

MANAGEMENT SYSTEM TEMPLATE

A. BENCHMARK SYSTEM WORKSHEET

1	STATE	OKLAHOMA
2	FIELD OFFICE	Ottawa, Delaware, Mayes, Cherokee and Adair
3	MLRA	116A
4.	COMMON RESOURCE AREA (CRA)	116A.40.00)
5	RESOURCE INTERPRETATIONS	see Section II FOTG for interpretations
5.1	SOIL	FOTG, SECTION I - EROSION PREDICTION FOTG, SECTION II - SOIL AND SITE INFORMATION FOTG, SECTION II - SOILS LEGEND FOTG, SECTION II - SOIL DESCRIPTIONS - NONTECHNICAL FOTG, SECTION II - SOIL DESCRIPTIONS - TECHNICAL FOTG, SECTION II - WATER QUANTITY AND QUALITY INTERPRETATIONS FOTG, SECTION II - HYDRIC SOILS INTERPRETATIONS FOTG, SECTION II - PASTURE AND HAYLAND INTERPRETATIONS FOTG, SECTION II - WILDLIFE INTERPRETATIONS FOTG, SECTION III - RESOURCE MANAGEMENT SYSTEMS - SOIL FOTG, SECTION V-A-1 - CONSERVATION EFFECTS - SOIL FOTG, SECTION V-1-2 - 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 - CONSERVATION EFFECTS - WATER FOTG, SECTION V-A-2 - EFFECTS FOR GUIDANCE DOCUMENTS
5.3	AIR	FOTG, SECTION I - CLIMATIC DATA FOTG, SECTION I - STATE/LOCAL LAWS, ORDINANCES, REGULATIONS FOTG, SECTION III - RESOURCE MANAGEMENT SYSTEMS - AIR FOTG, SECTION V-A-2 - EFFECTS FOR GUIDANCE DOCUMENTS
5.4	PLANT	FOTG, SECTION I - THREATENED AND ENDANGERED SPECIES FOTG, SECTION III - RESOURCE MANAGEMENT SYSTEMS - PLANTS FOTG, SECTION III - RESOURCE MANAGEMENT SYSTEMS - PASTURE
5.5	ANIMAL	FOTG, SECTION I - THREATENED AND ENDANGERED SPECIES FOTG, SECTION II - WILDLIFE INTERPRETATIONS FOTG, SECTION V-A-1 - CONSERVATION EFFECTS - ANIMALS FOTG, SECTION V-A-2 - EFFECTS FOR GUIDANCE DOCUMENTS
5.6	HUMAN	FOTG, SECTION I - CULTURAL RESOURCE INFORMATION FOTG, SECTION V-B-1 - CONSERVATION EFFECTS - PRODUCER EXPERIENCES
6	HYDROLOGIC UNIT	
7	SYSTEM TEMPLATE LABEL	NATZC
8	SYSTEM NAME	PASTURELAND (with Waste Management)
9	PLANNING PHASE	BENCHMARK
10	PLANNING LEVEL	N/A
11	NRCS LANDUSE	PASTURE

12	EXISTING CONSERVATION PRACTICES	
	1. 378 - Pond 2. 382 - Fence 3. 512 - Pasture and Hayland Planting 4. 528-A - Prescribed Grazing 5. 590 - Nutrient Management 6. 595 - Pest Management	
13	SYSTEM NARRATIVE	
	Pastureland is generally established in bermudagrass with adapted legumes and sometimes fescue. Other grasses occasionally planted include bahiagrass, dallisgrass, and lovegrass. The primary problems in managing pastureland include overgrazing, improper fertilization, and plant pests. Poor management of tame pasture results in soil erosion and lower quantity and quality of desirable grasses. Application of animal waste can also be a problem on these areas, especially on areas where excess amounts are applied and applications are not in accordance with NRCS standards. This practice can lead to an excessive buildup of animal wastes and/or organics in the soil. Airborne odors can also be a problem, especially when confinement areas are being flushed and/or cleaned and when waste is being applied. An excessive build up of phosphorus in the surface soil can also pose a potential problem. The amount of phosphorus being applied annually is also a concern. Invasion of Broomsedge bluestem is a problem on some of these area, however, with continued animal waste application, the problem will probably be short lived since many of these areas have only recently began applying waste. Weeds and brush are also occasional problems. Livestock forage requirements sometimes exceed useable forage production for this land use. Conversely, under utilization is also often a problem where animal waste is being applied. Rare to occasional flooding and/or heavy runoff in some areas where animal waste is being applied could be a concern and/or potential concern. Since bermudagrass and several other tame grass species have little or no wildlife value, these areas are a concern for wildlife habitat, especially game bird species.	
14	RESOURCE CONCERNS	MAGNITUDE/EFFECTS
	1. Classic Gully	1. Concentrated water flow and inadequate vegetative cover have eroded the soil creating gullies. Gully erosion is occurring at a rate of 15 tons/year with approximately 1 acre of gully occurring on each 160 acre tract.
	2. Streambank Erosion	2. Inadequate vegetation, removal of riparian vegetation, cattle trampling streambanks, cattle trails and soil type have caused streambank erosion. Erosion is occurring at 13.5 tons/year for each 2 acres of stream channel. On the average there is approximately 2 acres of stream channel for each 160 acre tract.
	3. Excess Fertilizer in Soil	3. Some soil test index P ratings for phosphorus are nearing or have exceeded 400 lbs./acre (900 lbs./acre of P ₂ O ₅) and are a pollution concern.
	4. Runoff/Flooding	4. Runoff and/or flooding on areas of waste application are a potential pollution concern, especially on areas where timing of waste application is critical on these areas.
	5. Annual Phosphorus Applied	5. Total phosphorus applied annually is 300 lbs./acre/year of P ₂ O ₅ and is a potential pollution concern.
	6. Airborne Odors	6. Confined swine and/or chicken operations within the area can commonly create odor problems, especially when flushing and/or cleaning of facilities is occurring and waste is being spread.

	7. Plants Unsuitable for Intended Use	7. Encroachment of Broomsedge bluestem into bermudagrass pastures is common within the area. It is fairly unpalatable to livestock and competes for sunlight, moisture and nutrients. Invasion of this grass is often the results of a very limited amount and/or no management on the bermudagrass stand. This problem becomes less evident when animal waste has been applied over a period of several years.
	8. Nutrient Management	8. Excessive phosphorus build up in soils through animal waste applications is a concern. Fertilizer and waste application without soil testing for nutrient needs and waste testing for nutrient content are concerns that often lead to excessive nutrient application. Improper timing of waste and/or nutrient application is also a common concern.
	9. Plant Pests	9. Brush, undesirable grasses, and weeds are competing for water and nutrients needed by desirable grasses. Weeds are considered a problem when there are 3 or more per square foot or when canopy cover exceeds 50%.
	10. Domestic Animal Water Requirements	10. There are inadequate water sources and/or water distribution to properly distribute grazing on pastures and provide quality water to livestock.
	11. Wildlife Food Requirements	11. Most tame pasture grasses (especially bermudagrass) do not provide a source of food for wildlife.
	12. Wildlife Habitat Suitability	12. Most tame pasture grasses do not provide adequate food, shelter or cover for wildlife and frequently little or no habitat is available.
	13. Animals Population - Resource Balance Management	13. Forage requirements of livestock exceed or are less than the amount of useable forage. Current average stocking rate is 1 animal unit for every 3 acres of pasture.