HOW ESDs ARE USED BY THE NRCS

Jennifer A. Hayward, District Conservationist
Karen J. Clause, Rangeland Management Specialist
December 11, 2012 SRM Casper, WY

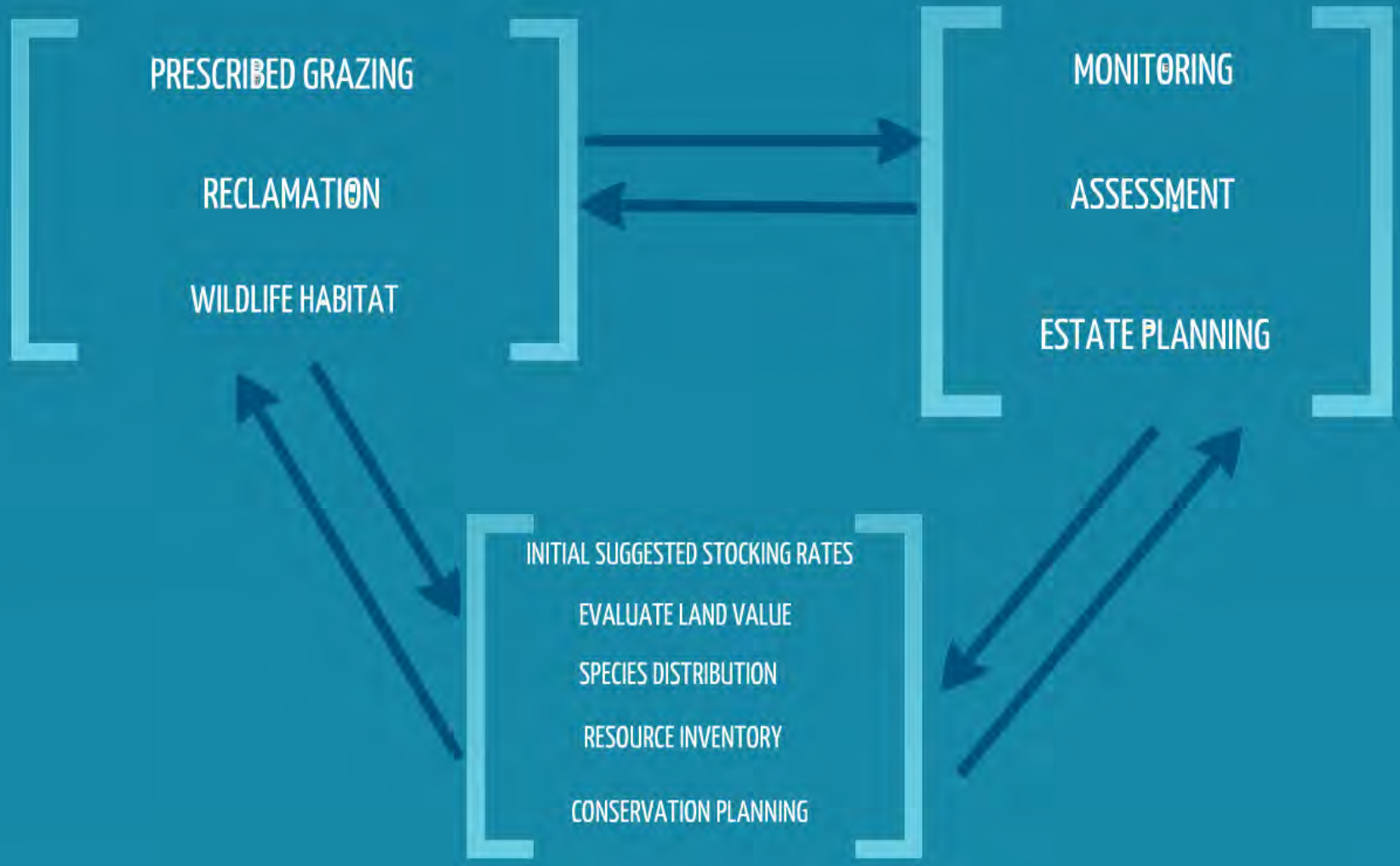
GOALS

REVIEW EXAMPLES OF EVERDAY ESD USE IN AN NRCS OFFICE

WHAT IS CONSERVATION PLANNING?

DETAILS OF A CONSERVATION PLANNING EXAMPLE

EXAMPLES


PRESCRIBED GRAZING
RECLAMATION
WILDLIFE HABITAT
MONITORING
ASSESSMENT
ESTATE PLANNING
INITIAL SUGGESTED STOCKING RATES
EVALUATE LAND VALUE
SPECIES DISTRIBUTION
RESOURCE INVENTORY
CONSERVATION PLANNING

PRESCRIBED GRAZING

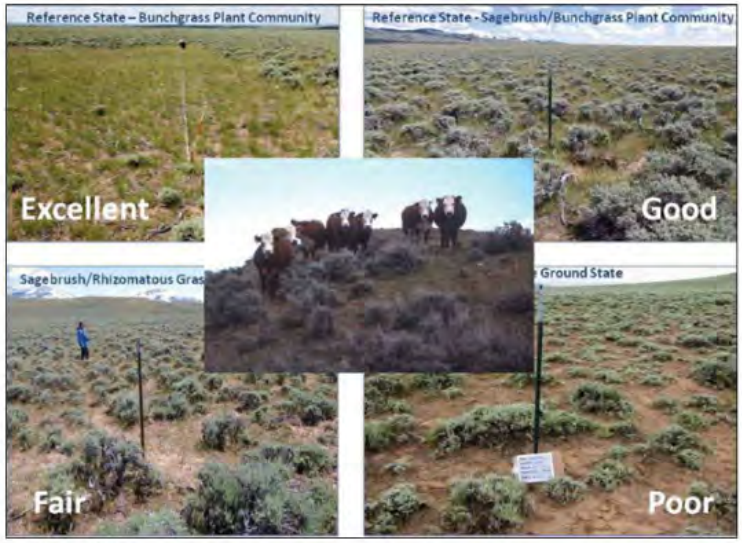
B-1203, March 2010

Grazing Influence, Objective Development, and Management in Wyoming's Greater Sage-Grouse Habitat

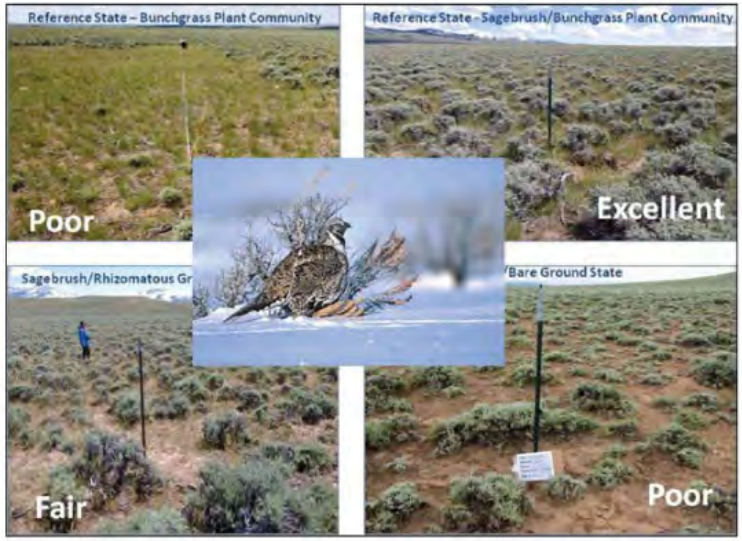
With Emphasis on Nesting and Early Brood Rearing

Jim Cagney, Everet Bainter, Bob Budd, Tom Christiansen, Vicki Herren, Matt Holloran, Benjamin Rashford, Mike Smith, Justin Williams

Wyoming Wildlife Consultants, LLC
Wyoming Agriculture
Wyoming Wildlife & Natural Resource Trust
USDA NRCS United States Department of Agriculture Natural Resources Conservation Service
University of Wyoming



Cattle Condition



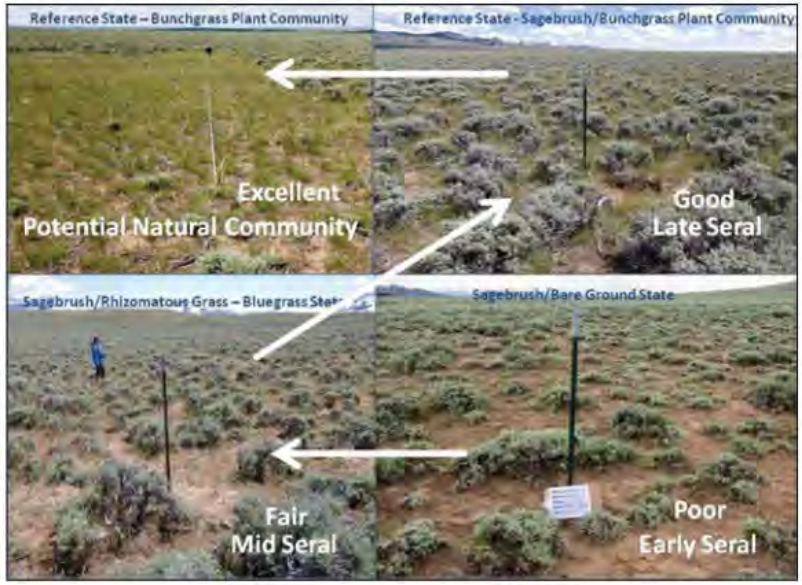
Sage-grouse Condition

The table below was used to "fix" this value judgment problem. This revised terminology resulted in a change from value laden for herbaceous forage to an entirely inaccurate description of the successional path in sagebrush. The scoring categories were never designed to match stages along a successional path.

Original Term		Revised Term
Excellent	→	Potential natural community
Good	→	Late seral
Fair	→	Mid seral
Poor	→	Early seral

If the revised terminology were accurate, then succession would be expected to progress as shown below in The Terminology Progression. Under this terminology, a stand of sagebrush would be expected to develop following a fire, and, through time, the herbaceous component would eventually dominate

The Terminology Progression



The terminology progression above is obviously inaccurate. Sagebrush has more invested in aboveground woody material than the herbaceous component of the plant community and takes longer to recover from fire. A stand of sagebrush that scores poor, because it has limited herbaceous understory, is anything but early

RECLAMATION

Site Type: Rangeland
MLRA: 43B - Central Rocky Mountains

Plant Community Composition and Group Annual Production

Reference Plant Community (HCPC)

COMMON NAME/GROUP NAME	SCIENTIFIC NAME	SYMBOL	Annual Production (lbs./acre) Total: 250	
			Group	lbs./acre
GRASSES AND GRASS-LIKES				
Idaho fescue	Festuca idahoensis	FEID	**1**	**375 - 625**
Columbia needlegrass	Achnatherum nelsonii	ACNE9	**2**	**375 - 625**
Slender wheatgrass	Elymus trachycaulus	ELTR7	**3**	**250 - 500**
Bluebunch wheatgrass	Pseudoroegneria spicata	PSSP6	**4**	**250 - 375**
MISC. GRASSES/GRASSLIKES			**5**	**250 - 500**
Basin wildrye	Leymus cinereus	LECI4	5	0 - 125
Big bluegrass	Poa ampla (syn. P. secunda)	POAM (POSE)	5	0 - 125
Bentgrass	Agrostis spp.	AGROS2	5	0 - 125
Bottlebrush squirreltail	Elymus elymoides ssp. elymoides	ELELE	5	0 - 125
California oatgrass	Danthonia californica	DACA3	5	0 - 125
Canby bluegrass	Poa canbyi (syn. P. secunda)	POCA (POSE)	5	0 - 125
Cusick bluegrass	Poa cusickii	POCU3	5	0 - 125
Dunehead sedge	Carex phaeocephala	CAPH2	5	0 - 125
Letterman needlegrass	Achnatherum lettermanii	ACLE9	5	0 - 125
Mountain bromegrass	Bromus marginatus	BRMA4	5	0 - 125
Mutton bluegrass	Poa fendleriana	POFE	5	0 - 125
Needleleaf sedge	Carex duriuscula	CADU6	5	0 - 125
Nodding bromegrass	Bromus porteri	BRPO2	5	0 - 125
Onespike oatgrass	Danthonia unispicata	DAUN	5	0 - 125

SOILS: loam, gravelly sandy loam (w/boulders)

SEEDING METHOD: Broadcast

SEEDING OBJECTIVES:

Reclaim disturbed area bull dozer was used to create fire line. Post-seeding use is assumed to be sum grazing.

SPECIES	CULTIVAR*	% SEED MIX COMP.	LBS PLS FOR FULL SEEDING**	SEEDS/LB PLS OF SEED	SEEDING RATE (SEEDS/ SQFT)	PLS SEEDING RATE (LBS/AC)
Slender wheatgrass	Pryor	20%	12	100,000	5.5	2.40
Idaho Fescue	Nez Perce	30%	6	450,000	18.6	1.80
bluebunch wheatgrass	Secar	30%	14	139,000	13.4	4.20
Basin Wildrye	Trailhead	20%	12	125,000	6.9	2.40
TOTALS:		**100%**			**44**	**10.8**

* - When available, the cultivars listed above are recommended because of known quality and adaptability to the area.

** - Rates are based on the full seeding rate for the seeding method noted above multiplied by the % seed mix composition.

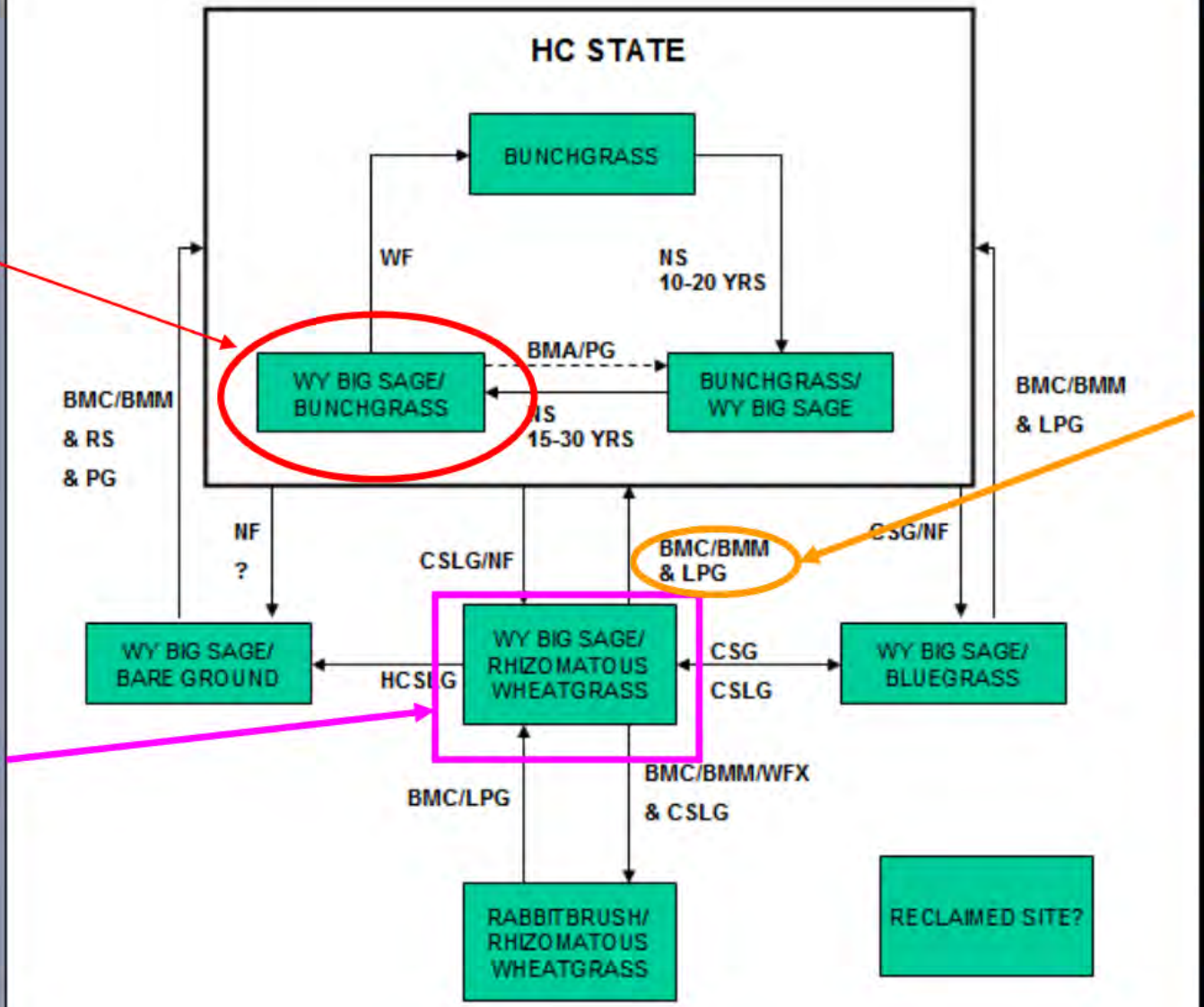
It is recommended that all seed have a germination/purity test by a certified tester n

WILDLIFE HABITAT

PLANNING FOR SAGE GROUSE

Ideal Sage Grouse Nesting Habitat

Current Plant Community



Management Actions Needed to get Desired Plant Community

BMC=Brush Mgt (Chemical)

BMM=Brush Mgt (Mechanical)

LPG=Long-term Prescribed Grazing

PRESCRIBED GRAZING

RECLAMATION

WILDLIFE HABITAT

MONITORING

ASSESSMENT

ESTATE PLANNING

MONITORING

Teton Conservation District Est. 1946

Site Name/ID: Big Cow Creek H6 Site Established: _____

Examiner(s)/Agency: M. Merigliano –Contractor TCD, Dr. M. Smith – UW, Date: 05-06Jul2011 & 12Sept 2011

S. Meeks – Contractor TCD, R. Sgroi - TCD, UW = University of Wyoming, TCD = Teton Conservation District

Site	
ocation	*Big Cow Creek H6*
escription of site location	
istory of use: Rangeland	
nd wnership	*Bridger-Teton NF*
anger strict	*Jackson RD*
lotment	*Big Cow Creek*
Site Information	
titude	
ongitude	
atum	*NAD 83*
TM	*0562392*
	4815075
evation	*7845 ft*
ope	
posure	*345°*
nd of se	*Cattle*
eason of se	
	RNF, Site analysis, soil evaluation, Parker 3-Step, Site photos taken on 05

Figure 1: 2011_07_05_BigCowH6_Centered on 5 Foot Mark

BROANO	1			1	1.0	1.8	1.8	1.0				
FRVI	2			2	2.0	3.5			3.5	2.0		
TOTALS	57	0	0	57	57	100.0	21.3	12.1	76.6	43.7	2.3	

VIGOR MEASUREMENTS

SPECIES	TRANSECTS 1	2	3	SUMMARY AVG # HITS	% *

* = % of standard

CURRENT SOIL EROSION	POINTS
1. NONE	45
2. SLIGHT	
3. MODERATE	
4. ADVANCED	
5. SEVERE	

APPARENT TREND

VEG._____

SOIL_____

CLUSTER SUMMARY

(SYMBOL)	TRANSECTS 1	2	3	AVERAGE
BARE SOIL	0			0
EROSION PAVEMENT P	0			0
ROCK R	0			0
LITTER L	41			41
MOSS M	0			0
PLANT COVER INDEX	57			57
TOTAL	100	100	100	
FORAGE COVER INDEX	56			56
DESIRABLE PLANT INDEX	12			12
GROUND COVER INDEX	100			100
OVERSTORY	9			9
UNDERSTORY	3			3

PLANT DISPERION

UNIF._____FAIRLY UNIF._____ VAR._____HIGHLY VAR._____

% DESIRABLE_____21_____

% INTERMEDIATE_____77_____

% LEAST DESIRABLE_____2_____

PELLET GROUPS OR DROPPING COUNT SUMMARY

TRANSECTS				EST FORAGE REMOVAL/AC

CONDITION RATING

COMPOSITION RATING **30**

ASSESSMENT

Ecological Reference Worksheet

Author(s)/participant(s): K. Clause, J. Haverkamp, E. Bainter
Contact for lead author: karen.clause@wy.usda.gov or 307-367-2257 **Reference site used? Yes**

Date: 3-16-07 **MLRA:** 34A **Ecological Site:** R034AY222WY (Ly 10-14W)

This *must* be verified based on soils and climate (see Ecological Site Description). Current plant commun *cannot* be used to identify the ecological site.

Indicators. For each indicator, describe the potential for the site. Where possible, (1) use numbers, (expected range of values for above- and below-average years for **each** community within the reference appropriate & (3) cite data. Continue descriptions on separate sheet.

1. **Number and extent of rills:** Rare to nonexistent. Where present, short and widely spaced

2. **Presence of water flow patterns:** Barely observable.

3. **Number and height of erosional pedestals or terracettes:** Rare to nonexistent.

4. **Bare ground from Ecological Site Description or other studies (rock, litter, lichen, moss, plan bare ground):** Bare ground can range from 10-30%.

5. **Number of gullies and erosion associated with gullies:** Active gullies should not be present.

6. **Extent of wind scoured, blowouts and/or depositional areas:** Rare to nonexistent.

7. **Amount of litter movement (describe size and distance expected to travel):** Herbaceous litter e only in small amounts (to leeward side of shrubs) due to wind. Large woody debris from sagebrush will movement.

8. **Soil surface (top few mm) resistance to erosion (stability values are averages – most sites wil of values for both plant canopy and interspaces, if different):** Soil Stability Index ratings range from to 6 (under plant canopy), but average values should be 3.0 or greater.

ESTATE PLANNING

B. Goals and Objectives.

The Sommers Ranch and Grindstone Cattle Co. Conservation Project objectives include:

1. Maintain economically viable agriculture operation units as working ranches for the future.
2. Maintain or enhance the natural resources located on the operating units to sustain or improve wildlife habitat using the livestock and agricultural operations as a tool.
3. Balancing wildlife habitat needs with the need for economic sustainability of the distinct ranching units.
4. Preserve open space and prevent conversion of upland rangeland to croplands.
5. Work closely with WGFD and NRCS on future sagebrush treatments and manipulations to achieve designs which reflect the most current research/science beneficial to sage grouse habitat.
6. Conserve wildlife migration corridors with minimal impediments. Convert restrictive existing fencing according to wildlife friendly fencing based on recommendations by NRCS and WGFD.
7. Improve woody component of riparian areas through livestock grazing practices.
8. During implementation of site or project specific practices, limit the scope in a manner which allows accomplishment of the goals in a feasible time frame. Implementation of alternatives and practices will be phased in over many years in a conservative manner.

Implementation schedule is subject to available funding opportunities, outside funding sources and labor sources.


MONITORING
ASSESSMENT
ESTATE PLANNING

INITIAL SUGGESTED STOCKING RATES

EVALUATE LAND VALUE

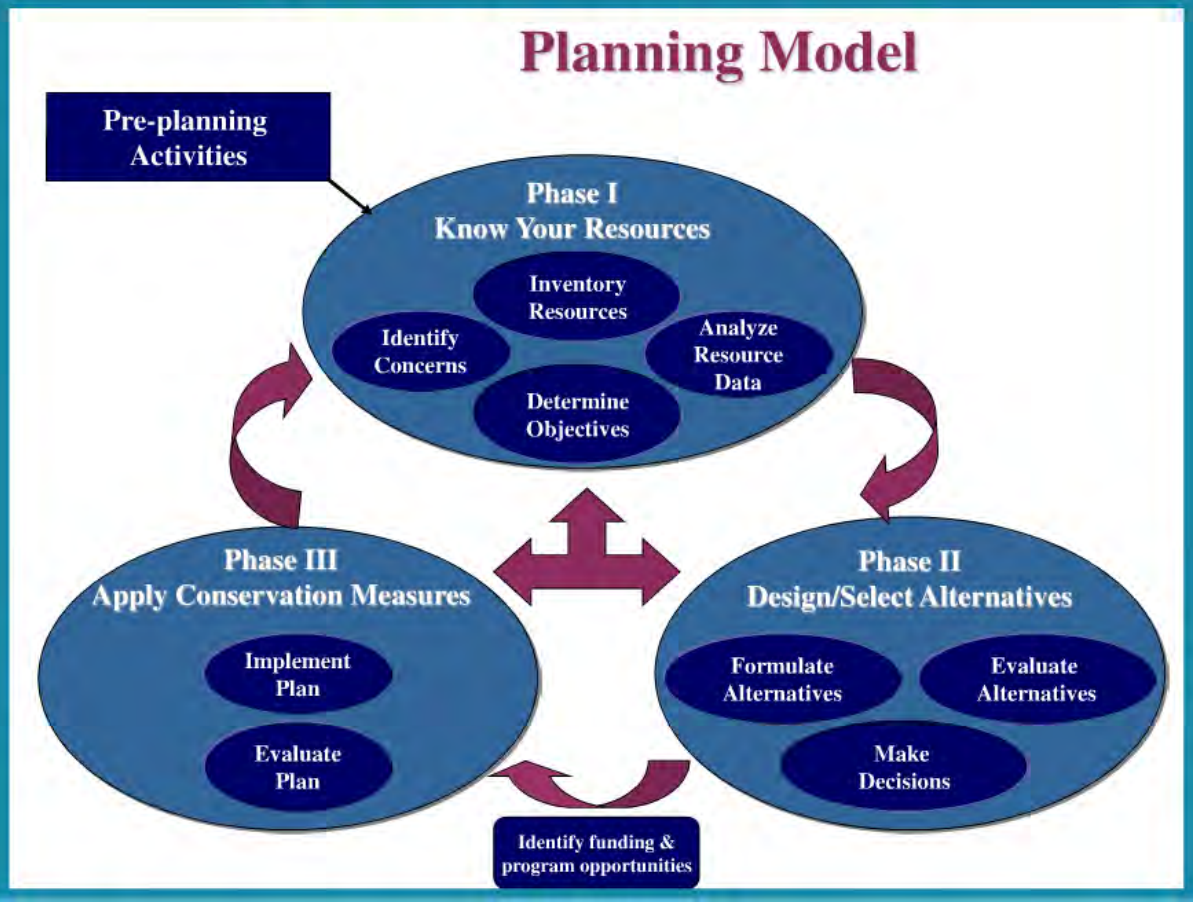
SPECIES DISTRIBUTION

RESOURCE INVENTORY

CONSERVATION PLANNING

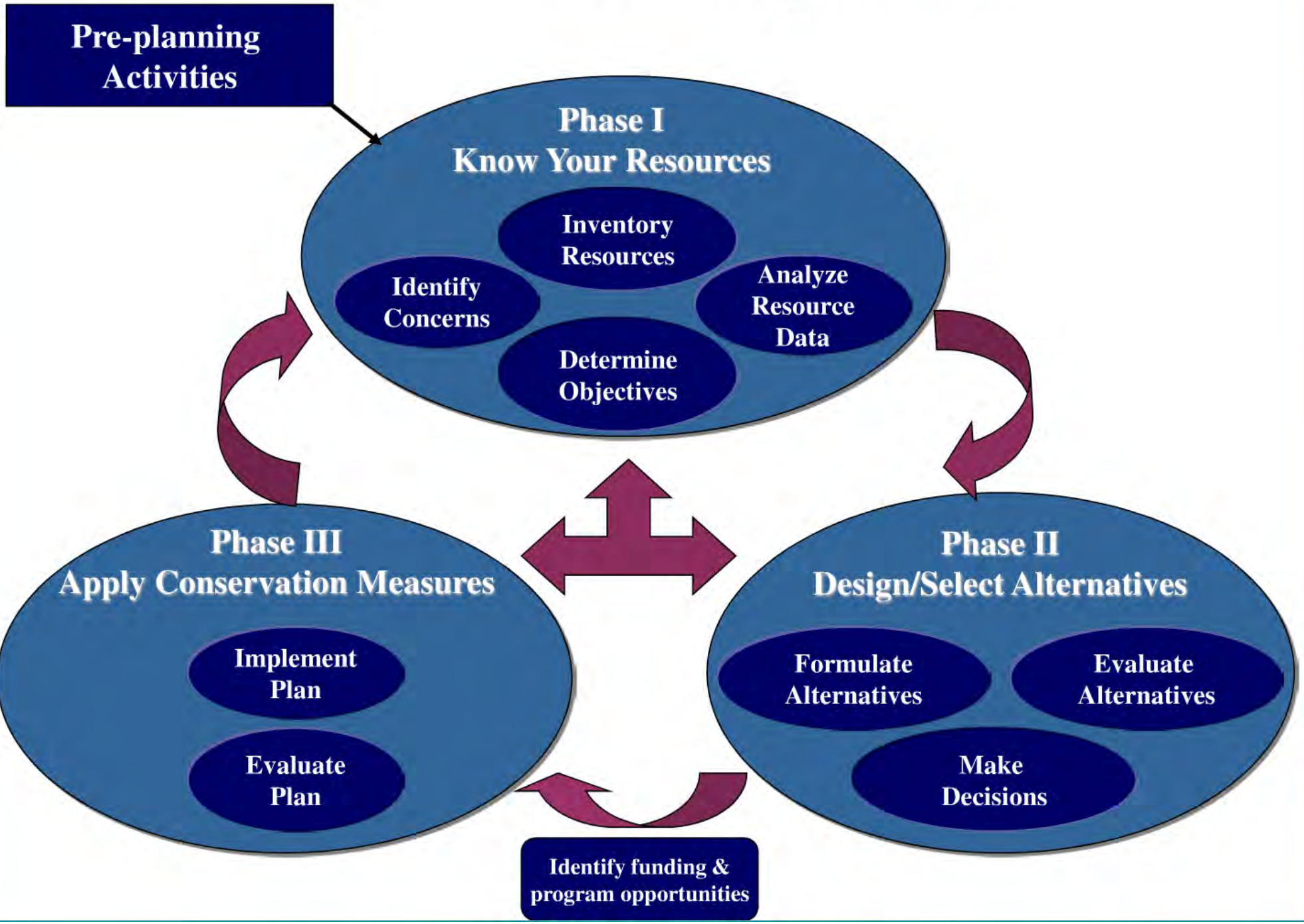
WHAT IS CONSERVATION PLANNING?

9 STEP PROCESS

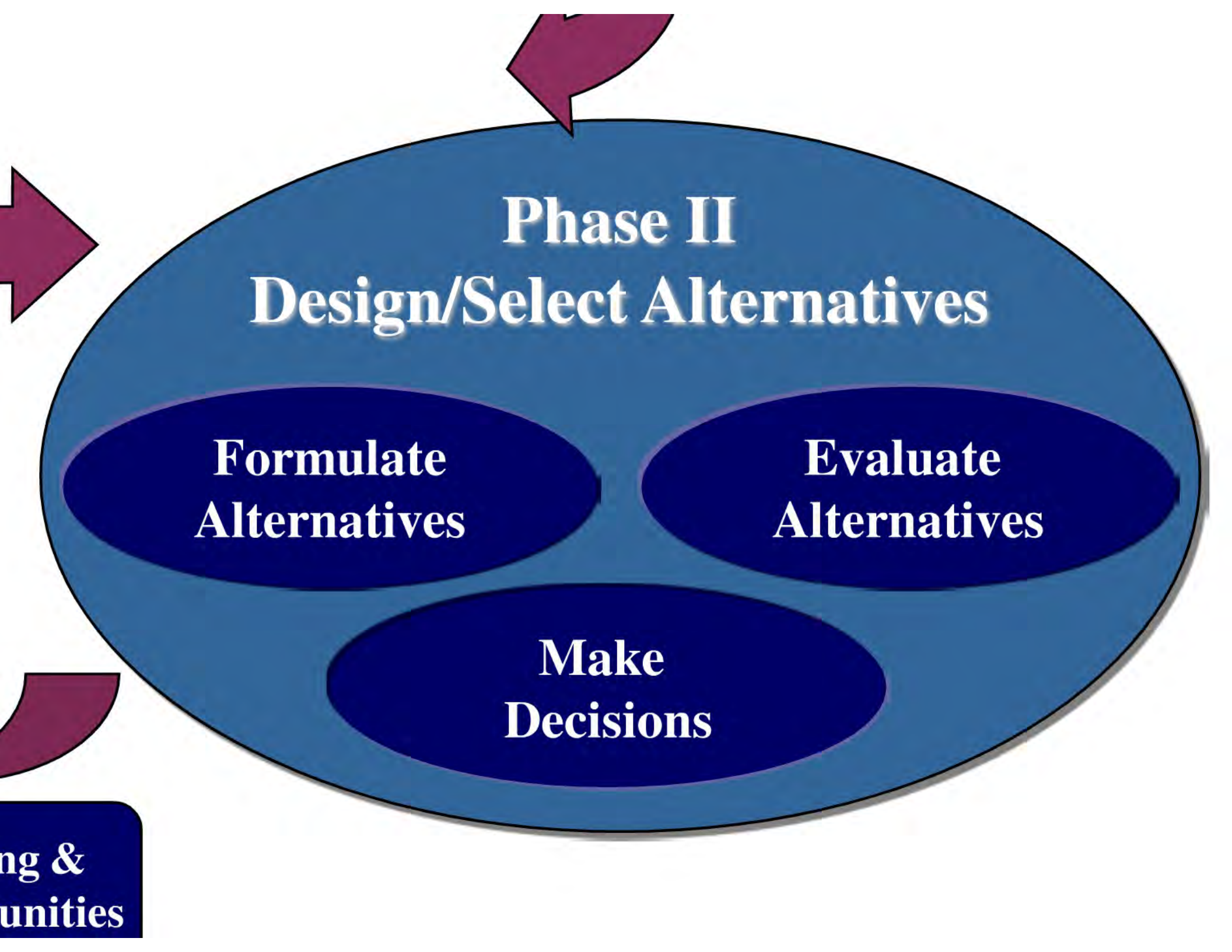


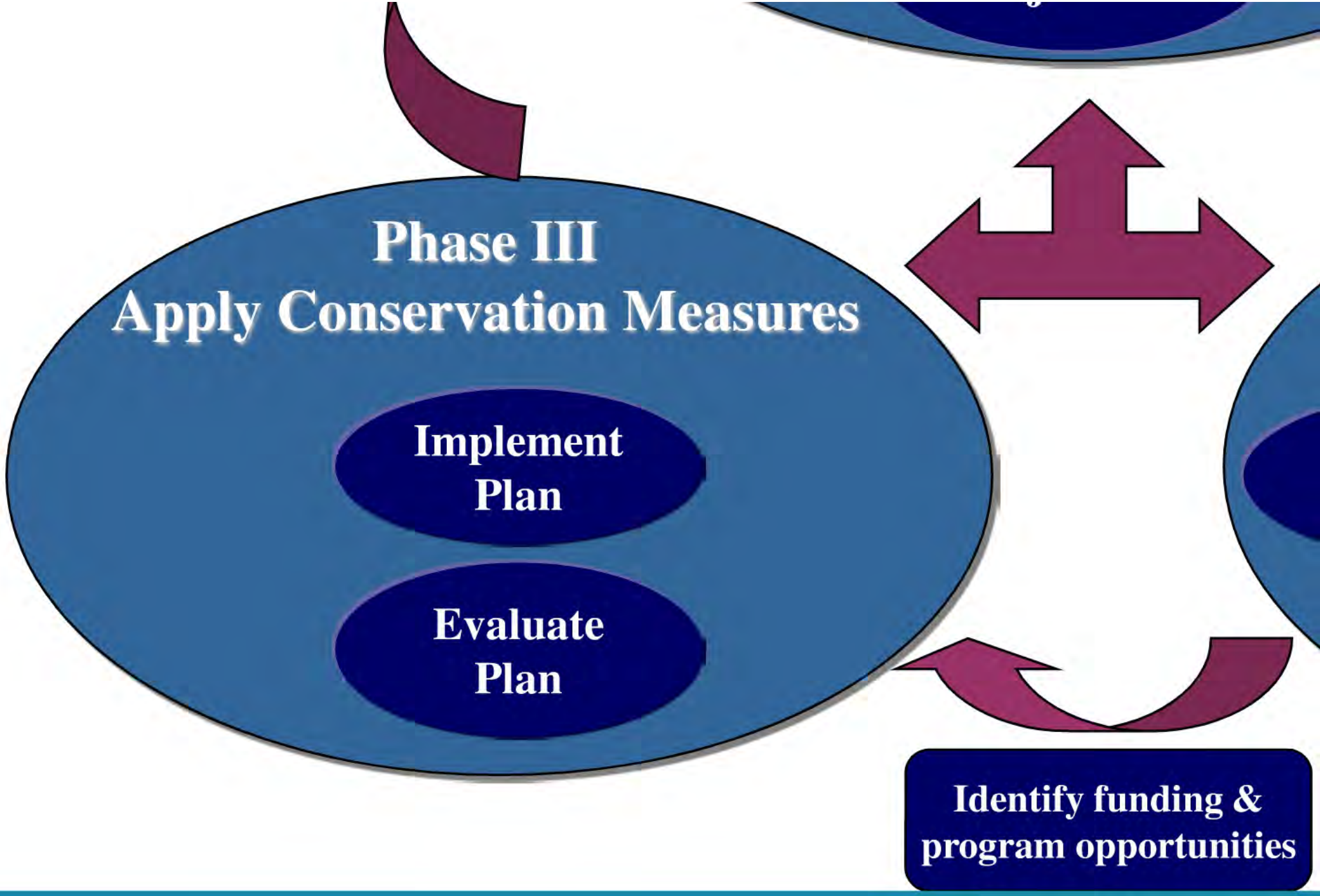

VOLUNTARY

Planning Model

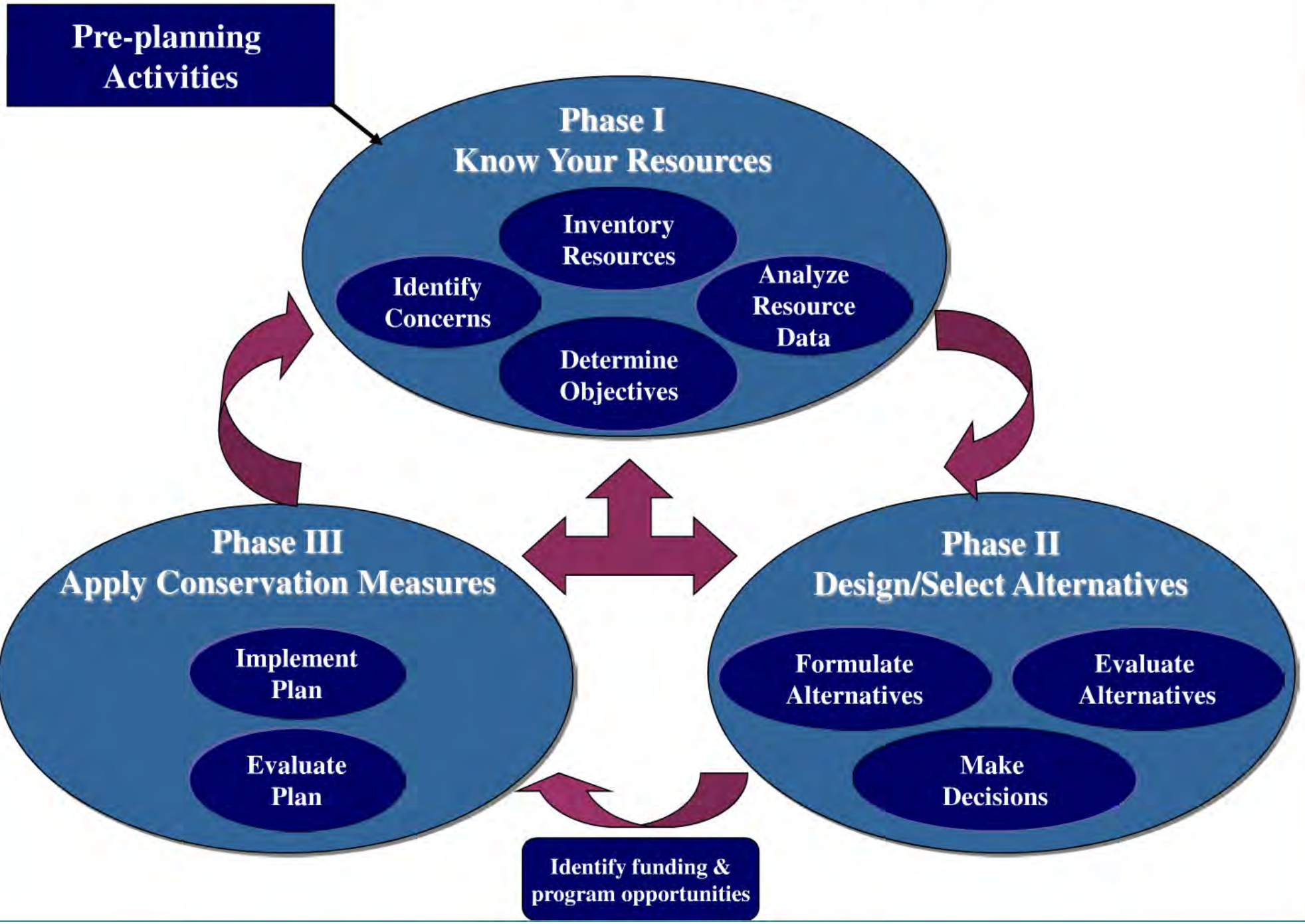



Phase I
Know Your Resources
Inventory Resources
Identify Concerns
Analyze Resource Data
Determine Objectives

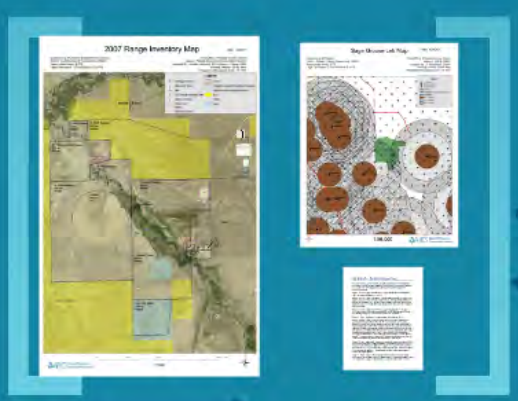

Phase II
Design/Select Alternatives
Formulate Alternatives
Evaluate Alternatives
Make Decisions
ng &
unities


Phase III
Apply Conservation Measures
Implement Plan
Evaluate Plan
Identify funding & program opportunities

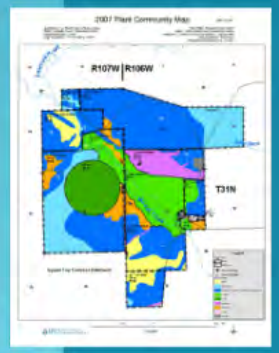
Planning Model



THE MJ RANCH


2007 Range Inventory Map


Planning Alternatives

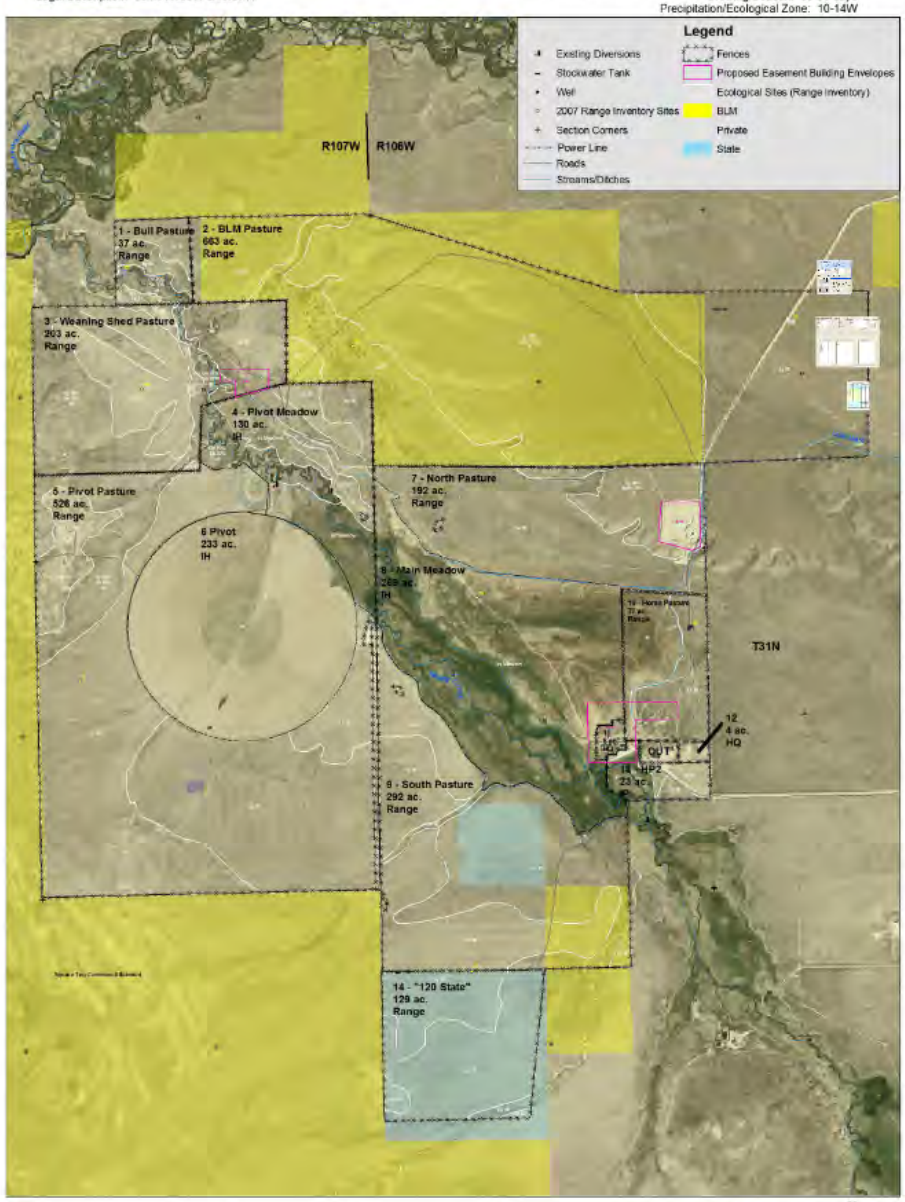

2007 Plant Community Map
R107W
R106W
T31N

2007 Range Inventory Map

Date: 12/26/07

Customer(s): MJ Ranch (Mark & Renee Jones)
District: Sublette County Conservation District
Approximate Acres: 2,778
Legal Description: T31N R106W & R107W

Field Office: Pinedale Service Center
Agency: Natural Resources Conservation Service
Assisted By: Jennifer Hayward, DC & Karen J. Clause, RMS
Growing Season: 60-90 days
Precipitation/Ecological Zone: 10-14W



NRCS Natural Resources Conservation Service

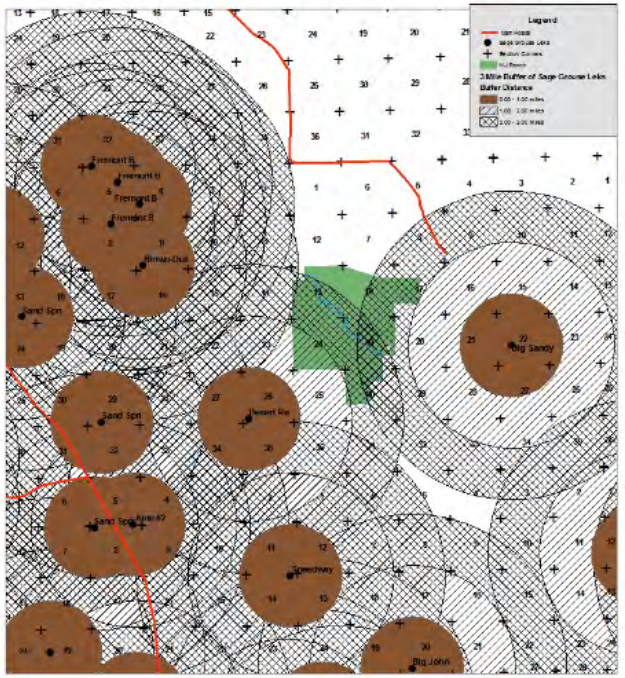
1:7,920

Sage Grouse Lek Map

Date: 12/12/07

Customer(s): MJ Ranch
District: Sublette County Conservation District
Approximate Acres: 2778
Legal Description: T31N R106W & R107W

Field Office: Pinedale Service Center
Agency: USDA, NRCS
Assisted by: J. Hayward/K. Clause
Growing Season: 60-90 days
Precipitation/Ecological Zone: 10-14W



1:96,000

NRCS Natural Resources Conservation Service

MJ Ranch – Pasture Objectives

		spoke w/ Mark on phone – they will be back in touch.
/09	JAH	Received 9021 + sent copy to Bonnie. Got 1200 for fencing application w/ EQIP.
/09	JAH	Called Bonnie. She thinks Jones will withdraw app – do not meet AGI.
3/09	JAH	Called + talked w/ Mark. They do not meet AGI so they are not eligible. Asked if I can email Lisa w/ JIO to let her know + provide VSFWS contract for Lisa to see. Mark said yes. Emailed Lisa w/ information + let all know we can help w/ technical assistance. Marked them ineligible in ProTracts.
4/09	JAH	Called Renee & asked if I could be present w/ SCCD to talk w/ WNRTF bond numbers regarding application. She said yes. Met w/ 2 board members, Brad Bowman + Melanie. Discussed project. They have reservations w/ setting precedence since they contributed to easement. They did show interest in a few of the practices, but not the entire implementation plan – specifically the BM water crossing + riparian fence. They met 6/22 as a board + will let the SCCD know in a letter. It is ranked low + most likely will not get fund

6/22/09

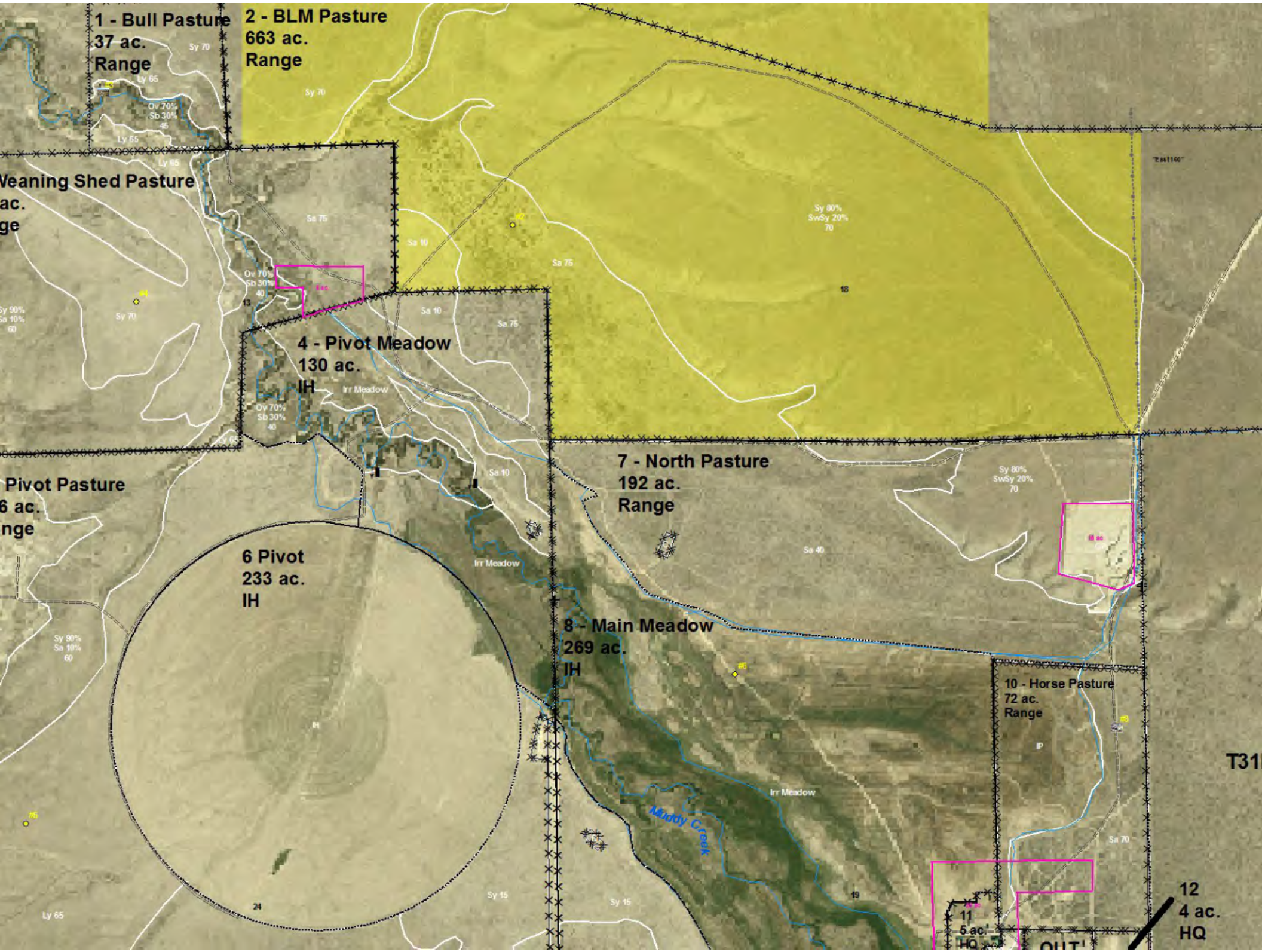
Mark Jones

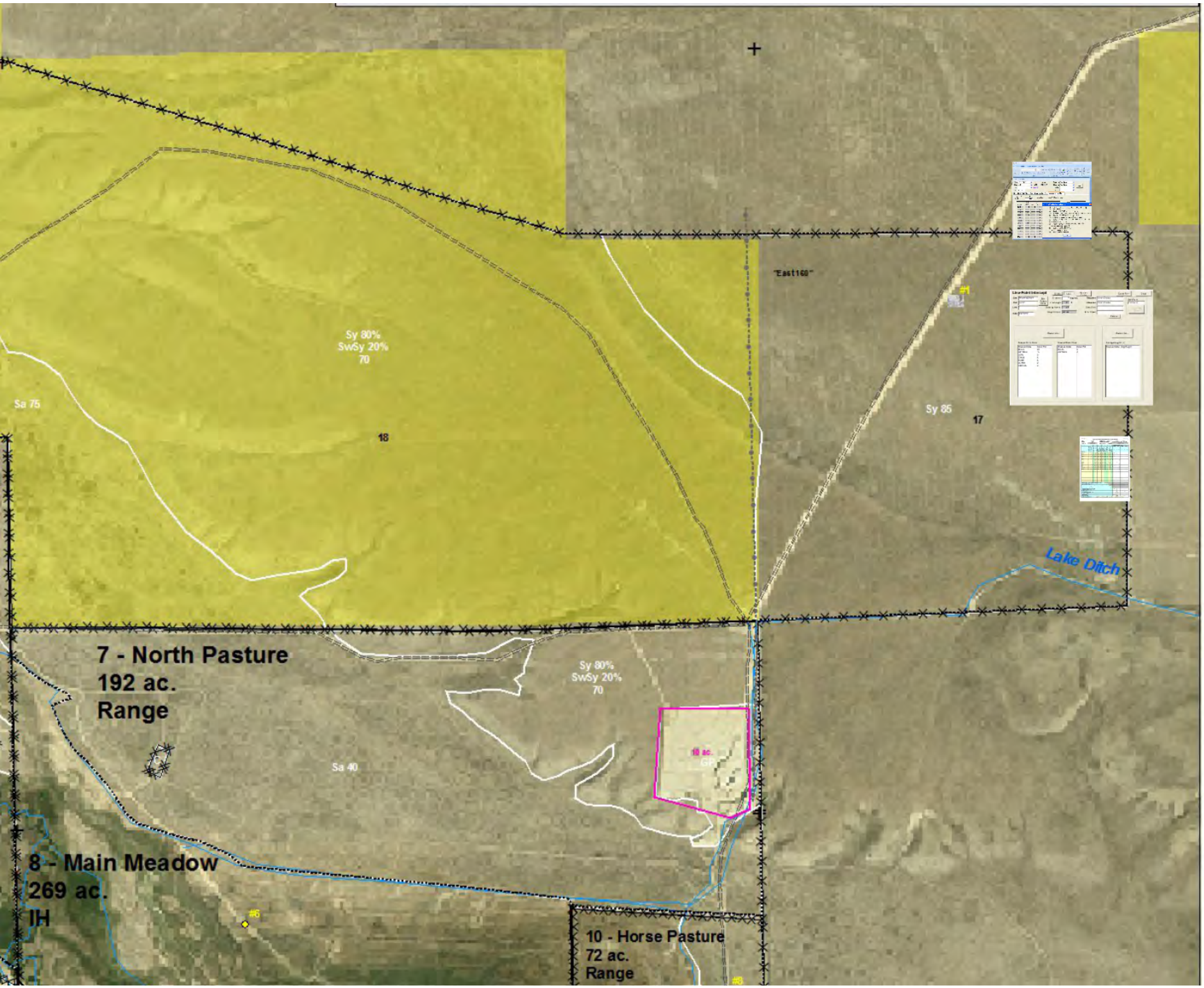
match w/ JIO #

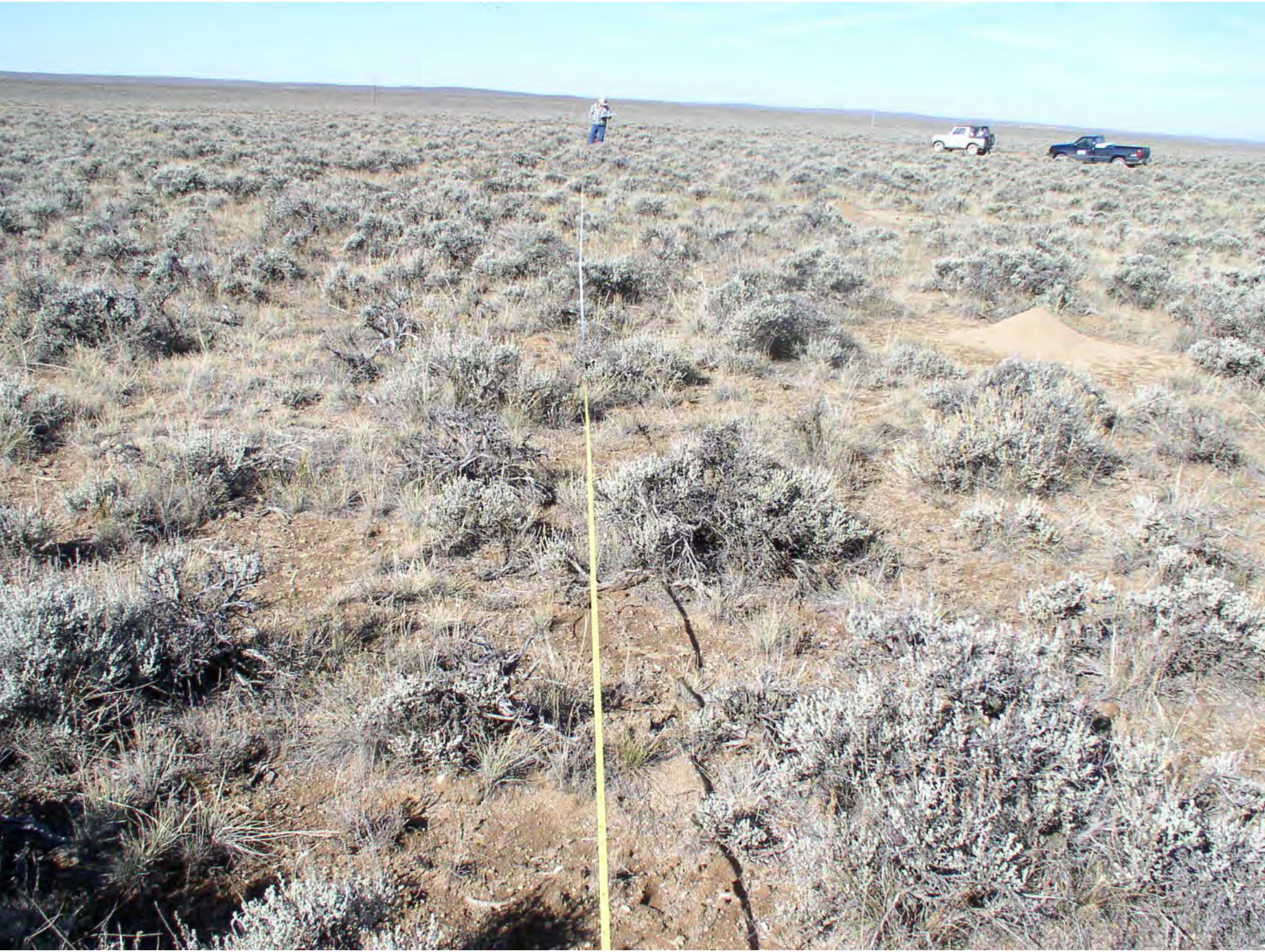
Pasture 5 – 526 acres – Uplands - Manage for riparian values and a DPC with a similarity inc
approximately 80% (currently Site no 5 has an SI of 65). Target some better sagebrush can
bunchgrass and forb diversity. Look at potential of small spreader dikes on intermittent dra
enhance additional "green" period. Fence out irrigated circle for better management of bo
NRCS recommendations for reseeding the "stackyard" area involving Pastures 5 and 8. Pro
from spring source as identified by NRCS. Remove fence for water gap for adjacent BLM al
develop the well on fence-line of pastures 9 and 14). Interseed area on bottom (Basin Big S
Community) to enhance bunchgrass and, if feasible, forbs diversity (Bunchgrass – is Basin W
potential?). Manage for cover and associated diversity. Seeding may potentially be done b
wheeler and potentially feeding livestock a short period of time to "plant" the seed.

Pasture 6 –233 acres - Irrigated circle – Fence out for better control/management as sugge
or look at other fencing options to achieve this objective. Harvest alfalfa from inside to out
un-harvested strips under pivot for wildlife and cover (approx. 10% of area). Best option w
leave a strip after every 10th pass during cutting to maximize the cover aspect. Delay harve
July (nesting period for sage-grouse). ***Damage payments will not be made on an area und***
easement for wildlife mitigation.

Pasture 7 – 192 acres – Uplands - Enhance vegetative diversity (bunchgrasses and forbs) th
interseeding. If water is available, or becomes available (might be a separate project via pi
some of this pasture for alfalfa (as suggested by NRCS) - another potential would be to use


1 - Bull Pasture
37 ac.
Range
2 - BLM Pasture
663 ac.
Range
Weaning Shed Pasture
ac.
ge
4 - Pivot Meadow
130 ac.
IH
Irr Meadow
Pivot Pasture
6 ac.
nge
6 Pivot
233 ac.
IH
7 - North Pasture
192 ac.
Range
8 - Main Meadow
269 ac.
IH
10 - Horse Pasture
72 ac.
Range
Muddy Creek
T31
12
4 ac.
HQ
11
6 ac.
HQ


"East160"
Sy 80%
SwSy 20%
70
Sa 75
18
Sy 85
17
Lake Ditch
7 - North Pasture
192 ac.
Range
Sy 80%
SwSy 20%
70
Sa 40
8 - Main Meadow
269 ac.
IH
10 - Horse Pasture
72 ac.
Range



ne-Point Intercept

Unlock | Lock | Help on Codes | Delete Form

e: R034AY250WY | Edit Species/Plot

t: jon001

e: 1

te: 9/27/2007

Direction: 0 degrees

Line Length: 150 ft

Spacing Interval: 3 ft

Height Option: ad hoc

Recorder: Karen Clause

Observer: Karen Clause

Data Entry:

Error Check:

People...

Star

firs

Recalc now...

Recalc now...

Species Foliar Cover

Species Code	Cover Pct
ELLAL	24
ARTRW8	16
LEPU	8
CHVI8	6
POSE	6
ALYSS	2
HECO26	2

Species Basal Cover

Species Code	Cover Pct
ELLAL	6
ARTRW8	4

Average Heights (in)

Species Code	Avg Height

te: R034AY250WY

ot: jon001

ne: 1

te: 9/27/2007

Edit Species /Plot (optional)

Line Length: 150 ft

Recorder: Karen Clause

Observer: Karen Clause

Data Entry:

Error Check:

People...

stablish Sub-Plots | Enter Data by Sub-Plot | Computations/Notes

Calc Details

Total Production (lb/ac): 941.46

Audit Data

Report % of Total, by Species...

Notes

Species	Total Wt or Wt Units	Clipped Est Wt	Clipped Clip Wt
ELCI2	0	0	0
ELELE	2	0	0
ELLAL	10.5	0	0
ERIGE2	1	0	0
ERIOG	0	0	0
HECO26	3	0	0
LEPU	3.75	0	0
PENST	5	0	0
PHHO	7.5	0	0
POCA	0	0	0

% of Total Production, by Species

15% - ACHY (Achnatherum hymenoides (Roem. & Schult.) Barkwort
1% - ALYSS (Alyssum L.)
1% - ANTEN (Antennaria Gaertn.)
0% - ARTRT (Artemisia tridentata Nutt. ssp. tridentata)
12% - ARTRW8 (Artemisia tridentata Nutt. ssp. wyomingensis Beetl
6% - CHVI8 (Chrysothamnus viscidiflorus (Hook.) Nutt.)
0% - ELCI2 (Elymus cinereus Scribn. & Merr.)
3% - ELELE (Elymus elymoides (Raf.) Swezey ssp. elymoides)
16% - ELLAL (Elymus lanceolatus (Scribn. & J.G. Sm.) Gould ssp. lan
1% - ERIGE2 (Erigeron L.)
0% - ERIOG (Eriogonum Michx.)
16% - HECO26 (Hesperostipa comata (Trin. & Rupr.) Barkworth)
6% - LEPU (Leptodactylon pungens (Torr.) Torr. ex Nutt.)
1% - PENST (Penstemon Schmidel)
2% - PHHO (Phlox hoodii Richardson)
0% - POCA (Poa canbyi (Scribn.) Howell)
3% - POSE (Poa secunda J. Presl)
18% - STLE4 (Stipa lettermanii Vasey)

USDA-NRCS

WY-ECS-1B

Worksheet for Determining Similarity Index and Stocking Rate

Client: MJ Ranch **Ecological Site:** Sandy 10-14W **Date:** 9/27/2007

Location: Jon001 **Reference Plant Community:** needleandthread-Indian ricegrass/Wy big sage

Pasture No.: 2 (BLM Pasture) **Acres:** 663 **Completed by:** K. Clause, M. Jones

A				B	C	D	E	F	G	H	I	J	Potential consumed (H x HE)					
													Animal:	Beef		Animal:	Sheep	
Plant Name	Preference Rating	Preference Rating	Percent Comp.	Green Wt. Lbs.	% Dry Weight	% Current Growth Ungrazed	% Growth Curve Completed	% of Normal Production	Reconstruction Factor C/(D)(E)(F)	Reconstructed Present Weight	Pounds in Reference State	Pounds Allowable	P	D	UD	P	D	UD
ACHY	P		15%	154	90%	100%	100%	100%	0.90	138	240	138	35					
ELLAL	D		16%	164	90%	100%	100%	100%	0.90	148	120	120		37				
HECO26	P		16%	164	90%	100%	100%	100%	0.90	148	360	148	37					
ACLE9	P		18%	185	90%	100%	100%	100%	0.90	166	60	60	42					
POSE	D		3%	31	90%	100%	100%	100%	0.90	28	60	28		7				
ELELE	P		3%	31	90%	100%	100%	100%	0.90	28	60	28	7					
ALYSS	UD		1%	10	90%	100%	100%	100%	0.90	9	0	0			0			
ANTEN	UD		1%	10	90%	100%	100%	100%	0.90	9	60	9			0			
ERIGE2	D		1%	10	90%	100%	100%	100%	0.90	9	60	9		2				
ERUM	UD		1%	10	90%	100%	100%	100%	0.90	9	60	9			0			
LEPU	UD		6%	62	90%	100%	100%	100%	0.90	55	60	55			0			
PENST	P		1%	10	90%	100%	100%	100%	0.90	9	60	9	2					
PHHO	UD		2%	21	90%	100%	100%	100%	0.90	18	60	18			0			
ARTRW8	UD		12%	123	90%	100%	100%	100%	0.90	111	180	111			0			
CHVI8	UD		6%	62	90%	100%	100%	100%	0.90	55	60	55			0			

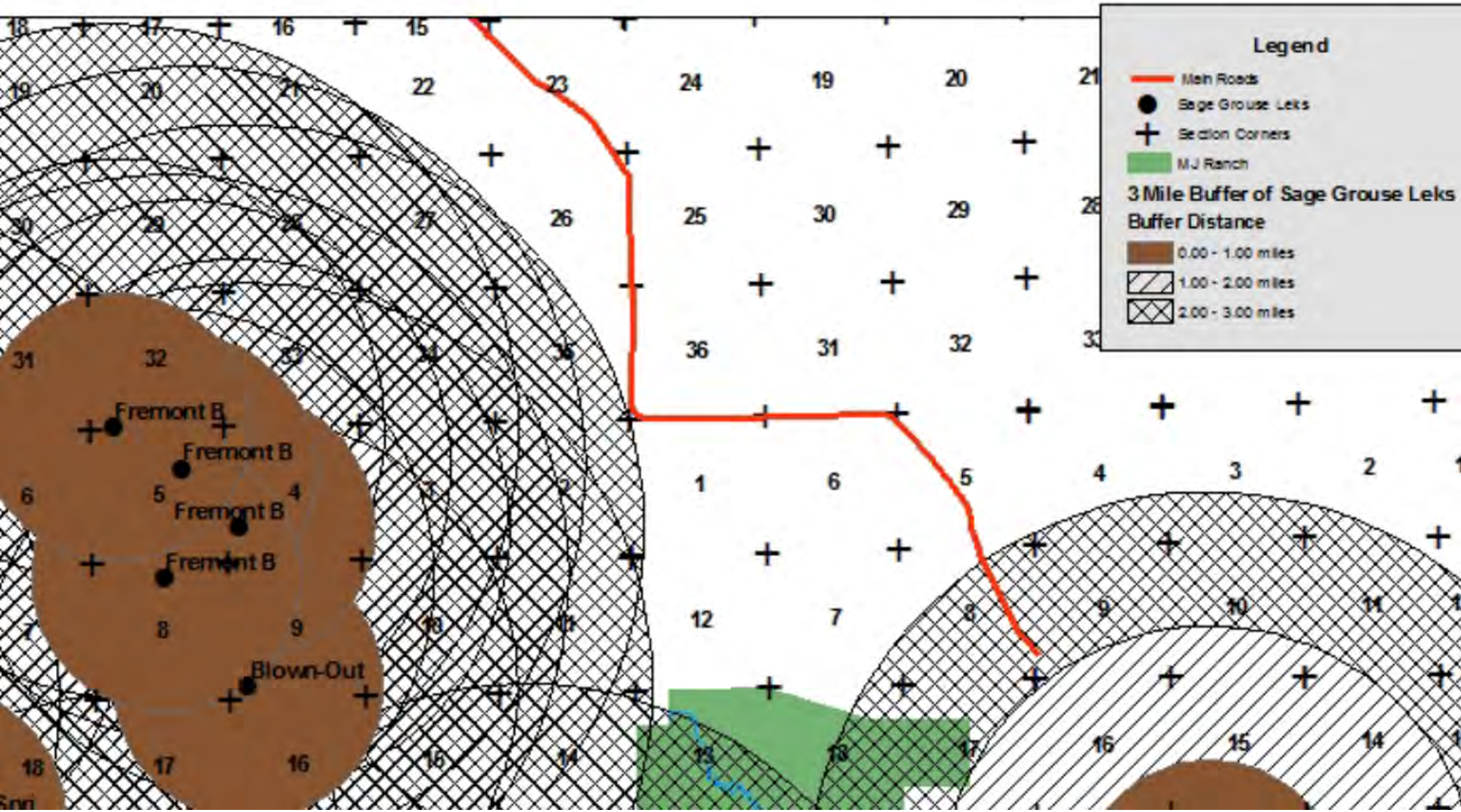
Total clipped green weight in pounds/acre (average of 3-5 plots):									1025							
Total Reconstructed Weight - Lbs/Ac										941						
K. Total normal annual production in reference state (from ecological site description).											1200					
L. Total pounds of allowable present (total of pounds in column J).												798				
M. Similarity index (L divided by K x 100 = M).												67%				
Total forage available by preference rating:													122	46		
Total forage available (Sum of P, D, UD):													168			
Pounds per AUM:													912			
AUM/ac (total forage available / 912):													0.18			
Ac/AUM (1 / AUM/ac):													5.42			
% by Preference:													72.6%	27.4%		
Forage Value Rating:													Very high			
Harvest efficiency factors (HE):	P =	0.25	D =	0.25	UD =	0.00	P =	0.25	D =	0.20	UD					

Sage Grouse Lek Map

Date: 12/12/07

r(s): MJ Ranch
Sublette County Conservation District
nate Acres: 2778
scription: T31N R106W & R107W

Field Office: Pinedale Service Center
Agency: USDA, NRCS
Assisted by: J. Hayward/K. Clause
Growing Season: 60-90 days
Precipitation/Ecological Zone: 10-14W

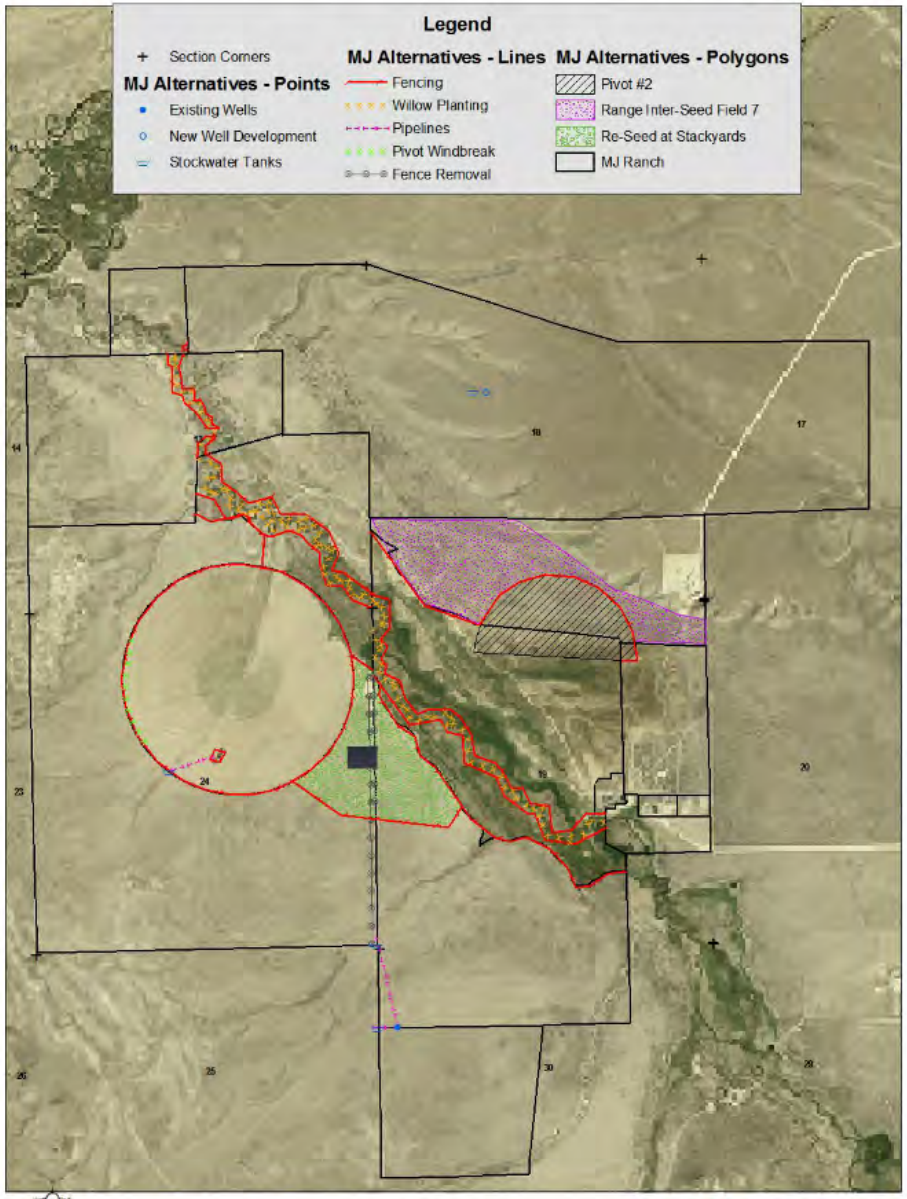


Planning Alternatives

Date: 12/19/07

Customer(s): MJ Ranch
District: Sublette County Conservation District
Approximate Acres: 2778
Legal Description: T31N R106W & R107W

Field Office: Pinedale Service Center
Agency: USDA, NRCS
Assisted by: J. Hayward/K. Clause
Growing Season: 60-90 days
Precipitation/Ecological Zone: 10-14W



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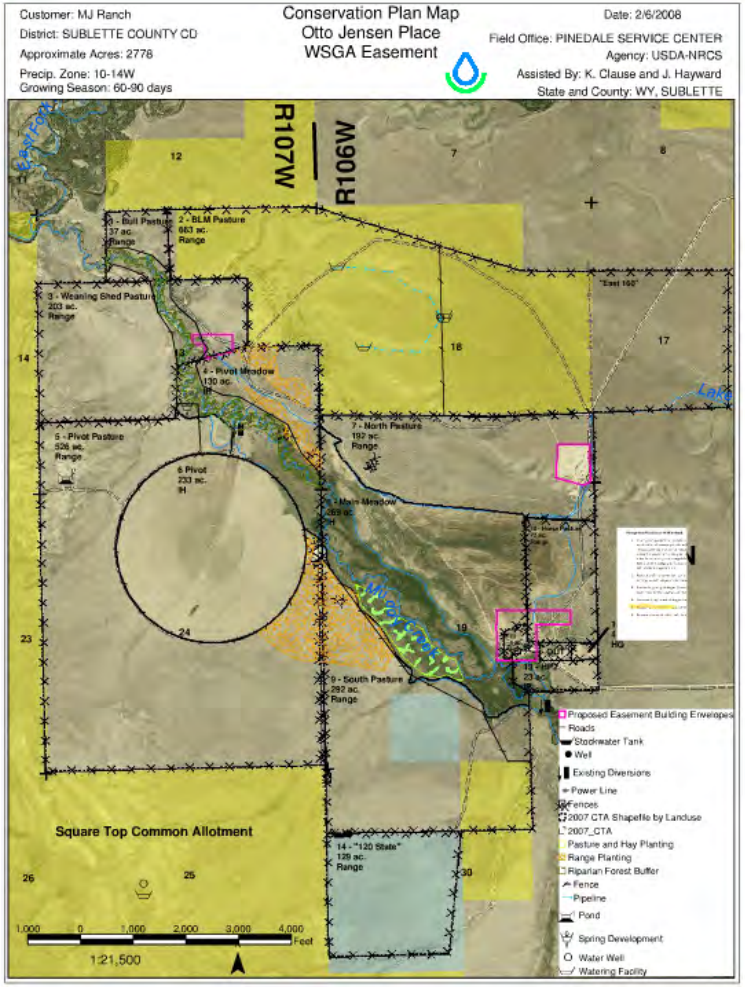
NRCS Natural Resources Conservation Service



Planning Alternatives

Date: 12/19/07

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strict: Sublette County Conservation District
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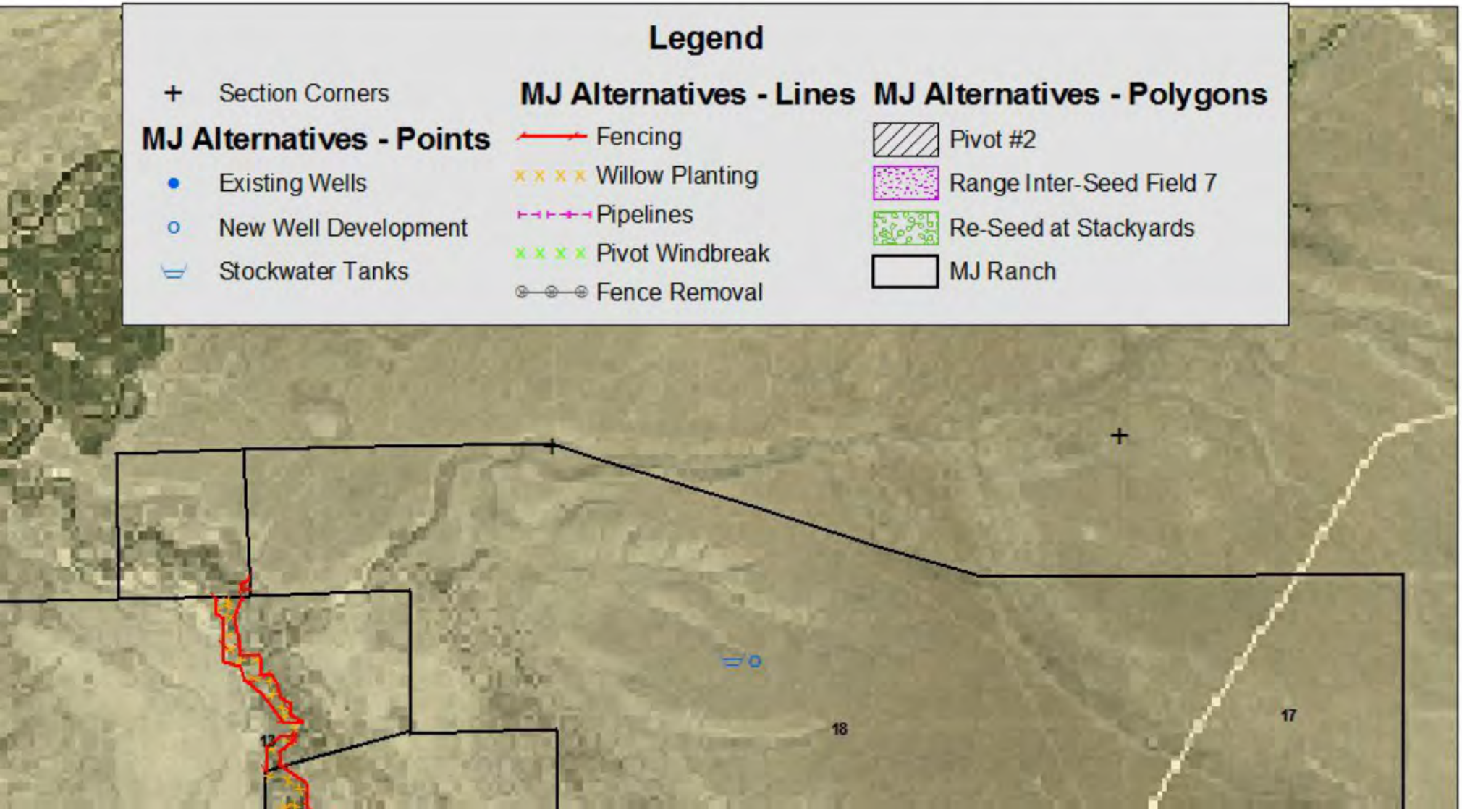


Approximate Costs for Practices Identified by NRCS:

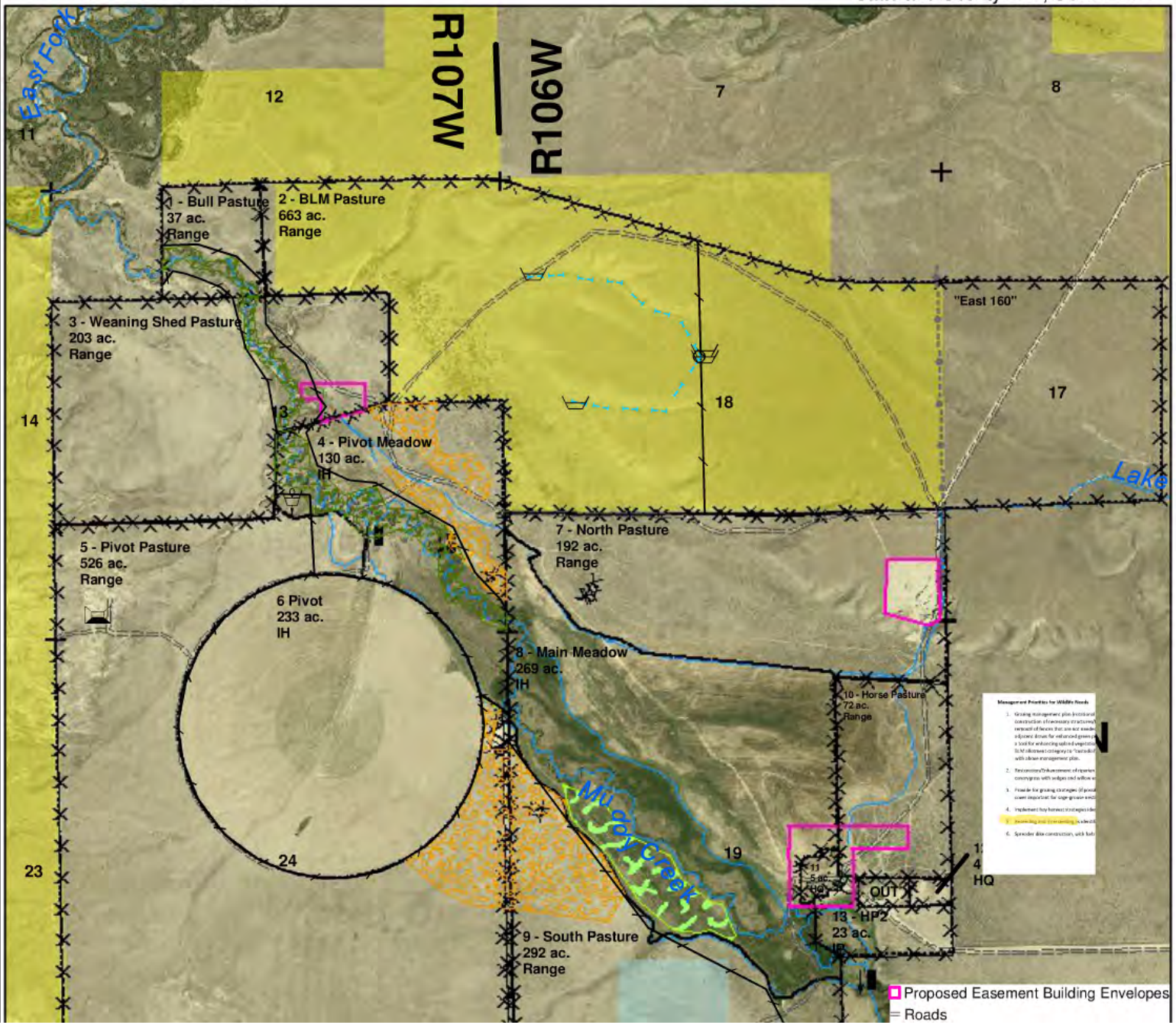
1. Fencing on Landuse Boundaries – 25,406 ft. - **$63,515** (permanent fence)
2. Fencing riparian area – 23,690 ft. - **$59,225** (permanent fence)
3. Remove Water Gap Fence – 4300 ft. - **$2150**
4. Provide water gap on west side of BLM pasture - **$1275**
5. Purchase/Use Temporary Electric Fence to cross-fence BLM pasture - $700
6. Develop seismic well under pivot - **$4568**
7. Install a pipeline and tank on existing well - **$6244**
8. Install well and tank in BLM pasture - **$10,400**
9. Reseed areas surrounding hay stackyards - **$11695**
10. Inter-seed grasses/forbs into field 7 - **$4806**
11. Plant willows along riparian area - **$22,444**
12. Plant windbreaks (shrub belt) along west side of pivot (include fencing) - **$27995**
13. Install additional sprinkler irrigation on Fields 7 and 8 - **$58,000**
14. Leave 20 acres unharvested under pivot - **$4800**

TOTAL OF ABOVE PRACTICES - $277817

Customer: MJ Ranch
District: SUBLETTE COUNTY CD
Approximate Acres: 2778
Precip. Zone: 10-14W
Growing Season: 60-90 days

Conservation Plan Map
Otto Jensen Place
WSGA Easement

Date: 2/6/2008
Field Office: PINEDALE SERVICE CENTER
Agency: USDA-NRCS
Assisted By: K. Clause and J. Hayward
State and County: WY, SUBLETTE



Management Priorities for Wildlife Needs

1. Grazing management plan (rotational
   construction of necessary structures/f
   removal of fences that are not needed
   adjacent draws for enhanced green pe
   a tool for enhancing upland vegetatio
   BLM allotment category to "custodial"
   with above management plan.

2. Restoration/Enhancement of riparian
   canarygrass with sedges and willow es

3. Provide for grazing strategies (if possi
   cover important for sage-grouse nesti

4. Implement hay harvest strategies ider

5. Reseeding and Interseeding as identif

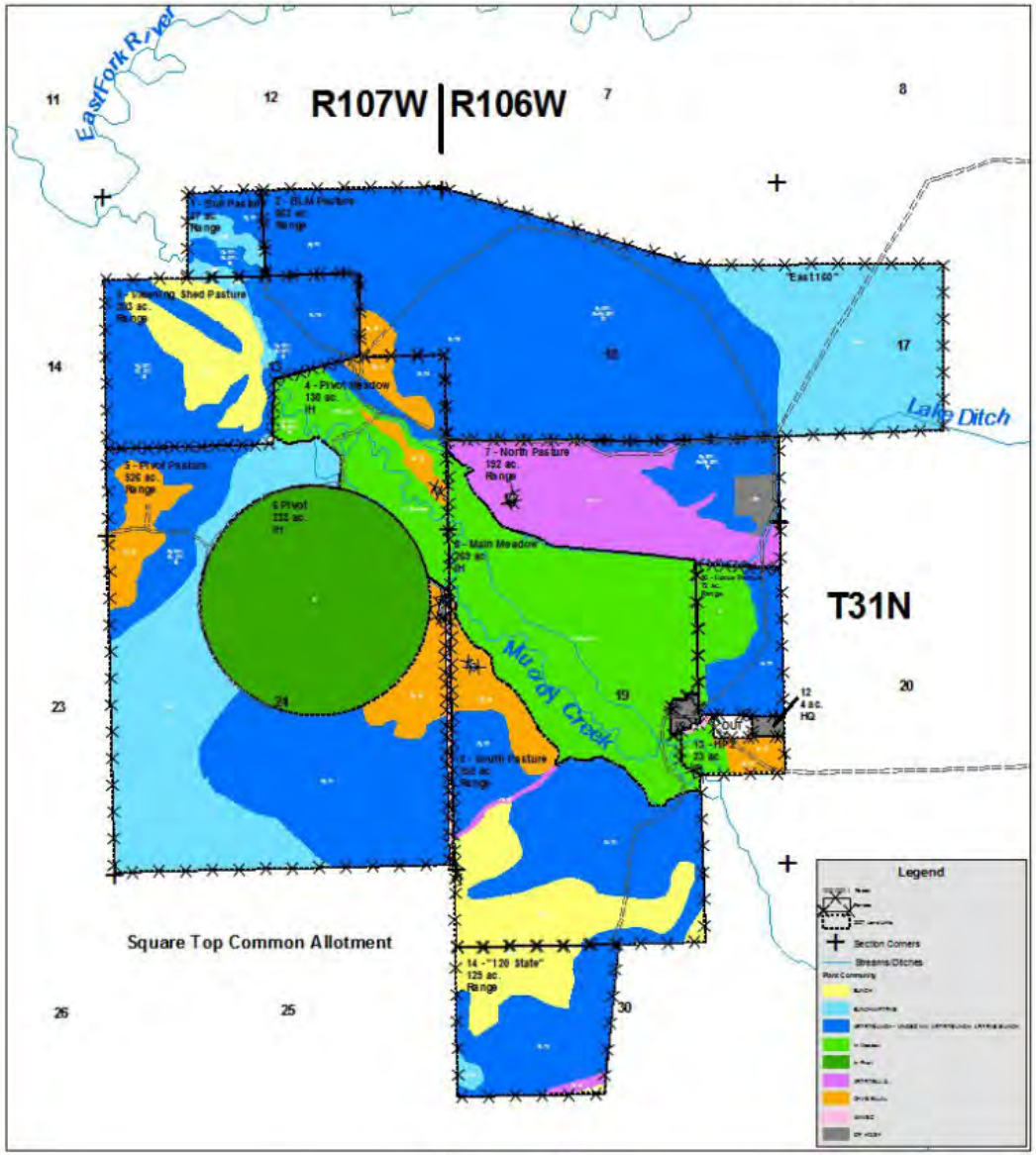
6. Spreader dike construction, with forb

2007 Plant Community Map

Date: 2/14/08

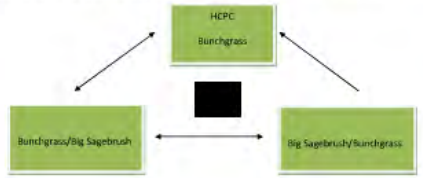
Customer(s): MJ Ranch (Mark & Renee Jones)
District: Sublette County Conservation District
Approximate Acres: 2,778
Legal Description: T31N R106W & R107W

Field Office: Pinedale Service Center
Agency: Natural Resources Conservation Service
Assisted By: Jennifer Hayward, DC & Karen J. Clause, RMS
Growing Season: 60-90 days
Precipitation/Ecological Zone: 10-14W



MJ Ranch – Vegetation Objectives on Upland Sites*

The following objectives are based on the State & Transition Models for Ecological Site Descriptions containing big sagebrush (Wyoming and Basin) for the "10-14" Foothills and Basins West" EcologicalZone. The diagram below is a simplified example of what this model looks like with the 3 historic plant community phases. Other plant communities are mentioned below (starting with number 4) and represent less desirable states associated with this model.



Transition Model	Current percentage of uplands	Objective of Plan
Bunchgrass/Big Sagebrush	17%	15-30%
Big Sagebrush/Bunchgrass**	52%	30-60%
Bunchgrass***	11%	10-25%
Rabbitbrush/Rhizomatous Wheatgrass	11%	<10%
Big Sagebrush/Rhizomatous Wheatgrass	7%	<10%
Annuals/Bare Ground	<1%	<1%

Additional objectives:

- >8 herbaceous species
- >50% ground cover
  - Measured in spring with >50% of average ppt.

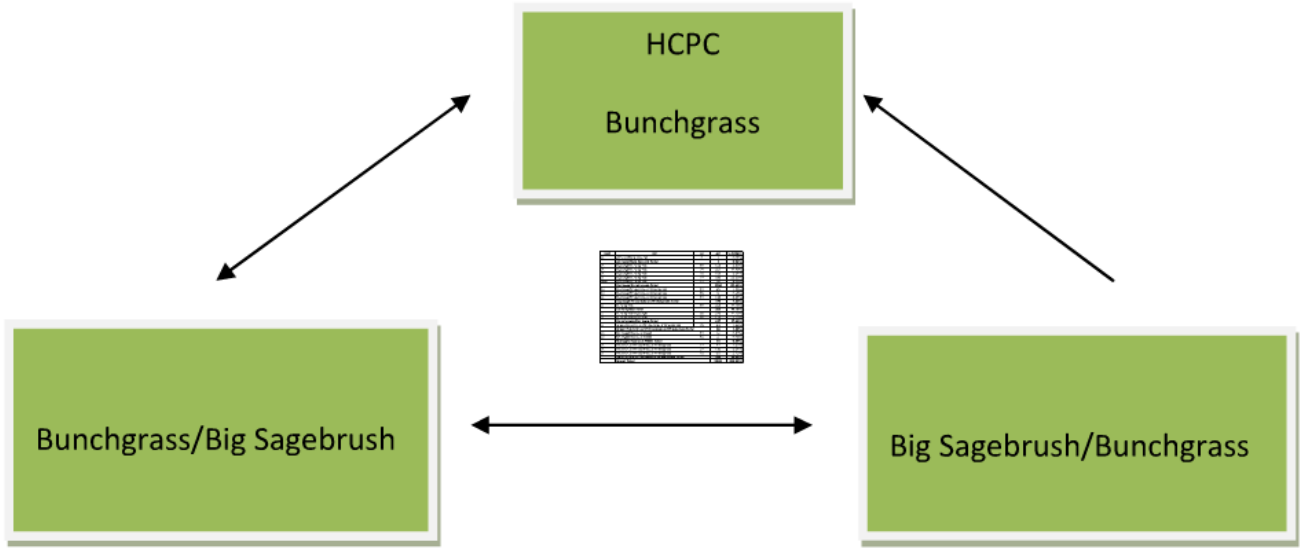
*Upland sites = does not include riparian communities; but does both Wyoming and Basin Big Sagebrush communities.

**This "transition state" represents the state most important from the sage-grouse nesting aspect (and to some extent early brood-rearing)

***This "transitions state" represents treatment sites that have not yet experienced significant sagebrush re-establishment (0-30% sage canopy).

ESD	PC	SI	AC	% COMP
Sa	Annuals/Bare Ground	0	1	0.04%
	Annuals/Bare Ground Total		**1**	**0.04%**
Sa	Big Sage/Bunchgrass	60	128	5.35%
Sa	Big Sage/Bunchgrass	70	251	10.49%
Sa	Big Sage/Bunchgrass	75	159	6.64%
Sy	Big Sage/Bunchgrass	70	638	26.66%
SwSy	Big Sage/Bunchgrass	70	78	3.26%
	Big Sage/Bunchgrass Total		**1254**	**52.40%**
Ov	Big Sage/Rhizomatous Wheatgrass	40	35	1.46%
Ov	Big Sage/Rhizomatous Wheatgrass	45	6	0.25%
Sa	Big Sage/Rhizomatous Wheatgrass	40	135	5.64%
	Big Sage/Rhizomatous Wheatgrass Total		**176**	**7.35%**
Sy	Bunchgrass	60	258	10.78%
	Bunchgrass Total		**258**	**10.78%**
Ly	Bunchgrass/Big Sage	65	243	10.15%
Sy	Bunchgrass/Big Sage	85	174	7.27%
	Bunchgrass/Big Sage Total		**417**	**17.43%**
Cy	Green Rabbitbrush/Rhizomatous Wheatgrass	15	33	1.38%
	Green Rabbitbrush/Rhizomatous Wheatgrass Total		**33**	**1.38%**
Sb	Managed Noxious Weed	40	12	0.50%
Sb	Managed Noxious Weed	45	2	0.08%
	Managed Noxious Weed Total		**14**	**0.59%**
Sa	Rabbitbrush/Rhizomatous Wheatgrass	10	40	1.67%
Sa	Rabbitbrush/Rhizomatous Wheatgrass	20	135	5.64%
Sy	Rabbitbrush/Rhizomatous Wheatgrass	15	65	2.72%
	Rabbitbrush/Rhizomatous Wheatgrass Total		**240**	**10.03%**
	Grand Total		**2393**	**100.00%**

containing big sagebrush (Wyoming and Basin) for the "10-14" Foothills and Basins West EcologicalZone. The diagram below is a simplified example of what this model looks like with the 3 historic plant community phases. Other plant communities are mentioned below (starting with number 4) and represent less desirable states associated with this model.



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HOW ESDs ARE USED BY THE NRCS

Jennifer A. Hayward, District Conservationist
Karen J. Clause, Rangeland Management Specialist
December 11, 2012 SRM Casper, WY

GOALS

EXAMPLES

WHAT IS CONSERVATION PLANNING?

9 STEP PROCESS

THE MJ RANCH