MANAGEMENT SYSTEM TEMPLATE

A. BENCHMARK SYSTEM WORKSHEET

1	STATE	OKLAHOMA	
2	FIELD OFFICE	Sequoyah,Muskogee,Cherokee,Mayes and Adair	
3	MLRA	117	
4.	COMMON RESOURCE AREA (CRA)		0117.40.001
5	RESOURCE INTERPRETATIONS		*see Section II FOTG for interpretations*
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		OAAZA
8	SYSTEM NAME	CROPLAND	
9	PLANNING PHASE	BENCHMARK	
10	PLANNING LEVEL	N/A	
11	NRCS LANDUSE	CROPLAND	

12	EXISTING CONSERVATION PRACTICES	
	1. 328 - Conservation Crop Rotation 2. 344 - Residue Management - Seasonal 3. 600 - Terrace	
13	SYSTEM NARRATIVE	
	Most of the cropland in this area consists of both upland and bottomland soils. The bottomland soils are generally level to very gently sloping soils, are usually land class I and have little or no erosion. Upland cropland soils usually are between 1 and 5 percent slopes, most are silt loams or fine sandy loams or more coarse textured soils. Soybeans, wheat, grain sorghum, greenbeans and cowpeas are the major crops grown on upland areas. Most of the upland areas have been terraced. Other crops typically grown on bottomland soil types are corn, grain sorghum, , greenbeans, cowpeas, spinach and forage sorghum. Major insect pests of crops include corn earworm and greenbug aphid. Some farms within the area practice good residue management, however, many leave only the minimum amounts required to stay within Food Security Act compliance requirements. Improper application of commercial fertilizer (too much, too little, poor timing, not according to soil tests) is common and can lead to water quality concerns. Sediment leaving cropland fields often deposits in county roads and barrow ditches, resulting in increased maintenance costs. Sheet and rill erosion is occurring at an average rate of 5 tons/acre/year or more on areas where inadequate amounts of residue are left on the soil surface. These areas constitute approximately 50 to 60 percent of the total cropland within this resource area. Ephemeral gullies are occurring on unterraced fields with slopes over 1.5% at a rate of 1 to 14 tons/acre/year. Approximately 5 acres of every 160 acres of cropland in the resource area is affected by ephemeral erosion. Poor soil tilth, surface crusting, and poor infiltration rates are common on some of the cropland soils within the area. These conditions have been the result of excessive tillage operations, improper utilization of crop residues, relatively high clay content of some soils, and high sodium levels of some soils.	
14	RESOURCE CONCERNS	MAGNITUDE/EFFECTS
	1. Sheet and Rill Erosion	1. Sheet and rill erosion is being caused by a lack of residue cover on the soil surface leading to excessive movement of surface soil. On an average situation, sheet and rill erosion is occurring at a rate of 5 tons/acre/year.
	2. Ephemeral Gully	2. On slopes in excess of 1 to 1.5 percent where ephemeral gullies can occur, ephemeral erosion rates are 1 to 14 tons/acre/year and there averages 5 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. Poor tilth and surface crusting is limited to certain soil types such as soils with relatively high clay content, low organic matter levels, or high sodium levels. It is intensified by low fertility levels and an excessive amount of tillage operations.
	4. Soil Deposition Causing Off-site Damage	4. Soil deposition in roadside barrow ditches and in county roads off of cropland fields creates road maintenance problems such as plugged culverts and silted in barrow ditches.
	5. Nutrient Management	5. Improper timing of application, over fertilization, and under fertilization are common practices within the area. Lack of soil testing is also a nutrient management concern.
	6. Plant Pests	6. Insects, weeds, and disease are all pests of locally grown crops. Weeds and disease are of primary concern on peanuts. Greenbug aphid is often a concern on many of the crops grown within the area. Corn earworm is also another major pest on soybeans, grain sorghum, corn, and peanuts.