

MANAGEMENT SYSTEM TEMPLATE

B. CONSERVATION MANAGEMENT SYSTEM OPTIONS WORKSHEET

1	STATE	OKLAHOMA
2	FIELD OFFICE	Ada, Atoka, Coalgate, Eufaula, Holdenville, McAlester, Muskogee, Okemah, Stigler, Tulsa, Wagoner
3	MLRA	118B
4.	COMMON RESOURCE AREA (CRA)	118B.40.001
5	RESOURCE INTERPRETATIONS	<i>see Section II FOTG for interpretations</i>
5.1	SOIL	FOTG, SECTION I - EROSION PREDICTION FOTG, SECTION II - SOILS LEGENDS FOTG, SECTION II - SOIL DESCRIPTIONS - NONTECHNICAL FOTG, SECTION II - SOIL DESCRIPTIONS - TECHNICAL FOTG, SECTION II - CROPLAND INTERPRETATIONS FOTG, SECTION II - HYDRIC SOIL INTERPRETATIONS FOTG, SECTION II - HEL INTERPRETATIONS FOTG, SECTION II - ENGINEERING INTERPRETATIONS FOTG, SECTION III - RESOURCE MANAGEMENT SYSTEMS - SOIL FOTG, SECTION V-A-1 - EFFECTS FOR CMS FORMULATION - SOIL FOTG, SECTION V-A-2 - EFFECTS FOR GUIDANCE DOCUMENTS
5.2	WATER	FOTG, SECTION I - CLIMATIC DATA FOTG, SECTION II - WATER QUANTITY AND QUALITY INTERPRETATIONS FOTG, SECTION III - RESOURCE MANAGEMENT SYSTEMS - WATER FOTG, SECTION V-A-1 - EFFECTS FOR CMS FORMULATION - WATER FOTG, SECTION V-A-2 - EFFECTS FOR GUIDANCE DOCUMENTS
5.3	AIR	FOTG, SECTION I - CLIMATIC DATA FOTG, SECTION III - RESOURCE MANAGEMENT SYSTEMS - AIR FOTG, SECTION V-A-1 - EFFECTS FOR CMS FORMULATION - AIR FOTG, SECTION V-A-2 - EFFECTS FOR GUIDANCE DOCUMENTS
5.4	PLANT	FOTG, SECTION I - THREATENED AND ENDANGERED SPECIES FOTG, SECTION II - CROPLAND INTERPRETATIONS FOTG, SECTION III - RESOURCE MANAGEMENT SYSTEMS - PLANTS FOTG, SECTION III - LEGISLATED PROGRAMS - ALTERNATIVE CONSERVATION SYSTEMS FOTG, SECTION III - LEGISLATED PROGRAMS - BASIC CONSERVATION SYSTEMS FOTG, SECTION V-A-1 - EFFECTS FOR CMS FORMULATION FOTG, SECTION V-A-2 - EFFECTS FOR GUIDANCE DOCUMENTS FOTG, SECTION V-B-1 - EFFECTS FOR DECISIONMAKING - PRODUCER EXPERIENCES
5.5	ANIMAL	FOTG, SECTION I - THREATENED AND ENDANGERED SPECIES FOTG, SECTION III - RESOURCE MANAGEMENT SYSTEMS - ANIMALS FOTG, SECTION V-A-1 - EFFECTS FOR CMS FORMULATION - ANIMALS FOTG, SECTION V-A-2 - EFFECTS FOR GUIDANCE DOCUMENTS FOTG, SECTION V-B-1 - EFFECTS FOR DECISIONMAKING - PRODUCER EXPERIENCES
5.6	HUMAN	FOTG, SECTION I - COST DATA FOTG, SECTION I - CULTURAL RESOURCE INFORMATION FOTG, SECTION I - STATE/LOCAL LAWS, ORDINANCES, REGULATIONS FOTG, SECTION V-B-1 - EFFECTS FOR DECISIONMAKING - PRODUCER EXPERIENCES
6	HYDROLOGIC UNIT	
7	SYSTEM TEMPLATE LABEL	QAAZ1
8	SYSTEM NAME	CROPLAND
9	PLANNING PHASE	NON-BENCHMARK
10	PLANNING LEVEL	RMS

11	NRCS LANDUSE	CROPLAND	
12	PLANNED CONSERVATION PRACTICES		<i>enter code / name of practice</i>
	1. 328 - Conservation Crop Rotation 2. 329 - Conservation Tillage System 3. 330 - Contour Farming 4. 340 - Cover and Green Manure Crop 5. 344 - Residue Management - Seasonal 6. 362 - Diversion 7. 386 - Field Border 8. 391 - Riparian Forest Buffer 9. 393 - Filter Strip 10. 410 - Grade Stabilization Structure	11. 412 - Grassed Waterway 12. 484 - Mulching 13. 528-A - Prescribed Grazing 14. 580 - Streambank and Shoreline Protection 15. 590 - Nutrient Management 16. 595 - Pest Management 17. 600 - Terrace 18. 645 - Wildlife Upland Habitat Management	
13	SYSTEM NARRATIVE	<i>describe how the practices work together as a system</i>	
	<p>Most of the cropland in this area consists of both upland and bottomland soils. The bottomland soils are generally level to very gently sloping soil, are usually land class 1 and have little or no erosion. Upland cropland soils usually are between 1% and 5% slopes, most are silt loams or fine sandy loams or more coarse textured soils. Soybeans, wheat, grain sorghum and watermelons are typical upland crops, and in addition to these, corn, peanuts and forage sorghum are grown on bottomlands. Sheet and rill erosion will be controlled by properly managing crop residues with conservation tillage implements and practices. Mulching will be used, as needed, to aid in controlling sheet and rill erosion. When needed, terraces will be constructed and/or maintained in order to control ephemeral gully erosion and will also help in controlling sheet and rill erosion. By controlling erosion, soil deposition into county road barrow ditches will be reduced, resulting in a reduction in road maintenance costs. By properly managing crop residues, soil organic matter will be increased and result in improve soil tilth and infiltration rate and a decrease in surface crusting. Nutrients will be applied according to current soil test recommendations and production goals in accordance with nutrient management standards. Insect, disease and vegetative pests will be controlled using chemical, mechanical or biologic methods. Determination of critical number of insects warranting control should be determined by a professional crop advisor, by OSU Extension Service, or by information supplied by OSU Extension Service. Disease control should be implemented as soon as damage appears or through preventative measures. Weeds should be treated when there are three or more per square foot, or when canopy cover exceeds 50 percent.</p>		
14	RESOURCE CONCERNS	MAGNITUDE/EFFECTS	IMPACTS
	1. Sheet and Rill Erosion	1. Sheet and rill erosion will be treated by applying a soil conserving crop rotation, using reduced and/or no-till tillage practices, and by preserving as much crop residue on or near the soil surface as possible. This will result in an average erosion rate of 3 tons/acre/year or less.	1. Reduction in sheet and rill erosion of 3 tons/acre/year or more.
	2. Ephemeral Gully	2. By constructing and/or maintaining terraces, contour farming, managing crop residues, and applying a soil conserving crop rotation, ephemeral erosion can be reduced to minimal levels or eliminated.	2. Reduction in ephemeral gully erosion of 1 to 14 tons/acre/year and acres affected reduced from 20 acres/160 acres of cropland to 0 acres/160 acres.
	3. Tilth, Crusting, Infiltration, Organic	3. By planting high residue crops and/or a rotation with legumes, mulching where needed, and by properly managing crop residue, organic matter levels can be increased in the soil, resulting in improved tilth and infiltration rates and reduced surface crusting.	3. Improved soil tilth, water infiltration, and organic matter content. Reduction in soil surface crusting.

	4. Soil Deposition Causing Off-site Damage	4. Application of a combination of terraces, contour farming, residue management, mulching and cover or green manure crop, as needed, will help reduce siltation of county road barrow ditches and adjoining streams.	4. Reduction in off-site sedimentation damage on county roads, streams, etc.
	5. Nutrient Management	5. Nutrients will be applied according to current soil test recommendations and production needs. Timing of application will be properly adjusted to reduce the risk of water resource contamination.	5. Properly applied nutrients. Improved water quality. Reduced input costs. Improved crop production.
	6. Plant Pests	6. By properly applying pesticides according to label directions, OSU Extension Service recommendations, or when pests are at a level that threaten the economic threshold of the crop (i.e., there are 3 weeds per square foot or canopy cover exceeds 50 percent) plant pests will be controlled.	6. Reduction of weedy competition with crop. Reduction in insect and/or disease damage. Reduction in input costs through integrated pest management.
CRA	118B.40.001	SYSTEM TEMPLATE LABEL QAAZ1	
15	* QUALITY CRITERIA DOCUMENTATION <i>list resource concerns then indicate yes/no (X)</i>		
	1. Sheet and Rill Erosion 2. Ephemeral Gully 3. Tilth, Crusting, Infiltration, Organic 4. Soil Deposition Causing Off-site Damage 5. Nutrient Management 6. Plant Pests	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	

* Provides an indication that the resource quality criteria will be met.

Conservation Practice Physical Effects on Resource Concerns Candidate Practice List

State	Oklahoma	Field Office	Ada, Atoka, Coalgate, Eufaula, Holdenville, McAlester, Muskogee, Okemah, Stigler, Tulsa, Wagoner	MLRA	118B	System Template Label	OAAZ1
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Resource Concerns	Sheet and Rill Erosion	Ephemeral Gully	Tilth, Crusting, Infiltration, Organic	Soil Deposition Causing Off-site Damage	Nutrient Management	Plant Pests	
Conservation Practices							
328-Conservation Crop Rotation	+	+	+++	+	+	++	
329-Conservation Tillage System	+++	+++	+++	+++	++	+	
330-Contour Farming	+	+	+	+	+	N/A	
340-Cover & Green Manure Crop	+++	+++	++	+++	+	+	
344-Residue Mgt. - Seasonal	++	++	++	++	+	+	
362-Diversion	++	+++	N/A	+++	+	+	
386-Field Border	+	+	++	+	+	+	
391-Riparian Forest Buffer	+++	++	+	++	+	N/A	
393-Filter Strip	F+	F+	F+	F++	F++	N/A	
410-Grade Stabilization Structure	+	+	N/A	++	+	N/A	
412-Grassed Waterway	+++	+++	N/A	+++	+	N/A	
484-Mulching	+++	+++	+	++	+	+	
528A-Prescribed Grazing	-	-	N/A	-	-	+	

RATINGS: Not Applicable = N/A Slight = + or -
 Negligible = 0 Moderate = ++ or ---
 Facilitating = F Significant = +++ or ---

