

Wildlife Habitat Information as the Foundation of Land Development Regulations

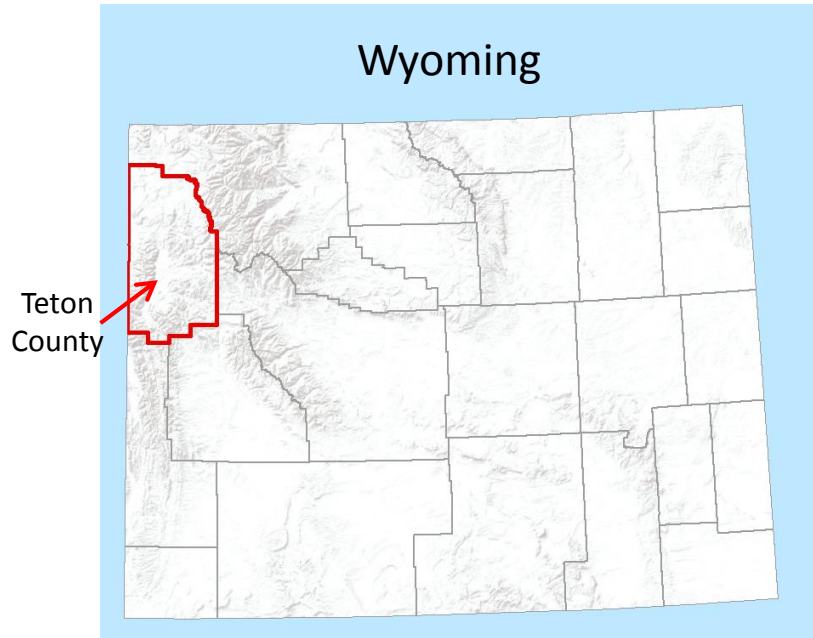
The Local Perspective

RMLUI
March 9, 2018

EcoConnect Consulting LLC
Connecting Ecology and Community

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TETON COUNTY, WY

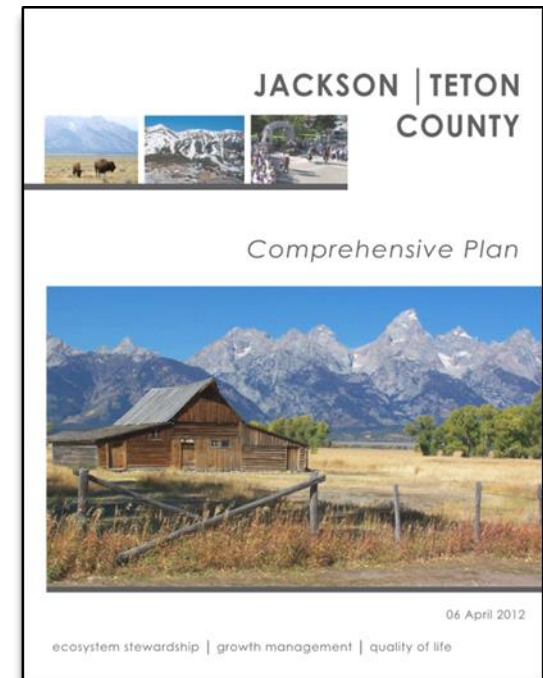


- 97% Public Lands
- 3% Private Lands



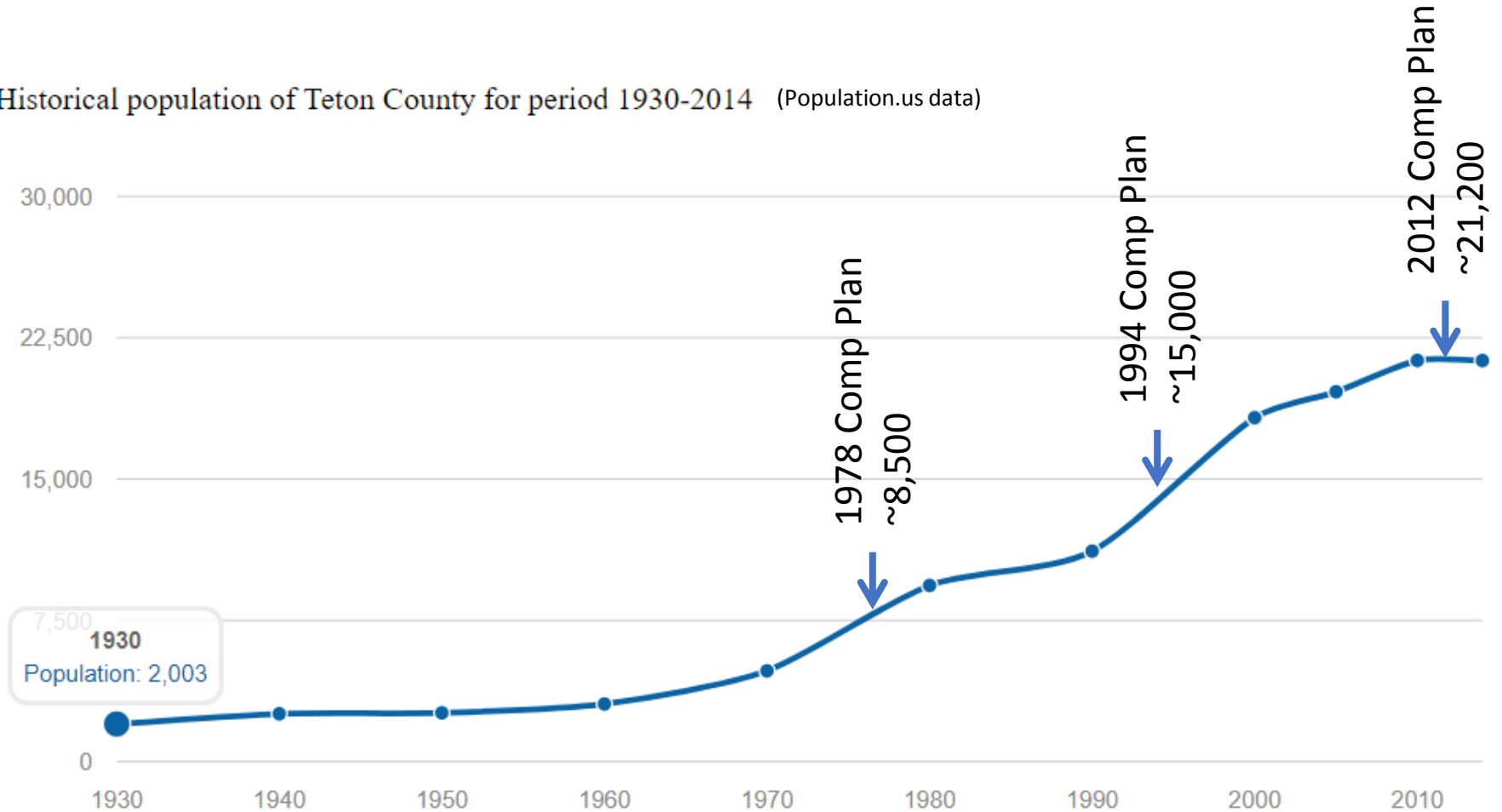
EVOLUTION OF TETON COUNTY LAND DEVELOPMENT REGULATIONS

- **1978 Comprehensive Plan and Land Use Regulations**
 - Focus on *scenic preservation*
- **1991 Teton County Wildlife – Habitat Assessment**
- **1994 Comprehensive Plan and Land Use Regulations**
 - *Natural Resources Overlay* was introduced.
Overlay is meant to “put landowners on notice” that land may have additional regulations.
- **2012 Jackson/ Teton County Comprehensive Plan**
 - a *tiered system of protection* based on *relative critical value*
 - *so that the most critical habitat and movement corridors receive the highest level of protection and site specific study*
 - *New growth goal of 40% rural and 60% complete neighborhoods*
- **Land Use Regulation Updates**
 - Began in 2015 to adhere to the 2012 Comprehensive Plan and are on-going
 - Rural zone regulations have been updated; other zones are out-of-date



POPULATION TRENDS

Historical population of Teton County for period 1930-2014 (Population.us data)



Town of Jackson

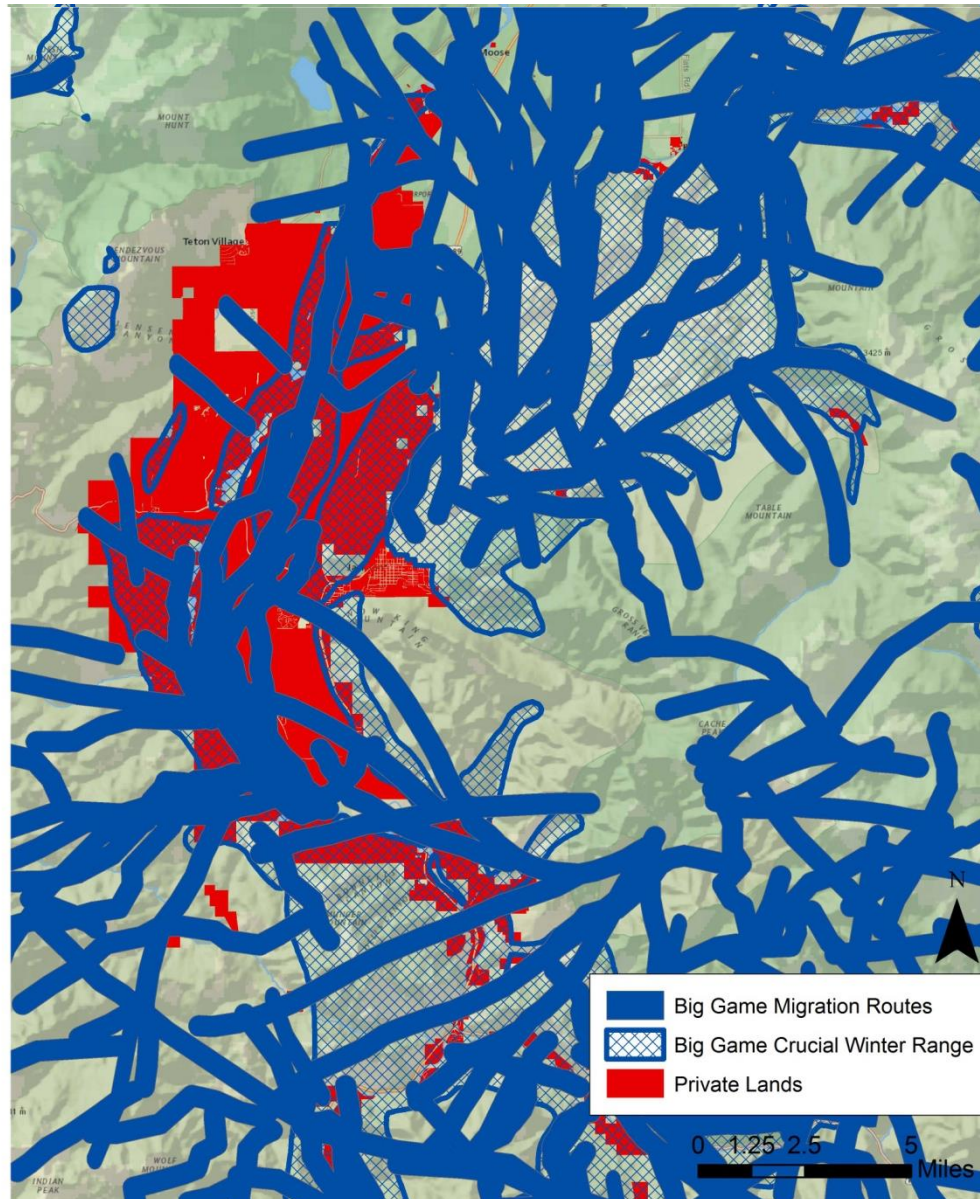
1900 59

1978 ~ 4,500

1994 ~5,250

2012 ~10,000

PRIVATE LANDS PROVIDE IMPORTANT WILDLIFE HABITAT



THE TWO PART CHALLENGE

#1

Determine the
“relative critical
value” of habitat

#2

Develop a
“tiered system of
protection”

How?

Not limited
to species
with robust
dataset

Has this been
done before?

What

No problem, we've got this...

transparent

future,
unknown
public process

short
timeline

COLLABORATIVE PROCESS

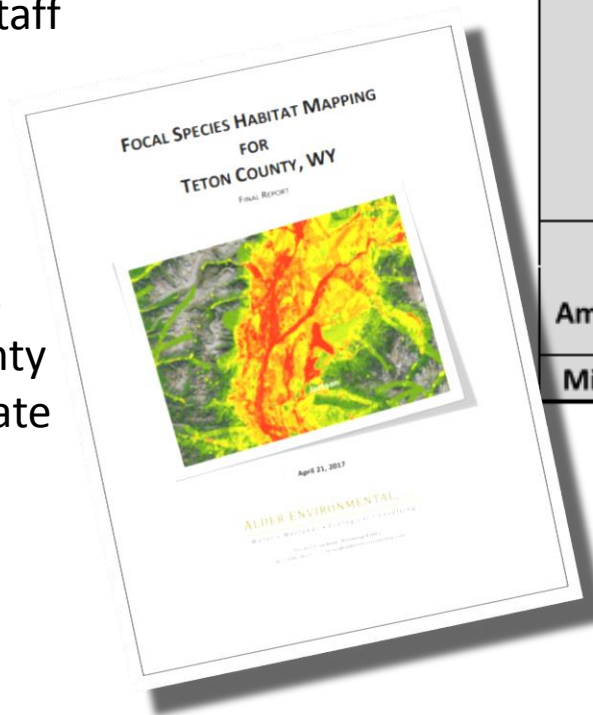
Participants

- Natural Resources Technical Advisory Board (NRTAB) – County Commissioner Appointed Board of Researchers
- Wyoming Game & Fish Department Biologists
- Team of Local Research Experts
- Teton County Planning Staff

Science by Consensus

TWO COMP PLAN GOALS

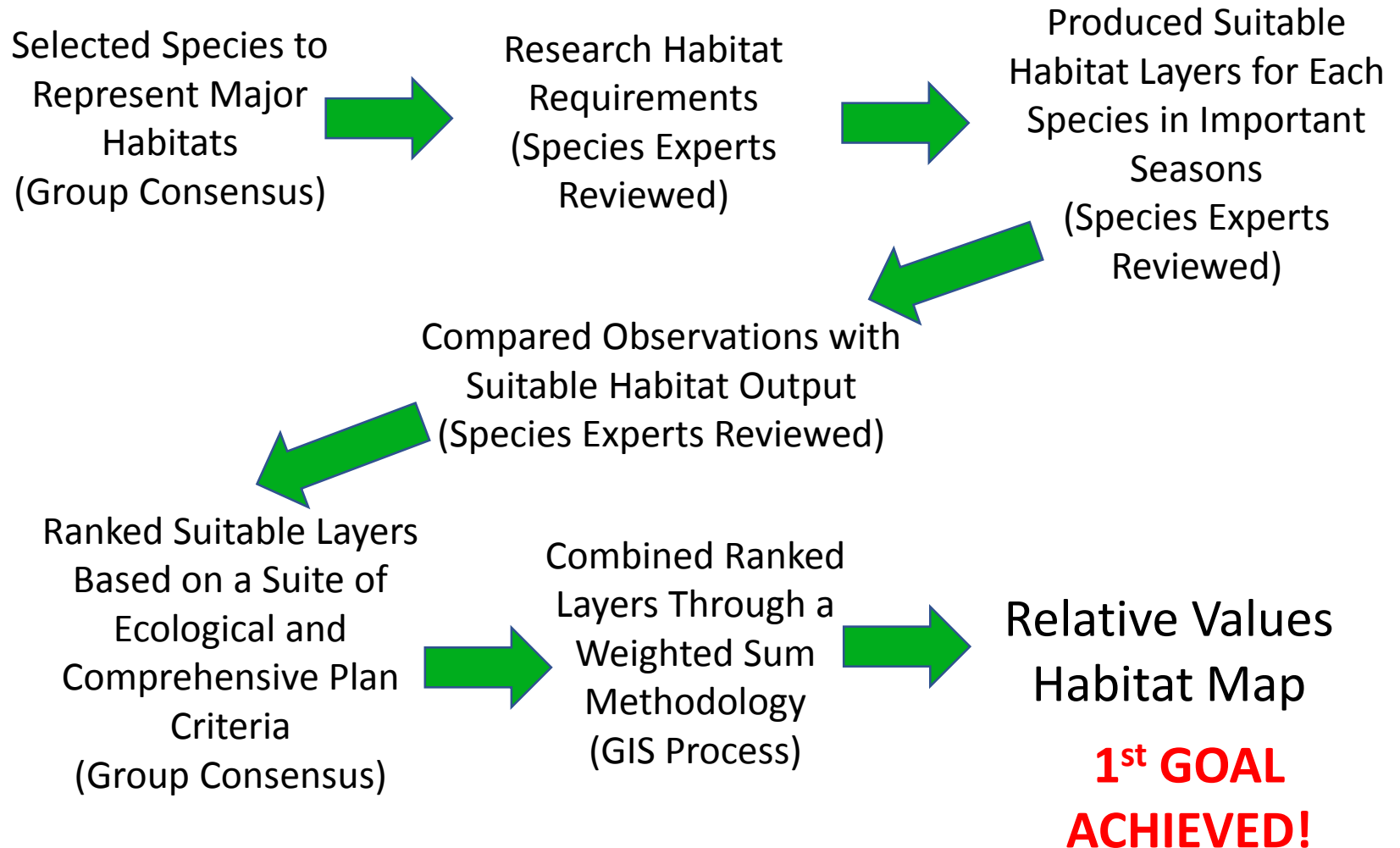
- 1 – Create a Relative Values Habitat Map for Teton County
- 2 – Process this Map to create a Tiered Natural Resources Overlay



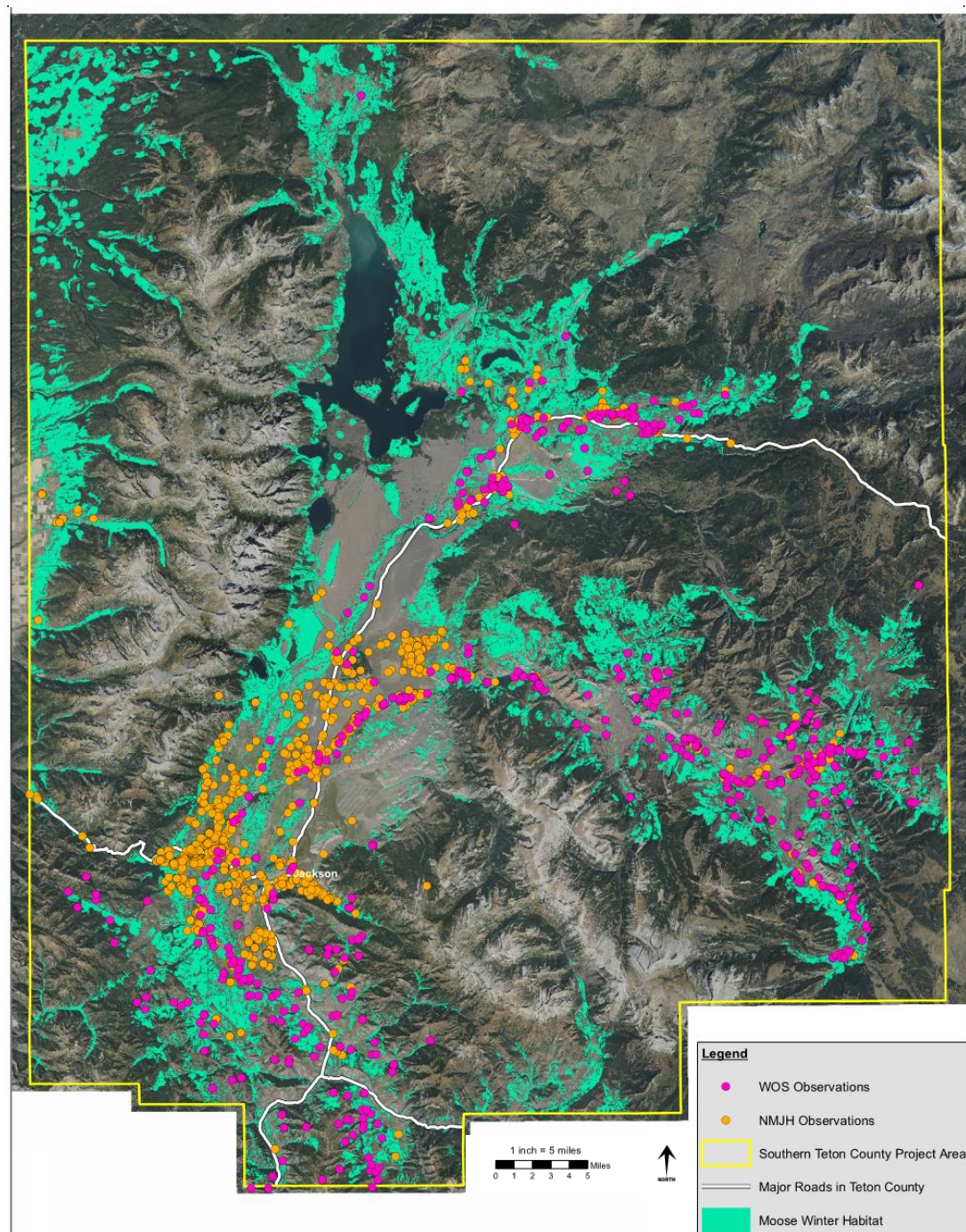
CATEGORY	FOCAL SPECIES
Mammal	Elk
	Moose
	Mule Deer
	Bald Eagle
	Brewer's Sparrow
Bird	Great Blue Heron
	Great Gray Owl
	Greater Sage-Grouse
	MacGillivray's Warbler
	Northern Goshawk
	Northern Harrier
	Red-naped Sapsucker
	Trumpeter Swan
	Western Meadowlark
	Snake River Cutthroat Trout
Fish	
Amphibian	Boreal Chorus Frog
	Western Toad
Migration	Migration (elk, moose, mule deer)

WHAT WE DID

Designed to be a REPEATABLE and TRANSPARENT Process

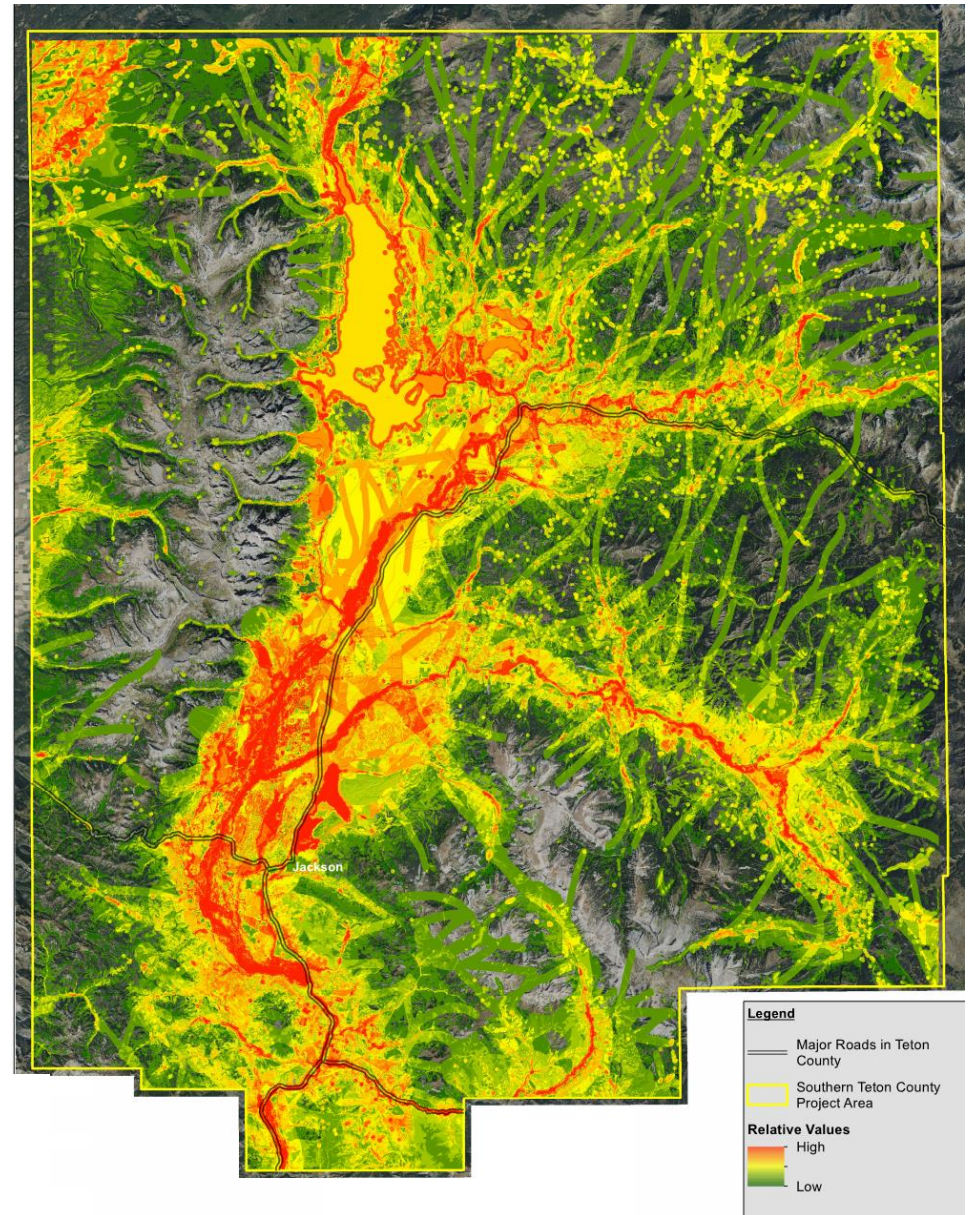
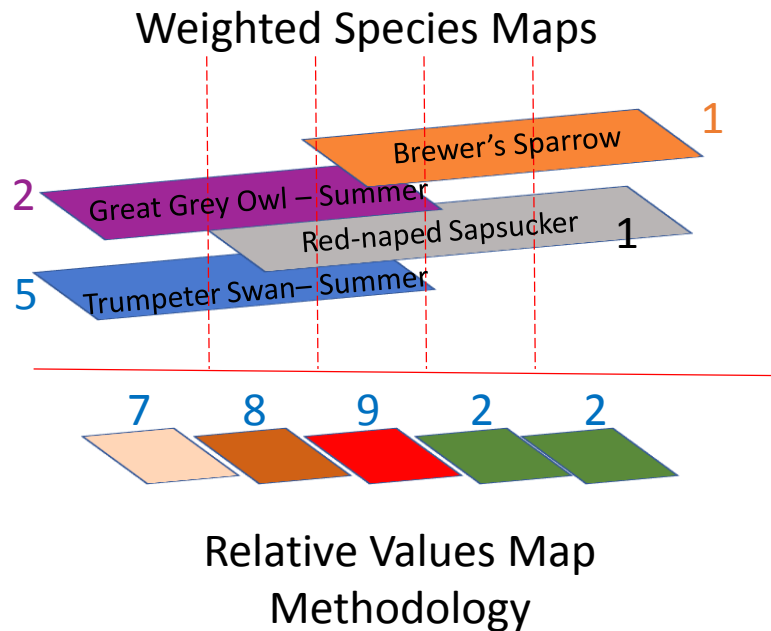


MOOSE WINTER HABITAT RESULT



APPLIED A WEIGHTED GIS METHODOLOGY

- Applied the rank as a “weight” for each habitat layer
- Summed these habitat layers in a weighted sum GIS methodology
- Created Relative Values Habitat Map



Example studies focused on relative values of *species level* layers not on *landscape* perspective in creating overall relative values

- Corridor Designs (Majka et al, 2007)
(movement through landscapes)
- USFWS Gulf of Maine Coastal Watershed
Habitat Analysis (USFWS, 2007)
(Threatened and Endangered Species)

WHAT WE'VE LEARNED

All Habitat Has Value

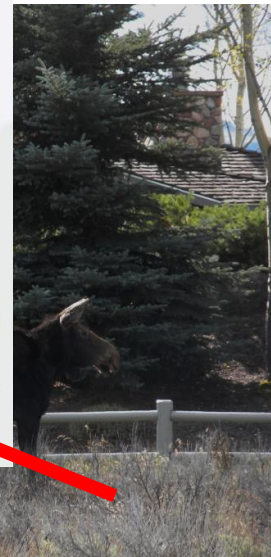
- All habitat below treeline was assigned a relative value and is of importance to some species
- Low value habitat is often located between areas of higher value habitat. The importance to wildlife is the ability to move through this area.
- Allowing movement through developed areas to access surrounding higher value areas is important.
- We cannot draw the conclusion that because areas are developed they don't have value (a common public misconception).

wildlife protection tiers



Baseline for

- This relationship in time.
- Relative unknown

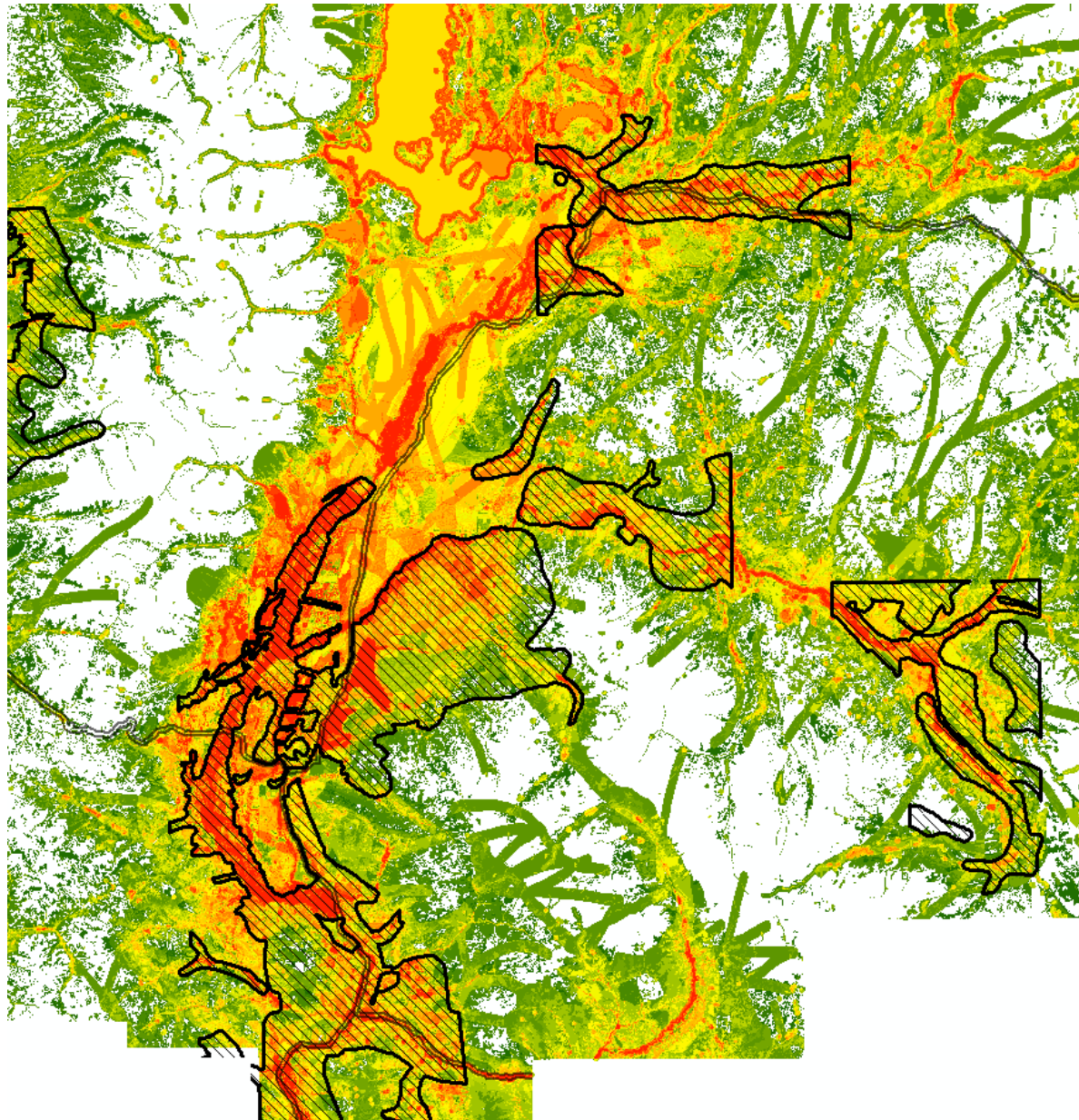


WHERE DO WE GO FROM HERE

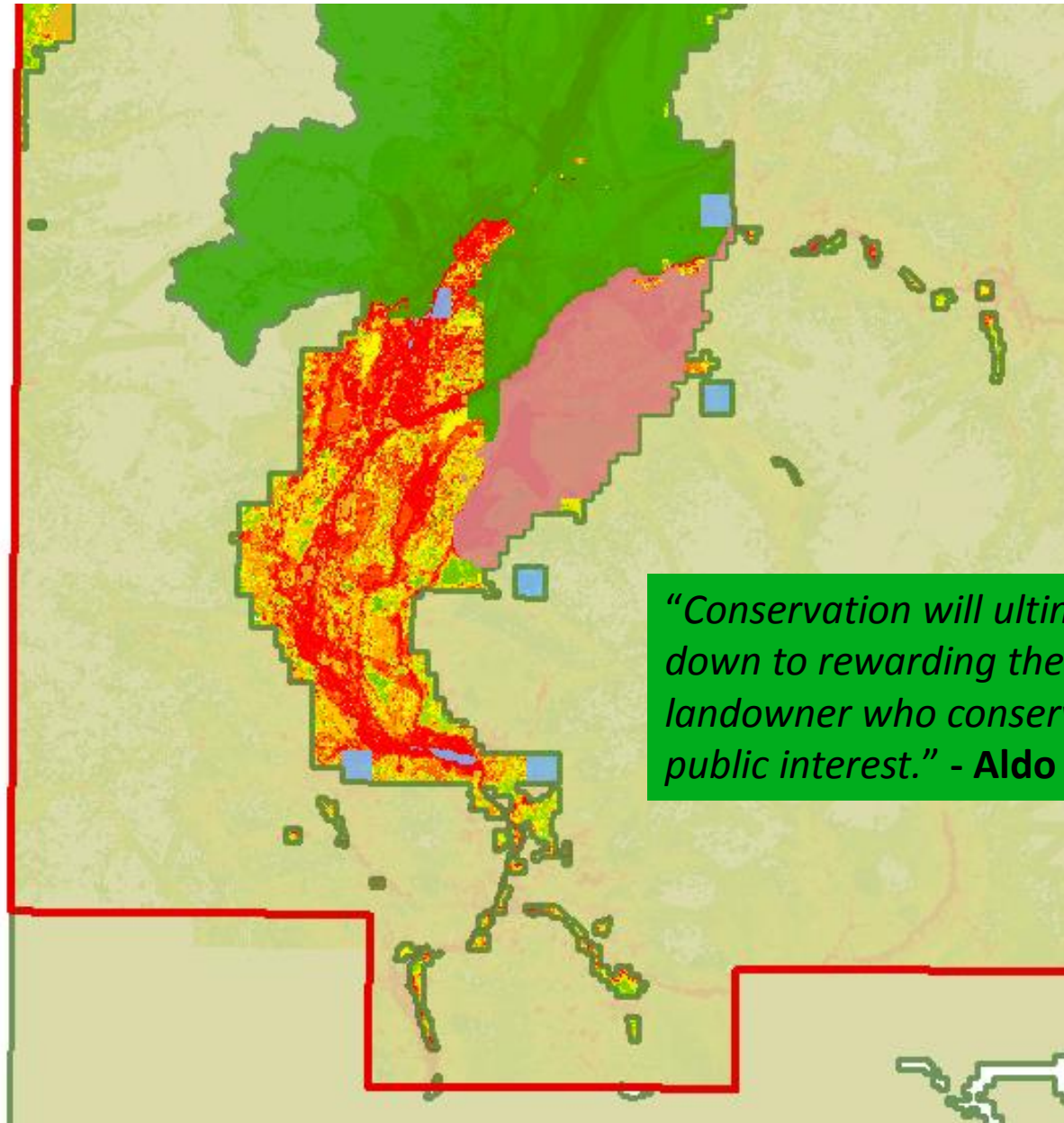
- We need to process this geographic dataset to create the Tiered Natural Resources Overlay Tool
 - This will be a collaborative process
- We need to develop regulations that vary by tier
 - Highest Tier – most restrictive
 - Medium Tier – encourages enhancements
 - Lowest Tier – Prioritizes movement (wildlife permeability) and water resources while encouraging development



CURRENT NATURAL RESOURCES OVERLAY VS. RELATIVE VALUES HABITAT MAP



PRIVATE LANDS ARE IMPORTANT



"Conservation will ultimately boil down to rewarding the private landowner who conserves the public interest." - **Aldo Leopold**

THANK YOU TO ALL OUR COLLABORATORS!

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Wyoming Migration Initiative
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Bridger-Teton National Forest
Caribou-Targhee National Forest
Grand Teton National Park

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Report available from Teton County Long Range Planning
<http://www.tetonwyo.org/DocumentCenter/View/3051>