

# MANAGEMENT SYSTEM TEMPLATE

## A. BENCHMARK SYSTEM WORKSHEET

1	STATE	OKLAHOMA
2	FIELD OFFICE	Antlers, Atoka, Durant, Hugo, Idabel, Tishomingo
3	MLRA	133B
4.	COMMON RESOURCE AREA (CRA)	133B.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	SAAZ0
8	SYSTEM NAME	CROPLAND
9	PLANNING PHASE	BENCHMARK
10	PLANNING LEVEL	N/A
11	NRCS LANDUSE	CROPLAND

12	<b>EXISTING CONSERVATION PRACTICES</b>	
	1. 328 - Conservation Crop Rotation 2. 344 - Residue Management - Seasonal 3. 600 - Terrace	
13	<b>SYSTEM NARRATIVE</b>	
	<p>Most of the cropland in this area consist of both upland and bottomland soils. The bottomland soils are level to very gently sloping soils and usually are land class I with little or no erosion problems. Most upland soils have a slope range between 1 and 5 percent and are silt loams to loamy fine sands. Most of the uplands have been terraced. Peanuts is a major crop grown in this area. Peanut production is based on USDA program eligibility. Peanuts are usually grown with a cover crop and frequently have disease problems (primarily leaf spot). Other crops grown include corn, grain sorghum, soybeans, forage sorghum and watermelons. Crop pests include corn earworm, greenbug aphid, and various vegetative pests including Johnsongrass, dock, pigweed, etc. Lack of residue management is often a problem, especially on farms applying alternative conservation systems (ACS's) in order to meet Food Security Act (FSA) requirements, which leads to sheet and rill erosion problems. On unterraced uplands, ephemeral gully erosion is often a problem, especially on slopes over 1.5 to 2 percent. Improper application of commercial fertilizer (too much, too little, poor timing, not according to soil test) is often a problem. Deposition of sediment leaving cropland fields is creating problems with county road maintenance. The finer textured soils (clays to silt loams) are subject to crusting and tilth problems and often develop hardpans when subjected to frequent use of heavy farm machinery and tillage operations. Soil sodium levels can also contribute to the compaction problem on some soils.</p>	
14	<b>RESOURCE CONCERNS</b>	<b>MAGNITUDE/EFFECTS</b>
	1. Sheet and Rill Erosion	1. Sheet and rill erosion results from a lack of residue cover on the soil surface and soil slope. Treatment to an ACS level will allow excessive soil loss and will not sustain soil productivity. Sheet and rill erosion is occurring at 6 tons/acre/year.
	2. Ephemeral Gully	2. Ephemeral gully erosion usually occurs in slopes over 1.5 percent, especially on finer textured soils such as loams and silt loams. Ephemeral erosion rates occur at 20 tons/year and averages 20 acres of affected area for every 160 acres of cropland. These rates apply only to unterraced fields and/or fields where terraces have not been maintained and are down.
	3. Tilth, Crusting, Infiltration, Organic	3. This is limited to certain soil types that have a tendency to crust, pack or seal off (primarily clays, clay loams, and silt loams such as Roebuck, Rexor and Pledger soils). The problem is intensified by low fertility levels and an excessive amount of tillage operations.
	4. Soil Compaction	4. This commonly occurs on the finer textured soil and soils with high sodium levels. It is intensified by excessive tillage operations with heavy farm machinery and results in poor root development, restricted water infiltration and often droughty conditions.
	5. Nutrient Management	5. Improper timing of application, over fertilization, under fertilization and lack of soil testing are typical nutrient management practices.
	6. Plant Pests	6. Insects (corn earworm, greenbug aphid), weeds (Johnsongrass, dock, pigweed, etc.), and disease (leaf spot on peanuts) are all typical pests.