

MANAGEMENT SYSTEM TEMPLATE

A. BENCHMARK SYSTEM WORKSHEET

1.	STATE	Oklahoma	
2.	FIELD OFFICE	Buffalo - Harper County	
3.	MLRA	77E	
4.	COMMON RESOURCE AREA (CRA)	077E.40.003	
5.	RESOURCE INTERPRETATIONS		
5.1	SOIL	Soil Legends, Technical/Non-Technical Soils Interpretations	
5.2	WATER	Water Quantity and Quality Interpretations	
5.3	AIR		
5.4	PLANT	Cropland Interpretations	
5.5	ANIMAL	Threatened and Endangered Species List	
5.6	HUMAN		
6.	HYDROLOGIC UNIT		
7.	SYSTEM TEMPLATE LABEL	ECAOA	
8.	SYSTEM NAME	Rolling Plains	
9.	PLANNING PHASE	Benchmark	
10.	PLANNING LEVEL	N/A	
11.	NRCS LANDUSE	Crop	
12.	EXISTING CONSERVATION PRACTICES		
		<ol style="list-style-type: none"> 1. Contour Farming (330) 2. Residue Management, Seasonal (344) 3. Diversions (362) 4. Grassed Waterway (412) 5. Terraces (600) 	
13.	SYSTEM NARRATIVE	<p>This system consists of cropland fields on moderately sloped land with soils of poor fertility. These fields are annually sown to wheat for grain production. Soil erosion is common from both water and wind. Terraces, diversions, and waterways are found on the fields and require maintenance and in some cases restoration following major storm events. Residue management is critical to erosion control and crop residue is managed reasonably well in years that residue is present. Excessive use of tillage equipment has deteriorated soil tilth and created compaction problems which reduce plant health and vigor and overall cropland productivity. Bindweed and annual cheat are common pests which compete for nutrients and soil moisture and in turn reduces crop yields. Cattle grazing exists on this landuse when moisture conditions have been favorable.</p>	
14.	RESOURCE CONCERNS	MAGNITUDE/EFFECTS	
	<ol style="list-style-type: none"> 1. Soil - Erosion - Sheet & Rill 2. Soil - Erosion - Wind 3. Soil - Erosion - Ephemeral Gully 4. Soil - Condition - Tilth 5. Soil - Condition - Compaction 6. Soil - Deposition - Damage On-Site 7. Water - Quantity - Flooding 8. Air - Qual. - Sediment/Health 9. Plants - Condition - Productivity 10. Plants - Condition - Health & Vigor 11. Plants - Mngmt. - Est., Growth, Har. 12. Plants - Mngmt. - Nutrient Mngmt. 13. Plants - Mngmt. - Plant Pests 14. Animal - Pop. & Resource Balance 	<ol style="list-style-type: none"> 1. Soil loss 8 tons/ac/yr. 2. Soil loss 12 tons/ac/yr 3. Soil loss 4 tons/ac/yr 4. Soil Condition Index <0.0 5. Decreased infiltration 6. Excess sedimentation 7. Practice deterioration 8. Deteriorates quality of life 9. Reduced production 10. Reduce plant vigor 11. Reduce plant growth 12. 5 bushel decreased yield 13. 25% decreased yield 14. Overgrazing forage 	

Conservation Management Systems

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Certification of Quality Criteria

RESOURCE CONSIDERATION/PROBLEM	Term Effect		Meets Quality Criteria			
	Short	Long	Benchmark		Planned	
			Yes	No	Yes	No
SOIL						
Erosion						
Sheet and rill		✓				
Wind		✓				
Irrigation induced						
Concentrated flow						
Cropland ephemeral gully		✓				
Classic gully						
Soil mass movement						
Roadbank and construction sites						
Streambank erosion						
Condition						
Tilth		✓				
Compaction		✓				
Soil contaminants						
Deposition (Onsite & Offsite)						
Damage		✓				
Safety						
WATER						
Quantity						
Seeps						
Flooding		✓				
Subsurface water						
Restricted capacity						
Conveyance						
Inadequate outlets						
Restricted capacity, water bodies						
Water management--irrigated						
Water management--non-irrigated						
Quality						
Contaminants						
Aquatic habitat suitability						
AIR						
Quality						
Sediment		✓				
Smoke						
Chemical drift						
Odors						
Fungi						
Molds						
Pollen						
Condition						
Temperature						
Air movement						
Humidity						

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Certification of Quality Criteria

RESOURCE CONSIDERATION/PROBLEM	Term Effect		Meets Quality Criteria			
	Short	Long	Benchmark		Planned	
			Yes	No	Yes	No
PLANTS						
Suitability						
Adapted to site						
Intended use						
Condition						
Productivity		✓				
Health and vigor		✓				
Management						
Establishment						
Growth		✓				
Harvest						
Nutrient management		✓				
Pests		✓				
Threatened and endangered species						
ANIMALS(domestic/wildlife)						
Habitat						
Food						
Cover						
Shelter						
Water						
Threatened and endangered species						
Management						
Population and Resource Balance		✓				
Animal Health						

References:

NPPH Pages 75-78

FOTG Section III - Quality Criteria

GM -450 Part 401 Paragraph 401.03