

New Mexico

Conservation Security Program

Benchmark Condition Inventory

Instructions

1. Ag Operation Owner and Operator Information

A listing of the operator and all landowners for the ag operation is needed, with contact information. The information is needed for verifying eligibility of the applicant and participants. This format can be used or any other format that provides the needed information.

Name of Landowner(s) _____

Name of Land Manager(s) _____

Business or Farm Name _____

Address _____

City _____ State _____

County _____ Zip Code _____

Phone Numbers Home _____

Business _____

Cell _____

E-mail Address _____

Other conservation contracts (Check all that apply)

WHIP EQIP CRP FRPP Other _____

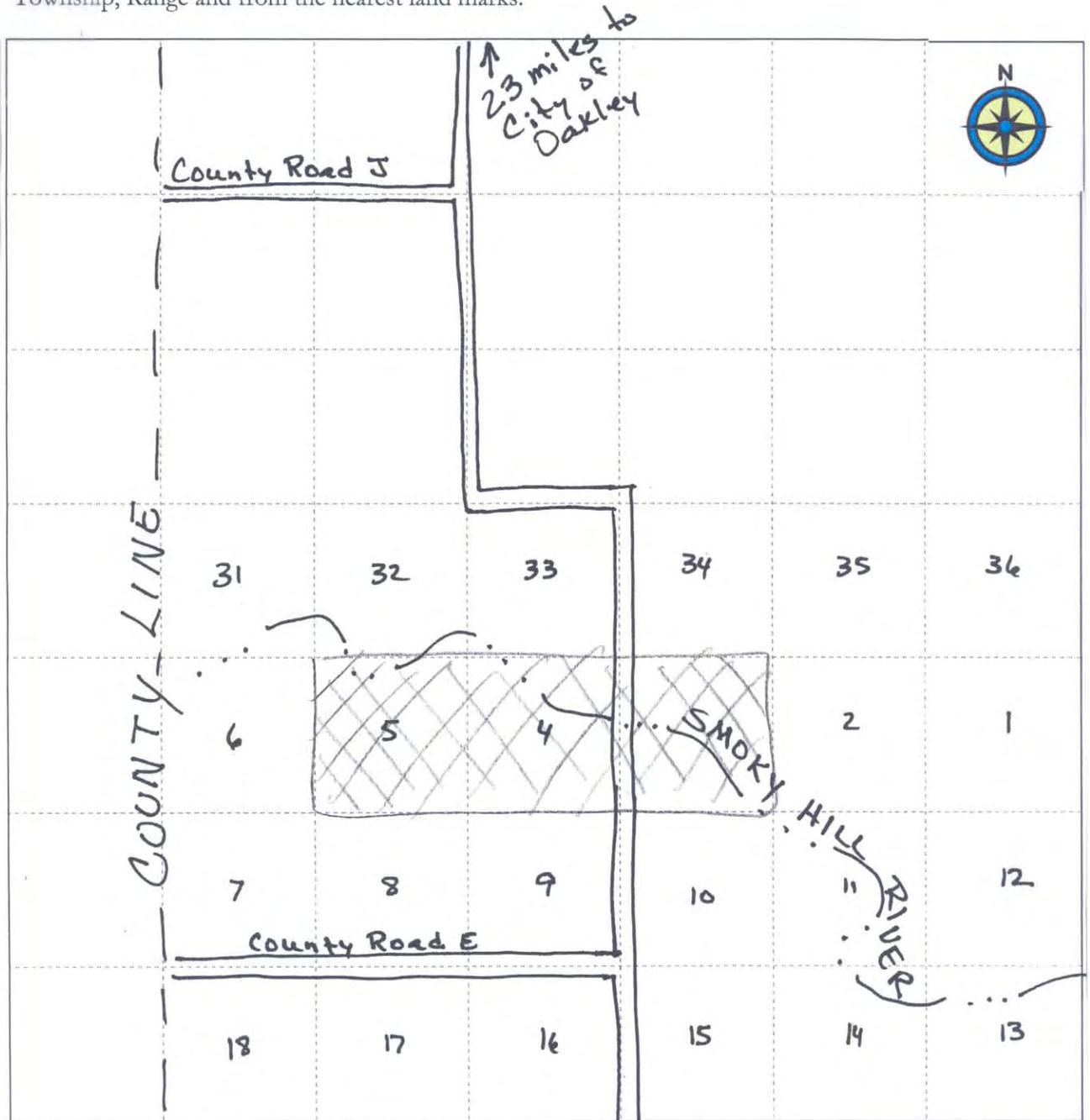
2. Ownership of Property in the Ag Operation (Example)

A listing of the ownership of the property that is part of the Ag Operation is needed. This form can be used or another format that provides the needed information. Ownership can also be shown on a map. In the “Owner” column list the length of any lease arrangement

Property Name or Owner Name	Farm or Tract Number	Field	Township	Range	Section	Acres	Owner	Lease Length
<i>Jones Farm</i>	<i>T251</i>	<i>1</i>	<i>135</i>	<i>3E</i>	<i>21</i>	<i>30</i>	<i>Self</i>	
<i>Jones Farm</i>	<i>T251</i>	<i>2</i>	<i>135</i>	<i>3E</i>	<i>21</i>	<i>10</i>	<i>Joint with Sam Jones</i>	
<i>Jones Farm</i>	<i>T251</i>	<i>3</i>	<i>135</i>	<i>3E</i>	<i>22</i>	<i>80</i>	<i>Joint with Mary Jones</i>	
<i>Smith Farm</i>	<i>T252</i>	<i>1</i>	<i>135</i>	<i>3E</i>	<i>22</i>	<i>120</i>	<i>Joe Smith</i>	<i>5 years</i>
<i>BLM Lease</i>	<i>T252</i>	<i>2</i>	<i>135</i>	<i>3E</i>	<i>22</i>	<i>95</i>	<i>BLM</i>	<i>3 years</i>
<i>State Land</i>	<i>T252</i>	<i>HQ</i>	<i>135</i>	<i>3E</i>	<i>22</i>	<i>5</i>	<i>NMSLO</i>	<i>4 years</i>

3. Ag Operation Location Map

A map can be used to show where the land in the ag operation is located. The ownership and size in acres can be shown. This grid sheet can be used to show the location by Township, Range and from the nearest land marks.



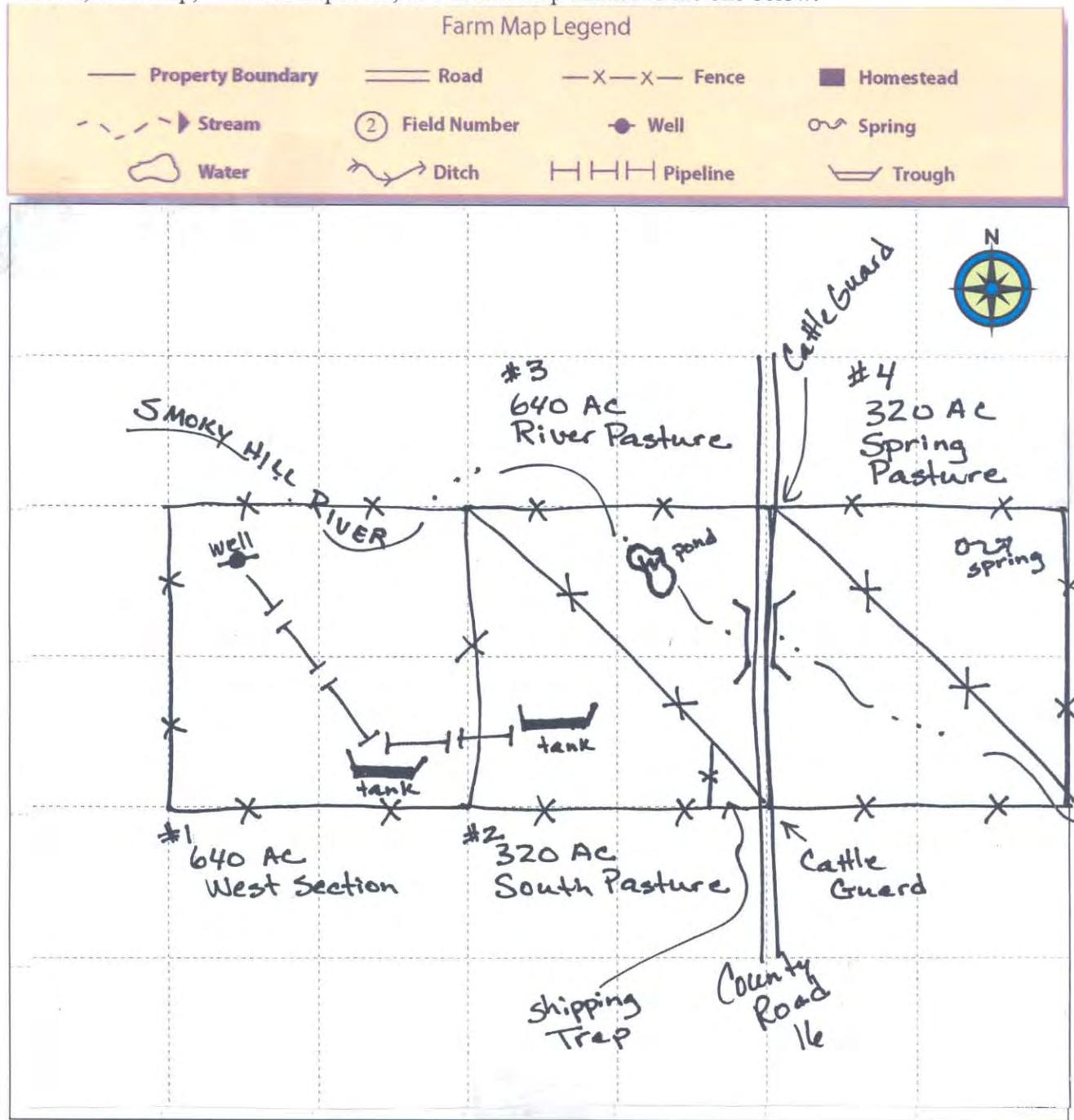
Sections: 3, 4, & 5
Township: 15 South
Range: 31 West
Gove County 4

County Road 16

4. Stewardship Plan Map

This map should show the following items at a minimum: Property and field boundaries, field number and acres, fences, wells, watering troughs, salting sites, springs, irrigation ditches and pipelines, sprinklers, wildlife areas, riparian areas, other conservation practices on the land or planned to be installed.

The map can be a conservation plan map that NRCS developed in the past, USGS quad sheets, soils map, other aerial photos, or a sketch map similar to the one below.



I CROP

1. Crop Rotation and Management Worksheet (Example)

Information regarding crop rotation and other management used on cropland fields is needed to estimate soil loss and determine soil quality.

Tract Number	Field Numbers or Names	Typical Rotation Sequences									
		Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9	Yr 10
486	3 & 4	Perennial/Rye Grass Seed				Crimson Clover	Winter Wheat				
685	5, 6, & 7	Alfalfa			Potatoes	Winter Wheat	Potatoes	Corn			
1322	1, 2, & 8	Winter Wheat	Spring Barley	Summer Fallow							

Additional Comments or Observations: _____

2. Crop Residue Management

This worksheet will provide information regarding the crop residue left on the fields as well as how it is removed. This worksheet does not apply to alfalfa, hay or other forage crops.

The Residue Estimate table below can be used as a guide in completing the Estimated Amount of Residue column.

Estimated pounds of residue per unit of yield	
Crop	Pounds of residue per unit of yield
Winter Wheat	<i>80-110 pounds/bushel</i>
Winter Barley	<i>1.0-1.7 pounds/pound</i>
Spring Wheat	<i>70-100 pounds/bushel</i>
Spring Barley	<i>.85-1.5 pounds/pound</i>
Spring Peas	<i>.85-1.4 pounds/pound</i>
Lentils	<i>.85-1.4 pounds/pound</i>
Oats	<i>40-60 pounds/pound</i>
Corn/Grain	<i>50-60 pounds/bushel</i>
Grass/Seed	<i>4.0-4.75 pounds/pound</i>
Canola	<i>2.5-2.75 pounds/pound</i>
Clover Seed	<i>.75-1.5 pounds/pound</i>

Example: A 60 bushel per acre crop of winter wheat produces 4,800-6,600 pounds of residue per acre.

Note: The specific amount of residue produced by a crop depends on several factors. These include timing and amount of precipitation, temperatures, stored soil water, soil depth, crop variety and pests.

2. Crop Rotation and Residue Management Worksheet (Example)

Crop	Planting Date	Harvest Date	Avg. Yield per Ac	Estimated Amount of Residue	Residue Removed Y or N	Removal Method
<i>Winter Wheat</i>	<i>10/1 to 10/5</i>	<i>8/1 to 8/10</i>	<i>100 bu (irr) 60 bu (NIrr)</i>	<i>10,000 lbs 5,500 lbs</i>	<i>Y</i>	<i>Grazed</i>
<i>Perennial Rye Grass</i>	<i>8/20</i>	<i>7/5 to 7/15</i>	<i>1500 lbs/acre</i>	<i>7,000 lbs/acre</i>	<i>Y</i>	<i>Swath & Bale</i>
<i>Crimson Clover</i>	<i>8/15</i>	<i>6/25</i>	<i>800 lbs/acre</i>	<i>1,000 lbs/acre</i>	<i>N</i>	<i>---</i>
<i>Spring Barley</i>	<i>4/1</i>	<i>7/20</i>	<i>3,000 lbs/acre</i>	<i>3,700 lbs/acre</i>	<i>N</i>	<i>---</i>
<i>Corn</i>	<i>5/10</i>	<i>10/15 to 10/20</i>	<i>130 bu</i>	<i>7,800 lbs/acre</i>	<i>N</i>	<i>---</i>
<i>Potatoes</i>	<i>3/15 Early 5/1 Late</i>	<i>10/15 to 11/5</i>		<i>500 lbs/acre</i>	<i>N</i>	<i>---</i>
<i>Alfalfa Hay</i>	<i>Seed 5/15 year</i>	<i>4 cuttings</i>	<i>8 tons</i>	<i>---</i>	<i>---</i>	<i>Bale Remove Hay</i>

3. Cultivation and Field Operations Worksheet (Example)

The cultivation and field operations information is needed for soil quality determinations. One sheet needs to be completed for each crop. Use the table on the following 3 pages to select the “Typical Operations.”

Tract(s):	<i>100</i>		Field(s):	<i>1-5</i>	
Crop Planted & Yield:	<i>corn, grain 240bu</i>		Previous Crop & Yield:	<i>winter wheat, grain 60bu</i>	
Include information on operations such as: tillage, spray, irrigation, grazing, harvest, pest control etc.					
Date of Operation(s)	Typical Operation(s) for Crop	Comments on Operation(s)	Monthly Irrigation (Dates)	Irrigation Application (inches)	
<i>3/1/04</i>	<i>pre tillage irrigation</i>		<i>March</i>	<i>1in.</i>	
<i>3/15/04</i>	<i>disk, tandem, heavy primary</i>	<i>4 mph/6 inches deep</i>			
<i>3/20/04</i>	<i>DMI, chisel-disk-packer</i>				
<i>4/1/04</i>	<i>Irrigation</i>		<i>April</i>	<i>2in.</i>	
<i>4/15/04</i>	<i>planter, strip till</i>				
<i>5/1/04</i>	<i>Irrigation</i>		<i>May</i>	<i>4in.</i>	
<i>6/1/04</i>	<i>“</i>		<i>June</i>	<i>5in.</i>	
<i>7/1/04</i>	<i>“</i>		<i>July</i>	<i>8in.</i>	
<i>8/1/04</i>	<i>“</i>		<i>August</i>	<i>8in.</i>	
<i>9/1/04</i>			<i>Sept.</i>	<i>4in.</i>	
<i>10/15/04</i>	<i>harvest, grain</i>				

Cultivation and Field Operations-Typical Field Operations

Operation Name	
Add mulch	Drill or air seeder single disk openers, + fert. openers 7-10 in space.
Aerator , field surface, ground driven	Drill or air seeder tee slot openers 7-10 in space.
Bale Corn stalk strips	Drill or air seeder, hoe opener in hvy residue
Bale straw or residue	Drill or air seeder, hoe/chisel openers 12-15 in space.
Bed shaper	Drill or air seeder, hoe/chisel openers 6-12 in space.
Bed shaper, 12 in	Drill or air seeder, dble disk opener w/ fluted coulter 5x10 paired row
Bedder , hipper, disk hiller	Drill or air seeder, double disk
Bedder , hipper, hiller 12 in high	Drill or air seeder, double disk opener, w/ fert openers
Bedder , hipper, hiller 15 in high	Drill or air seeder, double disk, w/ fluted coulters
Bedder , hipper, hiller 18 in high	Drill or air seeder, offset double disk openers
Bulldozer , clearing/cutting	Drill , air seeder, sweep or band opener
Bulldozer , clearing/cutting light	Drill , deep furrow 12 to 18 in spacing
Bulldozer , filling/leveling	Drill , double disk, 7-8" packer C
Burn residue	Drill , heavy, direct seed, dbl disk opener
Burn residue, high intensity	Drill , heavy, direct seed, dbl disk opener w/row cleaners
Burn residue, low intensity	Drill , range
Burn residue, mod. high intensity	Drill , semi-deep furrow 12 to 18 in spacing
Burn residue, moderate intensity	Drip tape injection shank
Chisel , st. pt.	Drip tape injection shank on beds
Chisel , st. pt. 12 in deep	Erosion blanket application
Chisel , st. pt. 15 in deep	Fert applic. anhyd knife 12 in
Chisel , sweep shovel	Fert applic. coulter, high press. inject 12 in
Chisel , twisted shovel	Fert applic. deep plcmt hvy shank
Chop veg. with machete	Fert applic. shank low disturbance, 12 in
Cultipacker , roller	Fert applic. surface broadcast
Cultivate , manually	Fert. applic anhyd knife 30 in
Cultivator , field 6-12 in shovels C	Fert. applic. strip-till 30 in
Cultivator , field 6-12 in sweeps	Furrow diker
Cultivator , field w/ spike points	Furrow shaper, torpedo
Cultivator , hipper, disk hiller on beds	Graze , continuous
Cultivator , off bar w/disk hillers on beds	Graze , continuous
Cultivator , rotary	Graze , continuous overgrazing
Cultivator , row - 1st pass ridge till	Graze , intensive rotational
Cultivator , row - 2nd pass ridge till	Graze , rotational
Cultivator , row 1 in ridge	Graze , stubble or residue
Cultivator , row 3 in ridge	Graze , stubble or residue 25 pct
Cultivator , row, high residue	Graze , stubble or residue 50 pct
Disk , offset, heavy	Graze , stubble or residue 75 pct
Disk , offset, heavy 12 in depth	Harrow , coiled tine
Disk , offset, heavy 15 in depth	Harrow , heavy
Disk , tandem heavy primary op.	Harrow , heavy on heavy residue
Disk , tandem light finishing	Harrow , rotary
Disk , tandem secondary op.	
Do all	
Do all , on beds	
Drill or air seeder single disk openers 7-10 in space.	

Harrow , spike tooth	Manure injector, liquid low disturb.30 inch
Harrow , tine, on beds	Manure spreader, liquid
Harvest , banana remove stem	Manure spreader, slurry
Harvest , broccoli and cauliflower	Manure spreader, solid and semi-solid
Harvest , cabbage and head lettuce	Manure , liquid irrigation
Harvest , corn silage with cover crop	Middle buster, digger
Harvest , cut flowers	Mulch crimper
Harvest , dig root crops res. buried	Mulch treader
Harvest , dig root crops res. on surf	No operation
Harvest , forage sorghum	Para -plow or para-till
Harvest , grass seed, remove forage	Permeable weed barrier applicator
Harvest , hand pick	Permeable weed barrier applicator
Harvest , hand pull	Planter , double disk opener on 12 inch high beds
Harvest , hand pull	Planter , double disk opener on 15 inch high beds
Harvest , hay, grass	Planter , double disk opener on 18 inch high beds
Harvest , hay, legume	Planter , double disk opener on 8 inch high beds
Harvest , hay, no regrowth	Planter , double disk opener
Harvest , kenaf	Planter , double disk opener w/fluted coulter
Harvest , leafy veg.	Planter , double disk opener, 18 in rows
Harvest , legume seed, remove forage	Planter , furrow opener in 4 inch deep furrows
Harvest , orchard and nut crops	Planter , furrow opener in 6 inch deep furrows
Harvest , peanut digger	Planter , furrow opener in 8 inch deep furrows
Harvest , root crops, manually	Planter , in-row subsoiler
Harvest , silage	Planter , in-row subsoiler low disturbance
Harvest , silage 3ft stubble	Planter , in-row subsoiler w/ residue mgr.
Harvest , small grain silage with cover crop	Planter , narrow slot w/smooth or rippled coulter
Harvest , sugarcane, after burning	Planter , ridge till
Harvest , sugarcane, modern	Planter , runner opener
Harvest , sugarcane, old type	Planter , small veg seed
Harvest , timber remove tops	Planter , small veg seed on 8 inch high beds
Harvest , tobacco, burley	Planter , sprig conventional
Harvest , tobacco, flue cured	Planter , sprig, no-till
Harvest , tree buck	Planter , strip till
Harvest , tree length logs	Planter , sugarcane
Harvest , tree pulpwood cut	Planter , sugarcane
Harvest , tree, Christmas grow cover	Planter , transplanter, vegetable
Harvest , trees, chipper	Planter , transplanter, vegetable on 8 inch high beds
Harvest , vine crops	Planter , transplanter, vegetable, no-till
Hydro -seeder	Planter , tree, mechanical transplanter
Irrigation , furrow	Planting , hand 10 percent dist.
Irrigation , sprinkler	Planting , hand 5 percent dist.
Irrigation , drip	Planting , manual
Irrigation , surface	Planting , manual on 8 inch high beds
Knife , windrow dry beans	Planting , no-til manually
Land plane	Plastic mulch applic. 40 inch beds 100
Lister , 40 in	
Log skidder	
Manure injector, liquid high disturb.30 inch	
Manure injector, liquid low disturb.15 inch	

percent cover	Roller , corrugated packer 6 by 16
Plastic mulch applic. 40 inch beds 75 percent cover	Roller , on beds
Plastic mulch applic. 48 inch beds 100 percent cover	Roller , residue
Plastic mulch applic. 48 inch beds 80 percent cover	Roller , smooth
Plastic mulch applic. 54 inch beds 100 percent cover	Root rake
Plastic mulch applic. 54 inch beds 80 percent cover	Rotary hoe
Plastic mulch applic. 64 inch beds 100 percent cover	Rotary hoe, residue
Plastic mulch applic. 64 inch beds 85 percent cover	Rototiller , field
Plastic mulch applicator 100 percent cover	Rototiller , field, add residue
Plastic mulch applicator 40 percent cover	Rototiller , row cult add residue
Plastic mulch applicator 50 percent cover	Rototiller , row cultivator
Plastic mulch applicator 75 percent cover	Sand fighter
Plastic mulch, 05 percent removal	Scalper , tree
Plastic mulch, 10 percent removal	Scarifier
Plastic mulch, 25 percent removal	Scraper /pan/grader, clearing/cutting
Plastic mulch, 50 percent removal	Seedbed finisher
Plastic mulch, remove	Seeder , corrugated packer
Plastic weed barrier 40 inch beds 100 percent cover	Shredder , flail or rotary, add other cover
Plastic weed barrier 40 inch beds 50 percent cover	Shredder , rotary mower
Plastic weed barrier 40 inch beds 75 percent cover	Shredder , rotary, remove residue
Plastic weed barrier applicator 100 percent cover	Sod cutter
Plastic weed barrier applicator 50 percent cover	Sod cutter
Plastic weed barrier applicator 75 percent cover	Sprayer , insecticide post emergence
Plow , disk	Sprayer , kill strips
Plow , moldboard	Sprayer , post emergence
Plow , moldboard 10 inch depth	Sprayer , pre-emergence
Plow , moldboard 6-7 inch depth	Stalk chopper, rotary
Plow , moldboard, conservation	Stalk chopper, strip rotary
Plow , moldboard, up hill	Stalk puller
Plow , oxen	Strip till bed conditioner
Plow , oxen 12 in ridge	Strip tiller w/middle buster on beds
Plow , oxen 18 in ridge	Subsoiler
Plow , oxen on 6 in ridge	Subsoiler bedder (ripper/hipper)
Plow , reversible	Subsoiler ripper, 24 to 40 in. deep
Pruning	Subsoiler , in row
Residue , row cleaner	Sweep plow 20-40 in wide
Rodweeder	Sweep plow wider than 40 in w/ mulch treader
Roller , corrugated packer	Sweep plow, wider than 40 in
	Tree spade, holes left
	Tree spade, holes left
	Tree spade, holes plugged
	Tree spade, holes plugged
	Water mulch; off
	Water mulch; on
	Weed control, manual hoe
	Weed control, manual hoe
	Weed control, string trimmer

4. Crop Nutrient Inputs Worksheet

This worksheet contains information on the nutrient applications on your operation. In the “Soil Test” column please indicate if your fertilizer application rate is based on soil test results. Please attach a copy of the latest soil test for each field.

4. Crop Nutrient Inputs Worksheet (Example)

Field Numbers	Crop Grown	Nutrient <u>1</u> / Source (kind)	Application <u>2</u> / Rate	Application Method/Date	Application Depth
<i>Fields 3 and 4</i>	<i>Winter Wheat</i>	<i>16-20-0</i>	<i>100 lbs. per acre</i>	<i>Banded at fall seeding</i>	<i>2 inches.</i>
<i>Fields 3 and 4</i>	<i>Winter Wheat</i>	<i>45-0-0</i>	<i>350 lbs. per acre</i>	<i>Broadcast In May</i>	<i>Surface</i>
<i>Fields 5, 6, and 7</i>	<i>Corn</i>	<i>Feedlot Manure</i>	<i>10 tons per acre</i>	<i>Broadcast in April</i>	<i>Incorporate to 4 inches deep</i>

Attach soil test results for the year of the application.

If irrigated, has water been tested for nutrients? Yes No

If yes, attach results.

1/ e.g., 16-20-0, urea, liquid dairy manure, etc.

2/ Units (lbs/ac., gals/ac., inches/ac.)

Additional Nutrient Management Information (Attach copies of soil tests, manure test, etc., if applicable):

5. Pest Management Input

This worksheet provides information on the methods used to control pests and weeds on your operation. The following bullets include additional information to assist in completing this worksheet.

- Under the suppression Method column please include the product name or the active ingredient (ai).
- Under the “Pesticide Application Rate” column include the pounds or ounces of the active ingredient (ai).
- In the “Broadcast or Banded” column, indicate if the pesticide was broadcast applied (more than 50% of the field) or banded (less than 50% of the field). If the options do not apply simply indicate non-applicable.
- In the “Surface, Soil Incrop., or Foliar Applied” column, indicate if the pesticide was surface applied (applied to the soil surface), soil incorporated (mixed into the soil with light tillage or irrigation), or foliar applied (sprayed on a nearly full crop/weed canopy and/or on a more than 50% residue cover). If none of these practices apply simply indicate non-applicable.

Please see the example below for your reference and then fill out your information on the Inventory

5. Pest Management Input Worksheet (Example)

Crop Grown	Field Number	Target Pest	Suppression Method	Pesticide Application Rate	Date Applied	Broadcast or Banded	Surface, Soil Incrop., or Foliar Applied
<i>Winter Wheat</i>	<i>3 and 4</i>	<i>Downy Brome</i>	<i>Metribuzen</i>	<i>0.3 lbs of AI.</i>	<i>10/01</i>	<i>Broadcast</i>	<i>Surface</i>
<i>Spring Barley</i>	<i>3 and 4</i>	<i>Broadleaf Weeds</i>	<i>2, 4, D</i>	<i>.75 lbs of AI.</i>	<i>Late May</i>	<i>Broadcast</i>	<i>Foliar</i>
<i>Corn</i>	<i>5, 6, and 7</i>	<i>Weeds</i>	<i>Row Cultivation 2X</i>	<i>NA</i>	<i>May 1 thru 20</i>	<i>NA</i>	<i>NA</i>
<i>Alfalfa</i>	<i>8 and 9</i>	<i>Clover leaf Weevil</i>	<i>Malathion</i>	<i>1.0 lbs. of AI</i>	<i>As Needed</i>	<i>Broadcast</i>	<i>Foliar</i>

Additional Comments/Observations:

6. Cropland Practices Worksheet

List all practices existing on the ag operations, as well as, all those that are planned. Show the location of the practices on the stewardship map or list field numbers.

ESSENTIAL CROPLAND PRACTICES			
Practice Name	Practice Code	Existing	Planned
Conservation Cropping Rotation	328		
One of the following:			
• Residue management	344		
• Seasonal; Residue management, Mulch-Till	329B		
• Residue management, No-till & Strip-Till	329A		
• Residue management Ridge-Till	329C		
Pest Management (<i>if pests are controlled</i>)	595		
Nutrient Management (<i>if fertilizer or manure is used</i>)	590		
Water Management (<i>if irrigated</i>)	449		
NEEDED and/or DESIRABLE Practices			
Practice Name	Practice Code	Existing	Planned
Anionic Polyacrylamide (PAM) Erosion Control	450		
Chiseling and Sub-soiling	324		
Conservation Cover	327		
Contour Farming	330		
Contour Orchard and Other Fruit Area	331		
Cross Wind Ridges	589A		
Cross Wind Trap Strips	589C		
Field Border (Buffer)	386		
Filter Strip (Buffer)	393		
Grassed Waterway (Buffer)	412		
Heavy Use Area Protection	561		
Herbaceous Wind Barriers (Buffer)	503		
Irrigation Land Leveling	464		
Irrigation System – (Several)	441, 442, 443, & 447		
Irrigation Water Conveyance – (Several)	Many		
Mulching	484		
Sediment Basin	350		
Structure for Water Control	587		
Surface Roughening	609		
Terrace	600		
Tree/Shrub Establishment	612		
Upland Wildlife Habitat Management	645		
Water Well	642		
Windbreak/Shelterbelt Establishment (Buffer)	380		

Additional Comments/Observations:



Prescribed Grazing

Livestock, Forage, and Feed Worksheet 528(3)

February 2001

Client: John Tallgrass Location: NM Completed by: John Tallgrass Date: 2005

Livestock Inventory

				Animal Units of Forage Needed												
				Months												
Livestock/Wildlife	Planned Number	AU Equiv.	Total AU's	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Total AUM's
Cow/Calf	350	1	350	350	350	350	350	350	350	350	350	350	350	350	350	4200
Replacement Heifers	35	.9	32	32	32	32	32	32	32	32	32	32	32	32	32	384
Yearlings	100	.9	90					90	90	90	90	90				450
Bulls	14	1.35	19	19	19	19	19	19	19	19	19	19	19	19	19	228
Horses	4	1.25	5	5	5	5	5	5	5	5	5	5	5	5	5	60
Elk	50	.6	30	30	30	30								30	30	150
Totals				436	436	436	406	406	406	406	406	406	406	436	436	5022

Forage & Feed Inventory

						Animal Units of Forage Available											
						Months											
Pasture # & kind of forage or feed	Acres	Total AUM's	Trend	Adj Fact	Adj Total AUM's	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1 - North	3000	600	N/A		600	50	50	50	50	50	50	50	50	50	50	50	50
2 - South	4000	800	N/A		800	67	67	67	67	67	67	67	67	67	67	67	67
3 - East	5000	1000	N/A		1000	83	83	83	83	83	83	83	83	83	83	83	83
4 - West	8000	1600	down	.9	1440	120	120	120	120	120	120	120	120	120	120	120	120
6 Irrigated Grass	130	910	Up	N/A	910				151	151	151	151	151	151			
Alfalfa Hay - 15 tons					1000	116	116	116							116	116	116
Totals					5750	436	436	436	471	471	471	471	471	471	436	436	436

Livestock/Feed/Forage Balance

	Total AUM's	Months												
		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
Total forage available (Adjusted. AUM's)	5750	436	436	436	471	471	471	471	471	471	471	436	436	436
Total forage needs (AUM's)	5022	436	436	436	406	406	406	406	406	406	406	406	436	436
Difference (=) or (-) (AUM's)	728				+65	+65	+65	+65	+65	+65	+65	+30		

II Range and Pasture

1. Range and Pasture Land Inventory

Information on the grazing plan being used on the ag operation is needed. Use the following information to aid in calculating Animal units.

a. Grazinglands Animal Unit Conversions

If your stocking rate is calculated using cows per section per year then multiply the number of sections in the pasture by the number of cows per section = the number of animal units grazed in the pasture each year and multiply by 12 equals Total AUM's used or needed.

Example cows/section/yr:

Rancher grazes 16 AU/Section/Yr

5000 acre pasture divided by 640 acres = 7.8 sections

7.8 sections X 16 AU/Section/yr = 125 AU X 12 months = 1,500 aum's needed or used.

If your stocking rate is acres per cow per year divide the number of acres in the pasture by the number of cows grazed in the pasture each year then multiply by 12 equal total aum's used or needed.

Example acres/cow/year:

Rancher grazes 40 acres/au/year

5,000 acres in the pasture divided by 40 ac/au/year = 125 au/year

125 au/year X 12 months = 1,500 AUM's used or needed.

If your stocking rate is calculated in animal days/acre? Divide the total number of animal days for the pasture by 30 to give you total AUM's

Example cattle days/acre:

5,000 acre pasture X 9 animal days/acre = 45,000 animal days for pasture divided by 30 animal days per month = 1,500 AUM's used or needed.

b. Determining Animal Unit Equivalent

The information in this table can be used as a guide to determine animal unit equivalents.

Type of Livestock	Animal Unit (AU)
1,000 lb. Cow w/calf	1.0 AU
850 lb Replacement Heifer –Yearling	0.9 AU
1,500 lb. Bull - Mature	1.35 AU
1,500 lb. Horse - Mature	1.25 AU
200 lb. Ewe/Doe - Mature	0.16 AU
Deer and Antelope	0.2 AU
Elk	0.6 AU

- c. **1. Prescribed Grazing – Livestock, Forage, and Feed Worksheet 528(3).** The information in this worksheet will be used to determine forage-animal balance. An example of a completed worksheet is attached.
- d. **2. Prescribed Grazing – Prescribed Grazing Schedule Job Sheet 528(6).** The information in this job sheet will be used to determine timing of use. An example of a completed worksheet is attached.

- e. **3. Grazing Monitoring Record for Range** – The information in this worksheet will aid in determining proper livestock distribution. The following charts are provided for use in keeping track of grazing records on rangeland and will help determine the current balance of forage and animals on each field.

Use the following descriptions to determine your “Use Class” for the last column of the chart. At or near the end of the grazing period determine the degree of use from the chart below. When properly grazed, the vegetation remaining will supply adequate cover for soil protection and will maintain or improve the quantity and quality of desirable vegetation (Identified as “Light” or “Moderate” use below).

Degree of Use	Description
None: 0 to 15 percent	Very little or no use of key forage plants. Only choice areas and choice forage grazed.
Light: 16 to 35 percent	Key forage plants lightly to moderately used. Practically no use of low-value forage plants. Most of accessible range shows grazing. Very little trailing to grazing.
Moderate: 36 to 65 percent	Key forage plants used correctly for the season of grazing. Some use of low-value forage plants. All fully accessible areas are grazed; some trampling damage may be evident.
Heavy: 66 to 80 percent	Key forage plants closely cropped. Low value forage plants generally being grazed. Trampling damage is widespread in accessible areas.
Severe: 81 to 100 percent	Key forage plants are weakened from continual grazing of regrowth and mechanical damage. Low-value forage plants carrying the grazing load and are closely cropped.

3. Grazing Monitoring Record for Range (Example)

Grazing Record - Range							
Field Name	<i>Miller Place</i>						
Year or Season	<i>2003 - Summer</i>				Total Acres	<i>2000</i>	
Livestock Type	Livestock Number	Date In	Date Out	Days Grazed	Animal Units	AUMs (Days x Aus/30.4)	Use Class Percent
<i>Cow with calf</i>	<i>350</i>	<i>5/1</i>	<i>6/15</i>	<i>XXXX</i>	<i>XXXX</i>	<i>XXXX</i>	<i>Moderate</i>
				<i>XXXX</i>	<i>XXXX</i>	<i>XXXX</i>	
				<i>XXXX</i>	<i>XXXX</i>	<i>XXXX</i>	
				<i>XXXX</i>	<i>XXXX</i>	<i>XXXX</i>	
				<i>XXXX</i>	<i>XXXX</i>	<i>XXXX</i>	
				<i>XXXX</i>	<i>XXXX</i>	<i>XXXX</i>	
Totals	<i>350</i>			<i>XXXX</i>	<i>XXXX</i>	<i>XXXX</i>	

Grazing Records for Pastureland

The following charts are provided for your use in keeping track of your grazing records on pastureland.

4. Grazing Record – Pasture (Example)

Grazing Record - Pasture							
Field Name		<i>Tract 2395</i>					
Year or Season		<i>2003</i>			Total Acres		<i>103</i>
Soil Test (year)		<i>1999</i>			Forage type		<i>Orchard grass</i>
Fertilizer-date applied		<i>March 10,2003: Broadcast</i>			Fertilizer type		<i>46-0-0 100 pounds/ac</i>
Livestock Type	Livestock Number	Last Irrigation	Date In	Forage Height	Date Out	Forage Height	Notes
<i>Cow w/calf</i>	<i>350</i>	<i>3/15</i>	<i>4/1</i>	<i>10 inches</i>	<i>5/1</i>	<i>4inches</i>	<i>About 400 AUMs harvested</i>

Additional Comments/Observations:

Additional Comments or Observations: _____

Pasture and Range Pest Management Inputs

This information includes information on the methods used to manage pests and weeds on your operation. The following bullets include additional information to assist in completing this worksheet.

- Under the “Suppression Method” column please include the product name or the active ingredient of the method used to manage the target pest listed.
- Under the Pesticide Application Rate column include the pounds or ounces of the active ingredient (AI).
- In the ”Broadcast or Banded” column, indicate if the pesticide was broadcast applied (more than 50% of the field) or banded (less than 50% of the field). If these options do not apply then indicate non applicable.
- In the “Surface, Soil Incorp., or Foliar Applied” column, indicate if the pesticide was surface applied (applied to soil surface), soil incorporated (mixed into the soil with light tillage or irrigation, fliar applied (sprayed on a nearly full crop /weed canopy and/or more than 50% residue cover). If these options do not apply then indicate non applicable.
- Under the “Application Method” column indicate if fertilizer was ground or aerial applied.

Please refer to the example below for your reference and then fill out your information on the corresponding inventory

6. Pasture and Range Pest Management Inputs Worksheet (Example)

Forage Grown	Field Number	Target Pest	Suppression Method	Pesticide Application Rate	Date Applied	Broadcast or Banded	Surface, Soil Incorp., or Foliar Applied
Irrigated Orchard Grass	3 and 4	Canada thistle	Clipping/Mowing	None	na	na	na
Native range	1	Sagebrush	Tebuthiuron	1.0 lbs of AI/acre	November	Broadcast	Surface

7. Pasture and Rangeland Practices Worksheet -List all practices existing on the ag operations, as well as, all those that are planned. Show the location of the practices on the stewardship map or list field numbers.

ESSENTIAL RANGELAND PRACTICES			
Practice Name	Practice Code	Existing	Planned
Prescribed Grazing	528a		
Water (Natural Water or Watering Facilities)	614 etc.		
NEEDED and/or DESIRABLE Practices			
Practice Name	Practice Code	Existing	Planned
Access Road	560		
Animal Trails and Walkways	575		
Brush Management	314		
Critical Area Planting	342		
Diversion	362		
Fence	382		
Firebreak	394		
Grade Stabilization Structure	410		
Grazing Land Mechanical Land Treatment	548		
Pest Management	595		
Pipeline	516		
Pond	378		
Pond Sealing or lining	521		
Prescribed Burning	338		
Pumping Plant for Water Control	533		
Range Planting (EQIP)	550		
Spring Development	574		
Streambank and Shoreline Protection	580		
Structures for Water Control	587		
Upland Wildlife Habitat Management	645		
Water Harvesting Catchments	636		
Water Spreading	640		
Water Well	642		
Wetland Enhancement	659		
Wetland Restoration	657		
Wetland Wildlife Habitat Management	644		
Wildlife Watering Facility	648		
Windbreak Shelterbelt Establishment	380		
Windbreak/Shelterbelt Renovation	650		

Additional Comments/Observations:

III Irrigation System Inventory

1. Irrigation System Screening Worksheet (Example)

Complete the worksheet for each field. Use the tables that follow to obtain the appropriate number. A detailed description of each element is provided.

Field Number	<i>1,3,5</i>	
System type – From Table 1. <i>Graded Furrow</i>	<i>1</i>	
Measurement Method – From Table 2. <i>Whole Farm- manually recorded</i>	<i>2</i>	
Scheduling Method – From Table 3. <i>Soil Moisture by NRCS feel method</i>	<i>2</i>	
Water Control – From Table 4. <i>Flow rates are adequately controlled.</i>	<i>3</i>	
Water Conveyance- From Table 5. <i>Open Canal – Lined</i>	<i>4</i>	
Land Slope – From Table 6. <i>Land Leveled</i>	<i>2</i>	
Tail water Capture and Reuse – From Table 7. <i>Tail water not Captured</i>	<i>1</i>	

Table 1. Irrigation System Type	
Border Irrigation	Value
Graded Border	1
Level or Basin	2
Contour Level Field Crop	3
Border Ditch	4
Furrow Irrigation	Value
Level or Basin	5
Graded Furrow	6
Contour Furrow	7
Corrugations	8
Surge	9
Flood Irrigation	Value
Controlled	10
Uncontrolled	11
Contour Ditch	12
Sprinkler Irrigation	Value
Big Gun or Boom	13
Hand Line or Wheel Line	14
Solid Set (above canopy)	15
Solid Set (below canopy)	16
Center Pivot Irrigation	Value
Generic	17
Low Pressure Improved	18
LEPA	19
LESA	20
LPIC	21
MESA	22
Variable Rate Irrigation (VRI)	23
Lateral Move Irrigation	Value
Generic	24
LEPA, LESA, LPIC, MESA	25
Micro Irrigation	Value
Point Source	26
Sprays	27
Continuous Tape	28
Subsurface Drip irrigation	29
Sub-Irrigation	Value
Sub irrigated	30
Table 2. Method of Measuring Flow	Value
No Flow Measuring device	1
Whole farm-manually recorded	2
Whole farm-automatic recorded	3
Whole farm plus individual field manual	4
Whole farm plus individual field automatic recorded	5

Table 3. Method of Scheduling Irrigation	Value
Visual crop stress	1
Soil moisture by NRCS feel method	2
Check book scheduling, irrigation scheduler, etc	4
Irrigation scheduling via pan evaporation or atmometer for field	5
Irrigation scheduling via regional weather network	6
Soil moisture using Gypsum blocks, moisture probe, etc	7
Continuous measurement of soil moisture, water applied and ET	8

Table 4. Ability to Control Water Distribution	Value
Very poor diversion facilities. Little control of flow rate to farm	1
Can control flow rates to farm, but the on-farm delivery system operation is very hard to deliver the desired flow to any given field.	2
Flow rates to each field are adequately controlled. Flow rates to each set are difficult to control	3
All flow rates to each set are adequately controlled	4
Table 5. Water Conveyance	Value
Open ditch or canal - sand/gravel	1
Open ditch or canal - sandy loam	2
Open ditch or canal - clay soil	3
Open canal – lined	4
Closed conduit pipeline	5
Table 6. Precision of Land Slope	Value
Land smoothed	1
Land leveled	2
Land precision leveled	3
Land precision leveled - slope <= .005	4
A sprinkler system is utilized	5

Table 7. Tail water Captured and Reused	Value
No Tail water or Tail water not captured	1
Irrigation System Type less than or equal to 60	2
Irrigation System Type between 61 and 80	3
Irrigation System Type greater than 80	4

Descriptions and Definitions

Irrigation System Type: This section represents the system type associated with the field or farm. Some systems are clearly more efficient and easier to manage than other systems. Simply select the system that best describes your system. Local terminology may be slightly different but the system names should be adequate to describe most systems.

Definition of terms related to Center Pivots:

LEPA - Low Energy Precision Application

- a) Farmed in Circular Rows (except Linear Move Systems)
- b) Nozzle Height is 18 inches or lower
- c) Nozzle Spacing is alternate row, up to a maximum of 80 inches
- d) Discharge is through a drag sock or hose on the ground, or through a bubble shield or pad
- e) Only applicable to crops planted with furrows or beds
- f) Maximum of 1% slope in most of field
- g) Furrow Diked or other means of preventing irrigation water movement away from point of application

LESA - Low Elevation Spray Application

- a) Farmed in any row direction
- b) Nozzle Height is 18 inches or lower
- c) Nozzle Spacing is alternate row, up to a maximum of 80 inches
- d) Discharge is through spray nozzles
- e) Applicable on crops flat planted, drilled, or planted with furrows or beds
- f) Maximum of 3% slope in most of field
- g) Furrow Diked or other means of preventing irrigation water movement away from point of application

LPIC - Low Pressure In Canopy

- a) Farmed in any row direction
- b) Nozzle Height is 18 inches to 36 inches
- c) Nozzle Spacing up to 120 inches (10 feet)
- d) Discharge is in the crop canopy
- e) Maximum of 3% slope in most of field
- f) Systems that utilize bubble nozzles or drag hoses for a portion of the crop year and spray nozzles for a portion of the crop year but do not meet all LEPA criteria should be considered LPIC systems

MESA - Mid Elevation Spray Application

- a) Farmed in any row direction
- b) Nozzle Height is more than 36 inches (3 feet) and less than 84 inches (7 feet)
- c) Nozzle Spacing up to 120 inches (10 feet)
- d) Discharge is above the crop canopy
- e) Maximum of 3% slope in most of field

Variable-Rate Irrigation (VRI), also called site-specific irrigation or precision irrigation is a relatively new concept in agriculture. Variable-rate irrigation is a tool of Precision Farming that involves the delivery of irrigation water in optimum amounts over an entire field.

Method of Measuring Flow: Water measurement is a critical component of any well planned and managed irrigation system. Knowing how much water is delivered to a farm, field, or irrigation set is critical to making efficient use of water.

- **No flow measuring devices** - No flow measuring devices are present. The applicant has no way of measuring and recording the amount of water delivered to the farm, to the fields, or to the irrigation set.
- **Flow measurement - whole farm, manually recorded** - The applicant has a measuring device (calibrated flume or flow meter) that can be used to measure the amount of water that is delivered to the farm. It may be a flow meter on a well that serves one field or a calibrated flume that measures water delivered through a distribution system to the farm. The measurement system does not automatically record the measurement. The applicant must inspect the measurement device and manually record the results in a routine manner and the results used in irrigation planning and scheduling.
- **Flow measurement - whole farm, automatic recorded** - Flow measurement are taken utilizing the process described immediately above but the measurements are automatically recorded and are used in planning and scheduling irrigations.
- **Flow measurement - whole farm plus individual field, manual** - The applicant has the ability to measure water that comes to the whole farm as well as to each individual field. The flow measurements are obtained utilizing a measuring device such as a flow meter. In this instance the applicant can measure the water flowing to the farm and to each field. He routinely checks and records the data manually and uses the results to plan and schedule irrigations.
- **Flow measurement - whole farm plus individual field, automatic recorded** - The applicant has the ability to measure water flowing to the farm and to each field using flow meters or flumes. The results are automatically recorded using a recording device and used for planning and scheduling irrigations.

Method of Scheduling Irrigation

- **Visual crop stress** - Water management decisions are made from visual indicators related to crop growth. In some instances the crops may be stressed before decisions are made to add needed water.
- **Soil moisture by NRCS feel method** - Soil moisture is used as the factor to determine when water is to be added using the NRCS feel method. The manager has received some training and has a publication that describes the NRCS feel method.
- **Check book scheduling, irrigation scheduler, etc.** - A check book method is used to track and schedule irrigations. Training and fact sheets are available from land grant universities and the results are commonly utilized to manage timing and application of irrigation water.
- **Irrigation scheduling via pan evaporation or atmometer for field** - Other slightly more sophisticated systems provide reliable methods for scheduling irrigation water applications. Pan evaporation and atmometers are listed here but other devices may be available.
- **Irrigation scheduling via regional weather network** - An irrigation scheduling system or network that includes weather stations that track climatic conditions and predict irrigation water needs is utilized. These may include on site weather stations or regional weather stations that are operated by commercial or public entities. These networks may be on-line or a group of operators within the watershed area that are moving toward precision water application.
- **Soil moisture using gypsum blocks, moisture probe, etc.** - Methods to track soil moisture including gypsum block, tensiometers, soil moisture probes and other similar tools are used. With calibration these methods become very accurate.

- **Continuous measurement of soil moisture, water applied and ET** - This combines all methods soil Climate and Checkbook to perform Precision application

Ability to Control Water Distribution: This management enhancement recognizes the ability of the irrigator to manage, direct and control the water flow stream on to the farm, across the farm to one or more fields, and to multiple irrigation sets that may be on the farm or field. The better the control, the higher the irrigation enhancement. Most pumped and piped distribution systems provide adequate control to each set.

- Very poor diversion facilities, little control of flow rate to farm
- Can control flow rates to farm, but the on farm delivery system is such that it is very hard to deliver the desired flow to any given field
- Flow rates to each field are adequately controlled. Flow rates to each set are difficult to control
- All flow rates to each set are adequately controlled – Should be selected for Center Pivots and other pumped and piped distribution systems

Water Conveyance: Water movement across the farm is a critical component. Losses occur from evaporation and deep percolation within the ditch. Sandy soils have more potential for water losses than clay soils. Lined ditches and canals have evaporation losses but limited deep percolation losses. Closed conduits are the most efficient water delivery systems.

- **Open ditch or canal, sand/gravel** - Ditches and canals may involve a combination of soils with part of the conveyance in sandy soils and part in clay soils. Select the factor that is predominant
- **Open ditch or canal, sandy loam** - Ditches and canals may involve a combination of soils with part of the conveyance in sandy soils and part in clay soils. Select the factor that is predominant
- **Open ditch or canal, clay soil** - Ditches and canals may involve a combination of soils with part of the conveyance in sandy soils and part in clay soils. Select the factor that is predominant
- **Open canal, lined** – Concrete, plastic, or other impervious materials
- **Closed conduit pipeline** – Plastic, concrete, or other pipeline materials

Precision of Land Slope: Precision leveled fields have higher efficiency potential and are easier to manage than less controlled grades and slopes. This enhancement category recognizes this factor.

- **Land smoothed** - This factor represents land that has been smoothed. Highs and lows have been manipulated to provide a more uniform flow of water but not to the precision listed below. This is the value that should be selected if any of the factors below do not apply.
- **Land leveled** - Land that has been leveled but conventional survey and construction equipment has been utilized.
- **Land precision leveled** - This factor represents land that has been precision leveled utilizing laser controlled equipment with high quality control. The grade will be more than 1/2%.
- **Land precision leveled, slope \leq .005** - This factor represents precision leveled land that is 1/2 % grade or less.
- **A sprinkler system is utilized** - Land leveling is not a component that is considered in any of the sprinkler systems. It is only considered for surface systems.

IV. NM – VISUAL RIPARIAN ASSESSMENT TOOL

This tool is used to assess stream and riparian To determine if an area can be classified as a riparian area, certain conditions must exist. The stream must have perennial or seasonal flow.

Perennial flow has flowing water from beginning boundary to ending boundary throughout the year. Riparian vegetation should be present and capable of natural regeneration.

Seasonal streams have flowing water from the beginning boundary to the ending boundary for a portion of the year exceeding spring runoff. There must be a hydrologic connection of the stream with the local water table. This means the stream may go dry or have subterranean flow within select reaches during dry periods or drought, but flow will return when moisture conditions improve. Some riparian vegetation should be present and may be capable of natural regeneration.

Ephemeral Streams flow only in a direct response to precipitation. There is no connection with a water table and little to no riparian vegetation. Remnant riparian trees would not be capable of natural regeneration. Ephemeral streams are not eligible as functioning riparian areas.

SCORING DESCRIPTIONS

Examine the entire reach of the riparian area to be evaluated. Separate the riparian area into reaches with distinct characteristics. Complete a score sheet for each reach. Prepare a site map and identify each reach on the map.

Each assessment element is rated with a value rating of either 1 to 10 or 1 to 5. Rate only those elements appropriate to the stream. Record the score that best fits the observations you make based on the narrative descriptions provided. For each assessment element, some background information is provided as well as a description of what to look for.

New Mexico Natural Resources Conservation Service

NEW MEXICO STREAM VISUAL ASSESSMENT PROTOCOL
RIPARIAN ASSESSMENT
STANDARD SCORE SHEET (EXAMPLE)

Date: 7 / 14 / 1998

County: Sandoval Geographic Coordinates or UTM's: T 20N RIW (portions of Sections 20, 29)

Land Ownership Status: (Federal) (State) (Private) check the appropriate status

Name of Land Owner: BLM

Identify the Tract or Field Where the Scoring Occurred: Tract C, Section 1 (see map)

Name of the Stream or River: Senorito Creek

Names of Field Scoring Members: Stephen Lacy, Jim Silva, and McKinley Ben Miller

Attach Map of Site and Identify the Different Reaches

Available Points	Points Scored	HYDROLOGIC
10	10	Hydrologic Alteration
10	7	Channel Condition
10	7	Bank Stability
5	5	Riparian Zone Width
5	3	Active or Stable Beaver Dams
40	32	SUB TOTAL (A)

Available Points	Points Scored	SOILS - EROSION AND DEPOSITION FACTORS
10	10	Soil Characteristics / Rooting Medium
10	7	Exposed or Bare Ground
10	7	Topographic Variance or Surface Expression on Floodplain
5	1	Streambank Rock Armoring
5	5	Point Bar Revegetation
40	30	SUB TOTAL (B)

Available Points	Points Scored	VEGETATION FACTORS
10	7	Diverse Age Class Distribution of Trees
10	10	Shrub Regeneration
10	10	Total Ground Cover of Grasses and Forbs
10	7	Percent of the Streambank with a Deep, Binding Root Mass
10	10	Total Area Occupied by Undesirable Herbaceous Species
50	44	SUB TOTAL (C)

Available Points	Points Scored	
40	32	SUB TOTAL (A)
40	30	SUB TOTAL (B)
50	44	SUB TOTAL (C)
130	106	TOTAL

REMARKS:

Stream Valley has widened sufficiently to have created a new floodplain. Riparian vegetation includes willow and cottonwood. Sinuosity is returning to the system.

SUMMARY DETERMINATION

FUNCTIONAL RATING:

A riparian assessment examines various elements to determine the condition of the riparian area. Various characteristics have been rated to establish whether the site has a minimal capacity to function in a natural state. The ratings established through the scoring process should provide direction for the land owner or land manager in the identification of individual elements of concern. By using a percentage of the total points scored, we have tried to eliminate any negative bias, which may arise from an element which may not be appropriate for a site. An example would be an Active or Stable Beaver Dams, which may not be an appropriate category for some sites. In this case, the 5 points would be deducted from the total available points, and would therefore not affect the final percentage scored.

To determine the percentage scored, divide the total points scored by the total available points and multiply by 100. This value, expressed in percent will provide the rating to be used in the assessment tool.

For a riparian area to be considered for possible effective treatment, a percentage of 40% and above must be reached. Some riparian areas are damaged to the point where effective treatment is not practical. Funds would be better spent on areas where positive benefits can be more readily achieved. When riparian areas are found in entrenched systems, especially in the southwest, the rating party should consider the effect of the steep gully walls as part of the riparian area. These unstable walls may contribute large amounts of sediment and areas lacking vegetation.

Place a check mark in the appropriate box for the assessed riparian area. Your assessment is based on the assessment percentage. 70% and above is considered as a functioning riparian area, 40-70% is functioning at some capacity, while <40% is non-functional.

$$\frac{106}{130} = 81.5\%$$

Total Possible Points = 130
Points Scored = 106

Proper Functioning Riparian Area (= to or > 70%)

Functional --At Risk (40 to 70%)

Non-functional(<40%)

Are Factors Contributing to Unacceptable Conditions Outside of the Land Owners Control?

Yes No

If Yes, What are Those Factors?

Flow regulations

Mining Activities

Upstream channel conditions

Channelization

Road Encroachment

Oil field water discharge

Augmented flows

Other (specify) _____

I. HYDROLOGIC FACTORS

HYDROLOGIC ALTERATION

Regular flooding every 1.5 - 2 years. Natural channel, no water withdrawals, no dikes or other structures limiting access to the flood plain. Channel is not incised.	Flooding occurs only once every 3 - 5 years; limited channel incision. Withdrawals do not affect available habitat for biota or transport capacity	Flooding only once every 6-10 years channel deeply incised. OR Withdrawals significantly affect available low flow habitat for biota or transport capacity.	No flooding; channel deeply incised or structures prevent access to flood plain or dam operations prevent flood flow. OR Withdrawals have caused severe loss of low flow habitat or transport capacity. OR Flooding occurs on a one-year rain event.
10	7	3	1

CHANNEL CONDITION

Natural channel; no structures, dikes. No evidence of down cutting or excessive lateral cutting of the stream.	Evidence of past channel degradation but with significant recovery of channel and banks. Any dikes or levees are set back to provide access to an adequate flood plain.	Degraded channel; <50% of the reach with rip-rap and/or channelization. Excess aggradations; braided channel. Dikes or levees restrict flood plain width.	Channel is actively down cutting or widening. >50% of the reach with rip rap and/or channelization. Dikes or levees prevent access to the floodplain.
10	7	3	1

BANK STABILITY

Banks stable; erosion or bank failure absent or minimal; little potential for future problems; <5% of bank affected.	Moderately stable; infrequent, small areas of erosion mostly healed over; 5-30% of banks in reach have areas of erosion.	Moderately unstable; 30-60% of banks in reach have areas of erosion; high erosion potential during floods.	Unstable; many eroded areas; "raw" areas frequent along straight sections and bends; obvious bank sloughing; 60-100% of banks have erosion scars.
10	7	3	1

RIPARIAN ZONE WIDTH

Extends at least one active channel width on each side or covers entire floodplain.	Extends 3/4 of the active channel width on each side or slightly less than the floodplain.	Extends 1/2 of the active channel width on each side or covers 1/2 of the floodplain.	Extends 1/3 of the active channel width or 1/3 of the floodplain.	Less than 1/3 of the active channel width or less than 1/3 of the floodplain.
5	4	3	2	1

ACTIVE OR STABLE BEAVER DAMS

Beaver are present in the stream and actively building or maintaining dams.	Beaver may be present in the stream by evidence of old, non-maintained dams.	There is no evidence of beaver found in the stream or along the riparian area.
5	3	0

II. SOILS - EROSION AND DEPOSITION FACTORS

SOIL CHARACTERISTICS / ROOTING MEDIUM

>85% of the site has sufficient soil to hold water and act as a rooting medium.	>65% to 85% of the site has sufficient soil to hold water and act as a rooting medium.	>35% to 65% of the site has sufficient soil to hold water and act as a rooting medium.	35% or less of the site has sufficient soil to hold water and act as a rooting medium.
10	7	3	1

EXPOSED OR BARE GROUND

10% or less of the site with exposed soil surface.	10% to 20% of the site has exposed soil surface.	20% to 50% of the site has exposed soil surface.	> 50% of the site has exposed soil surface.
10	7	3	1

TOPOGRAPHIC VARIANCE OR SURFACE EXPRESSION ON FLOODPLAIN

Excellent topographic variability with thick vegetation in the overstory, shrub layer and grasses. Large woody debris or large rocks are present. No signs of concentrated flow of water is present.	Good topographic variability with good vegetative cover. Some rocks or woody debris is present, with little evidence of concentrated flow erosion.	Some topographic variability is present and there is some vegetative cover. Woody debris or rocks may be present. There may be some evidence of concentrated flow erosion.	Very little to no topographic variability is visible. Very little to no evidence of woody debris or rocks are present. Evidence of water erosion is clearly evident.
10	7	3	1

STREAMBANK ROCK ARMORING

Large cobbles at least 5" in diameter make up over 50% of the streambank.	Cobbles at least 2.5" in diameter are found over 40% of the streambank.	Large gravels at least 1.25" in diameter are found over 25% of the streambank.	Very little gravel or cobbles are found along the streambanks.
5	3	1	0

POINT BAR REVEGETATION

The point bars are well formed and maintained and have excellent growth and regeneration of preferred species.	The point bars are stable and have good amounts of vegetation and some regeneration of preferred species.	The point bars are not stable and have little evidence of growth or regeneration of preferred species.
5	3	1

III. VEGETATION FACTORS

DIVERSE AGE CLASS DISTRIBUTION OF TREES

>10% of the total canopy cover of trees is represented by seedlings and saplings.	>1% to 10% of the total canopy cover of trees is represented by seedlings and saplings.	1% or less of the total canopy cover of trees is represented by seedlings and saplings.	No tree seedlings or saplings are present.
10	7	3	1

SHRUB REGENERATION

>10% of the total canopy cover of the shrub layer is represented by seedlings or saplings.	>1% to 10% of the total canopy cover of the shrub layer is represented by seedlings or saplings.	1% or less of the total canopy cover of the shrub layer is represented by seedlings or saplings.	There are no shrub seedlings or saplings are present.
10	7	3	1

TOTAL GROUND COVER OF GRASSES AND FORBS

> 95% of the soil surface is covered by plant growth.	> 75% to 95% of the soil surface is covered by plant growth.	> 55% to 75% of the soil surface is covered by plant growth.	< 55% of the soil surface is covered by plant growth.
10	7	3	1

PERCENT OF THE STREAMBANK WITH A DEEP, BINDING ROOT MASS

> 85% of the streambank has evidence of a deep, binding root mass.	> 65% to 85% of the streambank has evidence of a deep, binding root mass.	> 35% to 65% of the streambank has evidence of a deep, binding root mass.	35% or less of the streambank has evidence of a deep, binding root mass.
10	7	3	1

TOTAL AREA OCCUPIED BY UNDESIRABLE HERBACEOUS SPECIES

5% or less of the area is covered by undesirable herbaceous species.	> 5% to 25% of the area is covered by undesirable herbaceous species.	> 25% to 45% of the area is covered by undesirable herbaceous species.	> 45% of the area is covered by undesirable herbaceous species.
10	7	3	1

V. WILDLIFE HABITAT

This check sheet is used to assess wildlife habitat on the Ag operation. Identify all practices that apply to your farm or ranch. Show the location of the practices on the stewardship map and list the tract and field numbers to which the identified practice applies.

Tracts	Fields
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Cropland Tillage System

Tracts	Fields	Description
2395	all	No-Till System - No soil disturbing activities other than planting
		Minimum Tillage System - at least 30 % crop residue cover year-long
		Reduced Tillage System - at least 30% crop residue cover over winter
		Conventional Tillage system - less than 30% crop residue cover over winter

Uncultivated Areas including pivot corners, field borders, windbreaks, etc not including hay fields.

Tracts	Fields	Description
2395	1	less than 10% of assessment area
		10-14% of assessment area
		14-25% of assessment area
		25-50% of assessment area

Winter Cover Areas

Of the uncultivated areas identified above, what percent is in winter cover including trees, brush, shelterbelts, cattails/bulrushes, etc.

Tracts	Fields	Description
		less than 10%
		10-25%
2395	1	25-50%
		50-100%

Nesting Cover Areas

Of the uncultivated areas identified above, what percent is in nesting cover including tall grass, grass/legume mix, grass/brush mix?

Tracts	Fields	Description
2395	1	less than 10%
		10-25%
		25-50%
		50-100%

Herbaceous Vegetation Management

On the uncultivated areas identified above, identify which management technique is utilized on these areas. Check all that apply.

- Specifically managed for wildlife nesting/ brood/roosting cover, i.e. management activities (haying, grazing, burning, disking) are conducted outside of the primary nesting season [see practice standard 645] and only used as tools to restore plant vigor and are generally excluded.
- Herbaceous cover is in a long-term set-aside program.
- Hayed or grazed or burned no more than once in every 3 years and after July 15th.
- Hay cut only once per year between July 15th and August 10th with at least 10 inches of standing cover left over winter.
- Grazed only after June 1st with at least 10 inches of standing cover left over winter.
- Hay cut only once per year between July 1st and July 15th with at least 7 inches of cover left over winter.
- Grazed only after July 1st with at least 7 inches of standing cover left over winter.
- Hay cut only once per year prior to July 1st with at least 4 inches of cover left standing over winter.
- 2395 1 Grazed prior to June 1st with at least 4 inches of cover left standing over winter.
- Hay cut more than once per year with the first cutting in June.
- Grazed prior to May 1st.
- Season-long, continuous grazing
- Annual burning of ditch banks/ roadsides
- 2395 1 Noxious Weeds present

Habitat Interspersion

Distance from center of open field to permanent cover of 3 or more acres such as trees/brush, undisturbed herbaceous vegetation, marshland, etc is

2395	5	less than 400 feet
		400 - 1320 feet
2395	4	1321 - 1800 feet
2395	1,2,3	greater than 1800 feet

Wetland Habitat

		No wetland modifications
		Some minor modifications
		Major modifications
		Wetlands protected by vegetative buffer
		Wetland plants present and left undisturbed
		Wetland area is occasionally grazed
		Wetland area is occasionally hayed
		Wetland area is cultivated
2395	4	Wetland area is frequently grazed
		Wetland area is frequently hayed

Riparian Habitat (stream area)

Identify plant types present in stream area.

		grass/forbs
		low shrubs
		tall shrubs over 8 ft tall
		Trees
		Russian Olive
		Salt Cedar
		Access to riparian area by livestock is limited
		Livestock have free access to riparian area.

Stream Habitat

		No channel/stream bank alterations
		Irrigation ditches have fish screens or passage structures
		Drop structures, dams or diversions that inhibit fish movement

Stock Ponds

		Pond is completely fenced to limit livestock access and water is piped away.
		Pond is partially fenced to limit livestock access and permanent vegetation maintained on at least half of the shoreline area.
2395	4	Pond area is only grazed 1 year in 3 or less Shoreline is trampled and vegetation removed by grazing

Grazing Management

		No livestock grazing on grasslands
		Grazing system with two or more growing seasons with no grazing in part of the operation.
2395	4	Rotation grazing system with rest periods
		Season long, continuous grazing

Fences

		Top wire is 42 inches or lower
		Bottom wire is 14-16 inches above the ground
		Woven wire fence

Tanks and Troughs

		Water available year round
		Access ramps in and out
		At least one reliable water source per section
		Distance between reliable water sources no more than 1 mile
		Distance between reliable water sources no more than 4 miles

Additional Comments or Observations: _____

Certification Statement

The information provided in this packet is true and correct to the best of my knowledge. I understand that if requested, I will need to submit a minimum of two years of documentation to support the information I have provided here.

Name: _____ Date: _____

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