

# MANAGEMENT SYSTEM TEMPLATE

## B. CONSERVATION MANAGEMENT SYSTEM OPTIONS WORKSHEET

1	<b>STATE</b>	OKLAHOMA
2	<b>FIELD OFFICE</b>	Antlers, Atoka, Coalgate, Hugo, Idabel, McAlester, Poteau, Stigler, Wilburton
3	<b>MLRA</b>	119
4.	<b>COMMON RESOURCE AREA (CRA)</b>	0119.40.001
5	<b>RESOURCE INTERPRETATIONS</b>	<i>see Section II FOTG for interpretations</i>
5.1	<b>SOIL</b>	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 - HYDRIC SOIL INTERPRETATIONS FOTG, SECTION III - RESOURCE MANAGEMENT SYSTEMS - SOIL FOTG, SECTION V-A-1 - CONSERVATION EFFECTS - SOIL FOTG, SECTION V-A-2 - EFFECTS FOR GUIDANCE DOCUMENTS TREE PLANTING - CENTRAL AND WESTERN OKLAHOMA
5.2	<b>WATER</b>	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	<b>AIR</b>	FOTG, SECTION I - CLIMATIC DATA FOTG, SECTION I - STATE/LOCAL LAWS, ORDINANCES, REGULATIONS FOTG, SECTION III - RESOURCE MANAGEMENT SYSTEMS - AIR FOTG, SECTION V-A-1 - CONSERVATION EFFECTS - AIR FOTG, SECTION V-A-2 - EFFECTS FOR GUIDANCE DOCUMENTS
5.4	<b>PLANT</b>	FOTG, SECTION I - THREATENED AND ENDANGERED SPECIES FOTG, SECTION II - FORESTLAND INTERPRETATIONS FOTG, SECTION III - RESOURCE MANAGEMENT SYSTEMS - PLANTS FOTG, SECTION III - RESOURCE MANAGEMENT SYSTEMS - FOREST FOTG, SECTION V-A-1 - CONSERVATION EFFECTS - PLANTS FOTG, SECTION V-A-2 - EFFECTS FOR GUIDANCE DOCUMENTS TREE PLANTING - CENTRAL AND WESTERN OKLAHOMA
5.5	<b>ANIMAL</b>	FOTG, SECTION I - THREATENED AND ENDANGERED SPECIES FOTG, SECTION II - WILDLIFE INTERPRETATIONS FOTG, SECTION III - RESOURCE MANAGEMENT SYSTEMS - ANIMALS FOTG, SECTION III - RESOURCE MANAGEMENT SYSTEMS - WILDLIFE FOTG, SECTION V-A-1 - CONSERVATION EFFECTS - ANIMALS FOTG, SECTION V-A-2 - EFFECTS FOR GUIDANCE DOCUMENTS
5.6	<b>HUMAN</b>	FOTG, SECTION I - CULTURAL RESOURCE INFORMATION FOTG, SECTION I - STATE/LOCAL LAWS, ORDINANCES, REGULATIONS FOTG, SECTION V-B-1 - CONSERVATION EFFECTS - PRODUCER EXPERIENCES
6	<b>HYDROLOGIC UNIT</b>	
7	<b>SYSTEM TEMPLATE LABEL</b>	RACA1
8	<b>SYSTEM NAME</b>	GRAZED FOREST (INDIVIDUAL OWNERSHIP)
9	<b>PLANNING PHASE</b>	NON-BENCHMARK
10	<b>PLANNING LEVEL</b>	RMS
11	<b>NRCS LANDUSE</b>	GRAZED FOREST

12	<b>PLANNED CONSERVATION PRACTICES</b>		<i>enter code / name of practice</i>		
	<table border="0" style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> 1. 338 - Prescribed Burning  2. 342 - Critical Area Planting  3. 378 - Pond  4. 382 - Fencing  5. 391 - Riparian Forest Buffer  6. 394 - Firebreak  7. 410 - Grade Stabilization Structure  8. 472 - Use Exclusion  9. 490 - Forest Site Preparation  10. 528-A - Prescribed Grazing  11. 560 - Access Road </td> <td style="width: 50%; vertical-align: top;"> 12. 561 - Heavy Use Area Protection  13. 580 - Streambank and Shoreline Protection  14. 590 - Nutrient Management  15. 595 - Pest Management  16. 612 - Tree/Shrub Establishment  17. 614 - Watering Facility  18. 644 - Wildlife Wetland Habitat Management  19. 645 - Wildlife Upland Habitat Management  20. 655 - Forest Harvest Trails and Landings  21. 660 - Tree/Shrub Pruning  22. 666 - Forest Stand Improvement </td> </tr> </table>			1. 338 - Prescribed Burning 2. 342 - Critical Area Planting 3. 378 - Pond 4. 382 - Fencing 5. 391 - Riparian Forest Buffer 6. 394 - Firebreak 7. 410 - Grade Stabilization Structure 8. 472 - Use Exclusion 9. 490 - Forest Site Preparation 10. 528-A - Prescribed Grazing 11. 560 - Access Road	12. 561 - Heavy Use Area Protection 13. 580 - Streambank and Shoreline Protection 14. 590 - Nutrient Management 15. 595 - Pest Management 16. 612 - Tree/Shrub Establishment 17. 614 - Watering Facility 18. 644 - Wildlife Wetland Habitat Management 19. 645 - Wildlife Upland Habitat Management 20. 655 - Forest Harvest Trails and Landings 21. 660 - Tree/Shrub Pruning 22. 666 - Forest Stand Improvement
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13	<b>SYSTEM NARRATIVE</b>	<i>describe how the practices work together as a system</i>			
	<p>All or a combination of any of the listed practices will be used to treat resource problems on privately owned timber lands. Many of these practices can be used to treat soil erosion problems, including critical area planting, riparian forest buffers, grade stabilization structures, access (logging) roads, heavy use area protection, streambank and shoreline protection, forest harvest trails and landings, and forest stand improvement, while others can also have beneficial impacts on soil erosion once they are implemented. When soil erosion problems have been reduced, sediment problems will also be reduced or possibly eliminated. These practices will be used to treat erosion and sedimentation problems caused by inadequate construction and maintenance of logging roads, skid trails and log landings and/or decks and the gully and streambank erosion problems created by this activity. By managing tree diversity using tree/shrub planting, wildlife wetland or upland habitat management, and forest stand improvement standards, habitat problems with threatened and endangered species can be curtailed. Insect pests such as the southern pine beetle and pine tip moth can be controlled through the use of integrated pest management methods as described in the pest management standard. Areas that are very marginal in suitability (30% slopes or greater) should be managed with uneven-aged management techniques, and naturally occurring hardwoods should also be allowed to remain in the stand in those areas to maintain plant diversity and soil stability. Clear cut areas should be replanted to good quality pine stock and/or high quality seed trees should be left during logging operations to allow for natural reseeding of the area. In general, uneven-aged management techniques will supply private landowners with a more frequent income from the forest tract. Livestock will be allowed to graze these areas on a periodic basis following prescribed grazing standards. Removing only 50% or less of the annual growth on understory forage plants will permit those plants to remain healthy, productive and with good vigor. Use of pesticides for internal and external parasites will be needed in order to maintain a healthy and vigorous herd of livestock.</p>				
14	<b>RESOURCE CONCERNS</b>	<b>MAGNITUDE/EFFECTS</b>	<b>IMPACTS</b>		
	1. Classic Gully	1. By reducing concentrated flow of water and soil disturbance to a minimum using access roads, heavy use area protection, streambank and shoreline protection, forest harvest trails and landings, and forest stand improvement practices, and by treating existing gully problems using critical area planting and grade stabilization structures, classic gully erosion should be reduced to a minimum level (i.e. - less than 0.5 tons/year on 0.1 acre of gully with less than 3 to 5 gullies per 160 acres being created).	1. Reduction in gully erosion of 34.5 tons/year on 0.1 acre gully with 3 to 5 gullies/160 acres of forest being reduced to 1 to 3 gullies per 160 acres of forest.		

	2. Streambank Erosion	2. By limiting activity along streambanks within a specified buffer zone using riparian forest buffer and use exclusion practices, and implementing practices that reduce the sediment load coming into streams such as critical area planting, grade stabilization structures, forest site preparation, access roads, heavy use area protection, streambank and shoreline protection, tree/shrub establishment, wildlife wetland and upland habitat management, forest harvest trails and landings, and forest stand improvement, this type of erosion should be reduced to a minimum (i.e. - less than 10 tons/year on 2 acres of stream/160 acres of forest).	2. Reduction in streambank erosion of at least 3.5 tons/year on 2 acres of stream/160 acres of forest.
	3. Roads, Const., Scoured	3. By constructing adequate numbers of cut-outs, water-bars, low water crossings, and other soil conserving measures according to access road and forest harvest trails and landings standards, this type of erosion problem will be reduced to a minimum (i.e. - less than 5 tons/yr. /acre of road with approx. 5 acres of road per 160 ac. of forest.	3. Reduction in erosion associated with forest roads and trail of approximately 45 tons/acre/year on approximately 5 acres of road per 160 acres of forest.
	4. Soil Deposition Causing Off-site Damage	4. By reducing soil erosion on-site, soil deposition causing off-site damage can be reduced or eliminated. This can be accomplished by proper installation of roads with appropriate erosion control measures, including access roads, heavy use area protection, and forest harvest trails and landings, and by treating existing gullies and other erosion problems using critical area plantings, riparian forest buffers, grade stabilization structures, and streambank and shoreline protection. Proper management of forests using forest site preparation, tree/shrub establishment, tree/shrub pruning, and forest stand improvement practices will also help reduce soil erosion losses.	4. Reduction in off-site damage (i.e. - fewer plugged road culverts, less silt bars in streams, less streambank instability, etc.).

	5. Number of Trees Per Acre	5. By replanting quality trees and/or leaving high quality seed trees adequate stocking rates of high quality trees can be accomplished (see forest site preparation, tree/shrub establishment and forest stand improvement standards).	5. Adequate stocking of forest land with high quality trees. Improved potential production. Increased land value.
	6. Plant Pests	6. Application of pesticides when Southern pine beetle or pine tip moth have reached an economic threshold will help prevent excessive damage to pine trees (see pest mgt. standard). Prompt removal of infected trees, burning and/or removal of infected branches, harvesting and/or pruning of timber during the dormant season and other sanitation methods will help reduce the risk of future infestations (see forest stand improvement standard).	6. Reduction in plant pests such as Southern pine beetle and pine tip moth. Increased risk of insecticides contaminating surface or ground water. Increased input costs through purchase of insecticides.
	7. Threatened/Endangered Species (Animal)	7. Leaving tracts of old growth pine in timber stands should help enhance the habitat for the Red cockaded woodpecker. Reduction of the siltation problem in streams should benefit the habitat for the Leopard darter and Ouachita Rock-pocketbook muscle.	7. Improved habitat for endangered species.
	8. Animals Population - Resource Balance Management	8. By adjusting livestock numbers to fit with forage production, both animals and plants will be more vigorous and productive.	8. Improved forage production. Improved livestock performance.
	9. Animal Health Management	9. By using pesticides to treat for internal and external parasites, animal health can be maintained or improved.	9. Maintenance and/or improvement in animal health.
CRA 0119.40.001		SYSTEM TEMPLATE LABEL RACA1	
15	<b>* QUALITY CRITERIA DOCUMENTATION</b> <i>list resource concerns then indicate yes/no (X)</i>		
	1. Classic Gully 2. Streambank Erosion 3. Roads, Const., Scoured 4. Soil Deposition Causing Off-site Damage 5. Number of Trees Per Acre 6. Plant Pests 7. Threatened/Endangered Species (Animal) 8. Animals Population - Resource Balance Management 9. Animal Health Management	<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

<b>State</b>	<b>Oklahoma</b>	<b>Field Office</b>	Antlers, Atoka, Coalgate, Hugo, Idabel, McAlester, Poteau, Stigler, Wilburton	<b>MLRA</b>	119	<b>System Template Label</b>	<b>RACA1</b>
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Resource Concerns	Classic Gully	Streambank Erosion	Roads, Const., Scoured	Soil Deposition Causing Off-site Damage	Number of Trees Per Acre	Plant Pests	Threatened/Endangered Species (Animal)	Animals Population - Resource Balance Management
Conservation Practices								
338-Prescribed Burning	-	-	N/A	-	++	+++	-	+
342-Critical Area Planting	+++	+++	+++	+++	+++	+++	+++	+++
378-Pond	+++	+++	N/A	+++	N/A	N/A	+++	+++
382-Fencing	F+++	F+++	N/A	F+++	F+++	N/A	F+++	F+++
391-Riparian Forest Buffer	F+++	F+++	+	F+++	F+++	N/A	F+++	N/A
394-Firebreak	N/A	N/A	N/A	0	F++	N/A	F+	+
410-Grade Stabilization Structure	+++	+++	++	+++	N/A	N/A	+++	++
472-Use Exclusion	N/A	N/A	N/A	N/A	+++	N/A	N/A	N/A
490-Forest Site Preparation	--	N/A	N/A	-	F++	+++	++	--
528A-Prescribed Grazing	++	++	N/A	++	+	+	+	++
560-Access Road	N/A	N/A	0	-	F+	N/A	-	N/A
561-Heavy Use Area Protection	0	N/A	0	-	N/A	N/A	N/A	N/A
580-Streambank & Shoreline Prot.	+++	+++	++	+++	+++	N/A	+++	N/A

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

## Conservation Practice Physical Effect on Resource Concerns Candidate Practice List

<b>State</b>	<b>Oklahoma</b>	<b>Field Office</b>	Antlers, Atoka, Coalgate, Hugo, Idabel, McAlester, Poteau, Stigler, Wilburton	<b>MLRA</b>	119	<b>System Template Label</b>	<b>RACA1</b>
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Resource Concerns	Classic Gully	Streambank Erosion	Roads, Const., Scoured	Soil Deposition Causing Off-site Damage	Number of Trees Per Acre	Plant Pests	Threatened/Endangered Species (Animal)	Animals Population - Resource Balance Management
Conservation Practices								
590-Nutrient Management	N/A	N/A	N/A	N/A	+++	N/A	+	N/A
595-Pest Management	N/A	N/A	N/A	N/A	++	+++	N/A	+++
612-Tree/Shrub Establishment	+++	+++	N/A	+++	+++	N/A	+++	N/A
614-Watering Facility	N/A	N/A	N/A	N/A	N/A	N/A	N/A	F+++
644-Wildlife Wetland Habitat Mgt.	N/A	++	N/A	N/A	++	N/A	+++	0
645-Wildlife Upland Habitat Mgt.	++	++	N/A	++	+++	N/A	+++	--
655-Forest Harvest Trails & Land.	+	+	++	++	F+	N/A	N/A	++
660-Tree/Srub Pruning	N/A	N/A	N/A	N/A	++	N/A	N/A	+
666-Forest Stand Improvement	N/A	N/A	N/A	N/A	+++	N/A	N/A	+

**RATINGS:**

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

**Conservation Practice Physical Effect on Resource Concerns  
Candidate Practice List**

<b>State</b>	<b>Oklahoma</b>	<b>Field Office</b>	Antlers, Atoka, Coalgate, Hugo, Idabel, McAlester, Poteau, Stigler, Wilburton	<b>MLRA</b>	119	<b>System Template Label</b>	<b>RACA1</b>
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Resource Concerns	Animal Health Management						
Conservation Practices							
338-Prescribed Burning	++						
342-Critical Area Planting	+						
378-Pond	+++						
382-Fencing	F+						
391-Riparian Forest Buffer	+++						
394-Firebreak	+++						
410-Grade Stabilization Structure	+++						
472-Use Exclusion	++						
490-Forest Site Preparation	0						
528A-Prescribed Grazing	+++						
560-Access Road	F++						
561-Heavy Use Area Protection	+						
580-Streambank & Shoreline Prot.	+						

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

