setting: This is non-irrigated cropland. The major soils are loamy fine sand. The cropping sequence is small grain and soybeans. The landowner is experiencing wind erosion. Soil blowing across the road is causing a safety hazard. Ground water contamination potential exists from improper nutrient and pest management. Producer also has a concern in improving wildlife habitat.

REFERENCE FROM CPPE AND RESOURCE CONSIDERATIONS

| Resource: | Animal | | | | | | | |
|---------------------------------|--------|-------|-------|--|--|--|--|--|
| | E-1-a | E-1-b | E-1-c | | | | | |
| RMS # 2 Practice # And Name: | | | | | | | | |
| 328-CCS(SG,SG,SG,SB) | | | | | | | | |
| 329-No Till | MOD+ | MOD+ | MOD+ | | | | | |
| 392 Field Windbreaks | MOD+ | MOD+ | NEG | | | | | |
| 645 Wild Up Management | SIG+ | SIG+ | SLI+ | | | | | |
| 644-Wild Wet Hab. Management | SIG+ | SIG+ | SIG+ | | | | | |
| 680e-Nutrient Management | SLI+ | MOD | SLI+ | | | | | |
| 685c-Pest. Management | MOD- | SLI- | SLI- | | | | | |

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Landuse Type Cropland Resource Setting No. 1 MLRA 56 FIELD OFFICE Breckenridge

Resource Setting: This is non-irrigated cropland. The major soils are sandy loam on 0-2% slope. The cropping sequence is small grain and soybeans. The landowner is experiencing wind erosion. Soil blowing across the road is causing a safety hazard. Ground water contamination potential exists from improper nutrient and pest management. Producer also has a concern in improving wildlife habitat.

REFERENCE FROM CPPE AND RESOURCE CONSIDERATIONS

| Resource: | Soil | | | Water | | Air | Plant | |
|---------------------------------|--------------|---------------------------|----------------------------|------------|----------------------|-------------------------|---------------------|--|
| | Wind Erosion | Deposition On Site Damage | Deposition Off Site Damage | Pesticides | Nutrients & Organics | Airborne Safety Offsite | Management Nutrient | |
| | A-1-b | A-3-a | A-3-b | B-2-a | B-2-b | C-1-b | D-3-b | |
| RMS # 1 Practice # And Name: | | | | | | | | |
| 328-CCS(SG,SG,SG,SB) | | | | | | | | |
| 329m-Cons Till Mulch | SIG+ | SIG+ | MOD+ | NEG | NEG | MOD+ | NEG | |
| 392 Field Windbreak | SIG+ | MOD+ | MOD+ | SLI- | SLI- | MOD+ | MOD+ | |
| 645 Wild Up Management | SLI+ | NEG | NEG | SLI+ | SLI+ | SLI+ | SL+ | |
| 644-Wild Wet Hab. Management | SL+ | SL+ | SL+ | SLI+ | SLI+ | SL+ | NA | |
| 680e-Nutrient Management | NEG | NEG | NEG | NEG | SIG+ | NEG | SIG+ | |
| 685c-Pest. Management | SLI+ | NEG | NEG | SIG+ | NEG | SLI+ | NA | |

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Landuse Type Cropland Resource Setting No. 1 MLRA 56 FIELD OFFICE Breckenridge

Resource Setting: This is non-irrigated cropland. The major soils are sandy loam on 1-2% slope. The cropping sequence is small grain and soybeans. The landowner is experiencing wind erosion. Soil blowing across the road is causing a safety hazard. Ground water contamination potential exists from improper nutrient and pest management. Producer also has a concern in improving wildlife habitat.

REFERENCE FROM CPPE AND RESOURCE CONSIDERATIONS

| Resource: | Animal | | | | | | | |
|-------------------------------|--------|-----------------|----------------|--|--|--|--|--|
| | Food | Cover & Shelter | Drinking Water | | | | | |
| | E-1-a | E-1-b | E-1-c | | | | | |
| RMS # Practice # And Name: | | | | | | | | |
| 328-CCS(SG,SG,SG,SB) | | | | | | | | |
| 329-Cons Till Mulch | MOD+ | SLI+ | MOD+ | | | | | |
| 392 Field Windbreak | MOD+ | MOD+ | NEG | | | | | |
| 645 Wild Up Management | SIG+ | SIG+ | SLI+ | | | | | |
| 644-Wild Wet Hab. Management | SIG+ | SIG+ | SIG+ | | | | | |
| 680e-Nutrient Management | SLI+ | MOD+ | SLI+ | | | | | |
| 685c-Pest. Management | MOD- | SLI- | SLI- | | | | | |

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Landuse Type Cropland Resource Setting No. 1 MLRA 56 FIELD OFFICE Warren

Resource Setting: The major soils are loamy fine sand with slopes less than 2%. The cropping sequence is three years small grain, one year potatoes. Resource concerns include; wind erosion, poor water infiltration, soil compaction, seasonal field flooding, pesticides, air quality, plant nutrient deficits, plant diseases and shortage of wildlife cover Landowner desires a stable, economic cropping system.

REFERENCE FROM CPPE AND RESOURCE CONSIDERATIONS

| Resource: Cropland | Soil | | | Water | | Air | | | | Plant | | Animals |
|---------------------------------|-------|----------------|---------------------|-------|----------|-------|-------|-------|-------|-------|-------|---------|
| | A-1-b | Tilth A-2-a | Compaction A-2-b | B-1-b | B-2-a | C-1-a | C-1-b | C-1-e | C-1-f | D-3-b | D-3-c | E-1-b |
| RMS # 1 Practice # And Name: | | | | | | | | | | | | |
| 328-Conservation Cropping Seq | | | | | | | | | | | | |
| 329m-Cons. Till. | SIG+ | MOD+ | SIG+ | SLI+ | NEG | MOD+ | SLI+ | MOD+ | SLI+ | NEG | NEG | SLI+ |
| 392 Field Windbreak | MOD+ | MOD+ | MOD+ | SLI- | SLI- | SIG+ | MOD+ | SIG+ | MOD+ | SL+ | NA | SLI+ |
| 607-Sur. Drainage Ditch Fld | NEG | SLI+ | SLI+ | SIG+ | SLI+ | NA | NA | NA | NA | SLI+ | SLI+ | NEG |
| 680d-Nutrient Management | SLI+ | SLI+ | SLI+ | SLI+ | SLI+ | SLI+ | NEG | SLI+ | SLI+ | SIG+ | SLI+ | SLI+ |
| 685c-Pest Management | NEG | NEG | NEG | NA | MOD + | SLI+ | NEG | SLI+ | NEG | NA | SIG+ | SLI- |
| 645-Upland Wild Management | SL+ | SL+ | SL+ | SL+ | SL+ | SL+ | SL+ | SL+ | SL+ | SL+ | SL+ | SIG+ |

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Landuse Type Cropland Resource Setting No. 1 MLRA 56 FIELD OFFICE Roseau

Resource Setting: The major soil is Percy Fine Sandy Loam with a slope range of 0 to 1%. Wind erosion rates of approx 15.0 t/ac/yr are due to fall plowing with little to no residue remaining. The cropping sequence is three years small grain and 1 yr sunflowers. Pest pressure is evident on all crops grown. Odor from animal waste spread on fields. Objectives of landowners are raising crops for a maximum economic return, reducing wind erosion, controlling pests and encouraging resident wildlife, ex. Deer, sharptail grouse.

REFERENCE FROM CPPE AND RESOURCE CONSIDERATIONS

| Resource: | Soil | | | | Air | Plants | | Animals |
|---------------------------------|--------------|-------------------------|-----------------------|--------------------|-------------------|------------------------|--------------------|---------------|
| | Wind Erosion | Soil Condition Tilth | Soil Onsite Damage | Soil Deposition | Airborne Oders | Nutrient Management | Pest Management | Wildlife Food |
| | A-1-b | A-2-a | A-3-a | A-3-b | C-1-i | D-3-b | D-3-c | E-1-a |
| RMS # 1 Practice # And Name: | | | | | | | | |
| 328-Conservation Cropping Seq | | | | | | | | |
| 344-Crop Residue Use | SIG+ | MOD+ | SIG+ | SIG+ | 0 | 0 | 0 | MOD+ |
| 392-Field Windbreak | SIG+ | 0 | SIG+ | SIG+ | 0 | 0 | 0 | SLI+ |
| 645-Wild Up. Management | 0 | 0 | 0 | 0 | 0 | 0 | 0 | SIG+ |
| 685 Pest Management Mech. | SLI+ | 0 | SLI+ | SLI+ | NA | 0 | SIG+ | 0 |
| 685-Pest Management Chem | 0 | 0 | 0 | 0 | NA | 0 | SIG+ | SL- |
| 680-Nutrient Management | 0 | 0 | 0 | 0 | SLI+ | SIG+ | SLI+ | 0 |
| 633-Waste Utilization | 0 | MOD+ | 0 | 0 | SIG+ | SIG+ | SLI- | 0 |

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Landuse Type Cropland Resource Setting No. 1 MLRA 88 FIELD OFFICE Roseau

Resource Setting: The major soil is Percy Fine Sandy Laom with a slope range of 0 to 1%. Wind erosion rates of approx 15.0 t/ac/yr are due to spring plowing with little to no residue remaining. The cropping sequence is three years small grain and 1 yr sunflowers. Pest pressure is evident on all crops grown. Odor from animal waste spread on fields. Objectives of landowners are raising crops for a maximum economic return, reducing wind erosion, controlling pests and encouraging resident wildlife, ex. deer, sharptail grouse.

REFERENCE FROM CPPE AND RESOURCE CONSIDERATIONS

| Resource: | Soil | | | | Air | Plants | | Animals |
|---------------------------------|--------------|-------------------------|-----------------------|--------------------|-------------------|------------------------|--------------------|---------------|
| | Wind Erosion | Soil Condition Tilth | Soil Onsite Damage | Soil Deposition | Airborne Oders | Nutrient Management | Pest Management | Wildlife Food |
| | A-1-b | A-2-a | A-3-a | A-3-b | C-1-i | D-3-b | D-3-c | E-1-a |
| RMS # 2 Practice # And Name: | | | | | | | | |
| 328-CCS Sm Gr | MOD+ | SL+ | SL+ | SL+ | 0 | SL+ | SL- | SL+ |
| 329-Cons Till. System 30% sg | SIG+ | MOD+ | SIG+ | SIG+ | 0 | 0 | 0 | SIG+ |
| 392-Field Windbreak | SIG+ | 0 | SIG+ | SIG+ | 0 | 0 | 0 | SIG+ |
| 645-Wild Up. Management | 0 | 0 | 0 | 0 | 0 | 0 | 0 | SIG+ |
| 685 Pest Management Mech. | SLI- | 0 | SLI- | SLI+ | NA | 0 | SIG+ | 0 |
| 685-Pest Management Chem | 0 | 0 | 0 | 0 | NA | 0 | SIG+ | SL- |
| 680-Nutrient Management | 0 | 0 | 0 | 0 | SLI+ | SIG+ | SLI+ | 0 |
| 633-Waste Utilization | 0 | MOD+ | 0 | 0 | SIG+ | SIG+ | SLI- | 0 |

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Landuse Type Cropland Resource Setting No. 1 MLRA 102 FIELD OFFICE _____

Resource Setting: Soil – Silt Loam (SiL) – 6-12% slope. Sheet and Rill Erosion at 12T/Ac/Yr. Wind Erosion at 7T/Ac/Yr. Gully Erosion and Soil Compaction. Pest pressures on crops. No Upland Game Birds. Pesticides/Nutrients in stream. Rotation C-SB.

REFERENCE FROM CPPE AND RESOURCE CONSIDERATIONS

| Resource: | Soil | | | | | | | Water |
|---------------------------------|--------------|-------|---------------|------------|-----------------|--------------------|-------------------|------------------|
| | Sheet & Rill | Wind | Classic Gully | Soil Tilth | Soil Compaction | Offsite Deposition | Contam. Pesticide | Contam. Nutrient |
| | A-1-a | A-1-b | A-1-d | A-2-a | A-2-b | A-3-b | B-2-g | B-2-h |
| RMS # 2 Practice # And Name: | | | | | | | | |
| 328-Corn, Soybeans | | | | | | | | |
| 329-Cons Till (No-Till) | SIG+ | SIG+ | SLI+ | MOD+ | MOD+ | MOD+ | MOD+ | MOD+ |
| 330-Contouring | SLI+ | 0 | 0 | 0 | 0 | MOD+ | MOD+ | SLI+ |
| 386-Field Border | F | F | F | F | F | F | F | F |
| 412-Waterway | 0 | 0 | SIG+ | 0 | 0 | SLI+ | SLI+ | SLI+ |
| 685c-Pest Management | 0 | 0 | 0 | 0 | 0 | 0 | MOD+ | 0 |
| 680-Nutrient Management | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

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REFERENCE FROM CPPE AND RESOURCE CONSIDERATIONS

| Resource: | Plants | Animals | | | | | | |
|---------------------------------|---------------------|---------|---------|--|--|--|--|--|
| | Nutrient Management | Food | Shelter | | | | | |
| | D-3-b | E-1-a | E-1-b | | | | | |
| RMS # 1 Practice # And Name: | | | | | | | | |
| 328-Corn, Soybeans | | | | | | | | |
| 329-Cons Till (No till) | SLI+ | SIG+ | SIG+ | | | | | |
| 330-Contouring | 0 | NEG | NEG | | | | | |
| 386-Field Border | F | SLT+ | MOD+ | | | | | |
| 412-Waterway | NA | SLI+ | MOD+ | | | | | |
| 685c-Pest Management | NA | SIG- | MOD- | | | | | |
| 680-Nutrient Management | SIG+ | MOD+ | SLI+ | | | | | |

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Resource Setting: Soil – Silt Loam (SiL) – 6-12% slope. Sheet and Rill Erosion at 12 T/Ac/Yr. Wind Erosion at 7T/Ac/Yr. Gully Erosion and Soil Compaction. Pest pressures on crops. No Upland Game Birds. Pesticides/Nutrients in stream. Rotation C-SB.

REFERENCE FROM CPPE AND RESOURCE CONSIDERATIONS

| Resource: | Soil | | | | | | Water | |
|---------------------------------|--------------|-------|----------------|------------|-----------------|--------------------|-------------------|------------------|
| | Sheet & Rill | Wind | Classic Gulley | Soil Tilth | Soil Compaction | Offsite Deposition | Contam. Pesticide | Contam. Nutrient |
| | A-1-a | A-1-b | A-1-d | A-2-a | A-2-b | A-3-b | B-2-g | B-2-h |
| RMS # 1 Practice # And Name: | | | | | | | | |
| 645-Upland Wildlife Management | MOD+ | MOD+ | NEG | MOD+ | MOD+ | SLI+ | MOD+ | MOD+ |
| | | | | | | | | |
| | | | | | | | | |
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REFERENCE FROM CPPE AND RESOURCE CONSIDERATIONS

| Resource: | Plants | Animals | | | | | | |
|---------------------------------|---------------------|---------|---------|--|--|--|--|--|
| | Nutrient Management | Food | Shelter | | | | | |
| | D-3-b | E-1-a | E-1-b | | | | | |
| RMS # 1 Practice # And Name: | | | | | | | | |
| 645-Upland Wildlife Management | MOD+ | SIG+ | SIG+ | | | | | |
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Landuse Type Cropland Resource Setting No. 1 MLRA 102 FIELD OFFICE _____

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| Resource Setting: Soil – Silt Loam (SiL) – 6-12% slope. Sheet and Rill Erosion at 12 T/Ac/Yr. Wind Erosion at 7T/Ac/Yr. Gully Erosion and Soil Compaction. Pest pressures on crops. No Upland Game Birds. Pesticides/Nutrients in stream. Rotation C-SB. | | | | | | | | |
|--|---------------------|---------|---------|--|--|--|--|--|
| REFERENCE FROM CPPE AND RESOURCE CONSIDERATIONS | | | | | | | | |
| Resource: | Plants | Animals | | | | | | |
| | Nutrient Management | Food | Shelter | | | | | |
| | D-3-b | E-1-a | E-1-b | | | | | |
| RMS # 2 Practice # And Name: | | | | | | | | |
| 328-Corn, Soybeans | | | | | | | | |
| 329-Cons Till (Mulch) | 0 | MOD+ | SLI+ | | | | | |
| 600s-Terrace | 0 | SLI+ | MOD+ | | | | | |
| 620-Underground Outlet | F | F | F | | | | | |
| 685c-Pest Management | MOD+ | SIG- | MOD- | | | | | |
| 680b-Nutrient Management | MOD+ | MOD+ | SLI+ | | | | | |
| 645-Upland Wildlife Mgmt | MOD+ | SIG+ | SIG+ | | | | | |

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Landuse Type Cropland Resource Setting No. 1 MLRA 102A FIELD OFFICE _____

Resource Setting:

Soil – Loam (L) – Slope 6-12%. This is a corn-soybean rotation. Residue management is desired to protect this area from sheet and rill erosion. Topography is uniform and contouring or terraces would work. There are areas of concentrated flow erosion. This is adjacent to a wildlife area.

REFERENCE FROM CPPE AND RESOURCE CONSIDERATIONS

| Resource: | Soil | | | | | Water | | Plant |
|---------------------------------|--------------|-----------------|---------------|------------|--------------------|---------------------|----------------|------------|
| | Sheet & Rill | Concentra. Flow | Classic Gully | Compaction | Offsite Deposition | Excess/ Sub Surface | Nutrient Mgmt. | Pest Mgmt. |
| | A-1-a | A-1-c | A-1-d | A-2-b | A-3-b | B-1-c | D-3-b | D-3-c |
| RMS # 1 Practice # And Name: | | | | | | | | |
| 328-Corn, Soybeans | | | | | | | | |
| 329-Cons. Till. (Mulch) | SIG+ | SLI+ | O | SIG+ | SIG+ | SLI+ | 0 | 0 |
| 600s-Terraces | MOD+ | SIG+ | SIG+ | 0 | SIG+ | 0 | 0 | SLI- |
| 330-Countouring | MOD+ | SLI+ | 0 | 0 | SLI+ | SLI+ | 0 | 0 |
| 412 Waterway | 0 | SIG+ | SIG+ | O | SLI+ | 0 | 0 | SLI+ |
| 386-Field Border | F | F | F | F | F | F | F | F |
| 644-Wetland Wildlife Mgmt. | SLI+ | SLI+ | NEG | SLI+ | MOD+ | MOD+ | 0 | MOD+ |

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Landuse Type Cropland Resource Setting No. 1 MLRA 102A FIELD OFFICE _____

Resource Setting:
 Soil – Loam (L) – Slope 6-12%. This is a corn-soybean rotation. Residue management is desired to protect this area from sheet and rill erosion. Topography is uniform and contouring or terraces would work. There are areas of concentrated flow erosion. This is adjacent to a wildlife area.

REFERENCE FROM CPPE AND RESOURCE CONSIDERATIONS

| Resource: | Animals | | | | | | | |
|---------------------------------|-------------------|------------|--|--|--|--|--|--|
| | Habitat/ Cover | Population | | | | | | |
| | E-1-b | E-2-a | | | | | | |
| RMS # 1 Practice # And Name: | | | | | | | | |
| 328-Corn, Soybeans | | | | | | | | |
| 329-Cons. Till. (Mulch) | 0 | SLI+ | | | | | | |
| 600-Terraces | 0 | SLI+ | | | | | | |
| 330-Countouring | 0 | 0 | | | | | | |
| 412 Waterway | 0 | SLI+ | | | | | | |
| 386-Field Border | F | F | | | | | | |
| 644-Wetland Wildlife Mgmt. | MOD+ | SIG+ | | | | | | |

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Landuse Type Cropland Resource Setting No. 1 MLRA 102A FIELD OFFICE _____

Resource Setting:

Soil – Loam (L) – Slope 6-12%. This is a corn-soybean rotation. Residue management is desired to protect this area from sheet and rill erosion. Topography is uniform and contouring or terraces would work. There are areas of concentrated flow erosion. This is adjacent to a wildlife area.

REFERENCE FROM CPPE AND RESOURCE CONSIDERATIONS

| Resource: | Soil | | | | | Water | | Plant |
|---------------------------------|--------------|-----------------|---------------|------------|--------------------|---------------------|----------------|------------|
| | Sheet & Rill | Concentra. Flow | Classic Gully | Compaction | Offsite Deposition | Excess/ Sub Surface | Nutrient Mgmt. | Pest Mgmt. |
| | A-1-a | A-1-c | A-1-d | A-2-b | A-3-b | B-1-c | D-3-b | D-3-c |
| RMS # 2 Practice # And Name: | | | | | | | | |
| 680b-Nutrient Management | 0 | 0 | 0 | 0 | 0 | 0 | SIG+ | SLI+ |
| 685c-Pest Management | 0 | 0 | 0 | 0 | 0 | 0 | 0 | SIG+ |
| 606-Subsurface Drain | F | F | F | F | F | F | F | F |
| 342-Critical Area Seed | F | F | F | F | F | F | F | F |
| | | | | | | | | |
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Landuse Type Cropland Resource Setting No. 1 MLRA 102A FIELD OFFICE _____

| | | | | | | | | |
|--|-------------------|------------|--|--|--|--|--|--|
| Resource Setting: Soil – Loam (L) – Slope 6-12%. This is a corn-soybean rotation. Residue management is desired to protect this area from sheet and rill erosion. Topography is uniform and contouring or terraces would work. There are areas of concentrated flow erosion. This is adjacent to a wildlife area. | | | | | | | | |
| REFERENCE FROM CPPE AND RESOURCE CONSIDERATIONS | | | | | | | | |
| Resource: | Animals | | | | | | | |
| | Habitat/ Cover | Population | | | | | | |
| | E-1-b | E-2-a | | | | | | |
| RMS # 1 Practice # And Name: | | | | | | | | |
| 680b-Nutrient Management | SLI+ | 0 | | | | | | |
| 685c-Pest Management | MOD- | MOD- | | | | | | |
| 606s-Subsurface Drain | F | F | | | | | | |
| 342-Critical Area Seed | F | F | | | | | | |
| | | | | | | | | |
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Landuse Type Cropland Resource Setting No. 1 MLRA 102A FIELD OFFICE _____

Resource Setting:

Soil – Loam (SiL) – Slope 6-12%. This is in a corn-soybean rotation. Residue management is desired to protect this area from sheet and rill erosion. Topography is uniform and contouring or terraces would work. There are areas of concentrated flow erosion. This is adjacent to a wildlife area.

REFERENCE FROM CPPE AND RESOURCE CONSIDERATIONS

| Resource: | Soil | | | | | Water | | Plant |
|---------------------------------|----------------------|-------------------------|---------------|------------|---------------------------|--------------------------|-----------------------------|----------------|
| | Sheet & Rill Erosion | Concentra. Flow Erosion | Classic Gully | Compaction | Offsite Damage Deposition | Excess/ Run-Off/Flooding | Excess Sub-Surface Moisture | Nutrient Mgmt. |
| | A-1-a | A-1-c | A-1-d | A-2-b | A-3-b | B-1-b | B-1-c | D-3-b |
| RMS # 2 Practice # And Name: | | | | | | | | |
| 328-Corn, Soybeans | | | | | | | | |
| 329-Cons Till (No-Till) | SIG+ | SLI+ | 0 | SIG+ | SIG+ | SLI+ | SLI- | SLI- |
| 330-Contouring | MOD+ | SLI+ | 0 | 0 | SLI+ | SLI+ | SLI- | 0 |
| 412-Waterway | 0 | SIG+ | SIG+ | 0 | SLI+ | SLI+ | 0 | 0 |
| 386-Field Border | F | F | F | F | F | F | F | F |
| 644-Wetland Habitat Mgmt. | SLI+ | SLI+ | NEG | SLI+ | MOD+ | 0 | MOD+ | 0 |
| 680b-Nutrient Management | 0 | 0 | 0 | 0 | 0 | 0 | 0 | SIG+ |

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Landuse Type Cropland Resource Setting No. 1 MLRA 102A FIELD OFFICE _____

| | | | | | | | | |
|--|-----------------|-----------------|------------------------|--|--|--|--|--|
| Resource Setting: Soil – Loam (L) – Slope 6-12%. This is a corn-soybean rotation. Residue management is desired to protect this area from sheet and rill erosion. Topography is uniform and contouring or terraces would work. There are areas of concentrated flow erosion. This is adjacent to a wildlife area. | | | | | | | | |
| REFERENCE FROM CPPE AND RESOURCE CONSIDERATIONS | | | | | | | | |
| Resource: | Animals | | | | | | | |
| | Pest Management | Habitat – Cover | Population and Balance | | | | | |
| | D-3-c | E-1-b | E-2-a | | | | | |
| RMS # 2 Practice # And Name: | | | | | | | | |
| 328-Corn, Soybeans | | | | | | | | |
| 329-Cons Till (No-Till) | SLI- | 0 | SLI+ | | | | | |
| 330-Contouring | 0 | 0 | SLI+ | | | | | |
| 412-Waterway | SLI+ | 0 | 0 | | | | | |
| 386-Field Border | F | F | F | | | | | |
| 644-Wetland Habitat Mgmt. | MOD+ | MOD+ | SLI+ | | | | | |
| 680b-Nutrient Mgmt. | SLI+ | SLI+ | 0 | | | | | |

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Landuse Type Cropland Resource Setting No. 1 MLRA 102A FIELD OFFICE _____

Resource Setting:
Soil – Silt Loam (SiL) – Slope 6-12%. This is a corn-soybean rotation. Residue management is desired to protect this area from sheet and rill erosion. Topography is uniform and contouring or terraces would work. There are areas of concentrated flow erosion. This is adjacent to a wildlife area.

REFERENCE FROM CPPE AND RESOURCE CONSIDERATIONS

| Resource: | Soil | | | | | Water | | Plant |
|---------------------------------|----------------------|-------------------------|---------------|------------|---------------------------|-------------------------|-----------------------------|---------------------|
| | Sheet & Rill Erosion | Concentra. Flow Erosion | Classic Gully | Compaction | Offsite Damage Deposition | Excess/Run-Off/Flooding | Excess Sub-Surface Moisture | Nutrient Management |
| | A-1-a | A-1-c | A-1-d | A-2-b | A-3-b | B-1-b | B1-c | D-3-b |
| RMS # 2 Practice # And Name: | | | | | | | | |
| 685c-Pest Management | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 342-Critical Area Plant | F | F | F | F | F | F | F | F |
| 606-Subsurface Drain | F | F | F | F | F | F | F | F |
| | | | | | | | | |
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Landuse Type Cropland Resource Setting No. 1 MLRA 102A FIELD OFFICE _____

Resource Setting:
 Soil – Loam (L) – Slope 6-12%. This is a corn-soybean rotation. Residue management is desired to protect this area from sheet and rill erosion. Topography is uniform and contouring or terraces would work. There are areas of concentrated flow erosion. This is adjacent to a wildlife area.

REFERENCE FROM CPPE AND RESOURCE CONSIDERATIONS

| Resource: | Animals | | | | | | | |
|---------------------------------|-----------------|-----------------|------------------------|--|--|--|--|--|
| | Pest Management | Habitat – Cover | Population and Balance | | | | | |
| | D-3-c | E-1-b | E-2-a | | | | | |
| RMS # 2 Practice # And Name: | | | | | | | | |
| 685-Pest management | SIG+ | MOD- | MOD- | | | | | |
| 342-Critical Area Plant | F | F | F | | | | | |
| 606-Subsurface Drain | F | F | F | | | | | |
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Landuse Type Cropland Resource Setting No. 2 MLRA 102A FIELD OFFICE _____

Resource Setting:

Soil – Silt Loam (SiL) – Slope 2-6% slope. Moderate sloping land with areas of concentrated flow erosion. Drainage is moderate. Area to be farmed with a corn-soybean rotation. There is an interest in Wildlife enhancement.

REFERENCE FROM CPPE AND RESOURCE CONSIDERATIONS

| Resource: | Soil | | | | Water | Air | Plants | |
|---------------------------------|----------------------|-------|-----------------|------------|--------------------|-------------------|------------------|----------------|
| | Sheet & Rill Erosion | Wind | Concentra. Flow | Compaction | Surface Pesticides | Surface Nutrients | Airborne Convey. | Nutrient Mgmt. |
| | A-1-a | A-1-b | A-1-c | A-2-b | B-2-g | B-2-h | C-1-g | D-3-b |
| RMS # 1 Practice # And Name: | | | | | | | | |
| 328-Corn, Soybeans | | | | | | | | |
| 329-Cons Till (Ridge) | SIG+ | SIG+ | SLI+ | SIG+ | MOD+ | MOD+ | MOD+ | SLI+ |
| 412-Waterway | 0 | 0 | SIG+ | 0 | SLI+ | SLI+ | 0 | NA |
| 680-Nutrient Management | 0 | 0 | 0 | 0 | 0 | SIG+ | 0 | MOD+ |
| 685c-Pesticide Management | SLI+ | SLI+ | 0 | 0 | MOD+ | 0 | 0 | NA |
| 645-Upland Wildlife Mgmt. | MOD+ | MOD+ | SLI+ | MOD+ | MOD+ | MOD+ | 0 | MOD+ |
| | | | | | | | | |

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Landuse Type Cropland Resource Setting No. 2 MLRA 102A FIELD OFFICE _____

| | | | | | | | |
|--|--------|---------|-------|--|--|--|--|
| Resource Setting: Soil – Silt Loam (SiL) – Slope 2-6% slope. Moderate sloping land with areas of concentrated flow erosion. Drainage is moderate. Area to be farmed with a corn-soybean rotation. There is an interest in Wildlife enhancement. | | | | | | | |
| REFERENCE FROM CPPE AND RESOURCE CONSIDERATIONS | | | | | | | |
| Resource: | Plants | Animals | | | | | |
| | Pests | Food | Cover | | | | |
| | D-3-c | E-1-a | E-1-b | | | | |
| RMS # 1 Practice # And Name: | | | | | | | |
| 328-Corn, Soybeans | | | | | | | |
| 329-Cons Till (Ridge) | SLI- | MOD+ | SLI+ | | | | |
| 412-Waterway | SLI+ | SLI+ | MOD+ | | | | |
| 680-Nutrient Management | SLI+ | MOD+ | SLI+ | | | | |
| 685c-Pesticide Management | SIG+ | SIG- | MOD- | | | | |
| 645-Upland Wildlife Mgmt. | MOD+ | SIG+ | SIG+ | | | | |
| | | | | | | | |

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Landuse Type Cropland Resource Setting No. 1 MLRA 103 FIELD OFFICE _____

Resource Setting: The major soils are clay loams with slopes that range from nearly level to moderately steep. (1-20%) Slopes are irregular with short steep slopes that have abrupt slopes changes. The shoulders and back slopes of the slopes have been eroded so that the subsoil is exposed and have low organic matter. The cropping sequence is Corn Soybean with moldboard plowing in the fall on corn residue and fall chisel plowing on soybean residues. Sheet and rill erosion is 20 ton per acre per year. Ephemeral gullies exist in the drainage ways and foot-slope areas. Compaction is present. Pesticides and nutrients have been detected in area lakes, streams, and ditches. Soil wetness inhibits timely field operations. The landowner objectives are to raise row crops for an economic return, control erosion to tolerable levels and manage nutrients that are running off of the site, and to increase the amount of upland wildlife habitat.

REFERENCE FROM CPPE AND RESOURCE CONSIDERATIONS

| Resource: | Soil | | | | | Water | | |
|--|--------------|--------------|--------------|--------------------------|----------------|-------------------|--------------------|------------------|
| | Sheet & Rill | Conc. Flow | Compaction | Tilth Infiltrat. Organic | Offsite Damage | Excess Subsurface | Surface Pesticides | Surface Nutrient |
| | A-1-a | A-1-c | A-2-a | A-2-b | A-3-b | B-1-c | B-2-g | B-2-h |
| RMS # 2 Practice # And Name: | | | | | | | | |
| 328-Conservation Cropping Sequence Corn – Soybeans – Corn, Soybeans will be drilled. | | | | | | | | |
| 329-Cons Till System Mulch Til No-till | MOD+ SIG+ | SLI+ SIG+ | MOD+ MOD+ | MOD+ MOD+ | MOD+ MOD+ | SLI+ SLI+ | SLI+ MOD+ | SLI+ MOD+ |
| 606-Subsurface Drain | 0 | SLI+ | MOD+ | SLI+ | 0 | SIG+ | MOD- | MOD- |
| 638 W & S Basin | 0 | SIG+ | 0 | SLI+ | MOD+ | SLI+ | SLI+ | MOD+ |
| 645-Upland Wildlife Mgmt. | SLI+ | SLI+ | SLI+ | MOD+ | SLI+ | SLI+ | MOD+ | MOD+ |
| 680b Nutrient Management | 0 | 0 | 0 | 0 | 0 | 0 | 0 | SIG+ |
| 685c Pest Management | 0 | 0 | 0 | 0 | 0 | 0 | SIG+ | 0 |

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Landuse Type Cropland Resource Setting No. 1 MLRA 103 FIELD OFFICE _____

Resource Setting: The major soils are clay loams with slopes that range from nearly level to moderately steep. (1-20%) Slopes are irregular with short steep slopes that have abrupt slope changes. The shoulders and back slopes of the slopes have been eroded so that the subsoil is exposed and have low organic matter. The cropping sequence is Corn Soybean with moldboard plowing in the fall on corn residue and fall chisel plowing on soybean residues. Sheet and rill erosion is 20 ton per acre per year. Ephemeral gullies exist in the drainage ways and foot-slope areas. Compaction is present. Pesticides and nutrients have been detected in area lakes, streams, and ditches. Soil wetness inhibits timely field operations. The landowner objectives are to raise row crops for an economic return, control erosion to tolerable levels and manage nutrients that are running off of the site, and to increase the amount of upland wildlife habitat.

REFERENCE FROM CPPE AND RESOURCE CONSIDERATIONS

| Resource: | Water | Air | Plants | Plants | | | |
|--|-------------------|----------------|---------------|--------------|------------------|---------------|--|
| | Surface Turbidity | Airborne Drift | Est & Harvest | Food | Cover or Shelter | Pop & Balance | |
| | B-2-i | C-1-h | D-3-a | E-1-a | E-1-b | E-2-a | |
| RMS # 1 Practice # And Name: | | | | | | | |
| 328-Conservation Cropping Sequence Corn – Soybeans – Corn, Soybeans will be drilled. | | | | | | | |
| 329-Cons Till System Mulch Til No-till | MOD+ SIG+ | 0 0 | 0 SLI+ | MOD+ MOD+ | SLI+ MOD+ | SLI+ SLI+ | |
| 606-Subsurface Drain | 0 | NA | SIG+ | MOD- | MOD- | MOD- | |
| 638 W & S Basin | SIG+ | 0 | SLI+ | SLI+ | SLI+ | SLI+ | |
| 645-Upland Wildlife Mgmt. | SLI+ | 0 | MOD+ | SIG+ | SIG+ | SIG+ | |
| 680b Nutrient Management | 0 | 0 | 0 | SLI+ | SLI+ | SLI+ | |
| 685c Pest Management | 0 | MOD+ | SLI+ | SLI- | SLI- | SLI- | |

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Conservation Management Systems Worksheet

| Resource: CROPLAND MLRA 103 Setting #1 | | | | | | | | |
|--|--------------|--------------|---------------|--------------|----------------|-------------------|--------------------|------------------|
| Considerations | Soil | | | | | Water | | |
| Resource Problems | Sheet & Rill | Conc. Flow | Tilth Organic | Compaction | Offsite Damage | Excess Subsurface | Surface Pesticides | Surface Nutrient |
| CMS Options | A-1-a | A-1-c | A-2-a | A-2-b | A-3-b | B-1-c | B-2-g | B-2-h |
| 328-Conservation Cropping Sequence Corn – Soybeans – Corn, Soybeans will be drilled. | | | | | | | | |
| 329-Cons Till System Mulch Til No-till | MOD+ SIG+ | SLI+ SIG+ | MOD+ MOD+ | MOD+ MOD+ | MOD+ MOD+ | SLI- SLI- | SLI+ MOD+ | SLI+ MOD+ |
| 606-Subsurface Drain | 0 | SLI+ | SLI+ | MOD+ | 0 | SIG+ | MOD- | MOD- |
| 638 W & S Basin | 0 | SIG+ | SLI+ | 0 | MOD+ | SLI- | SLI+ | MOD+ |
| 645-Upland Wildlife Mgmt. | SLI+ | SLI+ | MOD+ | SLI+ | SLI+ | SLI+ | MOD+ | MOD+ |
| 680b Nutrient Management | 0 | 0 | 0 | 0 | 0 | 0 | 0 | SIG+ |
| 685c Pest Management | 0 | 0 | 0 | 0 | 0 | 0 | SIG+ | 0 |

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Conservation Management Systems Worksheet

| Resource: CROPLAND MLRA 103 Setting #1 | | | | | | | | |
|--|-------------------|----------|---------------|---------|------------------|---------------|--|--|
| Considerations | Water | Air | Plants | Animals | | | | |
| Resource Problems | Surface Turbidity | Airborne | Est & Harvest | Food | Cover or Shelter | Pop & Balance | | |
| CMS Options | B-2-i | C-1-h | D-3-a | E-1-a | E-1-b | E-2-a | | |
| 328-Conservation Cropping Sequence Corn – Soybeans – Corn, Soybeans will be drilled. | | | | | | | | |
| 329-Cons Till System | | | | | | | | |
| Mulch Til | 0 | 0 | 0 | MOD+ | SLI+ | SLI+ | | |
| No-till | 0 | 0 | SLI+ | MOD+ | MOD+ | SLI+ | | |
| 606-Subsurface Drain | 0 | NA | SIG+ | MOD- | MOD- | MOD- | | |
| 638 W & S Basin | SIG+ | 0 | SLI- | SLI+ | SLI+ | SLI+ | | |
| 645-Upland Wildlife Mgmt. | SLI+ | 0 | MOD+ | SIG+ | SIG+ | SIG+ | | |
| 680b Nutrient Management | 0 | 0 | 0 | SLI+ | SLI+ | SLI+ | | |
| 685c Pest Management | 0 | MOD+ | SLI+ | SLI- | SLI- | SLI- | | |

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Conservation Management Systems Worksheet

| Resource: CROPLAND MLRA 103 Setting #1 | | | | | | | | |
|--|--------------|--------------|---------------|--------------|----------------|-------------------|--------------------|------------------|
| Considerations | Soil | | | | | Water | | |
| | Sheet & Rill | Conc. Flow | Tilth Organic | Compaction | Offsite Damage | Excess Subsurface | Surface Pesticides | Surface Nutrient |
| Resource Problems | A-1-a | A-1-c | A-2-a | A-2-b | A-3-b | B-1-c | B-2-g | B-2-h |
| CMS Options | | | | | | | | |
| 328-Conservation Cropping Sequence Corn – Soybeans – Corn, Soybeans will be drilled. | | | | | | | | |
| 329-Cons Till System Mulch Til No-till | MOD+ SIG+ | SLI+ SIG+ | MOD+ MOD+ | MOD+ MOD+ | MOD+ MOD+ | SLI- SLI- | SLI+ MOD+ | SLI+ MOD+ |
| 330-Contouring | SIG+ | SLI+ | SLI+ | 0 | SLI+ | SLI- | SLI+ | SIG+ |
| 344-Crop Residue Use | SLI+ | SLI+ | 0 | 0 | SLI+ | 0 | 0 | 0 |
| 362-Diversion | 0 | SIG+ | MOD+ | 0 | SLI+ | 0 | SLI+ | MOD+ |
| 412-Grassed W.W. | 0 | SIG+ | 0 | 0 | SLI+ | 0 | SLI+ | MOD+ |
| 600s-Terrace | MOD+ | SIG+ | SLI+ | 0 | MOD+ | SLI- | SLI+ | MOD+ |
| 606-Subsurface Drain | 0 | 0 | SLI+ | MOD+ | 0 | SIG+ | MOD- | MOD- |
| 638-W & S Basin | 0 | SIG+ | SLI+ | 0 | MOD+ | SLI- | SLI+ | MOD+ |
| 645-Upland Wildlife Mgmt. | SLI+ | SLI+ | MOD+ | SLI+ | SLI+ | SLI+ | MOD+ | MOD+ |
| 680-Nutrient Mgmt. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | SIG+ |
| 685c-Pest Management | 0 | 0 | 0 | 0 | 0 | 0 | SIG+ | 0 |

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Specific Practice Effects Worksheet

| Resource: CROPLAND MLRA 103 Seeting #1 | | | | | | | | |
|--|--------------|----------------|---------------|--------------|------------------|---------------|--|--|
| Considerations | Water | Air | Plants | Animals | | | | |
| Resource Problems | Est. Turbid. | Airborne Drift | Est & Harvest | Food | Cover or Shelter | Pop & Balance | | |
| CMS Options | B-2-i | C-1-h | D-3-a | E-1-a | E-1-b | E-2-a | | |
| 328-Conservation Cropping Sequence Corn – Soybeans – Corn, Soybeans will be drilled. | | | | | | | | |
| 329-Cons Till System Mulch Til No-till | 0 0 | 0 0 | 0 SLI+ | MOD+ MOD+ | SLI+ MOD+ | SLI+ SLI+ | | |
| 330-Contouring | SLI+ | 0 | 0 | 0 | 0 | NA | | |
| 344-Crop Residue Use | SLI+ | NA | SLI+ | SLI+ | SLI+ | MOD+ | | |
| 362-Diversion | SLI+ | NA | SIG+ | SLI+ | SLI+ | SLI+ | | |
| 412-Grassed W.W. | SLI+ | 0 | SLI+ | SLI+ | SLI+ | SLI+ | | |
| 600s-Terrace | SLI+ | 0 | SLI- | SLI+ | SLI+ | 0 | | |
| 606-Subsurface Drain | 0 | NA | SIG+ | MOD- | MOD- | MOD- | | |
| 638-W & S Basin | SIG+ | 0 | SLI- | SLI+ | SLI+ | SLI+ | | |
| 645-Upland Wildlife Mgmt. | SLI+ | 0 | MOD+ | SIG+ | SIG+ | SIG+ | | |
| 680-Nutrient Mgmt. | 0 | 0 | 0 | SLI+ | SLI+ | SLI+ | | |
| 685c-Pest Management | 0 | MOD+ | SLI+ | SLI- | SLI- | SLI- | | |

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Landuse Type Cropland Resource Setting No. 2 MLRA 103 FIELD OFFICE

Resource Setting: The major soils are clay loams with slopes that range from nearly level to moderately steep. (1-20%) Slopes are irregular with short steep slopes that have abrupt slope changes. The shoulders slopes have been eroded so that the subsoil is exposed and have low organic matter. The cropping sequence is Corn – Corn - Soybean Grain seeded – Hay-Hay-Hay, with fall moldboard plowing of the last year of hayland and corn residue with soybeans fall chisel plowed. Animal waste is being improperly applied and nutrients are running of the field. Sheet and rill erosion is at 12 tons per acre per year. Ephemeral gullies exist in the drainaways. Pesticide and nutrients have been detected in area lakes, stream, and drainage ditches. Soil wetness inhibits timely field operations. The landowners objectives are to raise crops for an economic return, reduce soil loss tolerable levels and manage the manure for nutrient value, and reduce runoff of nutrient and pesticides, and increase the amount of upland wildlife habitat.

REFERENCE FROM CPPE AND RESOURCE CONSIDERATIONS

| Resource: | Soil | | | | Water | | | |
|--|--------------|------------|------------|----------------|-------------------|-------------------|------------------|----------------|
| | Sheet & Rill | Conc. Flow | Compaction | Offsite Damage | Excess Subsurface | Surface Pesticide | Surface Nutrient | Surface Turbid |
| | A-1-1 | A-1-c | A-2-b | A-3-b | B-1-c | B-2-g | B-2-h | B-2-i |
| RMS # 1 Practice # And Name: | | | | | | | | |
| 328-Conservation Cropping Sequence Corn – Corn, Soybeans Grain seeded – Hay – Hay – Hay soybeans wide row. | | | | | | | | |
| 329-Cons Till System Mulch Til No-till | SIG+ | SLI | MOD+ | SIG+ | SLI+ | SLI+ | SLI+ | SLI+ |
| 412-Grassed Waterway | 0 | SIG+ | 0 | SLI+ | 0 | SLI+ | SLI+ | SLI+ |
| 606-Subsurface Drain | 0 | 0 | SIG+ | SLI+ | SIG+ | SLI- | SLI- | 0 |
| 633-Waste Utilization | SLI+ | 0 | SLI+ | SLI+ | 0 | SLI+ | SIG+ | SLI+ |
| 645-Upland Wildlife Mgmt. | SLI+ | SLI+ | MOD+ | SLI+ | SLI+ | MOD+ | MOD+ | SLI+ |
| 680b Nutrient Management | 0 | 0 | 0 | 0 | 0 | 0 | SIG+ | 0 |
| 685c Pest Management | 0 | 0 | 0 | 0 | 0 | SIG+ | 0 | 0 |

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Landuse Type Cropland Resource Setting No. 2 MLRA 103 FIELD OFFICE _____

Resource Setting: The major soils are clay loams with slopes that range from nearly level to moderately steep. (1-20%) Slopes are irregular with short steep slopes that have abrupt slope changes. The shoulders slopes have been eroded so that the subsoil is exposed and have low organic matter. The cropping sequence is Corn – Corn - Soybean Grain seeded – Hay-Hay-Hay, with fall moldboard plowing of the last year of hayland and corn residue with soybeans fall chisel plowed. Animal waste is being improperly applied and nutrients are running of the field. Sheet and rill erosion is at 12 tons per acre per year. Ephemeral gullies exist in the drainaways. Pesticide and nutrients have been detected in area lakes, stream, and drainage ditches. Soil wetness inhibits timely field operations. The landowners objectives are to raise crops for an economic return, reduce soil loss tolerable levels and manage the manure for nutrient value, and reduce runoff of nutrient and pesticides, and increase the amount of upland wildlife habitat.

REFERENCE FROM CPPE AND RESOURCE CONSIDERATIONS

| Resource: | Air | Plants | Animals | | | | | |
|--|----------------|---------------|---------|------------------|---------------|--|--|--|
| | Airborne Drift | Est & Harvest | Food | Cover or Shelter | Pop & Balance | | | |
| | C-1-h | D-3-a | E-1-a | E-1-b | E-2-a | | | |
| RMS # 1 Practice # And Name: | | | | | | | | |
| 328-Conservation Cropping Sequence Corn – Corn, Soybeans Grain seeded – Hay – Hay – Hay soybeans wide row. | | | | | | | | |
| 329-Cons Till System Mulch Til No-till | 0 | 0 | MOD+ | SLI+ | SLI+ | | | |
| 412-Grassed Waterway | 0 | SLI+ | SLI+ | SLI+ | SLI+ | | | |
| 606-Subsurface Drain | 0 | SIG+ | MOD- | MOD- | MOD- | | | |
| 633-Waste Utilization | SIG+ | MOD+ | SLI+ | SLI+ | SLI+ | | | |
| 645-Upland Wildlife Mgmt. | 0 | MOD+ | SIG+ | SIG+ | SIG+ | | | |
| 680b Nutrient Management | 0 | MOD+ | SLI+ | SLI+ | SLI+ | | | |
| 685c Pest Management | MOD+ | SIG+ | SLI- | SLI- | SLI- | | | |

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Specific Practice Effects Worksheet

| Resource: CROPLAND MLRA 103 Seeting #2 | | | | | | | | | |
|--|-----------------------|---------------------|---------------------|------------------------|----------------------------|-----------------------------|----------------------------|-------------------------|--|
| Considerations | | Soil | | | Water | | | | |
| Resource Problems | Sheet & Rill A-1-a | Conc. Flow A-1-c | Compaction A-2-b | Office Damage A-3-b | Excess Subsurface B-1-c | Surface Pesticides B-2-g | Surface Nutrients B-2-h | Surface Turbid B-2-i | |
| CMS Options | | | | | | | | | |
| 328-Conservation Cropping Sequence Corn – Soybeans – Corn, Soybeans-Grain Seeded-Hay-Hay-Hay | | | | | | | | | |
| 329-Cons Till System Mulch Tillage | SIG+ | SLI+ | MOD+ | SIG+ | SLI+ | SLI+ | SLI+ | SLI+ | |
| 330-Contouring | SIG+ | SLI+ | 0 | SLI+ | SLI+ | SLI+ | SLI+ | SLI+ | |
| 344-Crop Residue Use | MOD+ | SLI+ | 0 | SLI+ | 0 | 0 | 0 | SLI+ | |
| 362-Diversion | 0 | SIG+ | 0 | MOD+ | 0 | SLI+ | SLI+ | SLI+ | |
| 412-Grassed W.W. | 0 | SIG+ | 0 | MOD+ | 0 | SLI+ | SLI+ | SLI+ | |
| 585-Contour Strips | SIG+ | SLI+ | 0 | SIG+ | MOD- | SLI+ | SLI+ | SLI+ | |
| 600s-Terrace | MOD+ | SIG+ | 0 | MOD+ | SLI+ | MOD+ | MOD+ | SIG+ | |
| 606-Subsurface Drain | 0 | 0 | SIG+ | SLI+ | SIG+ | SLI- | SLI- | 0 | |
| 633-Waste Utilization | SLI+ | 0 | SLI+ | SLI+ | 0 | SLI+ | SIG+ | SLI+ | |
| 638-W & S Basin | 0 | SIG+ | 0 | MOD+ | SLI- | MOD+ | MOD+ | MOD+ | |
| 645a-Upland Wildlife Mgmt. | SLI+ | SLI+ | MOD+ | SLI+ | SLI+ | MOD+ | MOD+ | SLI+ | |
| 680a-Nutrient Mgmt. | 0 | 0 | 0 | 0 | 0 | 0 | SIG+ | 0 | |
| 685c-Pest Management | 0 | 0 | 0 | 0 | 0 | SIG+ | 0 | 0 | |

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Specific Practice Effects Worksheet

| Resource: CROPLAND MLRA 103 Seeting #2 | | | | | | | | |
|--|-------------------------|------------------------|---------------|---------------------------|------------------------|--|--|--|
| Considerations | Air | Plants | Animals | | | | | |
| Resource Problems | Airborne Drift C-1-h | Est & Harvest D-3-a | Food E-1-a | Cover or Shelter E-1-b | Pop & Balance E-2-b | | | |
| 328-Conservation Cropping Sequence Corn – Soybeans – Corn, Soybeans-Grain Seeded-Hay-Hay-Hay | | | | | | | | |
| 329-Cons Till System Mulch Tillage | 0 | 0 | MOD+ | SLI+ | SLI+ | | | |
| 330-Contouring | 0 | 0 | 0 | 0 | NA | | | |
| 334-Crop Residue Use | NA | SLI+ | SLI+ | SLI+ | MOD+ | | | |
| 362-Diversion | NA | SIG+ | SLI+ | SLI+ | SLI+ | | | |
| 412-Grassed W.W. | 0 | SLI+ | SLI+ | SLI+ | SLI+ | | | |
| 585-Contour Strips | 0 | SLI- | SLI+ | MOD+ | SLI+ | | | |
| 600s-Terraces | 0 | SLI- | SLI+ | SLI+ | 0 | | | |
| 606-Subsurface Drain | 0 | SIG+ | MOD- | MOD- | MOD- | | | |
| 633-Waste Utilization | SIG+ | MOD+ | SLI+ | SLI+ | SLI+ | | | |
| 638-W & S Basin | 0 | 0 | SLI+ | SLI+ | SLI+ | | | |
| 645-Upland Wildlife Mgmt. | 0 | MOD+ | SIG+ | SIG+ | SIG+ | | | |
| 680b-Nutrient Mgmt. | 0 | MOD+ | SLI+ | SLI+ | SLI+ | | | |
| 685c-Pest Management | MOD+ | SIG+ | SLI- | SLI- | SLI- | | | |

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Landuse Type Cropland Resource Setting No. 3 MLRA 103 FIELD OFFICE _____

Resource Setting: Soil – Silt Loam (L) – Slope 2-6 %. The area is moderately slopping and subject to concentrated flow erosion as well as sheet and rill erosion. The area would be cropped to continuous corn with a small area of alfalfa. Approximately 1/3 of the corn acres would be taken for silage. The silage would be taken from the flatter land and would not have residue requirements during those years. Areas not taken for silage would be mulch tilled (329). This is part of a livestock operation. Insecticides will be used.

REFERENCE FROM CPPE AND RESOURCE CONSIDERATIONS

| Resource: | Soil | | | Water | | | | Air |
|--------------------------|--------------|--------------------|-----------------|-----------------------------------|------------------------------|--|----------------------------|-------------------------|
| | Sheet & Rill | Conc. Flow Erosion | Soil Compaction | Grnd. Water Contamin. Nut. & Org. | Surface Contamin. Pesticides | Surface Contamin. Pesticides Nut. & Org. | Surface Contamin. Pathogen | Airborne Chemical Drift |
| | A-1-a | A-1-c | A-2-b | B-2-b | B-2-g | B-2-h | B-2-n | C-1-h |
| RMS # 1 | | | | | | | | |
| Practice # And Name: | | | | | | | | |
| 328-Continuous Corn | | | | | | | | |
| 329-Cons. Till (Mulch) | SIG+ | SLI | MOD+ | 0 | SLI+ | MOD+ | 0 | SLI- |
| 412-Waterway | 0 | SIG+ | 0 | SLI- | MOD+ | MOD+ | 0 | 0 |
| 606-Subsurface Drain | F | F | F | F | F | F | F | F |
| 680b Nutrient Management | NA | NA | 0 | SIG+ | 0 | SIG+ | 0 | 0 |
| 685c Pest Management | NA | NA | 0 | 0 | MOD+ | 0 | 0 | MOD+ |
| 633-Waste Utilization | NA | NA | SLI+ | SLI- | MOD+ | MOD+ | MOD+ | 0 |

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Landuse Type Cropland Resource Setting No. 3 MLRA 103 FIELD OFFICE _____

Resource Setting: Soil – Silt Loam (SiL) – Slope 2-6 %. The area is moderately sloping and subject to concentrated flow erosion as well as sheet and rill erosion. The area would be cropped to continuous corn with a small area of alfalfa. Approximately 1/3 of the corn acres would be taken for silage. The silage would be taken from the flatter land and would not have residue requirements during those years. Areas not taken for silage would be mulch tilled (329). This is part of a livestock operation. Insecticides will be used.

REFERENCE FROM CPPE AND RESOURCE CONSIDERATIONS

| Resource: | Soil | | | Water | | | | Air |
|---------------------------------|----------------------|--------------------|-----------------|-----------------------------------|------------------------------|--|----------------------------|-------------------------|
| | Sheet & Rill Erosion | Conc. Flow Erosion | Soil Compaction | Grnd. Water Contamin. Nut. & Org. | Surface Contamin. Pesticides | Surface Contamin. Pesticides Nut. & Org. | Surface Contamin. Pathogen | Airborne Chemical Drift |
| | A-1-a | A-1-c | A-2-b | B-2-b | B-2-g | B-2-h | B-2-n | C-1-h |
| RMS # 1 Practice # And Name: | | | | | | | | |
| 645-Upland Wildlife Management | MOD+ | SLI+ | MOD+ | SLI+ | MOD+ | MOD+ | SLI+ | 0 |
| | | | | | | | | |
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Resource Setting: Soil – Silt Loam (SiL) – Slope 2-6 %. The area is moderately slopping and subject to concentrated flow erosion as well as sheet and rill erosion. The area would be cropped to continuous corn with a small area of alfalfa. Approximately 1/3 of the corn acres would be taken for silage. The silage would be taken from the flatter land and would not have residue requirements during those years. Areas not taken for silage would be mulch tilled (329). This is part of a livestock operation. Insecticides will be used.

REFERENCE FROM CPPE AND RESOURCE CONSIDERATIONS

| Resource: | Plants | Animals | | | | | |
|---------------------------------|---------------------|-----------------|--------------|--------------------------|--|--|--|
| | Nutrient Management | Pest Management | Habitat Food | Habitat Cover or Shelter | | | |
| | D-3-b | D-3-c | E-1-a | E-1-b | | | |
| RMS # 1 Practice # And Name: | | | | | | | |
| 328-Continuous Corn | | | | | | | |
| 329-Cons. Till (Mulch) | 0 | 0 | MOD+ | SLI+ | | | |
| 412-Waterway | NA | 0 | SLI+ | MOD+ | | | |
| 606-Subsurface Drain | F | F | F | F | | | |
| 680b Nutrient Management | SIG+ | SLI+ | MOD+ | SLI+ | | | |
| 685c Pest Management | NA | SIG+ | SIG- | MOD- | | | |
| 633-Waste Utilization | SIG+ | SLI- | MOD+ | MOD+ | | | |

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Landuse Type Cropland Resource Setting No. 3 MLRA 103 FIELD OFFICE _____

Resource Setting: Soil – Silt Loam (SiL) – Slope 2-6 %. The area is moderately sloping and subject to concentrated flow erosion as well as sheet and rill erosion. The area would be cropped to continuous corn with a small area of alfalfa. Approximately 1/3 of the corn acres would be taken for silage. The silage would be taken from the flatter land and would not have residue requirements during those years. Areas not taken for silage would be mulch tilled (329). This is part of a livestock operation. Insecticides will be used.

REFERENCE FROM CPPE AND RESOURCE CONSIDERATIONS

| Resource: | Plants | Animals | | | | | | |
|--------------------------------|---------------------|-----------------|--------------|--------------------------|--|--|--|--|
| | Nutrient Management | Pest Management | Habitat Food | Habitat Cover or Shelter | | | | |
| | D-3-b | D-3-c | E-1-a | E-1-b | | | | |
| RMS # 1 | | | | | | | | |
| Practice # And Name: | | | | | | | | |
| 645-Upland Wildlife Management | MOD+ | MOD+ | SIG+ | SIG+ | | | | |
| | | | | | | | | |
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Landuse Type Cropland Resource Setting No. 1 MLRA 104 FIELD OFFICE _____

Resource Setting: The major soils are silt loams over loamy glacial tills with slopes that range from 2-6%. Compaction is present. Soil wettness inhibits timely field operations. The cropping sequence is corn soybeans with the corn being fall moldboard plowed and soybean residue fall chisel plowed. Sheet and rill erosion is 12 tons per acre per year with numerous ephemeral gullies present. Surface runoff contributes nutrients and sediment loading to area streams. The landowner objectives are to raise crops for an economic return, control erosion to tolerable levels and manage nutrients and control cost of inputs that are running off the site, and to provide subsurface drainage, and improve upland wildlife habitat.

REFERENCE FROM CPPE AND RESOURCE CONSIDERATIONS

| Resource: | Soil | | | | Water | | | |
|--|--------------|------------|------------|----------------|-------------------|-------------------|------------------|----------------|
| | Sheet & Rill | Conc. Flow | Compaction | Offsite Damage | Excess Subsurface | Surface Pesticide | Surface Nutrient | Surface Turbid |
| | A-1-a | A-1-c | A-2-b | A-3-b | B-1-c | B-2-g | B-2-h | B-2-i |
| RMS # 1 Practice # And Name: | | | | | | | | |
| 328-Conservation Cropping Sequence Corn – Soybeans – Soybeans will be drilled. | | | | | | | | |
| 329-Cons Tillage Mulch Tillage | SIG+ | SLI+ | MOD+ | MOD+ | SLI- | SLI+ | MOD+ | MOD+ |
| 330-Contouring | MOD+ | SLI+ | 0 | SLI+ | SLI- | MOD+ | MOD+ | MOD+ |
| 600s-Terraces | MOD+ | SIG+ | 0 | MOD+ | SLI- | MOD+ | MOD+ | MOD+ |
| 606-Subsurface Drain | 0 | SLI+ | MOD+ | 0 | SIG+ | MOD- | MOD- | 0 |
| 645-Upland Wildlife Mgmt. | SLI+ | SLI+ | MOD+ | SLI+ | 0 | MOD+ | MOD+ | MOD+ |
| 680b Nutrient Management | 0 | 0 | 0 | 0 | 0 | 0 | SIG+ | 0 |
| 685c Pest Management | 0 | 0 | 0 | 0 | 0 | SIG+ | 0 | 0 |

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Landuse Type Cropland Resource Setting No. 1 MLRA 104 FIELD OFFICE _____

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| | | | | | | | | |
|--|----------------|----------------|---------|------------------|---------------|--|--|--|
| Resource Setting: The major soils are silt loams over loamy glacial tills with slopes that range from 2-6%. Compaction is present. Soil wetness inhibits timely field operations. The cropping sequence is corn soybeans with the corn being fall moldboard plowed and soybean residue fall chisel plowed. Sheet and rill erosion is 12 tons per acre per year with numerous ephemeral gullies present. Surface runoff contributes nutrients and sediment loading to area streams. The landowner objectives are to raise crops for an economic return, control erosion to tolerable levels and manage nutrients and control cost of inputs that are running off the site, and to provide subsurface drainage, and improve upland wildlife habitat. | | | | | | | | |
| REFERENCE FROM CPPE AND RESOURCE CONSIDERATIONS | | | | | | | | |
| Resource: | Air | Plant | Animals | | | | | |
| | Airborne Drift | Est. & Harvest | Food | Cover or Shelter | Pop & Balance | | | |
| | C-1-h | D-3-a | E-1-a | E-1-b | E-2-a | | | |
| RMS # 1 Practice # And Name: | | | | | | | | |
| 328-Conservation Cropping Sequence Corn – Soybeans, Soybeans will be drilled. | | | | | | | | |
| 329-Cons Tillage Mulch Tillage | 0 | 0 | MOD+ | SLI+ | SLI+ | | | |
| 330-Contouring | 0 | 0 | 0 | 0 | NA | | | |
| 600s-Terraces | 0 | SLI- | SLI+ | SLI+ | 0 | | | |
| 606-Subsurface Drain | NA | SIG+ | MOD- | MOD- | MOD- | | | |
| 645-Upland Wildlife Mgmt. | 0 | SLI+ | SIG+ | SIG+ | SIG+ | | | |
| 680b Nutrient Management | 0 | 0 | SLI+ | SLI+ | SLI+ | | | |
| 685c Pest Management | MOD+ | SLI+ | SLI- | SLI- | SLI- | | | |

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Specific Practice Effects Worksheet

| Resource: CROPLAND MLRA 104 Seeting #1 | | | | | | | | | |
|---|-----------------------|---------------------|---------------------|------------------------|----------------------------|-----------------------------|----------------------------|-------------------------|--|
| Considerations | | Soil | | | Water | | | | |
| Resource Problems | Sheet & Rill A-1-a | Conc. Flow A-1-c | Compaction A-2-b | Office Damage A-3-b | Excess Subsurface B-1-c | Surface Pesticides B-2-g | Surface Nutrients B-2-h | Surface Turbid B-2-i | |
| CMS Options | | | | | | | | | |
| 328-Conservation Cropping Sequence Corn – Soybeans – Soybeans-drilled | | | | | | | | | |
| 329-Cons Tillage Mulch Tillage | SIG+ | SLI+ | MOD+ | MOD+ | SLI- | SLI+ | MOD+ | MOD+ | |
| 330-Contouring | SLI+ | SLI+ | 0 | SLI+ | SLI- | MOD+ | MOD+ | SLI+ | |
| 344-Crop Residue | SLI+ | SLI+ | 0 | SLI+ | 0 | 0 | 0 | SLI+ | |
| 362-Diversion | SLI+ | SLI+ | 0 | SLI+ | 0 | SLI+ | SLI+ | SLI+ | |
| 412-Grassed W. W. | 0 | SIG+ | 0 | SLI+ | 0 | SLI+ | SLI+ | SLI+ | |
| 600s-Terrace | MOD+ | SIG+ | 0 | MOD+ | SLI- | MOD+ | MOD+ | MOD+ | |
| 606-Subsurface Drain | 0 | SLI+ | MOD+ | 0 | SIG+ | MOD- | MOD- | 0 | |
| 645-Upland Wildlife Mgmt | SLI+ | SLI+ | MOD+ | SLI+ | 0 | MOD+ | MOD+ | MOD+ | |
| 638-W&S Basic | 0 | SIG+ | 0 | SIG+ | SLI+ | SLI+ | SIG+ | SIG+ | |
| 680b-Nutrient Mgmt. | 0 | 0 | 0 | 0 | 0 | 0 | SIG+ | 0 | |
| 685c-Pest Management | 0 | 0 | 0 | 0 | 0 | SIG+ | 0 | 0 | |
| | | | | | | | | | |

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| Resource: CROPLAND MLRA 104 Seeting #1 | | | | | | | | |
|---|-------------------|----------------|----------------|---------|------------------|---------------|--|--|
| Considerations | | Air | Plants | Animals | | | | |
| CMS Options | Resource Problems | Airborne Drift | Est. & Harvest | Food | Cover or Shelter | Pop & Balance | | |
| | | C-1-h | D-3-a | E-1-a | E-1-b | E-2-a | | |
| 328-Conservation Cropping Sequence Corn – Soybeans – Soybeans-Drilled | | | | | | | | |
| 329-Cons Till System Mulch Tillage | 0 | 0 | MOD+ | SLI+ | SLI+ | | | |
| 330-Contouring | 0 | 0 | 0 | 0 | NA | | | |
| 344-Crop Residue | NA | SLI+ | SLI+ | SLI+ | MOD+ | | | |
| 362-Diversion | NA | SIG+ | SLI+ | SLI+ | SLI+ | | | |
| 412-Grassed W. W. | 0 | SLI+ | SLI+ | SLI+ | SLI+ | | | |
| 600s-Terrace | 0 | SLI- | SLI+ | SLI+ | 0 | | | |
| 606-Subsurface Drain | NA | SIG+ | MOD- | MOD- | MOD- | | | |
| 638-W&S Basin | 0 | SLI- | SLI+ | SLI+ | SLI+ | | | |
| 680b-Nutrient Mgmt. | 0 | 0 | SLI+ | SLI+ | SLI- | | | |
| 685c-Pest Management | MOD+ | SLI+ | SLI- | SLI- | SLI- | | | |
| 645-Upland Wildlife Mgt. | 0 | MOD+ | SIG+ | SIG+ | SIG+ | | | |
| | | | | | | | | |

Landuse Type Cropland Resource Setting No. 2 MLRA 104 FIELD OFFICE _____

MINNESOTA TECHNICAL GUIDE SECTION III
CONSERVATION MANAGEMENT SYSTEM (CMS) GUIDANCE DOCUMENT

| | | | | | | | | |
|---|--------------|-------|------------|-----------------|-------------------|-------------------|------------------|--------------------|
| Resource Setting. Soils are silty clay loams over glacial outwash sands and loamy tills. Slope range from 0-4% land slopes with uniform landscapes with long slope lengths. Soil wetness prevents timely field operations. The cropping sequence is corn - soybeans with sweet corn and peas occasionally planted in the rotation. Soil erosion is a combination of wind and water at 10 tons per acre per year with erosion more associated with runoff and classic gullies and scour channels. Nutrient and pesticides have been detected in area wells and water supplies. The landowner objectives are to raise row crops for an economic return, control erosion to tolerable levels and manage nutrients that are running off of the site, and to increase the amount of upland wildlife habitat. | | | | | | | | |
| REFERENCE FROM CPPE AND RESOURCE CONSIDERATIONS | | | | | | | | |
| Resource: | Soil | | | | Water | | | |
| | Sheet & Rill | Wind | Compaction | Classic Gullies | Excess Subsurface | Ground Pesticides | Ground Nutrients | Surface Pesticides |
| | A-1-a | A-1-b | A-1-c | A-1-d | B-1-c | B-2-a | B-2-b | B-2-g |
| RMS # 1 Practice # And Name: | | | | | | | | |
| 328-Conservation Cropping Sequence Corn – Soybeans | | | | | | | | |
| 329-Cons Till System Mulch Til | SIG+ | SIG+ | MOD+ | 0 | SLI- | SLI+ | SLI- | SLI+ |
| 412-Grassed Waterway | 0 | 0 | SIG+ | SIG+ | 0 | 0 | 0 | SLI+ |
| 606-Subsurface Drain | 0 | SLI- | SLI+ | 0 | SIG+ | MOD+ | MOD- | 0 |
| 638-W&S Basin | 0 | 0 | SIG+ | SIG+ | SIG+ | SLI- | SLI- | MOD+ |
| 645-Upland Wildlife Mgmt. | SLI+ | SLI+ | SLI+ | SLI+ | SLI+ | SLI+ | SLI+ | MOD+ |
| 680b Nutrient Management | 0 | 0 | 0 | 0 | 0 | 0 | SIG+ | 0 |
| 685c Pest Management | 0 | 0 | 0 | 0 | 0 | SIG+ | 0 | SIG+ |

Developed By/Date _____ AO Concurrence/Date _____ SO Concurrence/Date _____
Landuse Type Cropland Resource Setting No. 2 MLRA 104 FIELD OFFICE _____

MINNESOTA TECHNICAL GUIDE SECTION III
CONSERVATION MANAGEMENT SYSTEM (CMS) GUIDANCE DOCUMENT

| | | | | | | | | |
|---|-------------------|------------------|----------------|---------------|---------|------------------|---------------|--|
| Resource Setting: Soils are silty clay loams over glacial outwash sands and loamy tills. Slope range from 0-4% land slopes with uniform landscapes with long slope lengths. Soil wetness prevents timely field operations. The cropping sequence is corn - soybeans with sweet corn and peas occasionally planted in the rotation. Soil erosion is a combination of wind and water at 10 tons per acre per year with erosion more associated with runoff and classic gullies and scour channels. Nutrient and pesticides have been detected in area wells and water supplies. The landowner objectives are to raise row crops for an economic return, control erosion to tolerable levels and manage nutrients that are running off of the site, and to increase the amount of upland wildlife habitat. | | | | | | | | |
| REFERENCE FROM CPPE AND RESOURCE CONSIDERATIONS | | | | | | | | |
| Resource: | Water | | Air | Plants | Animals | | | |
| | Surface Nutrients | Surface Turbidty | Airborne Drift | Est & Harvest | Food | Cover or Shelter | Pop & Balance | |
| | B-2-h | B-2-I | C-1-h | D-3-a | E-1-a | E-1-b | E-2-a | |
| RMS # 1 Practice # And Name: | | | | | | | | |
| 328-Conservation Cropping Sequence Corn – Soybeans | | | | | | | | |
| 329-Cons Tillage Mulch Tillage | MOD+ | SLI+ | 0 | SLI+ | MOD+ | SLI+ | SLI+ | |
| 412-Grassed Waterway | SLI+ | SLI+ | 0 | SLI+ | SLI+ | SLI+ | SLI+ | |
| 606-Subsurface Drain | MOD- | 0 | NA | SIG+ | MOD- | MOD- | MOD- | |
| 638-W&S Basin | MOD+ | SLI+ | 0 | 0 | SLI+ | SLI+ | SLI+ | |
| 645-Upland Wildlife Mgmt. | MOD+ | MOD+ | 0 | 0 | SIG+ | SIG+ | SIG+ | |
| 680b Nutrient Management | SIG+ | 0 | 0 | 0 | SLI+ | SLI+ | SLI+ | |
| 685c Pest Management | 0 | 0 | MOD+ | SLI+ | SLI- | SLI- | SLI- | |

Developed By/Date _____ AO Concurrence/Date _____ SO Concurrence/Date _____
Conservation Management System Options Worksheet

MINNESOTA TECHNICAL GUIDE SECTION III
 CONSERVATION MANAGEMENT SYSTEM (CMS) GUIDANCE DOCUMENT

| RESOURCE: CROPLAND MLRA 104 Setting #2 | | | | | | | | |
|--|--------------|-------|------------|-----------------|-------------------|-------------------|------------------|--------------------|
| Considerations | Soil | | | | Water | | | |
| | Sheet & Rill | Wind | Conc. Flow | Classic Gullies | Excess Subsurface | Ground Pesticides | Ground Nutrients | Surface Pesticides |
| | A-1-a | A-1-b | A-1-c | A-1-d | B-1-c | B-2-a | B-2-b | B-2-g |
| RMS # 1 Practice # And Name: | | | | | | | | |
| 328-Conservation Cropping Sequence Corn – Soybeans | | | | | | | | |
| 329-Cons Tillage Mulch Tillage | SIG+ | SIG+ | MOD+ | 0 | SLI- | SLI+ | SLI- | SLI+ |
| 412-Grassed Waterway | 0 | 0 | SIG+ | SIG+ | 0 | 0 | 0 | SLI+ |
| 606-Subsurface Drain | 0 | SLI- | SLI+ | 0 | SIG+ | MOD+ | MOD+ | 0 |
| 638-W&S Basin | 0 | 0 | SIG+ | SIG+ | SLI- | SLI- | SLI- | MOD+ |
| 645-Upland Wildlife Mgmt. | SLI+ | SLI+ | SLI+ | SLI+ | SLI+ | SLI+ | SLI+ | MOD+ |
| 680b Nutrient Management | 0 | 0 | 0 | 0 | 0 | 0 | SIG+ | 0 |
| 685c Pest Management | 0 | 0 | 0 | 0 | 0 | SIG+ | 0 | SIG+ |
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MINNESOTA TECHNICAL GUIDE SECTION III
CONSERVATION MANAGEMENT SYSTEM (CMS) GUIDANCE DOCUMENT

| RESOURCE: CROPLAND MLRA 104 SETTING #2 | | | | | | | | |
|--|-------------------|-------------------|------------------|----------------|---------------|-------|------------------|---------------|
| Resource: | Water | | Air | Plants | Animals | | | |
| CMS Options | Resource Problems | Surface Nutrients | Surface Turbidty | Airborne Drift | Est & Harvest | Food | Cover or Shelter | Pop & Balance |
| | | B-2-h | B-2-i | C-1-h | D-3-a | E-1-a | E-1-b | E-2-a |
| 328-Conservation Cropping Sequence Corn – Soybeans | | | | | | | | |
| 329-Cons Tillage Mulch Tillage | MOD+ | SIG+ | 0 | SLI+ | MOD+ | SLI+ | SLI+ | |
| 412-Grassed Waterway | SLI+ | SLI+ | 0 | SLI+ | SLI+ | SLI+ | SLI+ | |
| 606-Subsurface Drain | MOD- | 0 | NA | SLG+ | MOD- | MOD- | MOD- | |
| 638-W&S Basin | MOD+ | SIG+ | 0 | 0 | SLI+ | SLI+ | SLI+ | |
| 645-Upland Wildlife Mgmt. | MOD+ | MOD+ | 0 | 0 | SIG+ | SIG+ | SIG+ | |
| 680b Nutrient Management | SIG+ | 0 | 0 | 0 | SLI+ | SLI+ | SLI+ | |
| 685c Pest Management | 0 | 0 | MOD+ | SLI+ | SLI- | SLI- | SLI- | |

MINNESOTA TECHNICAL GUIDE SECTION III
CONSERVATION MANAGEMENT SYSTEM (CMS) GUIDANCE DOCUMENT

Conservation Management System Options Worksheet

| RESOURCE: CROPLAND MLRA 104 SETTING #2 | | | | | | | | |
|--|--------------|-------|------------|-----------------|-------------------|-------------------|------------------|--------------------|
| Considerations | Soil | | | | Water | | | |
| Resource Problems | Sheet & Rill | Wind | Conc. Flow | Classic Gullies | Excess Subsurface | Ground Pesticides | Ground Nutrients | Surface Pesticides |
| CMS Options | A-1-a | A-1-b | A-1-c | A-1-d | B-1-c | B-2-a | B-2-b | B-2-g |
| 328-Conservation Cropping Sequence Corn – Soybeans | | | | | | | | |
| 329-Cons Till System Mulch Til | SIG+ | SIG+ | MOD+ | 0 | SLI- | SLI+ | SLI- | SLI+ |
| 330-Contouring | MOD+ | SLI+ | SLI+ | SLI+ | SLI- | SLI- | SLI- | SLI+ |
| 344-Crop Residue Use | SLI+ | MOD+ | SLI+ | SLI+ | 0 | 0 | 0 | 0 |
| 362-Diversion | 0 | 0 | SIG+ | SIG+ | 0 | SLI- | SLI- | SLI+ |
| 410-Grade Stabil. | 0 | 0 | SIG+ | SIG+ | 0 | 0 | 0 | SLI+ |
| 412-Grassed Waterway | 0 | 0 | SIG+ | SIG+ | 0 | 0 | 0 | SLI+ |
| 600s-Terraces | MOD+ | SLI+ | SIG+ | MOD+ | SLI- | SLI- | SLI- | SLI+ |
| 606-Subsurface Drain | 0 | SLI- | SLI+ | 0 | SIG+ | MOD+ | MOD+ | 0 |
| 638-W&S Basin | 0 | 0 | SIG+ | SIG+ | SLI- | SLI- | SLI- | MOD+ |
| 645-Upland Wildlife Mgmt. | SLI+ | SLI+ | SLI+ | SLI+ | SLI+ | SLI+ | SLI+ | MOD+ |
| 680b Nutrient Management | 0 | 0 | 0 | 0 | 0 | 0 | SIG+ | 0 |
| 685c Pest Management | 0 | 0 | 0 | 0 | 0 | SIG+ | 0 | SIG+ |

MINNESOTA TECHNICAL GUIDE SECTION III
CONSERVATION MANAGEMENT SYSTEM (CMS) GUIDANCE DOCUMENT

| RESOURCE: CROPLAND MLRA 104 SETTING #2 | | | | | | | | |
|--|-------------------|-------------------|-------------------|----------------|---------------|-------|------------------|---------------|
| Resource: | Water | | Air | Plants | Animals | | | |
| CMS Options | Resource Problems | Surface Nutrients | Surface Turbidity | Airborne Drift | Est & Harvest | Food | Cover or Shelter | Pop & Balance |
| | | B-2-h | B-2-i | C-1-h | D-3-a | E-1-a | E-1-b | E-2-a |
| 328-Conservation Cropping Sequence Corn – Soybeans | | | | | | | | |
| 329-Cons Till System Mulch Til | MOD+ | SIG+ | 0 | SLI+ | MOD+ | SLI+ | SLI+ | |
| 330-Contouring | SLI+ | MOD+ | 0 | 0 | 0 | 0 | NA | |
| 344-Crop Residue Use | 0 | SLI+ | NA | SLI+ | SLI+ | SLI+ | MOD+ | |
| 362-Diversion | SLI+ | SLI+ | NA | 0 | SLI+ | SLI+ | SLI+ | |
| 410-Grade Stabil. | SLI+ | SIG+ | 0 | 0 | SLI+ | SLI+ | SLI+ | |
| 412-Grassed Waterway | SLI+ | SLI+ | 0 | SLI+ | SLI+ | SLI+ | SLI+ | |
| 600s-Terraces | SLI+ | SIG+ | 0 | SLI- | SLI+ | SLI+ | 0 | |
| 606-Subsurface Drain | MOD- | 0 | NA | SLG+ | MOD- | MOD- | MOD- | |
| 638-W&S Basin | MOD+ | SIG+ | 0 | 0 | SLI+ | SLI+ | SLI+ | |
| 645-Upland Wildlife Mgmt. | MOD+ | MOD+ | 0 | 0 | SIG+ | SIG+ | SIG+ | |
| 680b Nutrient Management | SIG+ | 0 | 0 | 0 | SLI+ | SLI+ | SLI+ | |
| 685c Pest Management | 0 | 0 | MOD+ | SLI+ | SLI- | SLI- | SLI- | |

Landuse Type Cropland Resource Setting No. 1 MLRA 105 FIELD OFFICE _____

MINNESOTA TECHNICAL GUIDE SECTION III
CONSERVATION MANAGEMENT SYSTEM (CMS) GUIDANCE DOCUMENT

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|--|-----------------------|-------------------|--------------------------|---------------------|-------------------------|----------------------------|---------------------------|-----------------------------|
| Resource Setting: The major soils are silt loams with slopes that range from 6-12%. The cropping sequence is two years corn, one year small grain seeded, two years hayland, with moldboard plowing being done in the fall. Sheet and rill erosion rates are 14 tons/acre/year. Soil compaction is present and small gullies are encroaching from the edge of the fields. The farm is a dairy operation and animal waste is spread on the ground at inappropriate times. Runoff of the manure and odor are a problem with surrounding neighbors and streams that are located nearby. Pesticides and nutrients have been detected in area wells and surface waters. Pest pressure is evident on all crops grown. The landowner's objectives are to raise crops for an economic return; control erosion to a tolerable level, manage the animal waste to provide nutrient for crop production and reduce the pesticide and nutrient that are running off and leaching through the site. The landowner also wants to increase the amount of upland wildlife | | | | | | | | |
| REFERENCE FROM CPPE AND RESOURCE CONSIDERATIONS | | | | | | | | |
| Resource: | Soil | | | | Water | | | |
| | Sheet & Rill A-1-a | Con Flow A-1-b | Classic Gullies A-1-d | Compaction A-2-b | Offsite Damage A-3-b | Ground Pesticides B-2-a | Ground Nutrients B-2-b | Surface Pesticides B-2-g |
| RMS # 1 Practice # And Name: | | | | | | | | |
| 328-Conservation Cropping Sequence (Corn for grain – Corn for grain – Grain seeded – Hay-Hay) | | | | | | | | |
| 329-Cons Till System Mulch Til | SIG+ | SLI+ | 0 | MOD+ | SIG+ | 0 | 0 | SLI+ |
| 585-Contour Strip Crop | SIG+ | SLI+ | SLI+ | SLI+ | MOD+ | SLI+ | SLI+ | SLI+ |
| 412-Grassed Waterway | 0 | SIG+ | SIG+ | 0 | SLI+ | SLI+ | SLI+ | SLI+ |
| 362-Diversion | SLI+ | SLI+ | SIG+ | 0 | SLI+ | SLI+ | SLI+ | SLI+ |
| 633- Waste Utilization | SLI+ | 0 | 0 | 0 | SLI+ | SLI+ | SIG+ | SLI+ |
| 645-Upland Wildlife Mgmt. | SLI+ | SLI+ | SLI+ | MOD+ | SLI+ | SLI+ | SLI+ | MOD+ |
| 680b Nutrient Management | SLI+ | SLI+ | SLI+ | SLI+ | 0 | 0 | SIG+ | 0 |
| 685c Pest Management | 0 | 0 | 0 | 0 | 0 | SIG+ | 0 | SIG+ |

Developed By/Date _____ AO Concurrence/Date _____ SO Concurrence/Date _____
Landuse Type Cropland Resource Setting No. 1 MLRA 105 FIELD OFFICE _____

MINNESOTA TECHNICAL GUIDE SECTION III
CONSERVATION MANAGEMENT SYSTEM (CMS) GUIDANCE DOCUMENT

| | | | | | | | | |
|--|----------------------------|----------------------------|-------------------------|--------------------------|---------------|---------------------------|------------------------|--|
| Resource Setting: The major soils are silt loams with slopes that range from 6-12%. The cropping sequence is two years corn, one year small grain seeded, two years hayland, with moldboard plowing being done in the fall. Sheet and rill erosion rates are 14 tons/acre/year. Soil compaction is present and small gullies are encroaching from the edge of the fields. The farm is a dairy operation and animal waste is spread on the ground at inappropriate times. Runoff of the manure and odor are a problem with surrounding neighbors and streams that are located nearby. Pesticides and nutrients have been detected in area wells and surface waters. Pest pressure is evident on all crops grown. The landowner's objectives are to raise crops for an economic return; control erosion to a tolerable level, manage the animal waste to provide nutrient for crop production and reduce the pesticide and nutrient that are running off and leaching through the site. The landowner also wants to increase the amount of upland wildlife | | | | | | | | |
| REFERENCE FROM CPPE AND RESOURCE CONSIDERATIONS | | | | | | | | |
| Resource: | Soil | | | | Water | | | |
| | Surface Nut & Org B-2-h | Surface Turbidity B-2-i | Airborne Odors C-1-i | Pest Management D-3-c | Food E-1-a | Cover or Shelter E-1-b | Pop & Balance E-2-a | |
| RMS # 1 Practice # And Name: | | | | | | | | |
| 328-Conservation Cropping Sequence (Corn for grain – Corn for grain – Grain seeded – Hay-Hay) | | | | | | | | |
| 329-Cons Till System Mulch Til | SLI+ | MOD+ | 0 | 0 | MOD+ | SLI+ | SLI+ | |
| 585-Contour Strip Crop | SLI+ | SLI+ | 0 | SLI- | SLI+ | MOD+ | SLI+ | |
| 412-Grassed Waterway | SLI+ | MOD+ | 0 | SLI- | SLI+ | SLI+ | SLI+ | |
| 362-Diversion | SLI+ | SLI+ | NA | SLI- | SLI+ | SLI+ | SLI+ | |
| 633- Waste Utilization | SIG+ | SLI+ | MOD+ | SLI+ | SLI+ | SLI+ | SLI+ | |
| 645-Upland Wildlife Mgmt. | MOD+ | MOD+ | 0 | MOD+ | SIG+ | SIG+ | SIG+ | |
| 680b Nutrient Management | SIG+ | 0 | SIG+ | SLI+ | SLI+ | SLI+ | SLI+ | |
| 685c Pest Management | 0 | 0 | 0 | SIG+ | SLI- | SLI- | SLI- | |

Developed By/Date _____ AO Concurrence/Date _____ SO Concurrence/Date _____
Conservation Management System Options Worksheet

MINNESOTA TECHNICAL GUIDE SECTION III
 CONSERVATION MANAGEMENT SYSTEM (CMS) GUIDANCE DOCUMENT

| RESOURCE: CROPLAND MLRA 105 SETTING #1 CONSIDERATIONS #2 | | | | | | | | | |
|--|--------------|----------|-----------------|------------|----------------|-------------------|------------------------|--------------------|--|
| Considerations | Soil | | | | Water | | | | |
| Resource Problems | Sheet & Rill | Con Flow | Classic Gullies | Compaction | Offsite Damage | Ground Pesticides | Ground Nutrients & Org | Surface Pesticides | |
| CMS Options | A-1-a | A-1-c | A-1-d | A-2-b | A-3-b | B-2-a | B-2-b | B-2-g | |
| 328-Conservation Cropping Sequence Corn for Grain – Corn for Grain Seeded – Hay Hay | | | | | | | | | |
| 329-Cons Till System Mulch Til | SIG+ | SLI+ | 0 | SLI+ | SIG+ | 0 | 0 | SLI+ | |
| 585-Contour Strips | SIG+ | SLI+ | SLI+ | SLI+ | MOD+ | SLI+ | SLI+ | SLI+ | |
| 412-Grassed W. W. | 0 | SIG+ | SIG+ | 0 | SLI+ | SLI+ | SLI+ | SLI+ | |
| 362-Diversion | SLI+ | SLI+ | SIG+ | 0 | SLI+ | SLI+ | SLI+ | SLI+ | |
| 645-Upland Wildlife Mgmt | SLI+ | SLI+ | SLI+ | MOD+ | SLI+ | SLI+ | SLI+ | MOD+ | |
| 680b-Nutrient Mgmt | SLI+ | SLI+ | SLI+ | SLI+ | 0 | 0 | SIG+ | SLI+ | |
| 685c-Pest Management | 0 | 0 | 0 | 0 | 0 | SIG+ | 0 | SIG+ | |
| 633-Waste Utilization | SLI+ | 0 | 0 | 0 | SLI+ | SLI+ | SIG+ | SLI+ | |
| | | | | | | | | | |
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| REFERENCE FROM CPPE AND RESOURCE CONSIDERATIONS #2 | | | | | | | | |
|---|-----------------------|-------------------|----------------|-----------------|-------|------------------|---------------|--|
| Considerations | Water | | Air | Animals | | | | |
| Resource Problems | Surface Nutri. & Org. | Surface Turbidity | Airborne Odors | Pest Management | Food | Cover or Shelter | Pop & Balance | |
| CMS Options | B-2-h | B-2-i | C-1-i | D-3-c | E-1-a | E-1-b | E-2-a | |
| 328-Conservation Cropping Sequence Corn for grain – Corn for grain seeded – Hay – Hay | | | | | | | | |
| 329-Cons Till System Mulch Til | SLI+ | MOD+ | 0 | 0 | MOD+ | SLI+ | SLI+ | |
| 585-Contour Strips | SIG+ | SLI+ | 0 | MOD+ | SLI+ | MOD+ | SLI+ | |
| 412-Grassed W. W. | SLI+ | MOD+ | 0 | SLI- | SLI+ | SLI+ | SLI+ | |
| 362-Diversion | SLI+ | SLI+ | NA | SLI- | SLI+ | SLI+ | SLI+ | |
| 645-Upland Wildlife Mgmt | MOD+ | MOD+ | 0 | MOD+ | SIG+ | SIG+ | SIG+ | |
| 680b-Nutrient Mgmt | SIG+ | 0 | SIG+ | SLI+ | SLI+ | SLI+ | SLI+ | |
| 685c-Pest Management | 0 | 0 | 0 | SIG+ | SLI- | SLI- | SLI- | |
| 633-Waste Utilization | SIG+ | SLI+ | MOD+ | SLI+ | SLI+ | SLI+ | SLI+ | |
| | | | | | | | | |
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CONSERVATION MANAGEMENT SYSTEM (CMS) GUIDANCE DOCUMENT

| RESOURCE: CROPLAND MLRA 105 SETTING #1 | | | | | | | | | |
|---|--------------|----------|-----------------|------------|----------------|-------------------|------------------------|--------------------|--|
| Considerations | | Soil | | | | Water | | | |
| Resource Problems | Sheet & Rill | Con Flow | Classic Gullies | Compaction | Offsite Damage | Ground Pesticides | Ground Nutrients & Org | Surface Pesticides | |
| CMS Options | A-1-a | A-1-c | A-1-d | A-2-b | A-3-b | B-2-a | B-2-b | B-2-g | |
| 328-Conservation Cropping Sequence C-C-GS-Hay-Hay | | | | | | | | | |
| 329-Cons Tillage 30% Cover | SIG+ | SLI+ | 0 | SLI+ | SIG+ | 0 | 0 | SLI+ | |
| 330-Contouring | SIG+ | SLI+ | 0 | 0 | SLI+ | SLI- | SLI- | SLI+ | |
| 344-Crop Residue | SIG+ | SLI+ | 0 | 0 | SLI+ | 0 | 0 | 0 | |
| 362-Diversion | SLI+ | SLI+ | SIG+ | 0 | SLI+ | SLI+ | SLI+ | SLI+ | |
| 393-Filter Strip | SLI+ | SLI+ | SLI+ | 0 | MOD+ | SLI- | SLI- | SLI+ | |
| 410-Grade Stabil | 0 | 0 | SIG+ | 0 | MOD+ | 0 | 0 | 0 | |
| 412-Grassed W. W. | 0 | SIG+ | SIG+ | 0 | SLI+ | SLI- | SLI- | SLI+ | |
| 585-Contour Strip Crop. | SIG+ | SLI+ | SLI+ | SLI+ | MOD+ | SLI+ | SLI+ | SLI+ | |
| 600g Terraces | MOD+ | SIG+ | SIG+ | 0 | SIG+ | SLI- | SLI- | SLI+ | |
| 638-W&S Basin | 0 | SIG+ | SIG+ | 0 | SIG+ | SLI- | SLI+ | MOD+ | |
| 633-Waste Utilization | SLI+ | 0 | 0 | SLI+ | SLI+ | SLI+ | SLI+ | MOD+ | |
| 680b-Nutrient Management | SLI+ | SLI+ | SLI+ | SLI+ | 0 | 0 | SIG+ | SLI+ | |
| 685c-Pest management | 0 | 0 | 0 | 0 | 0 | SIG+ | 0 | SIG+ | |

MINNESOTA TECHNICAL GUIDE SECTION III
CONSERVATION MANAGEMENT SYSTEM (CMS) GUIDANCE DOCUMENT

| RESOURCE: CROPLAND MLRA 105 SETTING #1 | | | | | | | | | |
|--|---|-----------------------------|-------------------------|----------------------|-----------------------|------------|------------------------|---------------------|--|
| Considerations | | Water | | Air | Plants | Animals | | | |
| CMS Options | Resource Problems | Surface Nutri. & Org. B-2-h | Surface Turbidity B-2-i | Airborne Odors C-1-i | Pest Management D-3-c | Food E-1-a | Cover or Shelter E-1-b | Pop & Balance E-2-a | |
| | 328-Conservation Cropping Sequence C-C-Gs-Hay-Hay | | | | | | | | |
| 329-Cons Till age Mulch Tillage | | SLI+ | MOD+ | 0 | 0 | MOD+ | SLI+ | SLI+ | |
| 330-Contouring | | SLI+ | SLI+ | 0 | 0 | 0 | 0 | NA | |
| 344-Crop Residue | | 0 | SLI+ | 0 | SLI+ | SLI+ | SLI+ | MOD+ | |
| 362-Diversion | | SLI+ | SLI+ | NA | SLI- | SLI+ | SLI+ | SLI+ | |
| 393-Filter Strip | | SLI+ | SLI+ | 0 | SLI- | SLI+ | SLI+ | SLI+ | |
| 410-Grade Stabil. | | 0 | SLI+ | 0 | SLI- | SLI+ | SLI+ | SLI+ | |
| 412-Grassed W. W. | | SLI+ | MOD+ | 0 | SLI- | SLI+ | SLI+ | SLI+ | |
| 585-Contour Strip Crop. | | SLI+ | SLI+ | 0 | MOD+ | SLI+ | MOD+ | SLI+ | |
| 600g-Terraces | | SLI+ | MOD+ | 0 | SLI- | SLI+ | SLI+ | 0 | |
| 638-W&S Basin | | MOD+ | SIG+ | 0 | 0 | SLI+ | SLI+ | SLI+ | |
| 633-Waste Utilization | | MOD+ | MOD+ | SIG+ | SLI+ | SLI+ | SLI+ | SLI+ | |
| 645-Upland Wildlife Mgmt | | MOD+ | MOD+ | 0 | MOD+ | SIG+ | SIG+ | SIG+ | |
| 680b-Nutrient Management | | SIG+ | 0 | SIG+ | SLI+ | SLI+ | SLI+ | SLI+ | |
| 685c-Pest Management | | 0 | 0 | 0 | SIG+ | SLI- | SLI- | SLI- | |

MINNESOTA TECHNICAL GUIDE SECTION III
CONSERVATION MANAGEMENT SYSTEM (CMS) GUIDANCE DOCUMENT

Landuse Type Cropland

Resource Setting No. 2

MLRA 105

Field Office _____

Resource Setting: The major soils are upland silt loams with slopes that range from 6-12%. The cropping sequence is two years corn, one year soybeans with moldboard plowing being done in the fall. Sheet and rill erosion is 35 tons per acre per year. Soil compaction is present and gullies are located in almost all moderate to large drainage ways. Pesticides and nutrients have been detected in area wells and surface waters. Pest pressure is evident on all crops grown. The landowners objectives are to raise row crops for an economic return, control erosion to a tolerable level, manage nutrients to reduce input costs; and reduce the pesticides and nutrients that are running off and leaching though the site. The landowner also wants to include upland wildlife.

RESOURCE: CROPLAND MLRA 105 SETTING #1

| Resource: | Water | | Air | Plants | Animals | | | |
|---|-----------------------------|-------------------------|----------------------|-----------------------|--------------|------------------------|---------------------|--|
| | Surface Nutri. & Org. B-2-h | Surface Turbidity B-2-i | Airborne Drift C-1-h | Pest Management D-3-c | Food E-1-a | Cover or Shelter E-1-b | Pop & Balance E-2-a | |
| RMS # 1 Practice # and Name: | | | | | | | | |
| 328-Conservation Cropping Sequence (corn-soybeans-corn) soybeans drilled, corn following soybeans no-till planted | | | | | | | | |
| 329-Cons Tillage No Tillage | SLI+ SLI+ | MOD+ MOD+ | 0 SLI- | 0 SLI- | MOD+ SLI+ | SLI+ MOD+ | SLI+ SLI+ | |
| 330-Contouring | SLI+ | SLI+ | 0 | 0 | 0 | 0 | NA | |
| 600-Terraces | SLI+ | MOD+ | 0 | SLI- | SLI+ | SLI+ | 0 | |
| 620-Underground Outlet | FAC | FAC | FAC | FAC | FAC | FAC | FAC | |
| 645-Upland Wildlife Management | MOD+ | MOD+ | SLI+ | MOD+ | SIG+ | SIG+ | SIG+ | |
| 680b-Nutrient Management | SIG+ | 0 | 0 | SLI+ | SLI+ | SLI+ | SLI+ | |
| 685c-Pest Management | 0 | 0 | MOD+ | SIG+ | SLI- | SLI- | SLI- | |

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Conservation Management System Options Worksheet

| RESOURCE: CROPLAND MLRA 105 SETTING #2 | | | | | | | | | |
|---|-------------------|--------------|----------|-----------------|------------|----------------|-------------------|------------------------|--------------------|
| Considerations | Resource Problems | Soil | | | | Water | | | |
| | | Sheet & Rill | Con Flow | Classic Gullies | Compaction | Offsite Damage | Ground Pesticides | Ground Nutrients & Org | Surface Pesticides |
| CMS Options | | A-1-a | A-1-c | A-1-d | A-2-b | A-3-b | B-2-a | B-2-b | B-2-g |
| 328-Conservation Cropping Sequence (Corn – Soybeans-Corn) Soybeans drilled, corn following soybeans no-till planted | | | | | | | | | |
| 329-Cons Tillage 50% Corn, Soybeans 30% | | SIG+ | SLI+ | 0 | SLI+ | SIG+ | 0 | 0 | SLI+ |
| 330-Contouring | | SIG+ | SLI+ | 0 | 0 | SLI+ | SLI- | SLI- | SLI+ |
| 344-Crop Residue | | SIG+ | SLI+ | 0 | 0 | SLI+ | 0 | 0 | 0 |
| 362-Diversion | | SLI+ | SLI+ | SIG+ | 0 | SLI+ | SLI- | SLI- | SLI+ |
| 393-Filter Strip | | SLI+ | SLI+ | SLI+ | 0 | MOD+ | SLI- | SLI- | SLI+ |
| 410-Grade Stabil. | | 0 | 0 | SIG+ | 0 | MOD+ | 0 | 0 | 0 |
| 412-Grassed W.W. | | 0 | SIG+ | SIG+ | 0 | SLI+ | SLI- | SLI- | SLI+ |
| 585-Contour Strip Crop. | | SIG+ | SLI+ | SLI+ | SLI+ | MOD+ | SLI+ | SLI+ | SLI+ |
| 600g-Terraces | | MOD+ | SIG+ | SIG+ | 0 | SIG+ | SLI+ | SLI+ | SLI+ |
| 638-W&S Basin | | 0 | SIG+ | SIG+ | 0 | SIG+ | SLI+ | SLI+ | MOD+ |
| 633-Waste utilization | | SLI+ | 0 | SLI+ | SLI+ | SLI+ | SLI+ | SLI+ | MOD+ |
| 680b-Nutrient Management | | SLI+ | SLI+ | SLI+ | SLI+ | 0 | 0 | SIG+ | SLI+ |
| 685c-Pest Management | | 0 | 0 | 0 | 0 | 0 | SIG+ | 0 | SIG+ |
| 620-Underground Outlet | | FAC | FAC | FAC | FAC | FAC | FAC | FAC | FAC |
| 645-Wildlife Management | | SLI+ | SLI+ | SLI+ | MOD+ | SLI+ | SLI+ | SLI+ | MOD+ |

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INSERTS

Landuse Type Cropland Resource Setting No. _____ MLRA 94A FIELD OFFICE _____

Resource Setting: Owner objectives – Economic return on operation, minimize pollution to surface and ground water and improve wildlife habitat.
Soils-Loamy find sands on 2 to 6% slopes.
Crop rotation – Corn and soybeans.
Resource concerns-Nutrient/pesticide pollution, loss of wildlife habitat, wind and water erosion.

REFERENCE FROM CPPE AND RESOURCE CONSIDERATIONS

| Resource: | Soil | | | | Water | | | |
|---------------------------------|------------------------|--------------|----------------------|------------|-------------|---------------------------|---------------------------|--|
| | Sheet and Rill Erosion | Wind Erosion | Concen. Flow Erosion | Soil Tilth | Water Mgmt. | Surface Contam. Pesticide | Surface Contam. Nutr/Org. | |
| | A-1-a | A-1-b | A-1-c | A-2-a | B-1-f | B-2-g | B-2-h | |
| RMS # 1 Practice # And Name: | | | | | | | | |
| 328-CCS Corn/Soybeans | | | | | | | | |
| 329-Cons. Tillage (30%) | SIG+ | SIG+ | SLI+ | MOD+ | MOD+ | 0 | 0 | |
| 392-Fld. Windbreak | 0 | MOD+ | 0 | MOD+ | MOD+ | SLI- | SLI- | |
| 645-Wildlife Upland Mgmt | SLI+ | SLI+ | SLI+ | SLI+ | SLI+ | SLI+ | SLI+ | |
| 590e-Nutrient Management | SLI+ | SLI+ | SLI+ | SLI+ | SLI+ | 0 | SIG+ | |
| 595c-Pest Management | 0 | 0 | 0 | 0 | SLI+ | SIG+ | 0 | |

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Landuse Type Cropland Resource Setting No. _____ MLRA 94A FIELD OFFICE _____

Resource Setting: Owner objectives – Economic return on operation, minimize pollution to surface and ground water and improve wildlife habitat.
 Soils-Loamy fine sands on 2 to 6% slopes.
 Crop rotation – Corn and soybeans.
 Resource concerns-Nutrient/pesticide pollution, loss of habitat, wind water erosion.

REFERENCE FROM CPPE AND RESOURCE CONSIDERATIONS

| Resource: | Soil | | Animals | | | | | |
|---------------------------------|---------------------|--|-----------------|--|--|--|--|--|
| | Nutrient Management | | Food (Wildlife) | | | | | |
| | D-3-b | | E-1-a | | | | | |
| RMS # 1 Practice # And Name: | | | | | | | | |
| 328-CCS Corn/Soybeans | | | | | | | | |
| 329-Cons. Tillage (30%) | 0 | | MOD+ | | | | | |
| 392-Fld. Windbreak | NA | | MOD+ | | | | | |
| 645-Wildlife Upland Mgmt | NA | | SIG+ | | | | | |
| 590e-Nutrient Management | SIG+ | | SLI+ | | | | | |
| 595c-Pest Management | NA | | SLI+ | | | | | |

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Landuse Type Cropland Resource Setting No. _____ MLRA 57, 88, 93 FIELD OFFICE _____

Resource Setting: Owner objectives – maximize economic returns from agricultural production and minimize soil erosion.
Soils-Silt loams on 0 to 6% slopes.
Crop Rotation – Continuous small grain
Resource concerns – soil erosion and limited wildlife habitat/food form conventional farming systems.

REFERENCE FROM CPPE AND RESOURCE CONSIDERATIONS

| Resource: | Soil | Water | Plants | Water | | | |
|---------------------------------|------------------------|--------------------|------------------------|---------------------|-----------------|-----------------|--|
| | Sheet and Rill Erosion | Conc. Flow Erosion | Excess Runoff Flooding | Nutrient Management | Pest Management | Food (Wildlife) | |
| | A-1-a | A-1-c | B-1-b | D-3-b | D-3-c | E-1-a | |
| RMS # 1 Practice # And Name: | | | | | | | |
| 328-CCS (small grain) | | | | | | | |
| 329-Till. (Mulch) | SIG+ | SIG+ | SIG+ | 0 | 0 | MOD+ | |
| 412-Grassed Waterway | SLI+ | SIG+ | SLI+ | NA | 0 | MOD+ | |
| 645-WildlifeUpland Mgmt | SLI+ | SLI+ | SLI+ | SLI+ | SLI+ | SIG+ | |
| 590d-Nutrient Management | SLI+ | SLI+ | SLI+ | SIG+ | 0 | SIG+ | |
| 595e-Pest Management | SLI+ | 0 | NA | NA | SIG+ | SLI+ | |
| | | | | | | | |

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Landuse Type Cropland Resource Setting No. _____ MLRA 90 FIELD OFFICE _____

Resource Setting: Owner objectives – maintain productivity levels, minimize nutrients/pesticide pollution to ground water, and control wind erosion.
Soils – Loamy fine sands on 2 to 7% slopes, unsheltered distances often exceed 1000 feet.
Crop rotation – Continuous corn for grain.
Resource concerns – wind erosion, pollution of ground water, low soil OM, loss of pheasant habitat.

REFERENCE FROM CPPE AND RESOURCE CONSIDERATIONS

| Resource: | Animals | | | | | | | |
|---------------------------------|-----------------------------|------------------------------------|--|--|--|--|--|--|
| | Food (Wildlife) A-1-h | Cover and Shelter (Wildlife) | | | | | | |
| RMS # 2 Practice # And Name: | | | | | | | | |
| 328-CCS (Continuous Corn) | | | | | | | | |
| 329-Cons. Till (no till) | SLI+ | SLI+ | | | | | | |
| 392-Fld. Windbreak | SLI+ | SIG+ | | | | | | |
| 590e-Nutrient Management | 0 | 0 | | | | | | |
| 595c-Ppest. Management | MOD- | SLI- | | | | | | |
| 645-Wildlife Upland Mgmt | SIG+ | SIG+ | | | | | | |
| | | | | | | | | |

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Landuse Type Cropland Resource Setting No. _____ MLRA 90 FIELD OFFICE _____

Resource Setting: Owner objectives – maintain productivity levels, minimize nutrients/pesticide pollution to ground water, and control wind erosion.
Soils – Loamy fine sands on 2 to 7% slopes, unsheltered distances often exceed 1000 feet.
Crop rotation – Continuous corn for grain.
Resource concerns – wind erosion, pollution of ground water, low soil OM, loss of pheasant habitat.

REFERENCE FROM CPPE AND RESOURCE CONSIDERATIONS

| Resource: | Soil | | | | Water | | | |
|---------------------------------|-------------------------------|-----------------------|----------------|-------------------------------------|-------|---------------------------------------|--|------------------------------------|
| | Sheet & Rill Erosion A-1-a | Wind Erosion A-1-b | Tilth A-2-a | Deposition Offsite Damages A-3-b | | Ground H2O Contam. Pesticide B-2-a | Ground H2O Contam. Nutri/Org. B-2-b | Surface Contam. Pesticide B-2-g |
| RMS # 2 Practice # And Name: | | | | | | | | |
| 328-CCS (Continuous Corn) | | | | | | | | |
| 329-Cons. Till (no till) | SIG+ | SIG+ | SIG+ | SIG+ | | SLI- | SLI- | MOD+ |
| 392-Fld. Windbreak | 0 | SIG+ | SLI+ | SLI+ | | 0 | 0 | 0 |
| 590e-Nutrient Management | 0 | 0 | 0 | 0 | | 0 | SIG+ | 0 |
| 595c-Ppest. Management | 0 | 0 | 0 | 0 | | SIG+ | 0 | SIG+ |
| 645-Wildlife Upland Mgmt | SLI+ | SLI+ | SLI+ | SLI+ | | SLI+ | SLI+ | MOD+ |
| | | | | | | | | |

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Landuse Type Cropland Resource Setting No. _____ MLRA 90 FIELD OFFICE _____

Resource Setting: Owner objectives – maintain productivity levels, minimize nutrients/pesticide pollution to ground water, and control wind erosion.
 Soils – Loamy fine sands on 2 to 7% slopes, unsheltered distances often exceed 1000 feet.
 Crop rotation – Continuous corn for grain.
 Resource concerns – wind erosion, pollution of ground water, low soil OM, loss of pheasant habitat.

REFERENCE FROM CPPE AND RESOURCE CONSIDERATIONS

| Resource: | Soil | | | | Water | | | |
|---------------------------------|-------------------------------|-----------------------|----------------|-------------------------------------|-------|---------------------------------------|--|------------------------------------|
| | Sheet & Rill Erosion A-1-a | Wind Erosion A-1-b | Tilth A-2-a | Deposition Offsite Damages A-3-b | | Ground H2O Contam. Pesticide B-2-a | Ground H2O Contam. Nutri/Org. B-2-b | Surface Contam. Pesticide B-2-g |
| RMS # 2 Practice # And Name: | | | | | | | | |
| 328-CCS (Continuous Corn) | | | | | | | | |
| 329-Cons. Till (mulch) | SIG+ | SIG+ | SIG+ | SIG+ | | SLI- | SLI- | MOD+ |
| 392-Fld. Windbreak | 0 | SIG+ | SLI+ | SLI+ | | 0 | 0 | 0 |
| 590e-Nutrient Management | 0 | 0 | 0 | 0 | | 0 | SIG+ | 0 |
| 595c-Ppest. Management | 0 | 0 | 0 | 0 | | SIG+ | 0 | SIG+ |
| 645-Wildlife Upland Mgmt | SLI+ | SLI+ | SLI+ | SLI+ | | SLI+ | SLI+ | MOD+ |
| | | | | | | | | |

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Landuse Type Cropland Resource Setting No. 1 MLRA 90 FIELD OFFICE _____

Resource Setting: Owner objectives – Production of quality forage for dairy operation, minimize erosion and reduce impact operation has on surface and ground water resources.
Soils – Fine sandy loams and loams and 0 to 6% slopes.
Crop rotations – grass/legume hay in rotation with corn for silage.
Resource Concerns – soil erosion, improvement in soil OM levels, and impace of pesticide use on water resources.

REFERENCE FROM CPPE AND RESOURCE CONSIDERATIONS

| Resource: | Soil | | Water | | | Plants | Animals | |
|---------------------------------|------------------------|---------------------------|------------------------------|------------------------------|---------------------------|----------------|------------------------------|--|
| | Sheet and Rill Erosion | Deposition On Site Damage | Ground H2O Contam. Pesticide | Ground H2O Contam. Nutr/Org. | Surface Contam. Nutr/Org. | Nutrient Mgmt. | Cover and Shelter (Wildlife) | |
| | A-1-a | A-3-a | B-2-a | B-2-b | B-2-h | D-3-b | E-1-b | |
| RMS # 1 Practice # And Name: | | | | | | | | |
| 328-CCS (5 hay-3cg)) | | | | | | | | |
| 585-Cons. Strip Crop. | SIG+ | SIG+ | SLI+ | SLI+ | SLI+ | MOD+ | MOD+ | |
| 590e-Nutrient Management | 0 | 0 | 0 | SIG+ | SIG+ | SIG+ | MOD+ | |
| 595e-Pest Management | 0 | 0 | SIG+ | 0 | 0 | NA | SLI+ | |
| 633-Waste Utilization | SLI+ | SLI+ | 0 | MOD+ | SIG+ | SIG+ | 0 | |
| 645-Wildlife Upland Mgmt | SLI+ | SLI+ | 0 | 0 | SLI+ | MOD+ | SIG+ | |
| | | | | | | | | |

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Landuse Type Cropland Resource Setting No. _____ MLRA 90 FIELD OFFICE _____

Resource Setting: Owner objectives – maintain productivity levels, minimize nutrients/pesticide pollution to ground water, and control wind erosion.
 Soils – Loamy fine sands on 2 to 7% slopes, unsheltered distances often exceed 1000 feet.
 Crop rotation – Continuous corn for grain.
 Resource concerns – wind erosion, pollution of ground water, low soil OM, loss of pheasant habitat.

REFERENCE FROM CPPE AND RESOURCE CONSIDERATIONS

| Resource: | Soils | | | | | | | |
|---------------------------------|-----------------|------------------------------|--|--|--|--|--|--|
| | Food (Wildlife) | Cover and Shelter (Wildlife) | | | | | | |
| | A-1-h | | | | | | | |
| RMS # 1 Practice # And Name: | | | | | | | | |
| 328-CCS (Continuous Corn) | | | | | | | | |
| 329-Cons. Till (no till) | SLI+ | SLI+ | | | | | | |
| 392-Fld. Windbreak | SLI+ | SIG+ | | | | | | |
| 590e-Nutrient Management | 0 | 0 | | | | | | |
| 595c-Ppest. Management | MOD- | SLI- | | | | | | |
| 645-Wildlife Upland Mgmt | SIG+ | SIG+ | | | | | | |
| | | | | | | | | |

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Landuse Type Cropland Resource Setting No. _____ MLRA 91 FIELD OFFICE _____

| | | | | | | | | |
|---|----------------------|--------------|-------|--------------------------|---------------------------|--|--|--|
| Resource Setting: Owner objectives – Economic return on production of corn, soybeans and other crops while minimizing soil erosion and pollution of the ground water resource. Soil – Loamy fine sand sand fine sands on 1 to 6% slopes. Resource concerns – low soil OM, chemical/nutrient leaching, wind erosion. | | | | | | | | |
| REFERENCE FROM CPPE AND RESOURCE CONSIDERATIONS | | | | | | | | |
| Resource: | Soil | | | | | | | |
| | Sheet & Rill Erosion | Wind Erosion | Tilth | Deposition Onsite Damage | Deposition Offsite Damage | | | |
| | A-1-a | A-1-b | A-2-a | A-3-a | A-3-b | | | |
| RMS # 1 Practice # And Name: | | | | | | | | |
| 328-CCS (Corn/soybeans) | | | | | | | | |
| 329m-Cons. Tillage | SIG+ | MOD+ | MOD+ | MOD+ | MOD+ | | | |
| 590e-Nutrient Management | 0 | 0 | 0 | 0 | 0 | | | |
| 595c-Pest. Management | SLI+ | SLI+ | 0 | 0 | 0 | | | |
| 392-Fld Windbreak | SLI+ | SIG+ | SIG+ | SLI+ | MOD+ | | | |
| 645-Wildlife Upland Mgmt | SLI+ | SLI+ | SLI+ | 0 | 0 | | | |

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Landuse Type Cropland Resource Setting No. _____ MLRA 91 FIELD OFFICE _____

Resource Setting: Owner objectives – Economic return on production of corn, soybeans and other crops while minimizing soil erosion and pollution of the ground water resource.

Soil – Loamy fine sand sand fine sands on 1 to 6% slopes.

Resource concerns – low soil OM, chemical/nutrient leaching, wind erosion.

REFERENCE FROM CPPE AND RESOURCE CONSIDERATIONS

| Resource: | Water | | | | | | |
|---------------------------------|--------------------------|------------------------------|---------------------------|---------------------------|---------------------|------------------|--|
| | Ground H2O Contam. Pest. | Ground H2O Contam. Nutri/Org | Surface Contam. Pesticide | Surface Contam. Nutr/Org. | Nutrient Management | Pest. Management | |
| | B-2-a | B-2-b | B-2-g | B-2-h | D-3-b | D-3-c | |
| RMS # 1 Practice # And Name: | | | | | | | |
| 328-CCS (Corn/Soybeans) | | | | | | | |
| 329m-Cons. Tillage | 0 | 0 | MOD+ | MOD+ | 0 | 0 | |
| 590e-Nutrient Management | 0 | SIG+ | 0 | SIG+ | SIG+ | SLI+ | |
| 595c-Pest. Management | SIG+ | 0 | SIG+ | 0 | NA | SIG+ | |
| 392-Fld Windbreak | SLI- | SLI- | 0 | 0 | MOD+ | 0 | |
| 645-Wildlife Upland Mgmt | 0 | 0 | SLI+ | SLI+ | SLI+ | SLI+ | |
| | | | | | | | |

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Landuse Type Cropland Resource Setting No. 1 MLRA 88, 90 FIELD OFFICE _____

| | | | | | | | |
|---|------------------------|--------------|------------------------|--|------------|---------------------|------------------------------|
| Resource Setting: Owner objectives – Production of high quality feed/forage for a 40 to 60 cow dairy herd. Soils – loams and silt loamsom 6% to 12 % slopes. Vegetation – grass/legume hay (5 – 7 yrs) with small grain or corn silage (1 – 2 yrs) for feed and stand renovation. Resource concern-maintaining legume component in forage and erosion control during years of annual crop production. | | | | | | | |
| REFERENCE FROM CPPE AND RESOURCE CONSIDERATIONS | | | | | | | |
| Resource: | Soil | | Water | | | | |
| | Sheet and Rill Erosion | Concen. Flow | Nutrients And Organics | | Production | Nutrient Management | Cover and Shelter (Wildlife) |
| | A-1-a | A-1-c | B-2-h | | D-2-a | D-3-b | E-1-b |
| RMS # 1 Practice # And Name: | | | | | | | |
| 328-Cons. Crop Sys Hay/Corn Silage Rotation | | | | | | | |
| 590e-Nutrient Management | MOD+ | 0 | SIG+ | | MOD+ | SIG+ | MOD+ |
| 412-Grass Waterway | 0 | SIG+ | MOD+ | | SLI+ | NA | SLI+ |
| 633-Waste Utilization | MOD+ | SLI+ | SIG+ | | MOD+ | SIG+ | SLI+ |
| 645-Wildlife Upland Mgmt | MOD+ | MOD+ | MOD+ | | MOD+ | MOD+ | SIG+ |
| | | | | | | | |

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