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Administration

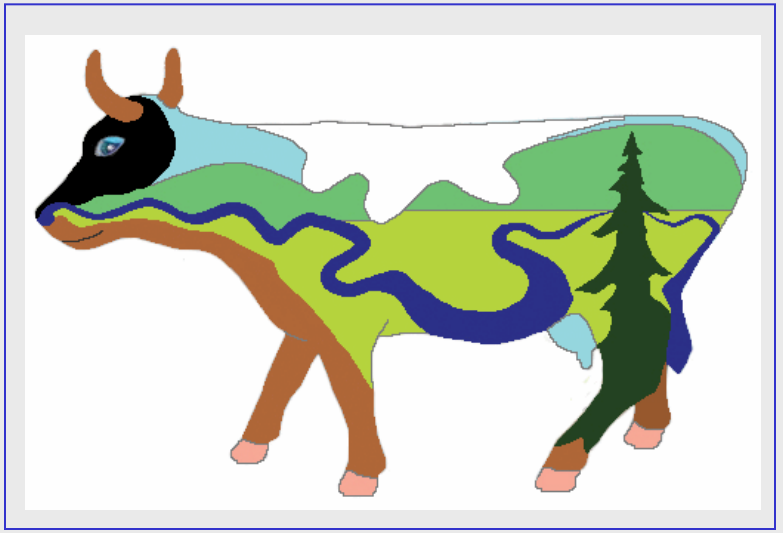
Standards of Rangeland Health

Management and Projects

Monitoring and Supervision

Drought

Laws



Regulations

Manuals Policy and Guidance

Permitting

Billing

Management & Range Improvements

Range Supervision

Monitoring

Case Files and Record Keeping

Administration

18,000,000

2,829

670

42

Laws – a few germane examples

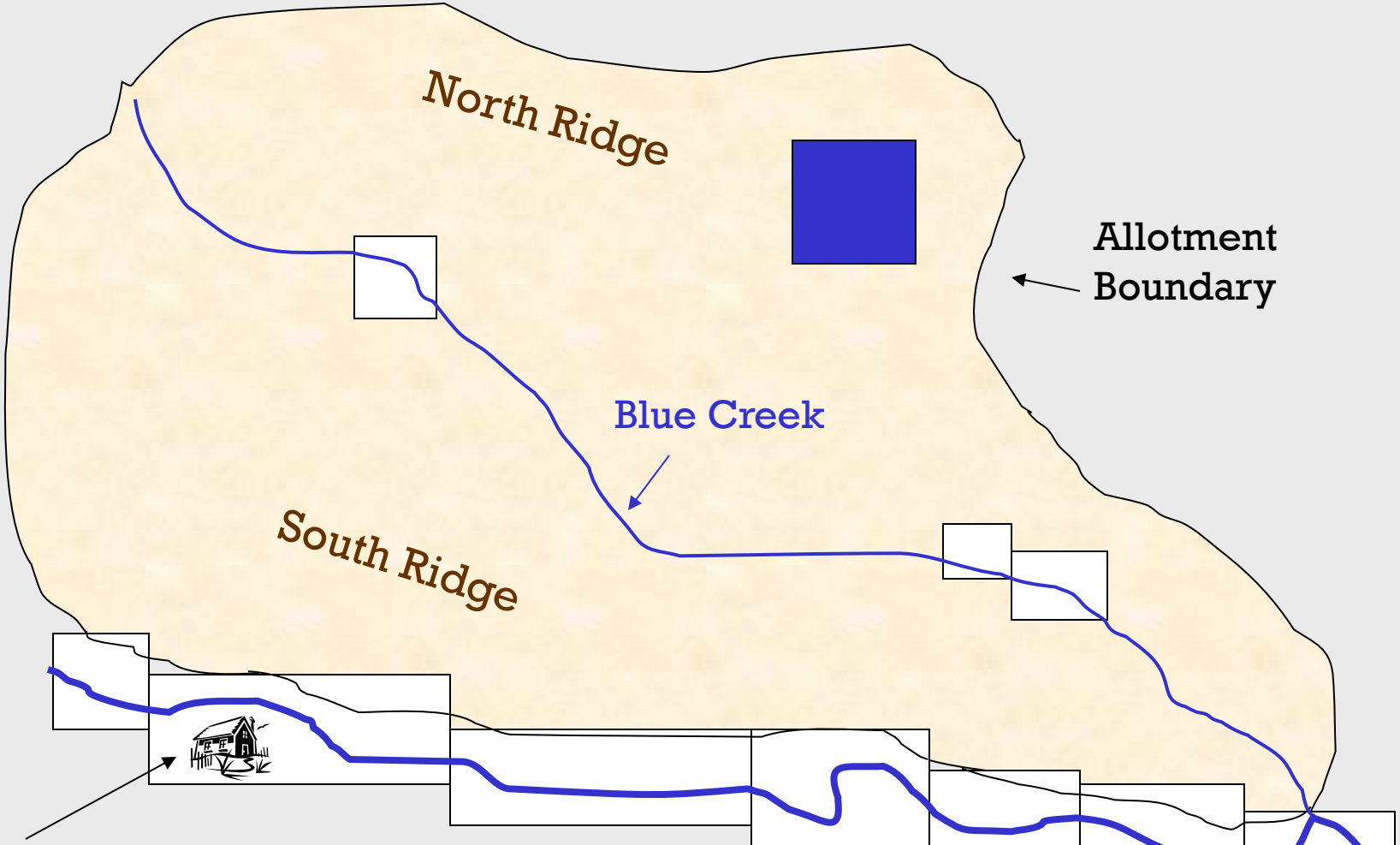
- **Public Rangelands Improvement Act**
  Set the grazing fee formula

- **Federal Policy and Management Act**
  Land use planning requirement

- **National Environmental Policy Act**
  The analysis machine

- **Threatened and Endangered Species Act**
- **National Historic Preservation Act**
  Require interdisciplinary support

Taylor Grazing Act



Regulation Subparts

4100 – General

Mostly Definitions

4110 – Qualifications and Preference

Who gets to use the Federal Lands?

Transfer of Preference

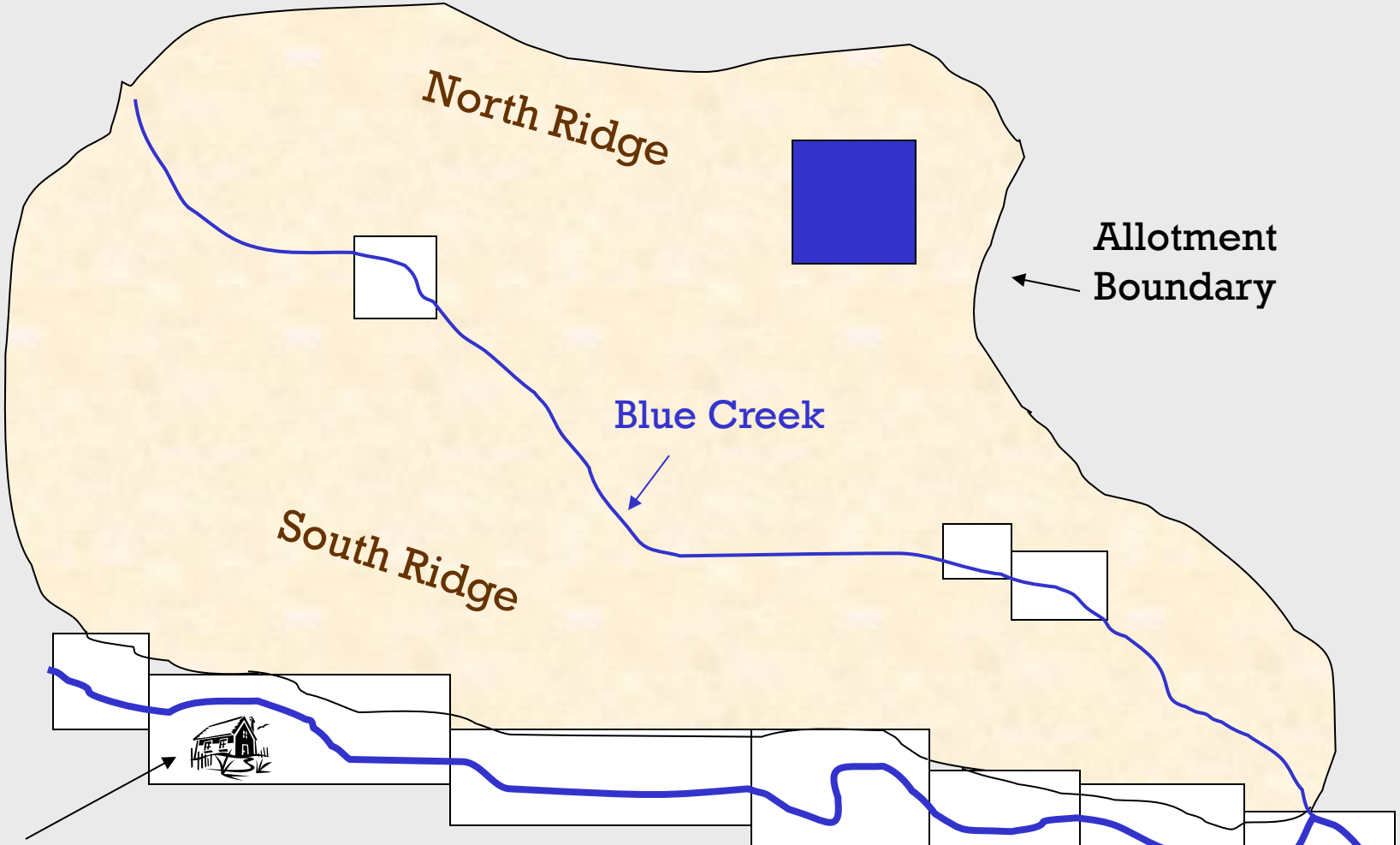
- Person to Person

  Ranch Sales

- Base to Base

  Lien holder Interest Important

What if we ended grazing?
What if we took the high bid?



Base Property


Sodbuster

Livestock as a Value

- Cattle Operation - 1000 pairs * 96% calf crop * 450 lbs * $0.7/lb = $302,400 cash flow into the community
- Retail Outlet - Nice cash flow but these operations net out of rural communities
- Outfitter - 6 clients * 4 hunting seasons * $5,000 = $120,000 cash flow into the community; but this is a service economy function that requires wealth generation somewhere else

Lopez's Windmill

Regulation Subparts

4120 – Grazing Management

Authorization and Projects

4130 – Authorizing Grazing Use

Terms and Conditions

4140 – Prohibited Acts

Clarifies Acceptable Activities

4150 – Unauthorized Grazing Use

- Willful or Non Willful Distinction
- Impoundment Rules

4160 – Administrative Remedies

Decision Process – Makes our Process Public

Regulation Subparts

4170 – Penalties

Consistency in Fines and Suspensions

4180 –Standards & Guidelines

Covered Separately

4190 – Wildfire Management Decisions

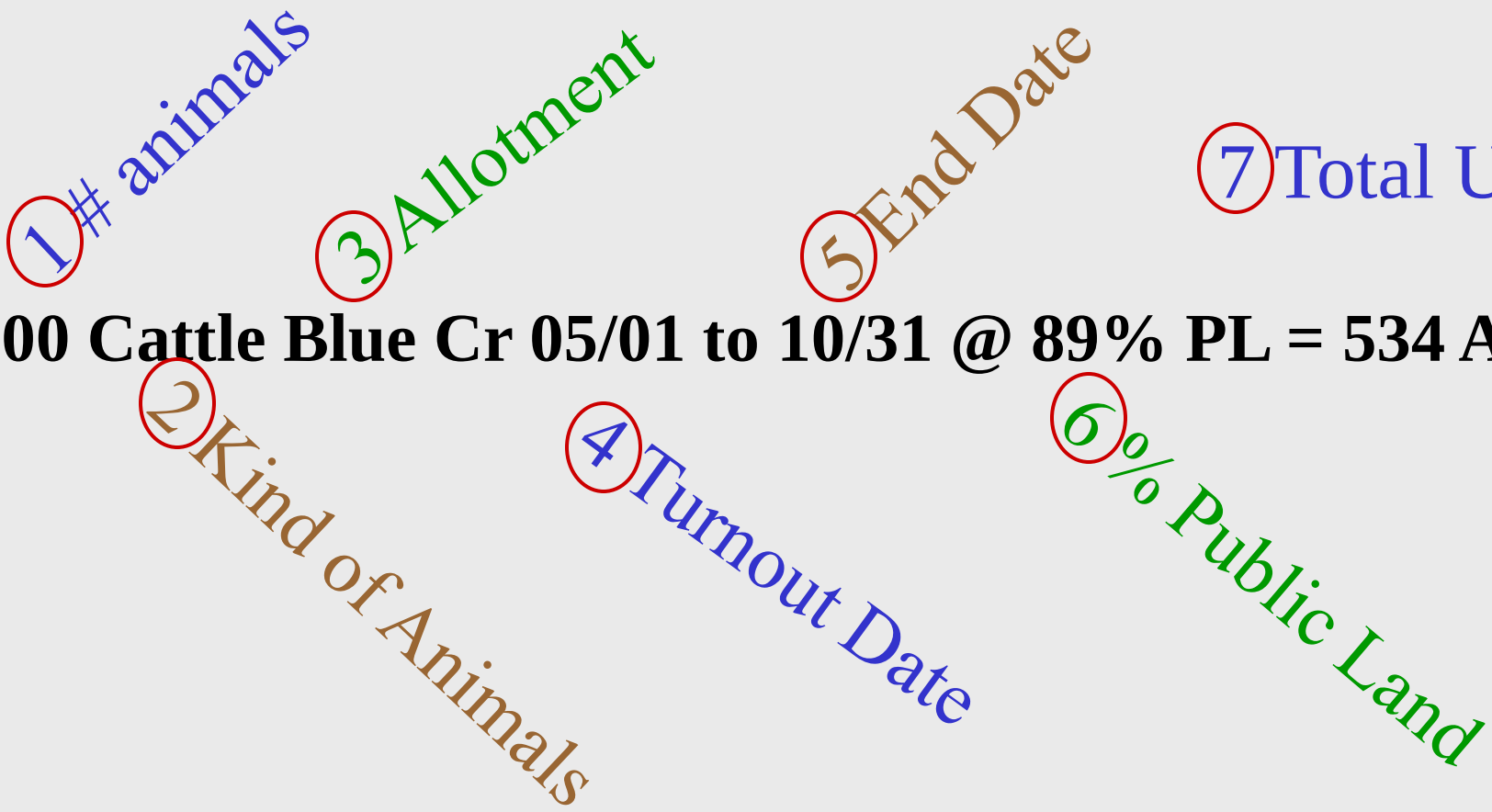
A dangler

Manuals for each section add clarity (Theoretically)

Permits and Leases

Issuance of the 10 year permit is the “Federal Action” that is appealable, and subject to NEPA analysis.

Grazing Bills




Rangeland Health Standards

Upland Soils Standard

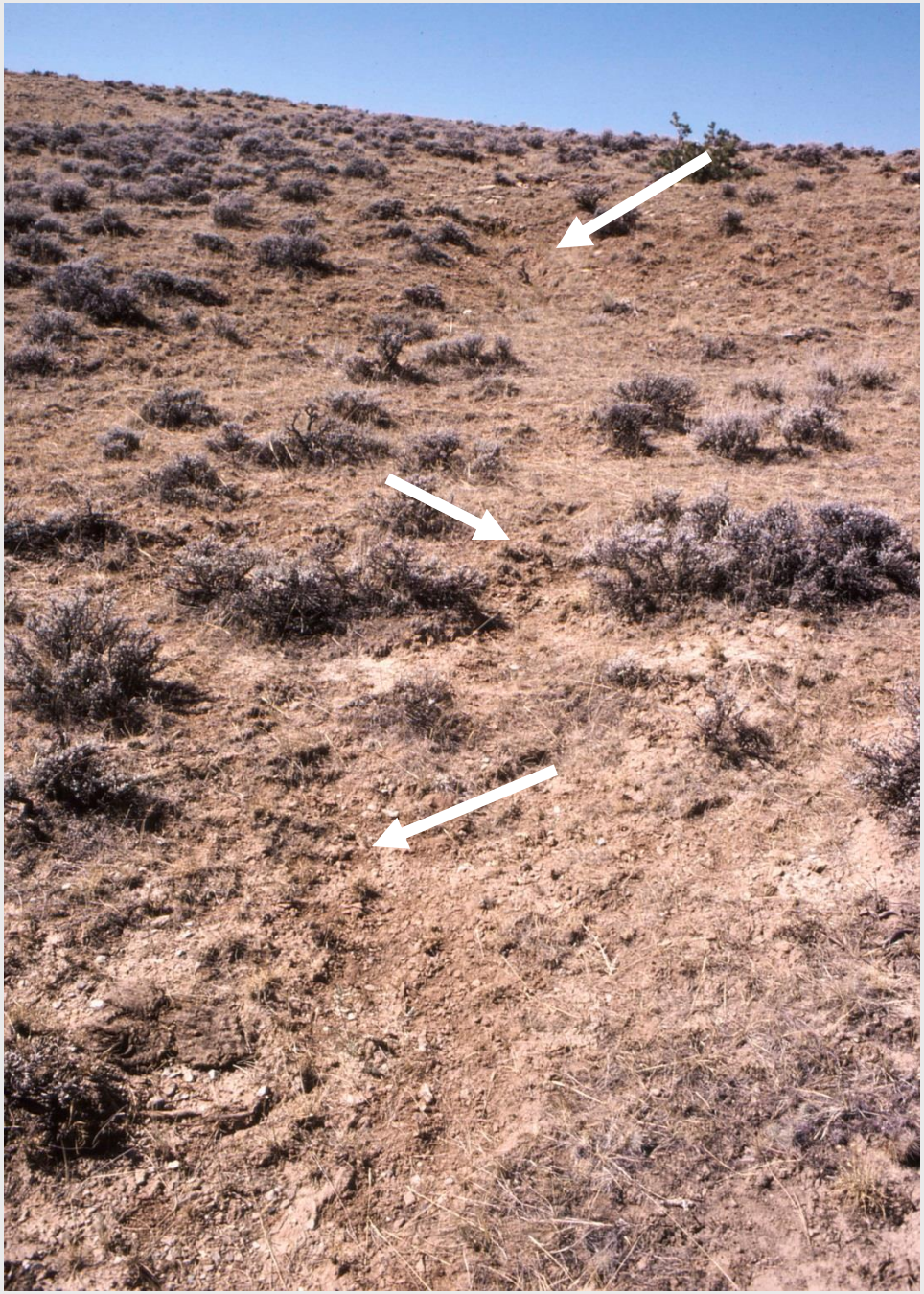
- Ground Cover Affects the Speed and the Amount of Surface Runoff

Upland Soils Standard

- Salt desert site, with low potential, but in excellent condition

Connecting Gullies

!



Desertification

- The effectiveness of the precipitation has been diminished.

- The efficiency of the range to shed water is increased.

- Effective precipitation is replaced by drought and flood cycles.

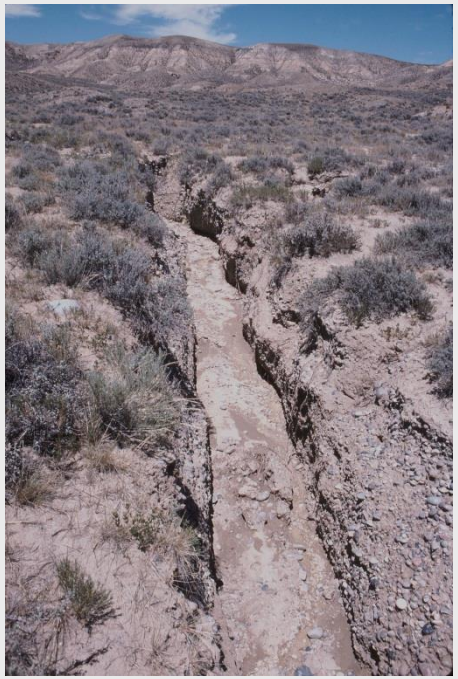
Upland Soils Standard

- **Migrating Headcut!**
- This site will not recover 100 years after correcting the grazing problem

Natural Erosion

Upland Soils Standard

Healing Swale



- Salt Wells Creek – Riparian Health

Riparian Standard

- Unhealthy riparian zone draining the watershed

Riparian Standard

Sedges adding Meanders on Little Spearfish Creek

Kentucky Bluegrass

Bluegrass Shearing

Non - Flood

Little Buffalo Creek Sequence

Peak Flow Ready?

Riparian Standard

Peak Flow Ready?

Greybull River Functioning Properly with a Wide Channel

Plant Standard

Composition

- Grazing resistant -sod forming grasses on the left, replace the more productive bunchgrass on the right

Blue Gramma 150 #/Acre / Needle & Thread 450 #/Acre

Plant Standard

Periodic Utilization is perfectly Acceptable

Plant Standard

Animal Standard

- Special Status species - including threatened, endangered, candidate, and sensitive species all require specific consideration

Cutthroat Trout

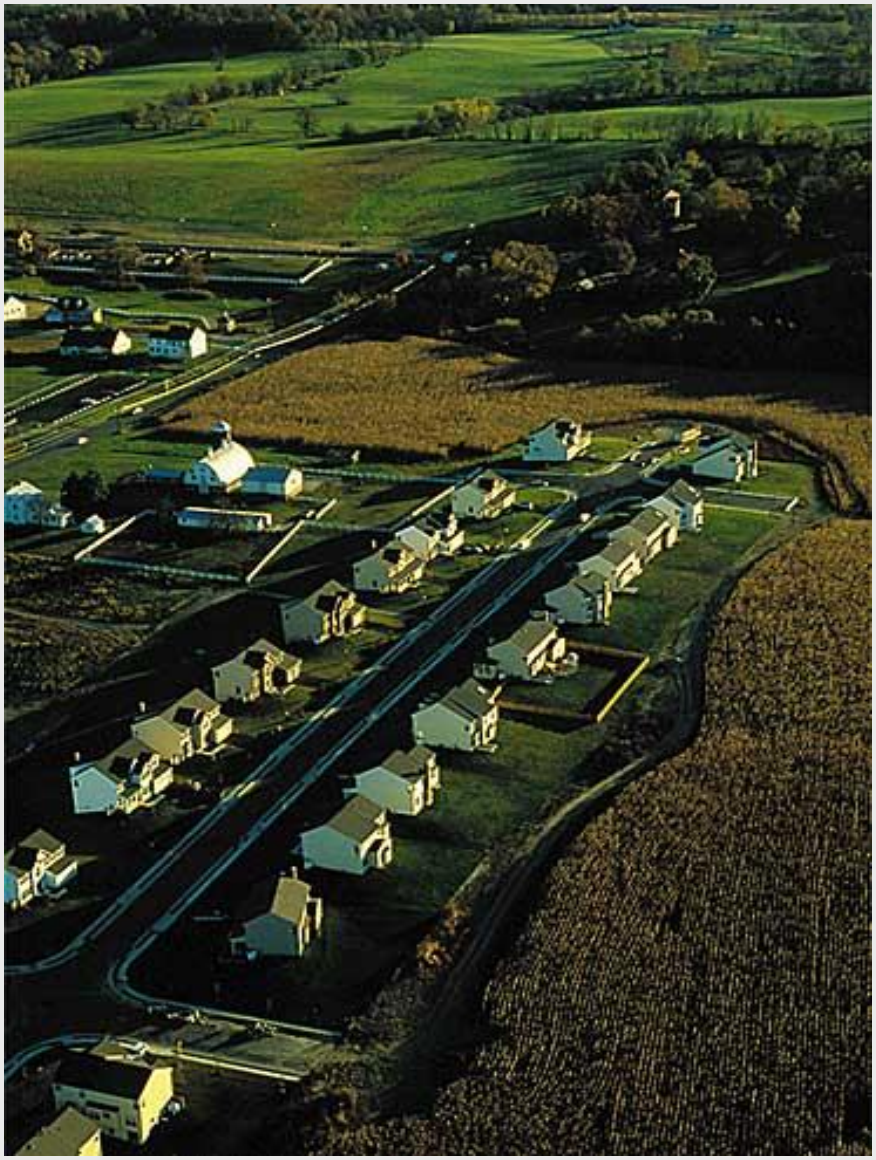
Sage Grouse

Animal Standard

- Wildlife versus grazing conflicts are rarely forage - big game issues
- This owl needs cottonwood reproduction for nesting

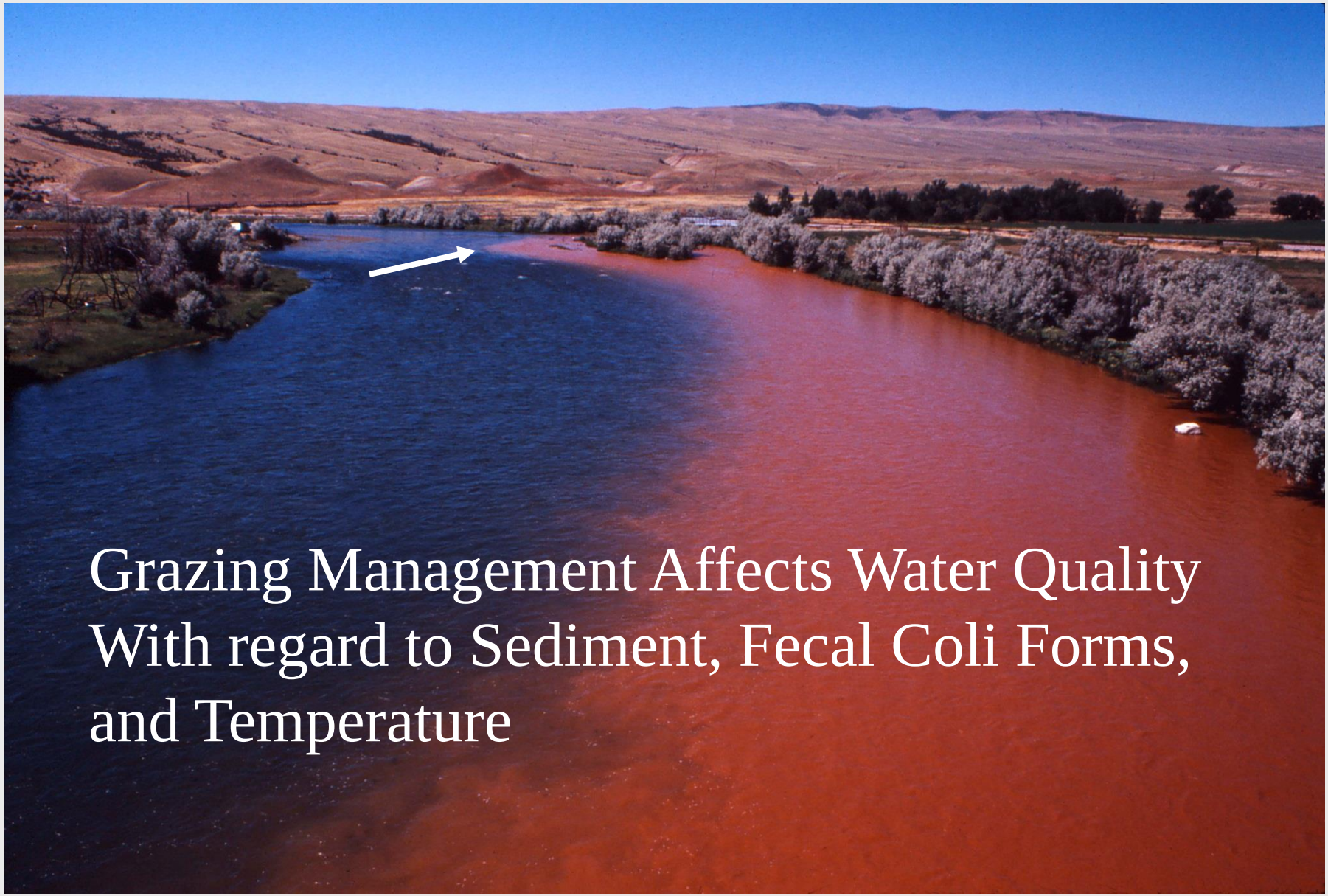
Animal Standard

Cow Free for this?



Animal Standard

Clean Water Standard



Clean Water Standard

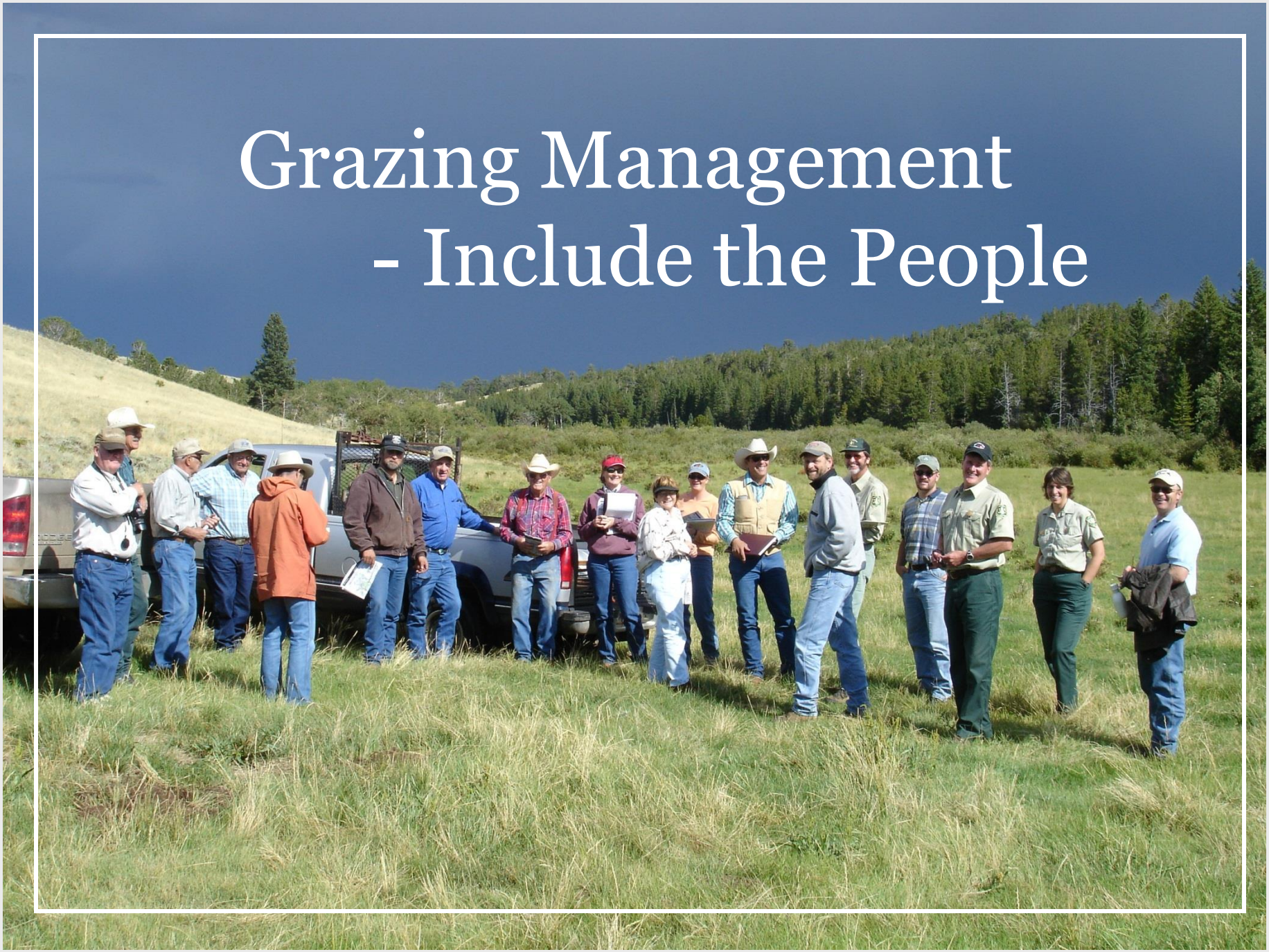
Clean Water Standard

Pole Mountain

Values Beyond the Standards

- Many values such as cultural resources and air quality are not specifically addressed by the Colorado standards

Grazing Management - Include the People



Ideally

Land Use Plan

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Articulated Goals

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Measurable Objectives

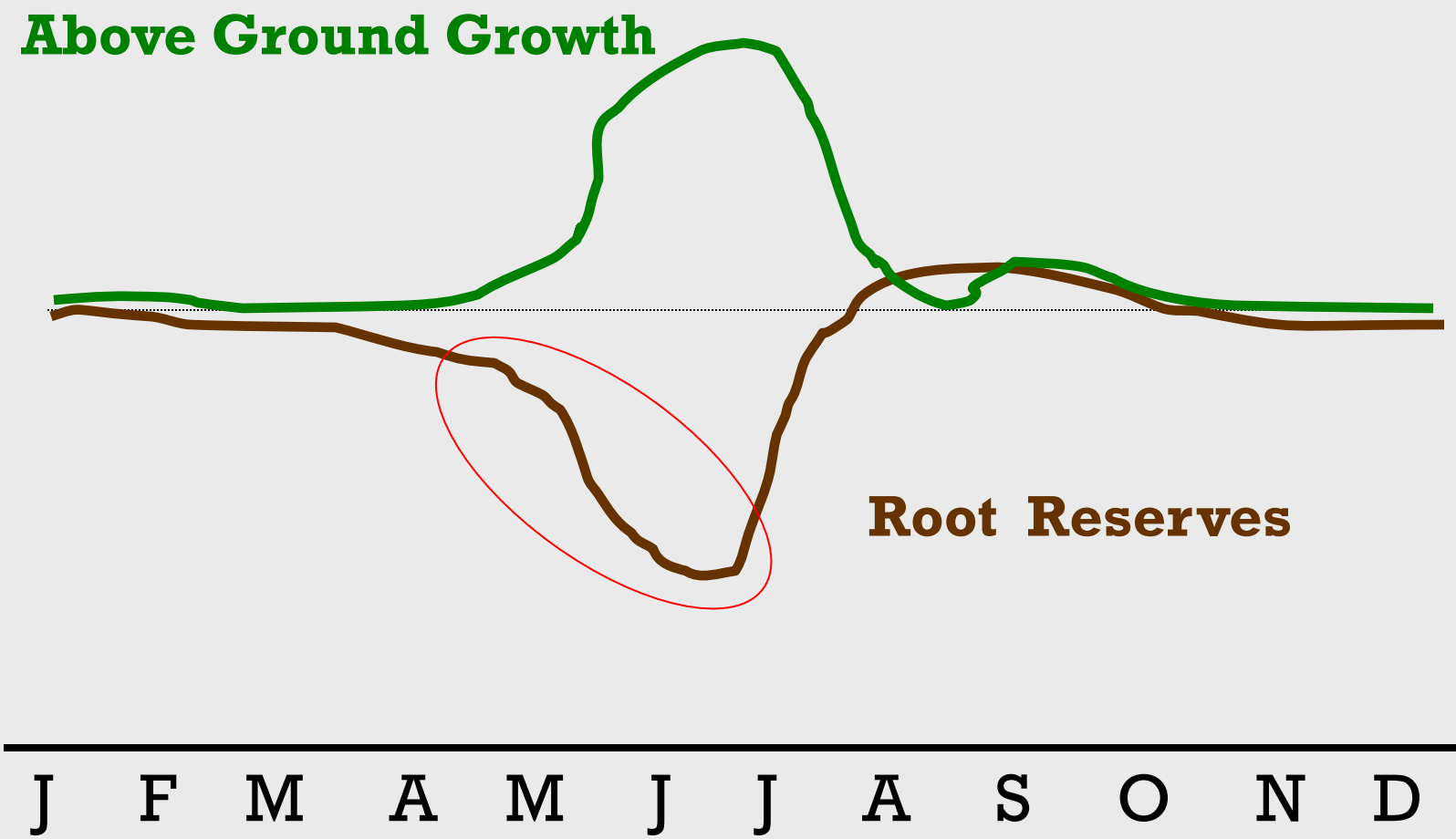
↘

Grazing Management
Strategy & project package

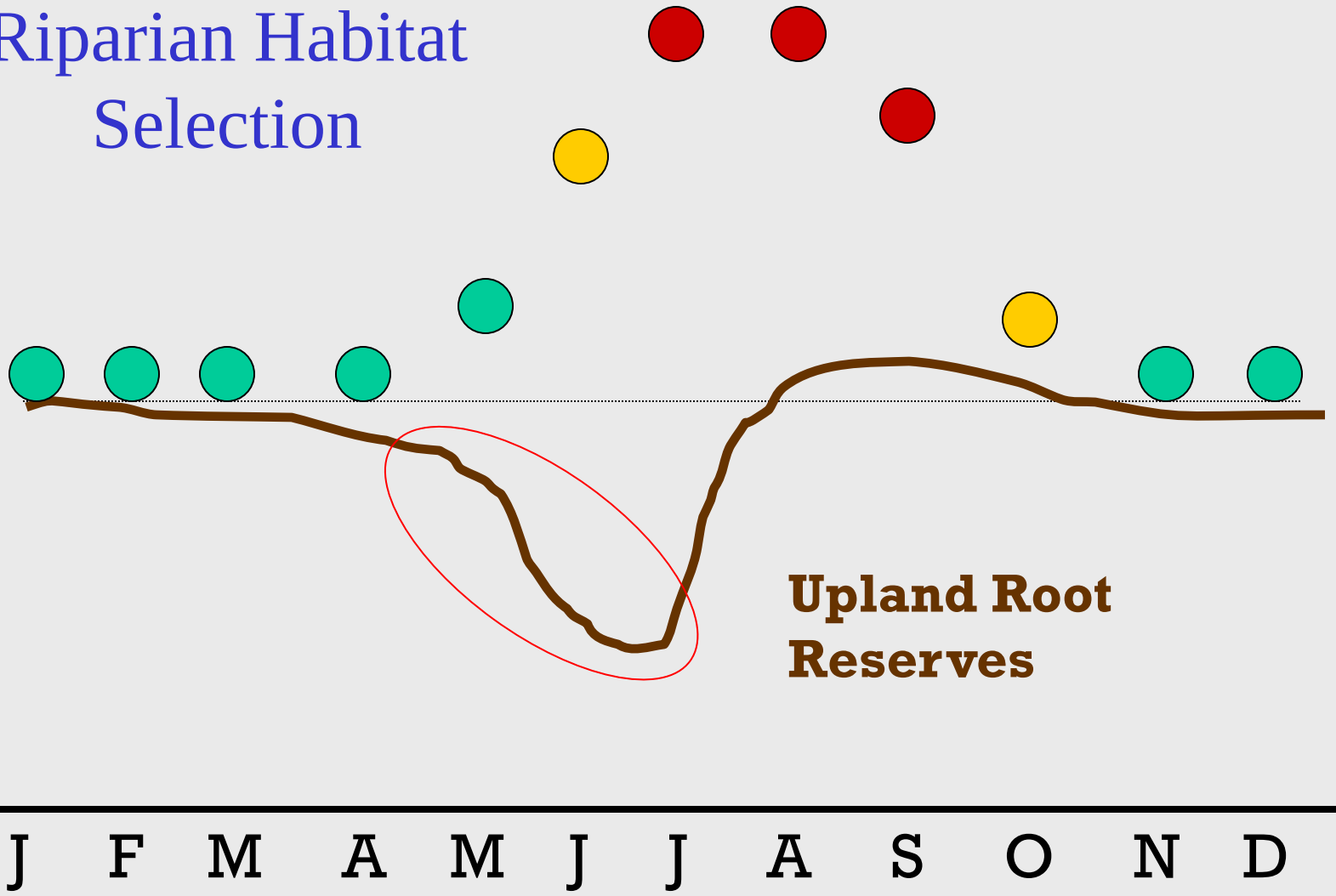
↘

Evaluation Schedule

Plant Physiology



Riparian Habitat Selection



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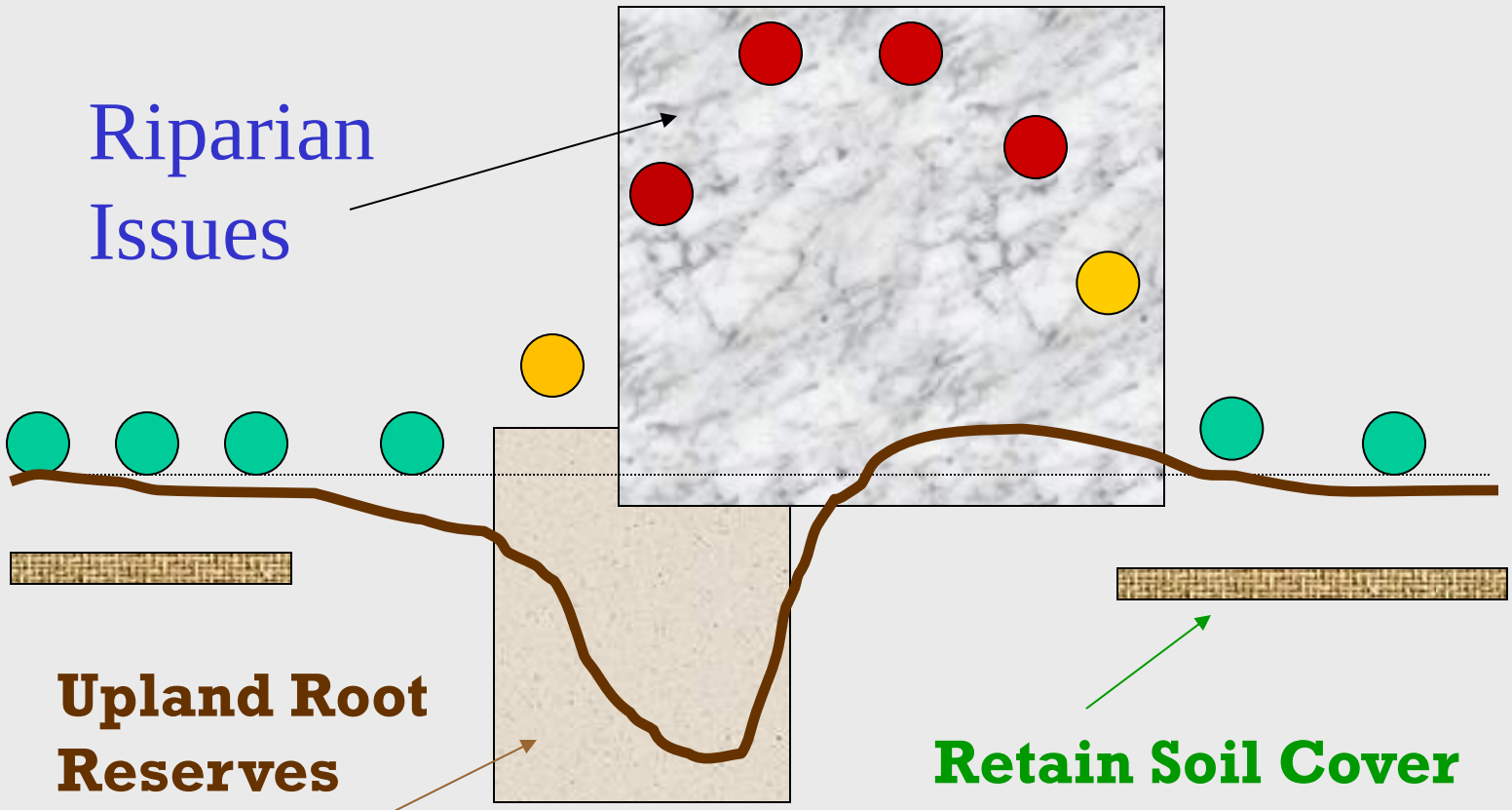

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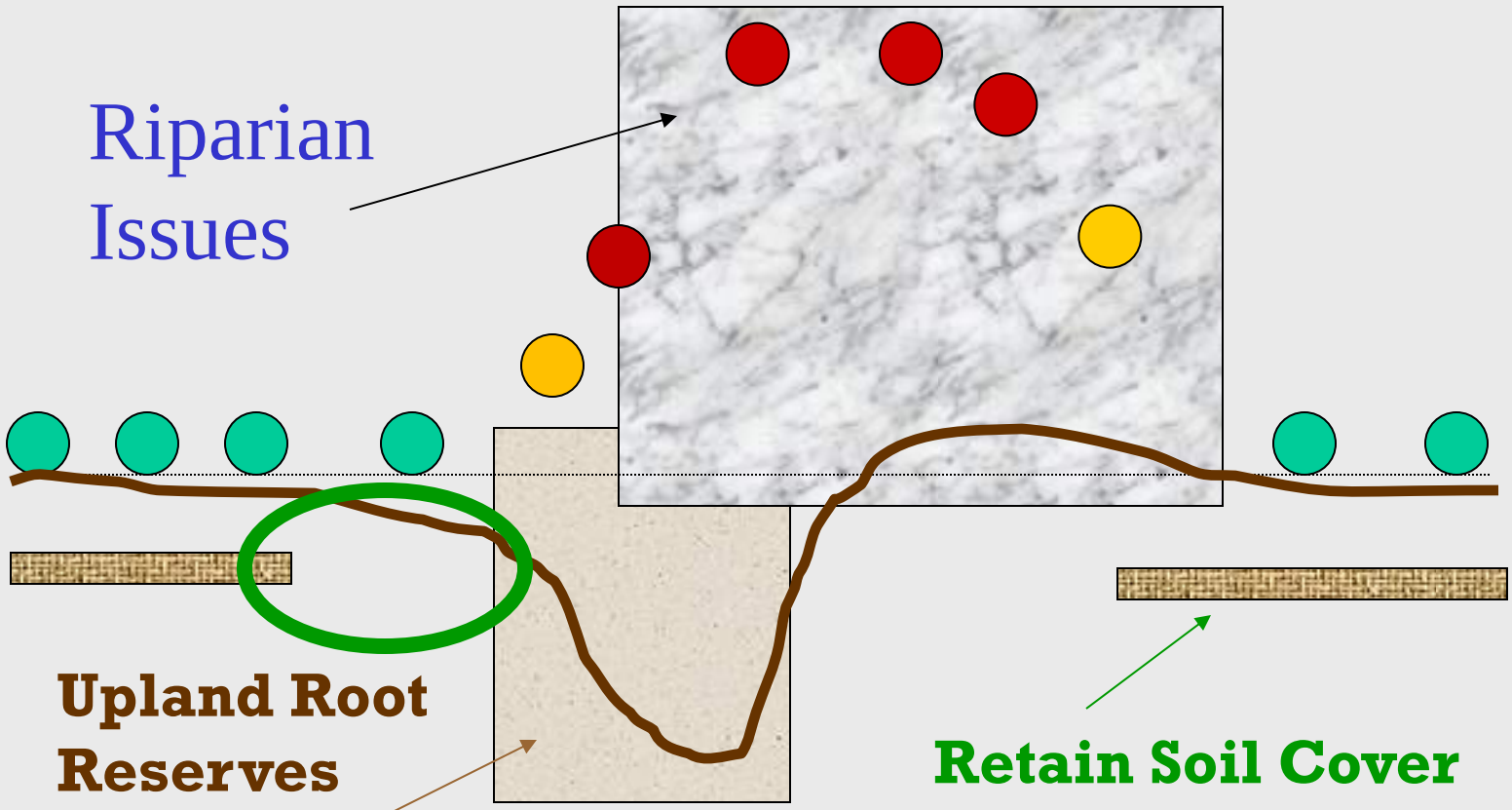

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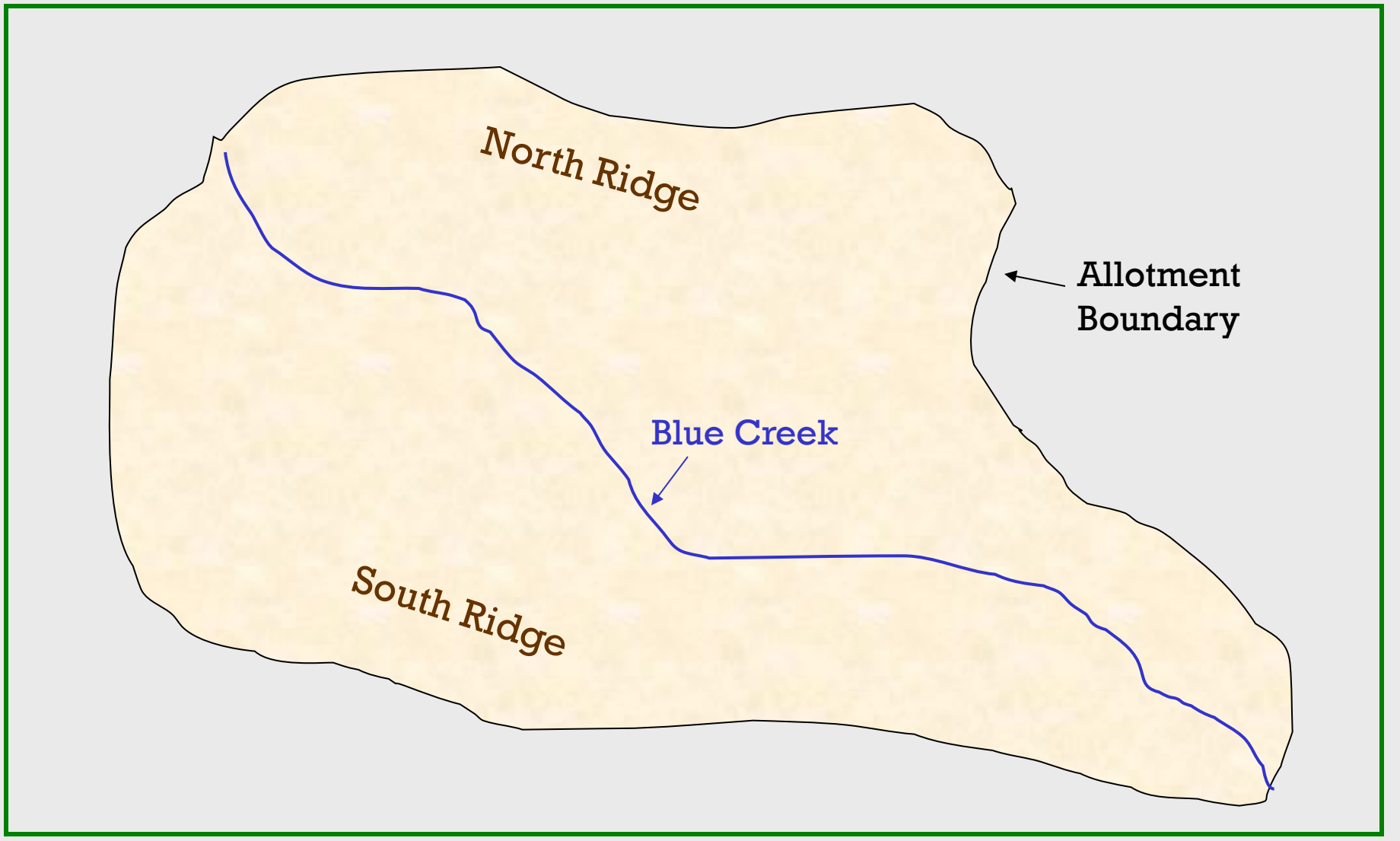
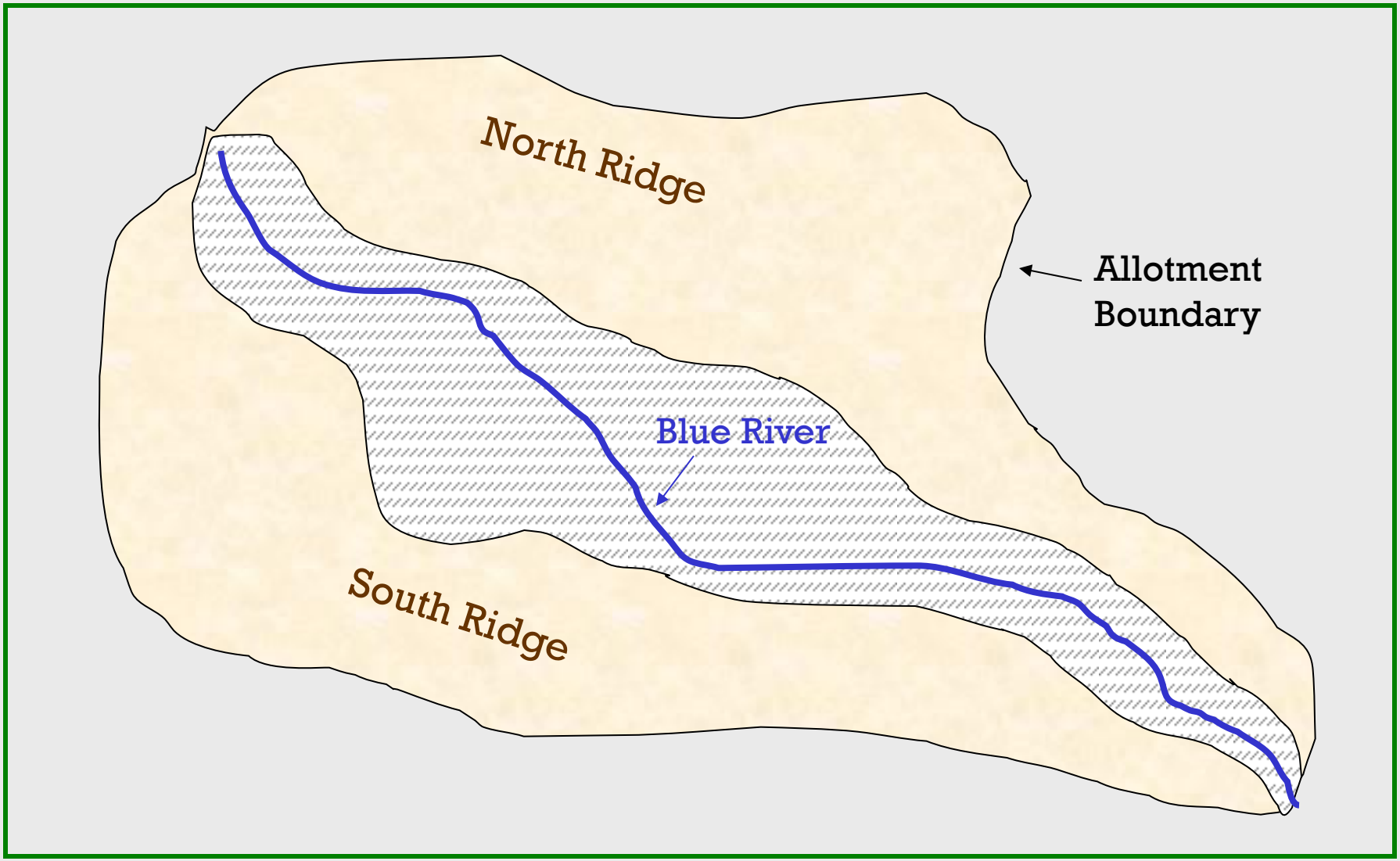
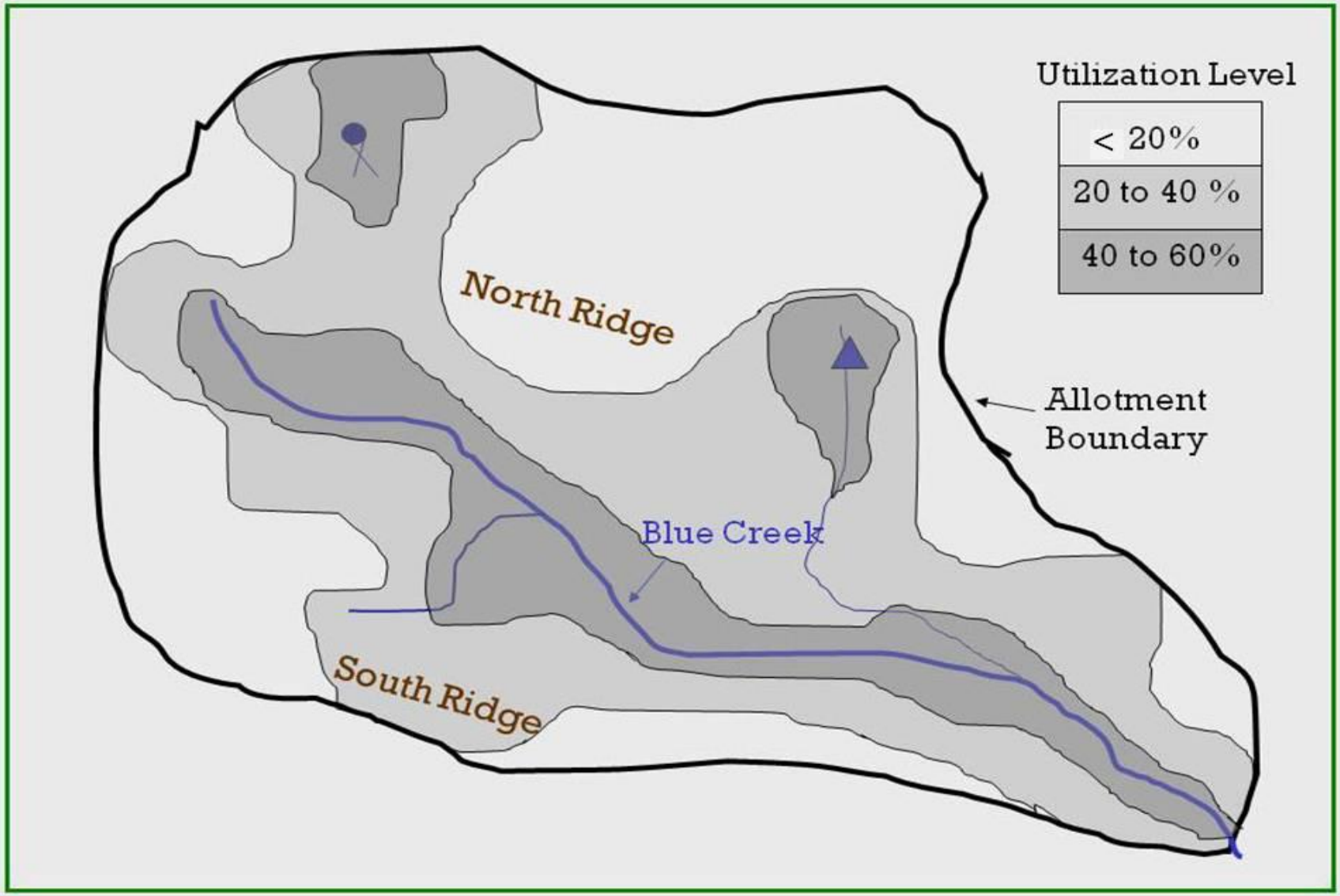
Grazing Allotment

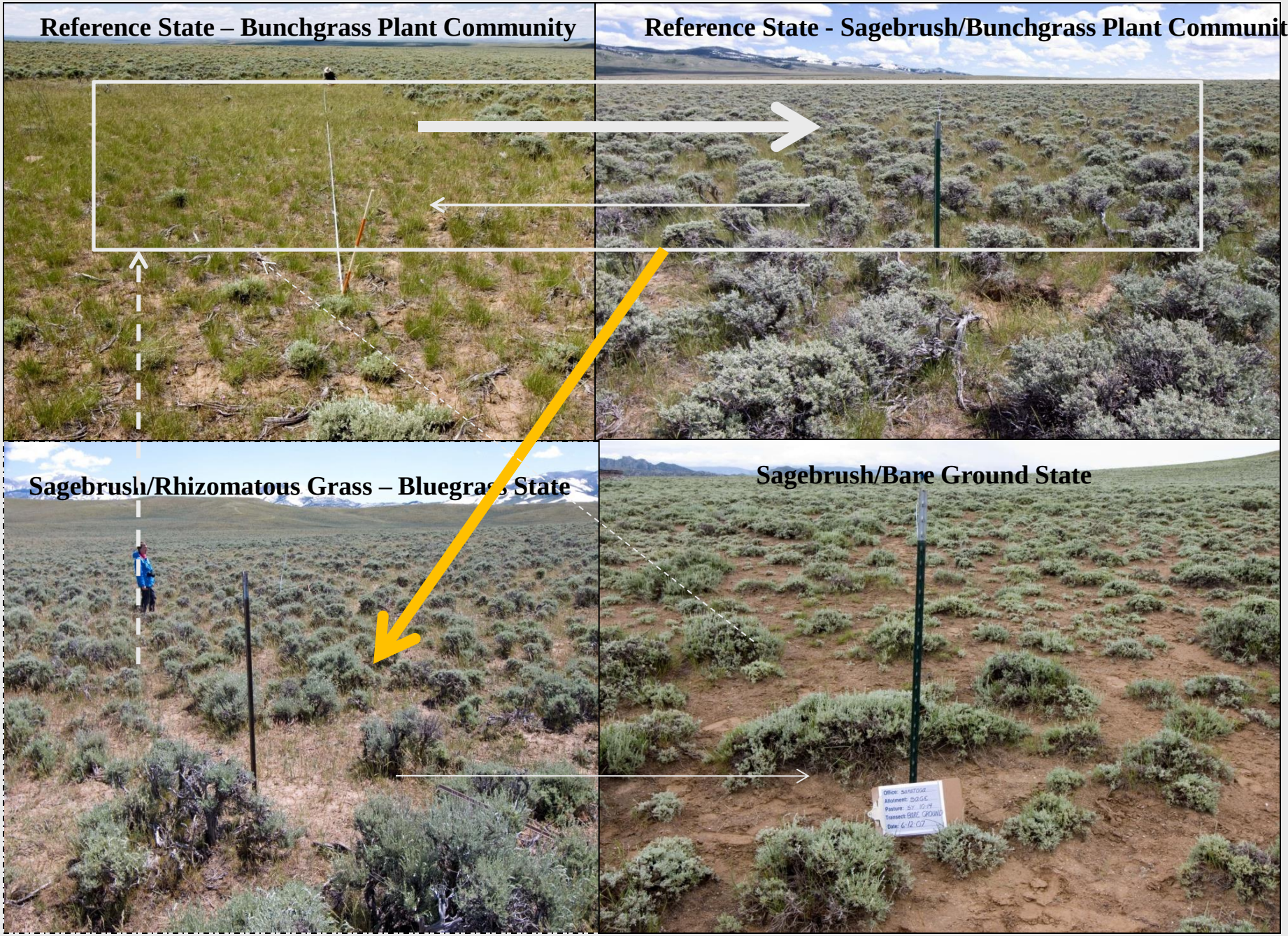


Distribution



Unplanned Water Development can Result More Overused Areas




Reference State – Bunchgrass Plant Community
Reference State - Sagebrush/Bunchgrass Plant Community
Sagebrush/Rhizomatous Grass – Bluegrass State
Sagebrush/Bare Ground State

Grazing Management is about timing and intensity

If you have one pasture you can control the timing and intensity once.

If you have three pastures you can control the timing and intensity three times.

Timing

Grazing Management Seasons*

Upland Season	Winter			Early	Critical Growing		Late					Winter
Month	J	F	M	April	May	June	July	Aug	Sep	Oct	N	D
Riparian Season	Winter			Early			Hot			Late		Winter

Monthly Percentages of Cool Season Bunchgrass Growth

Month	J	F	M	April	May	June	July	Aug	Sep	Oct	N	D
				15	60	25						

* Upland seasons prepared for Cool Season Bunchgrasses on a Sandy Site in SE Wyoming with 10-14 inches of precipitation. Riparian Seasons are generalized for the region.

Intensity

Both sides if the fence are in the same "condition." The only difference is <u>utilization</u>.

Even a well considered strategy will not adequately compensate for repeated heavy utilization.

Moderate Utilization:

5-25% of the number of current Seedstalks of herbaceous species remain intact. No more than 10% of the number of low-value herbaceous forage plants have been utilized.

The landscape Appears Patchy.

Heavy Utilization:

The Rangeland has the appearance of complete search. Herbaceous species are almost complete used with less than 10% of the seedstalks remaining.

Rules of Thumb

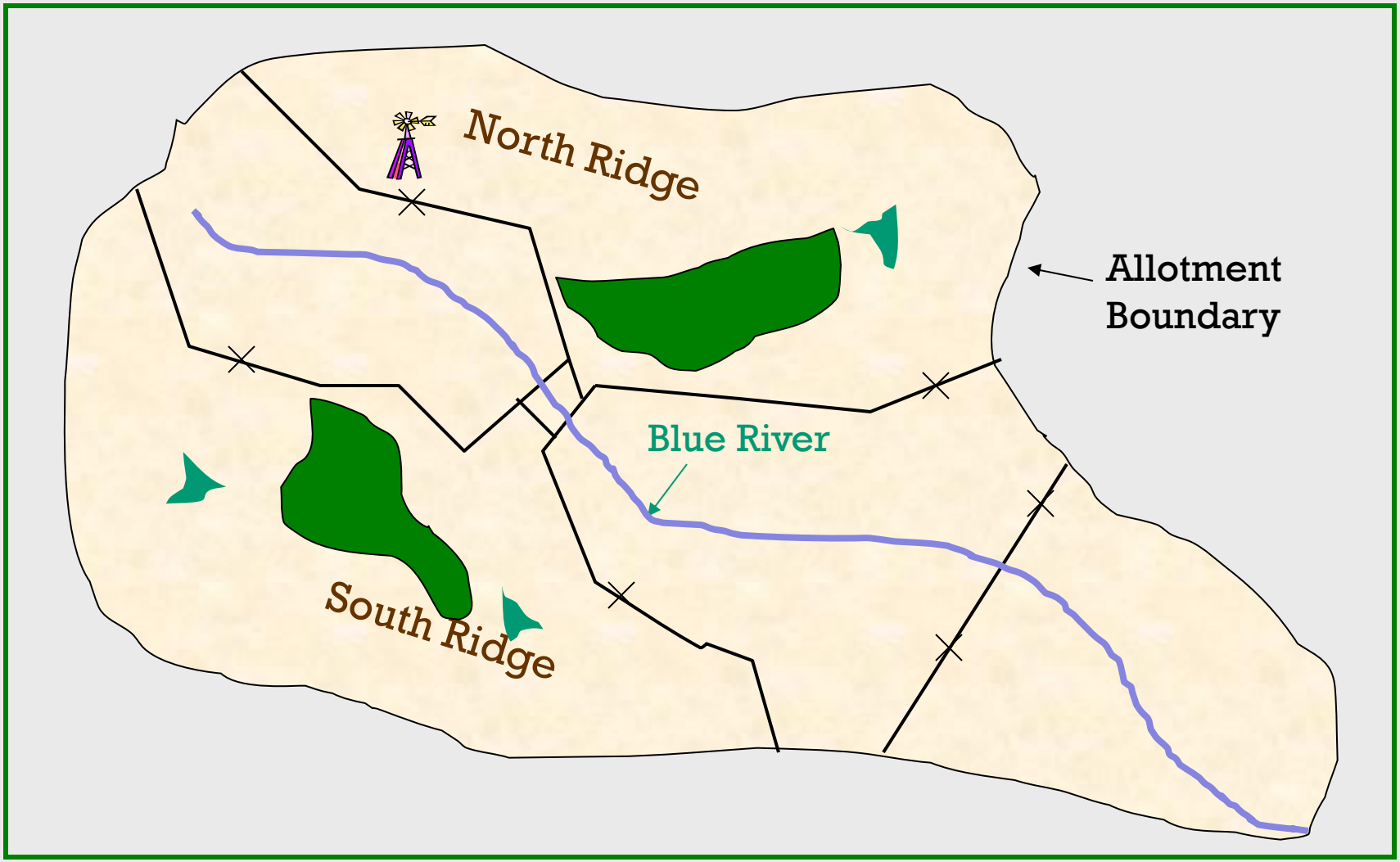
To maintain the Sagebrush/Cool Season Bunchgrass Plant community you need 1 year in 3 during the Critical Growing Season, and Moderate Utilization.

To maintain Proper Functioning Condition you need 1 year in 3 during the Hot Season, and Moderate Utilization

Range Projects

This configuration can deliver the recommended 1 in 3 rules for the:

- **Critical Growing Season for Uplands**
- **Hot Season for Riparian Areas**



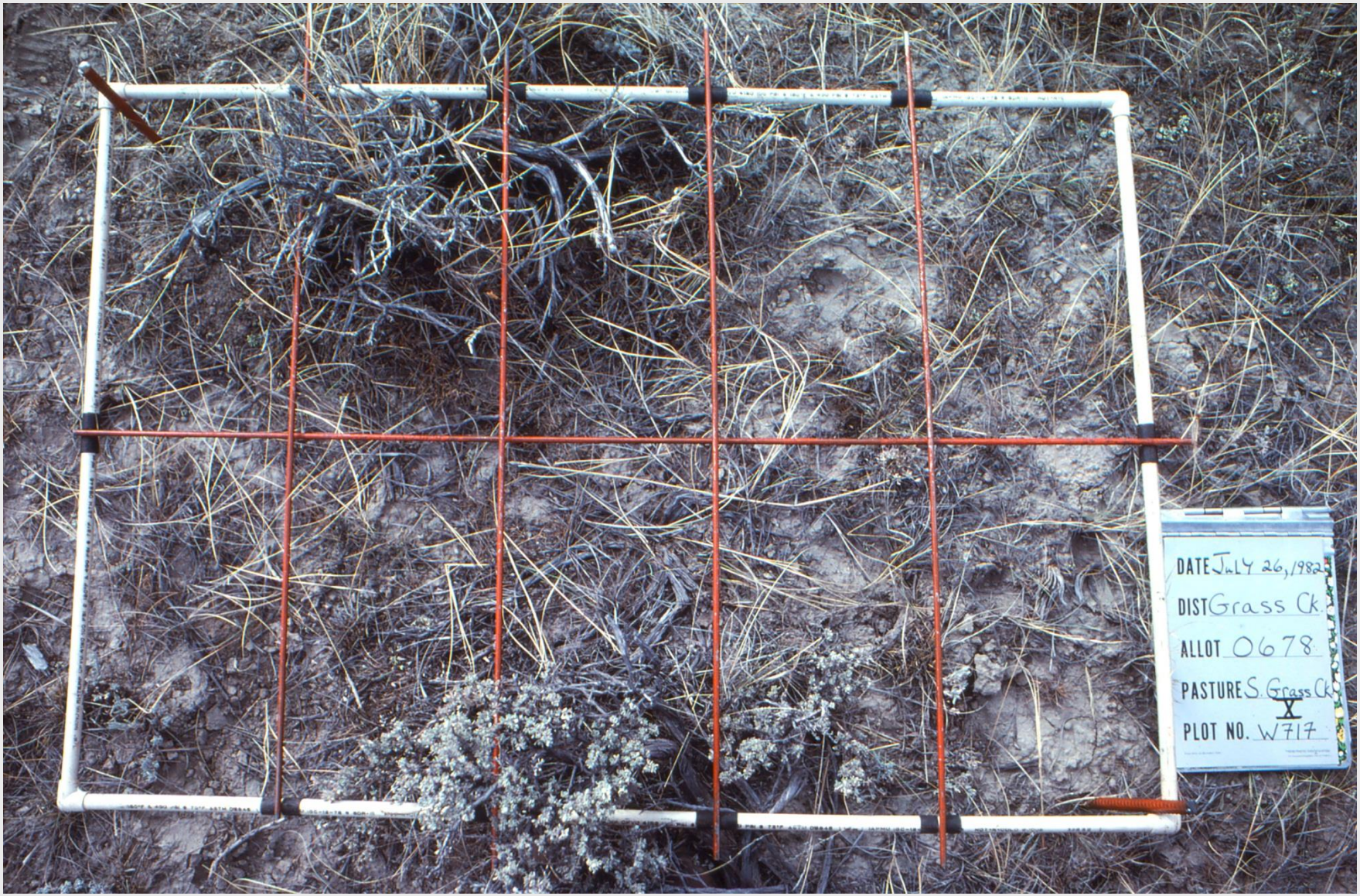
Range Projects are increasingly controversial

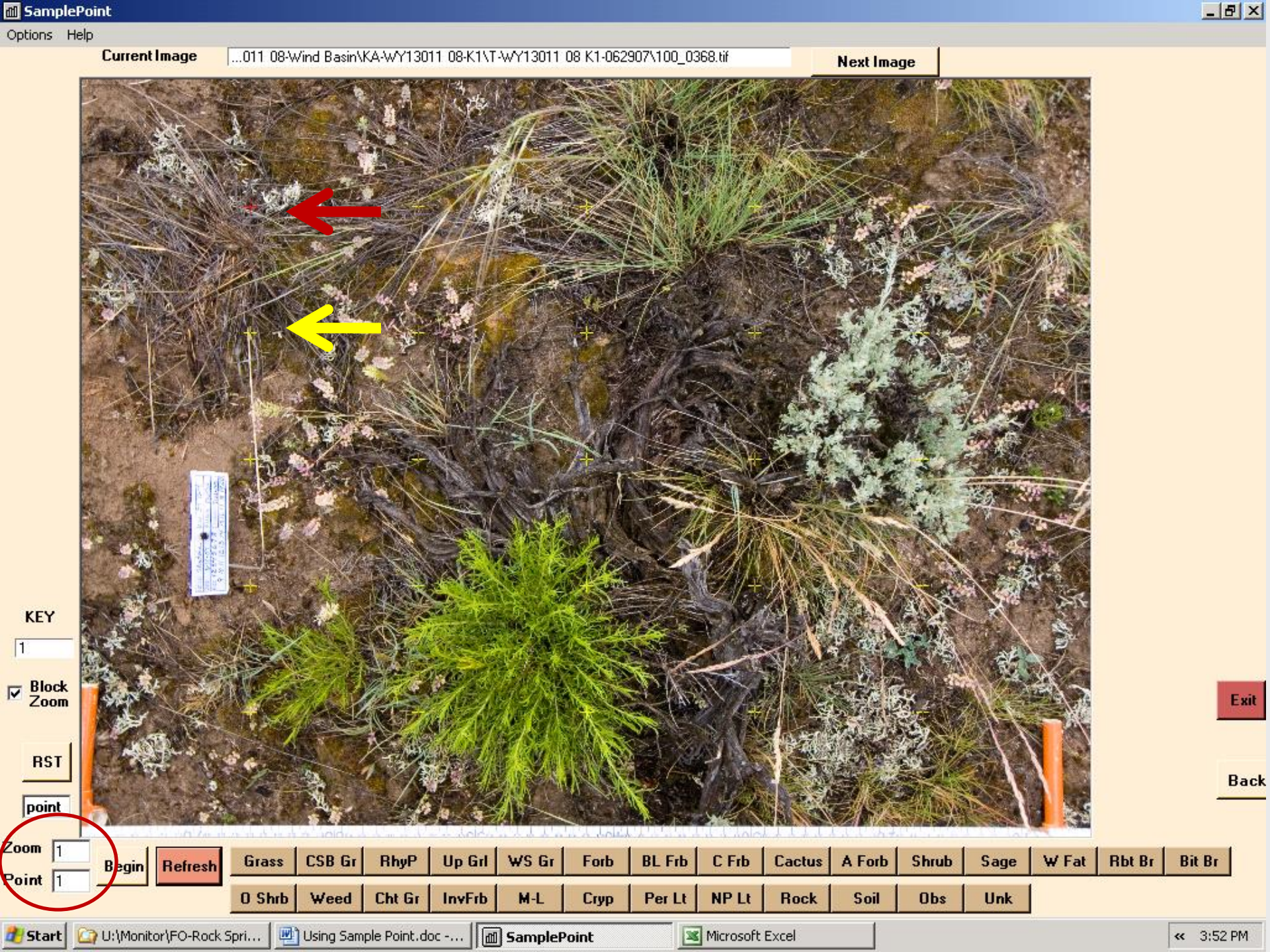

Herding

Supervision

Monitoring Data

-Maps & Plans
-Trend
- Utilization
- Actual Use
- Climate
- Analysis


DATE JULY 26, 1982
DIST Grass Ck.
ALLOT 0678
PASTURE S. Grass Ck.
X
PLOT NO. W717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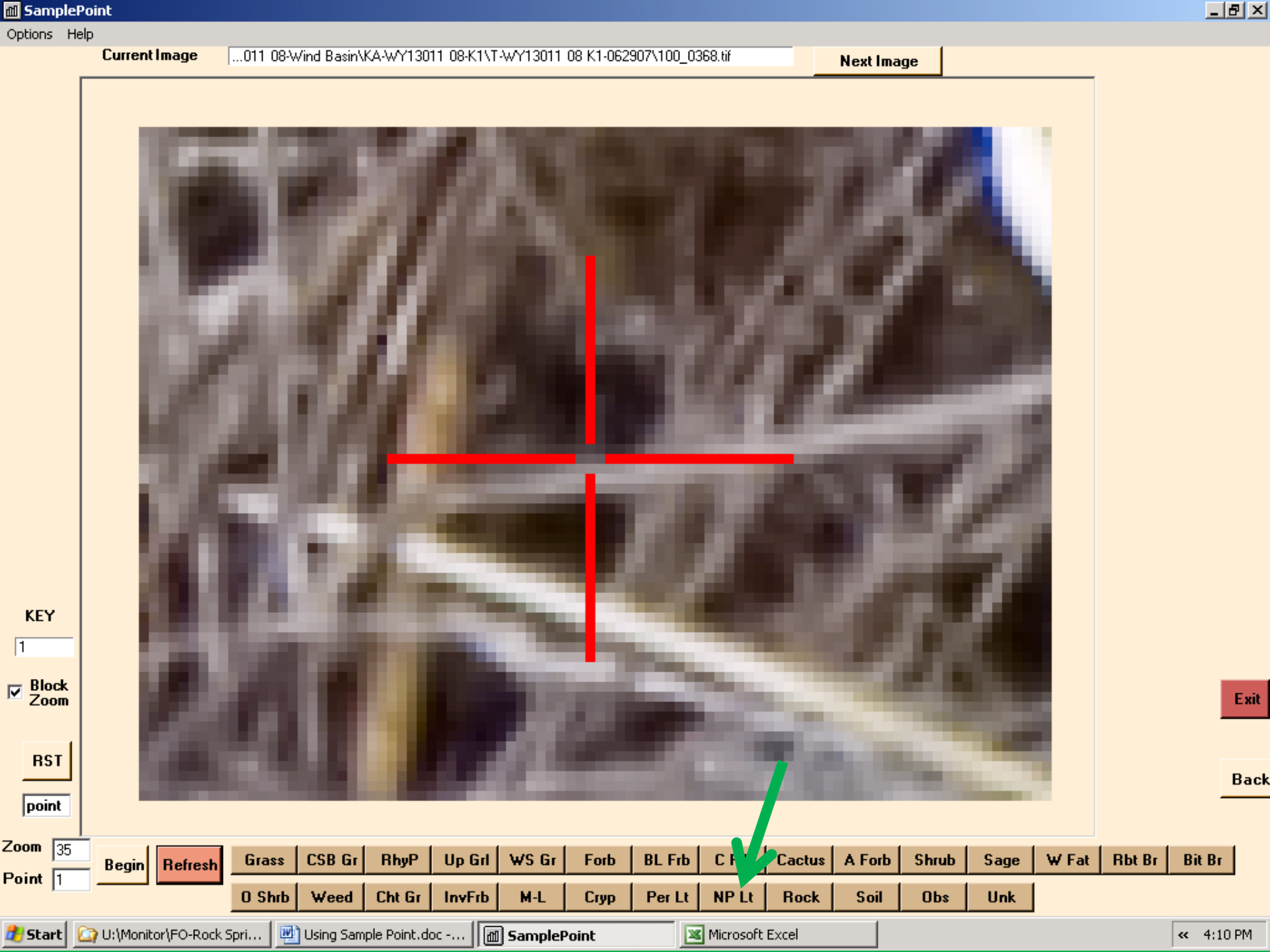
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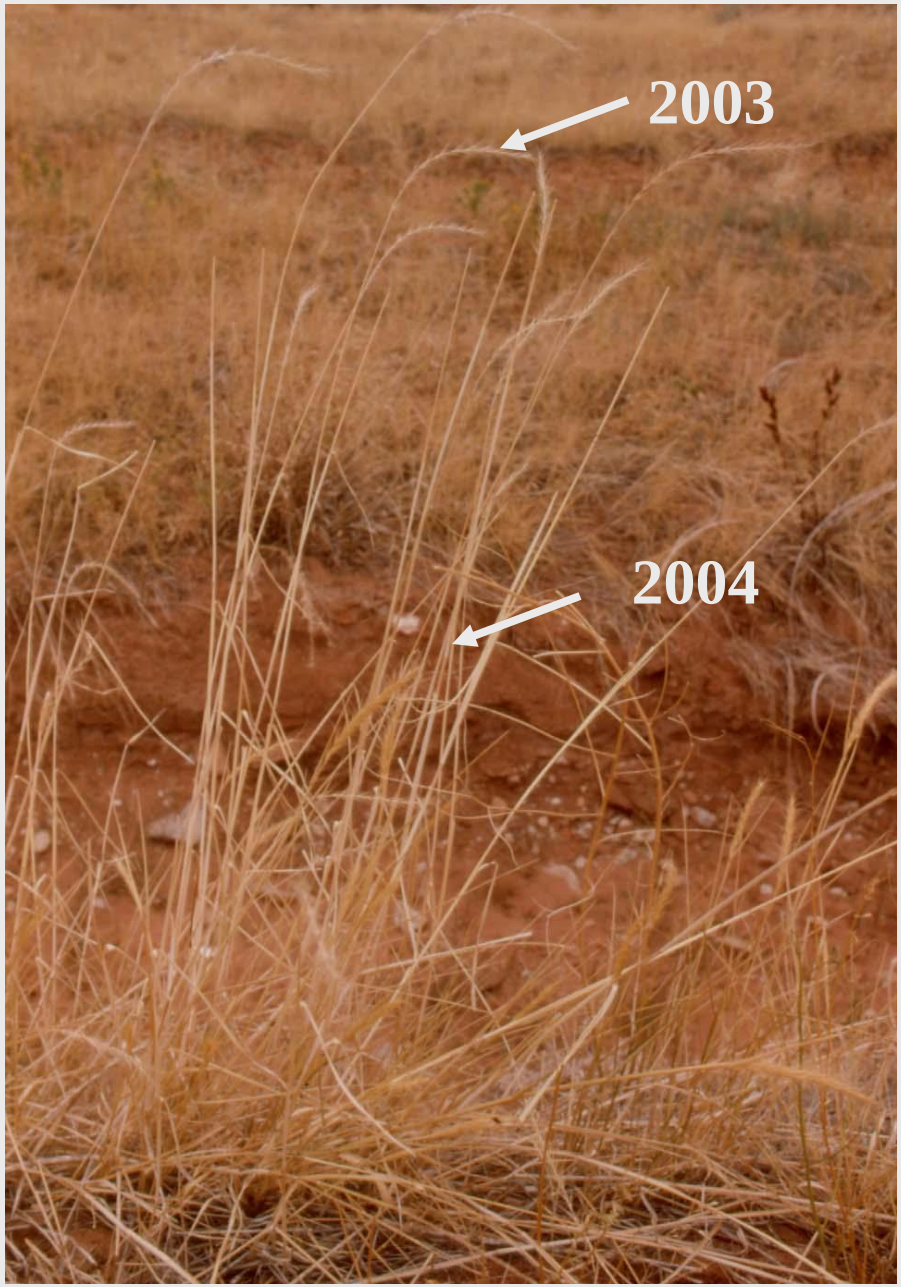
Drought

Usually a bad year!

Typical Precipitation Data w/ 7 inch Average

Year	Annual Precipitation	Year	Annual Precipitation
1990	6.3	2000	4.8
1991	6.4	2001	9.8
1992	5.7	2002	6.4
1993	13.8	2003	5.7
1994	14.2	2004	5.7
1995	6.5	2005	7.6
1996	4.6	2006	4.5
1997	6.3	2007	8.7
1998	6.1	2008	6.1
1999	5.7	2009	5.1
Average			7
15 below average /20 years			0.75

A 3:1 Fluxuation Ratio such as 600 lbs/acre to 200 lbs/acre is Normal!



Drought

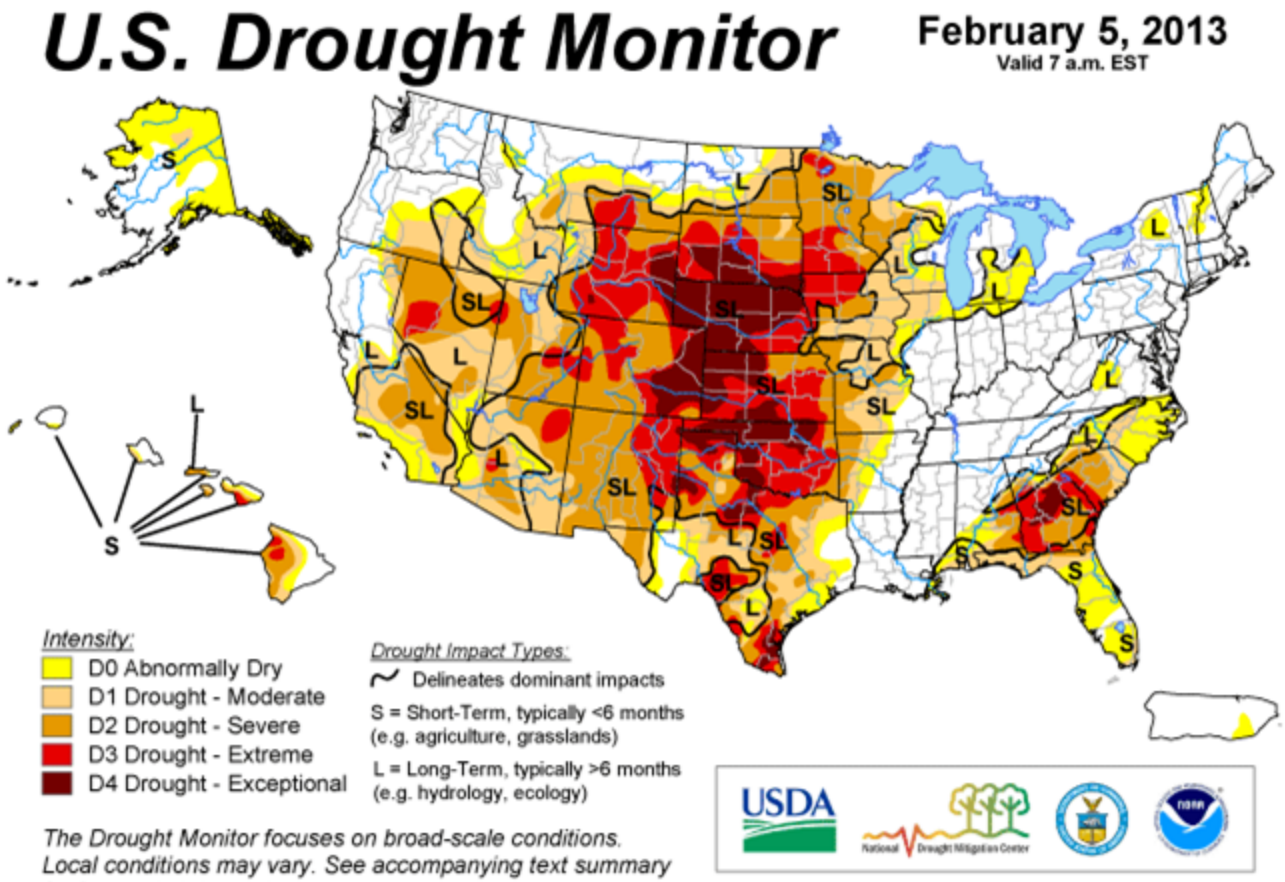
Hydrologic or Forage

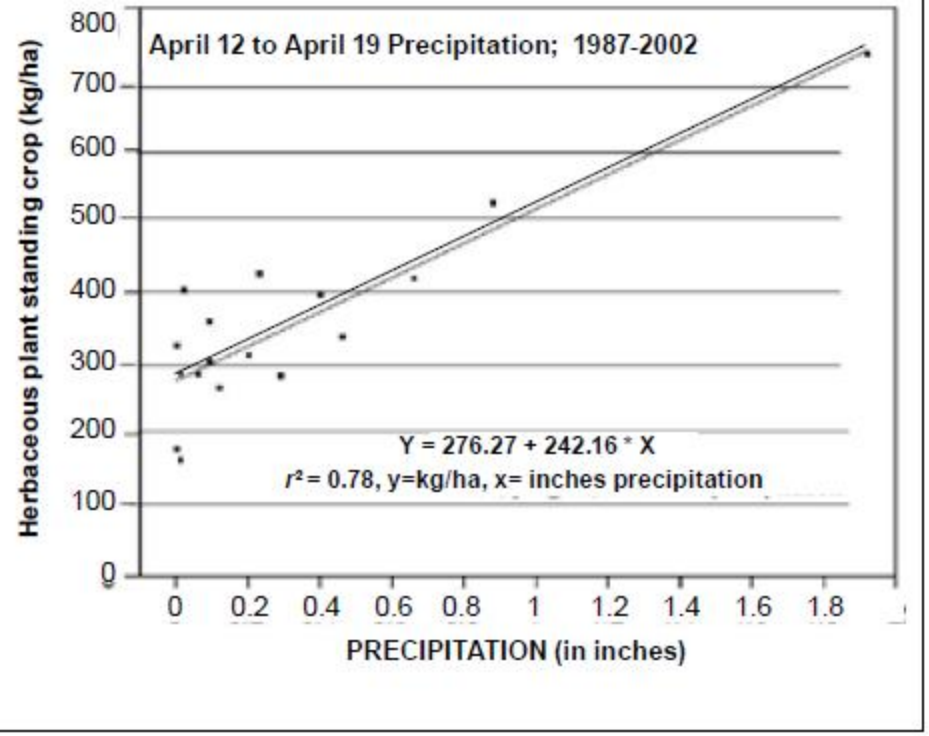
Current U.S. Drought Monitor

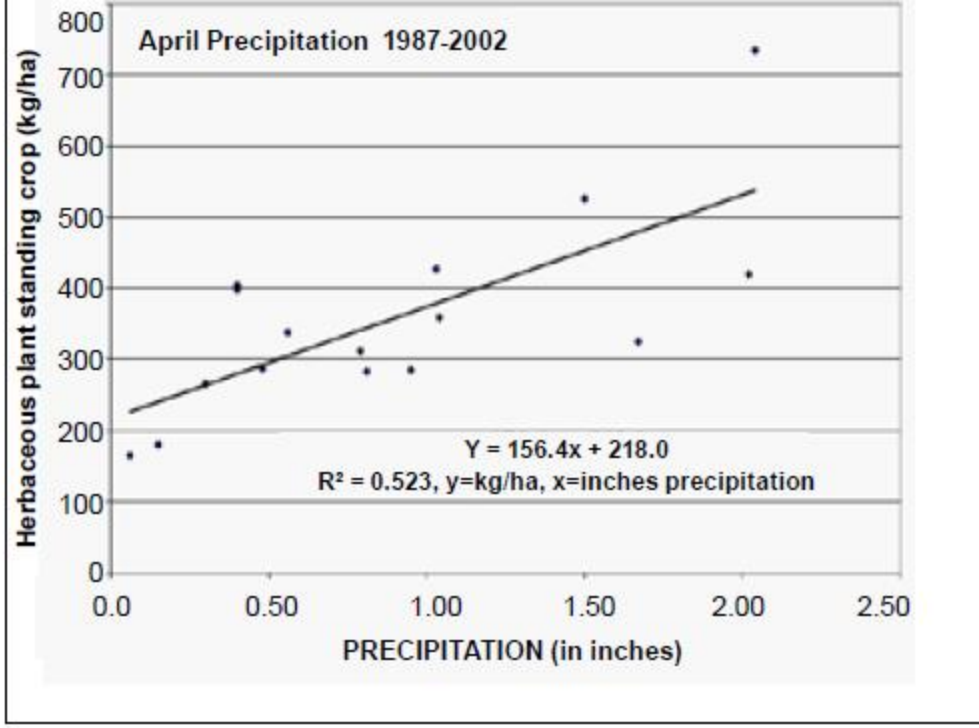
Register now for the U.S. Drought Monitor Forum, April 16-18, 2013, West Palm Beach, Florida.

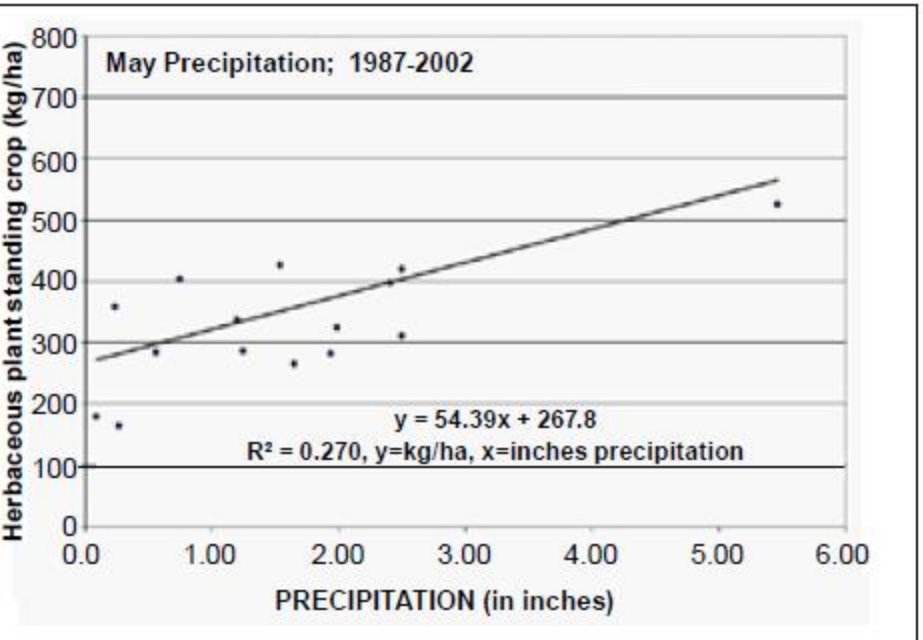
The data cutoff for Drought Monitor maps is Tuesday at 7 a.m. Eastern Standard Time. The maps, which are based on analysis of the data, are released each Thursday at 8:30 a.m. Eastern Time.

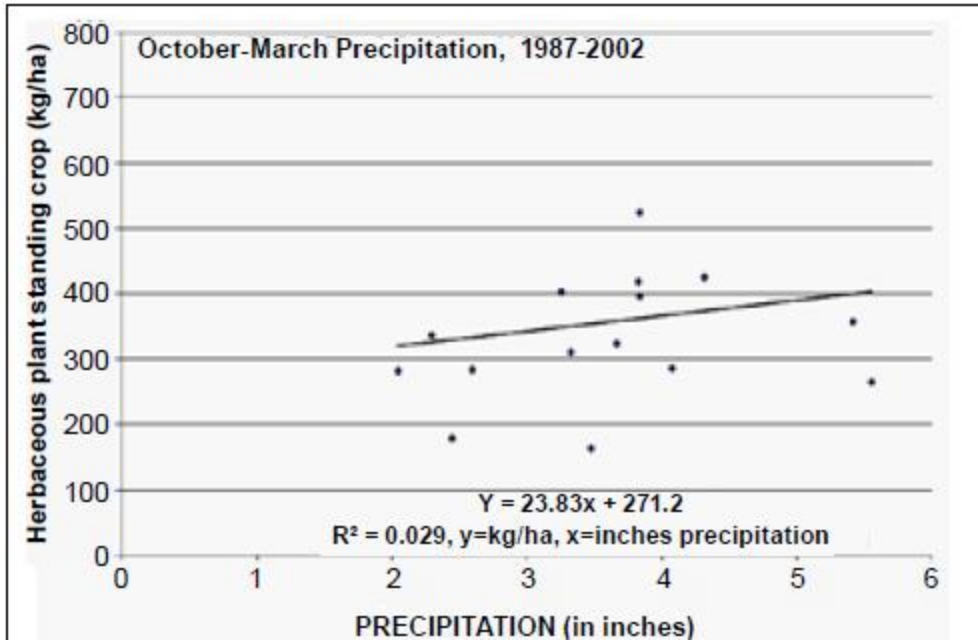
NOTE: To view regional drought conditions, click on map below. State maps can be accessed from regional maps.




April 12 to April 19 Precipitation; 1987-2002
Herbaceous plant standing crop (kg/ha)
PRECIPITATION (in inches)
Y = 276.27 + 242.16 * X
r² = 0.78, y=kg/ha, x= inches precipitation


April Precipitation 1987-2002
Herbaceous plant standing crop (kg/ha)
PRECIPITATION (in inches)
Y = 156.4x + 218.0
R² = 0.523, y=kg/ha, x=inches precipitation


May Precipitation; 1987-2002
Herbaceous plant standing crop (kg/ha)
PRECIPITATION (in inches)
y = 54.39x + 267.8
R² = 0.270, y=kg/ha, x=inches precipitation


October-March Precipitation, 1987-2002
Herbaceous plant standing crop (kg/ha)
PRECIPITATION (in inches)
Y = 23.83x + 271.2
R² = 0.029, y=kg/ha, x=inches precipitation

So what kind of Drought Planning and Action on the Part of the BLM is Prudent?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