Welcome to the Joint WRP Natural Resources and MRHSDP&A Committee Webinar on the Integrated Rangeland Fire Strategy (Implementation of DOI Secretarial Order 3336)

- We look forward to your input on this webinar
- Please be sure your phone is on mute (and not hold) This will ensure we will not have noise distractions on the webinar (such as beeps, other conversations, etc.)
  - *A phone can be muted on the phone or through Adobe Connect*
- Please let us know if you have any questions or comments by using the chat box

Western Regional Partnership

Reliable Outcomes for America's Defense, Energy, Environment and Infrastructure in the West

www.wrpinfo.org

August 2016

WRP Vision and Mission

WRP Vision

WRP will be a significant resource to proactively identify and address common goals and emerging issues and to develop solutions that support WRP Partners.

WRP Mission

WRP provides a **proactive and collaborative framework for senior-policy level Federal, State and Tribal leadership** to identify **common goals and emerging issues** in the states of Arizona, California, Colorado, Nevada, New Mexico and Utah and to **develop solutions** that **support WRP Partners and protect natural resources, while promoting sustainability, homeland security and military readiness.**

Today's Joint WRP Natural Resources and MRHSDP&A Committee Webinar on the Integrated Rangeland Fire Strategy (Implementation of DOI Secretarial Order 3336)

- This presentation will be conducted by:
  - Mike Haske, DOI, SO 3336 Implementation Manager
  - Karen Prentice, BLM, National Healthy Lands Coordinator
  - Steve Hanser, USGS, Sage-grouse Specialist
  - Victoria Smith-Campbell, BLM, Fire Management Specialist (GIS)
- Today's presentations:
  - A Landscape Approach to Land Management In the sagebrush ecosystem
  - Developing a Science Framework for the Integrated Rangeland Fire Strategy and Mitigation Strategies
  - Integrated Rangeland Fire Management Strategy Geospatial Framework

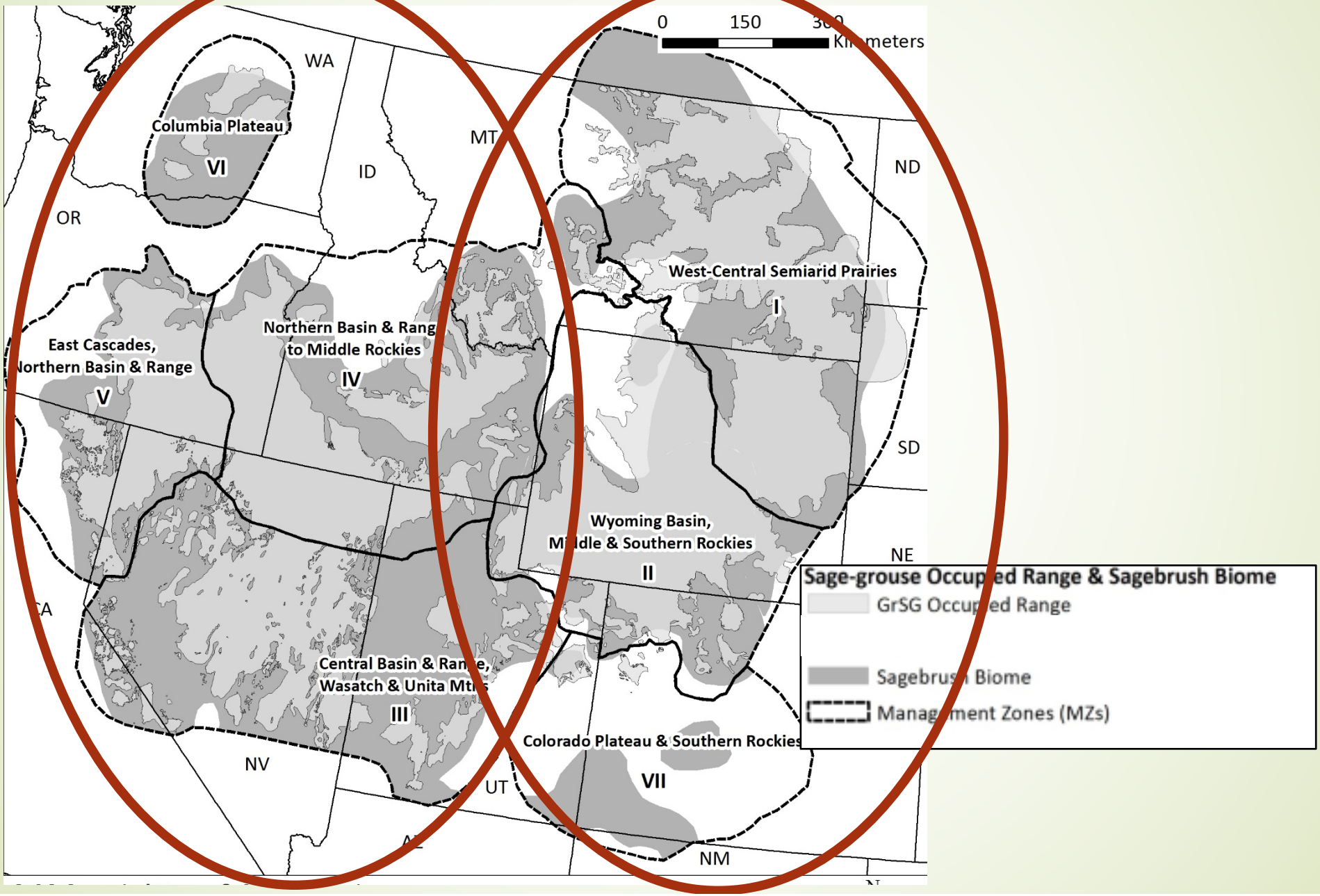
A LANDSCAPE APPROACH TO LAND MANAGEMENT IN THE SAGEBRUSH ECOSYSTEM

- Secretarial Order 3336
- A Conservation & Restoration Strategy
- Geospatial Information

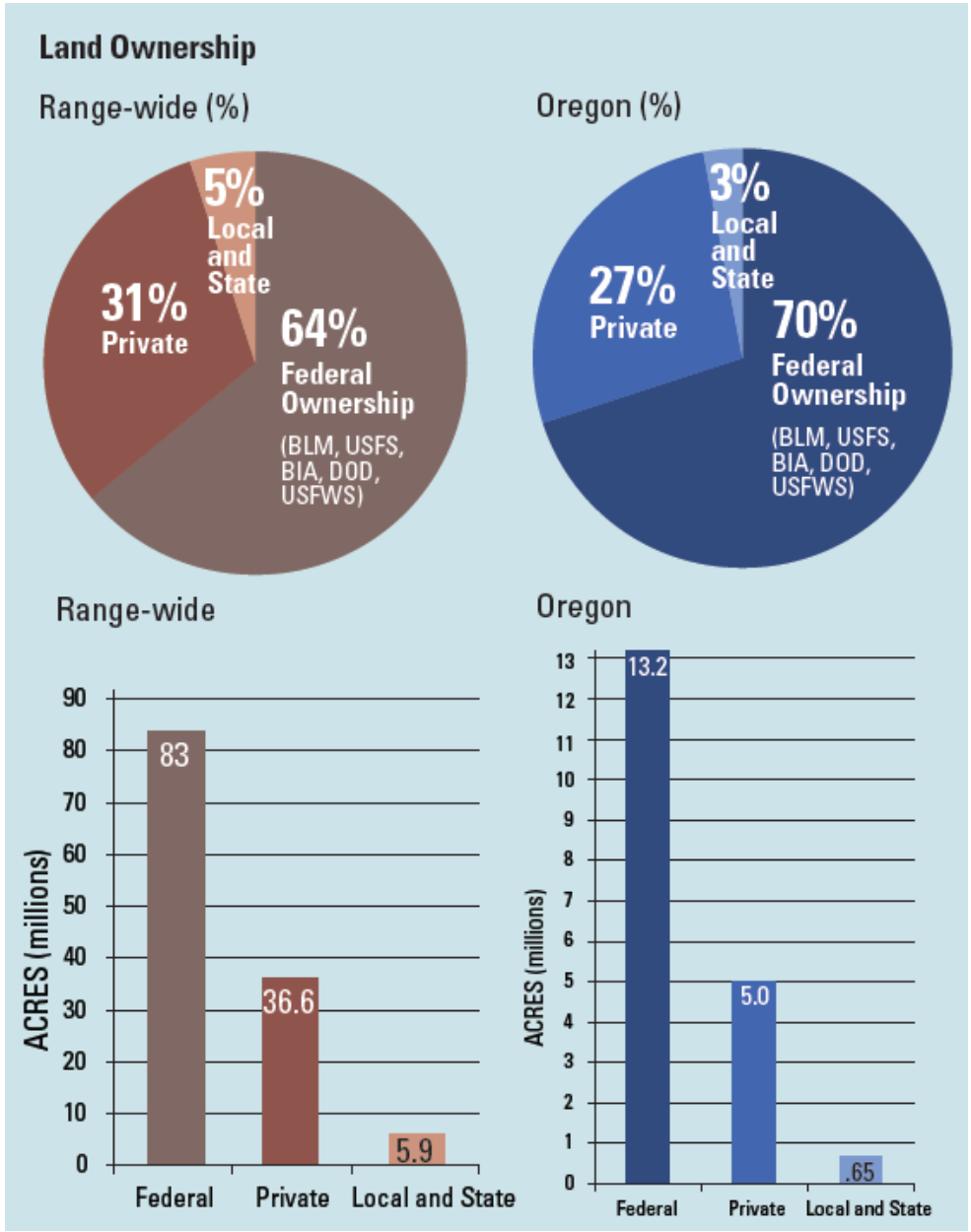
Steve Hanser (USGS), Mike Haske (DOI), Karen Prentice (BLM), and Victoria Smith-Campbell (BLM)

WRP Webinar, August 3, 2016

Ecoregions and Management Zones



Management of Greater Sage-Grouse Habitat



S.O. 3336: Jan 5, 2015

THE SECRETARY OF THE INTERIOR
WASHINGTON

ORDER NO. 3336

Subject: Rangeland Fire Prevention, Management and Restoration

Sec. 1 **Purpose**. This Order sets forth enhanced policies and strategies for preventing and suppressing rangeland fire and for restoring sagebrush landscapes impacted by fire across the West. These actions are essential for conserving habitat for the greater sage-grouse as well as other wildlife species and economic activity, such as ranching and recreation, associated with the sagebrush-steppe ecosystem in the Great Basin region. This effort will build upon the experience and success of addressing rangeland fire, and broader wildland fire prevention, suppression and restoration efforts to date, including the National Cohesive Wildland Fire Management Strategy, and ensure improved coordination with local, state, tribal, and regional efforts to address the threat of rangeland fire at a landscape-level.

Sec. 2 **Background**. The Department of the Interior is entrusted with overseeing the management of Federal lands for the benefit of current and future generations as well as the protection and recovery of imperiled species of flora and fauna and the ecosystems upon which they depend. Rangeland fires in the Great Basin of the Western United States have increased in size and intensity in recent years. The accelerated invasion of non-native annual grasses, in particular cheatgrass and medusahead rye, and the spread of pinyon-juniper across the sagebrush-steppe ecosystem, along with drought and the effects of climate change, have created conditions that have led to the increased threat of rangeland fires to the sagebrush landscape and the more than 350 species of plants and animals, such as mule deer and pronghorn antelope, that rely on this critically important ecosystem. As a result, the increasing frequency and intensity of rangeland fire also poses a significant threat to ranchers, livestock managers, sportsmen, and outdoor recreation enthusiasts who use the sagebrush-steppe ecosystem, and puts at risk their associated economic contributions across this landscape that support and maintain the American way of life in the West.

In 2010, the U.S. Fish and Wildlife Service (USFWS) found that the invasion of annual grasses and the loss of habitat from fire in the Great Basin is a significant threat to the greater sage-grouse in that portion of its remaining range. The USFWS is now considering whether protections under the Endangered Species Act are warranted. In response to this finding, the Bureau of Land Management (BLM) and the U.S. Forest Service are currently undertaking land use plan revisions and amendments to incorporate appropriate conservation measures to conserve, enhance, and restore greater sage-grouse habitat by reducing, eliminating, or minimizing threats to that habitat. More targeted actions to reduce the likelihood and severity of fire, to stem the spread of invasive species, and to restore the health and resilience of the landscape are necessary to preserve, protect, and restore greater sage-grouse habitat in the sagebrush-steppe ecosystem, and address important public safety, economic, cultural, and social concerns. This includes enhanced coordination and collaboration with partners and stakeholders, including rangeland fire protection associations.

Sec. 3 **Authorities**. This Order is issued under the authority of Section 2 of Reorganization Plan No. 3 of 1950 (64 Stat.1262), as amended. Other statutory authorities related to this Order include

May 2015

An Integrated Rangeland Fire Management Strategy

Final Report to the Secretary of the Interior

May 2015

Key Areas of Emphasis Identified in the Integrated Rangeland Fire Strategy

- Cross Cut
- Integrated Response Plans (7bi)
- Prioritization & Allocation of Resources (7bii)
- Fuels (7biii)
- Integrate Science into Project Design & Implementation (7biv)
- Post Fire Restoration (7bv)
- Multi-year Investments in Restoration (7bvi)
- Large Scale Activities to Remove Invasive Grasses (7bvii)
- Science & Research (7bviii)
- National Seed Strategy (7bix)

Initial Successes

- **Associated Press Article 1/26/16: Secretary Jewell's Strategy "… one of the most significant federal land policy changes in some 80 years …"**
  - **More resources to respond to fires**
  - **Updated Emergency Stabilization/Burned Area Rehab policy**
  - **Cross Boundary Partnerships: All Lands, All Hands in practice!**
- **National Seed Strategy finalized in August 2105**
- **Conservation and Restoration Strategy**
- **Release of National Framework for Early Detection/Rapid Response**
  https://www.doi.gov/sites/doi.gov/files/National%20EDRR%20Framework.pdf
- **Preparing an Actionable Science Plan to fill science gaps**
- **New "one stop shop" for geospatial data via the Geospatial Portal**
- **Increased Funding Proposed in FY 17 President's Budget**

A Few Next Steps

- **Completing and Utilizing the Conservation and Restoration Strategy and Geospatial Portal**
- **Development of the Actionable Science Plan**

- **Institutionalizing the landscape-scale approach of the Integrated Rangeland Fire Management Strategy via Departmental Manual**
- **Fire Operations**
- **Continued Focus on Partnerships**

A LANDSCAPE APPROACH TO LAND MANAGEMENT IN THE SAGEBRUSH ECOSYSTEM

Contacts

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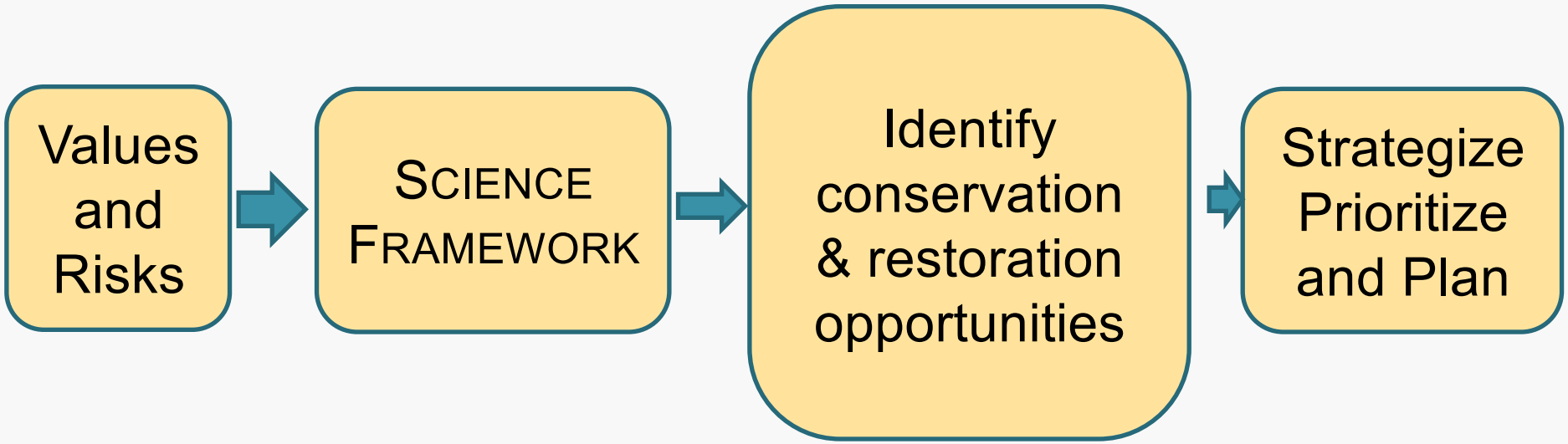
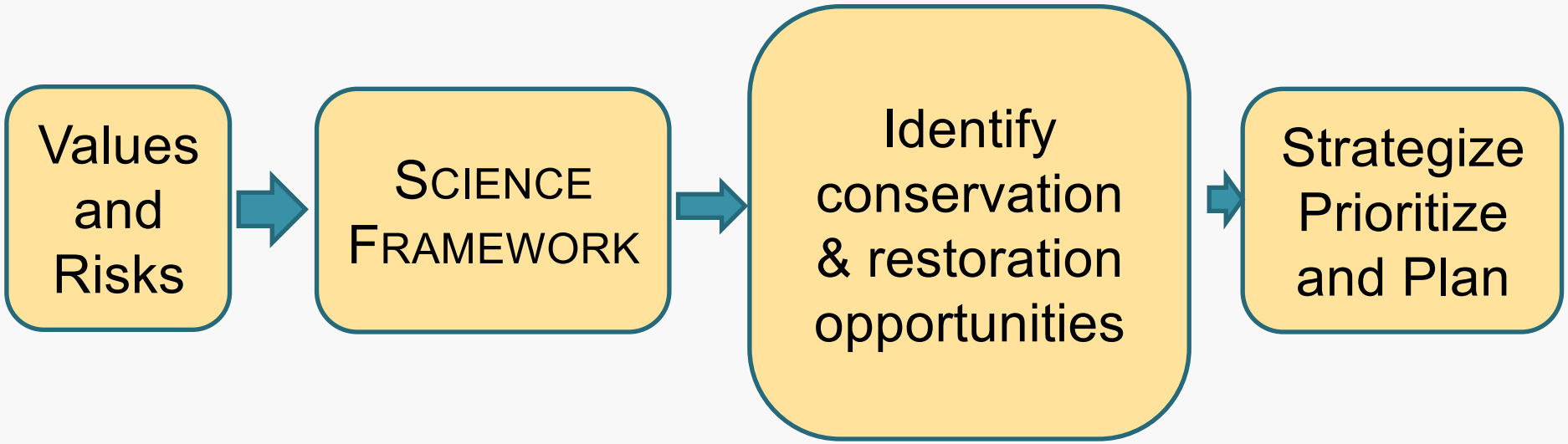
Victoria Smith-Campbell, BLM, Fire Management Specialist (GIS) *vsmithcampbell@blm.gov*

DEVELOPING A SCIENCE FRAMEWORK FOR THE INTEGRATED RANGELAND FIRE STRATEGY & MITIGATION STRATEGIES

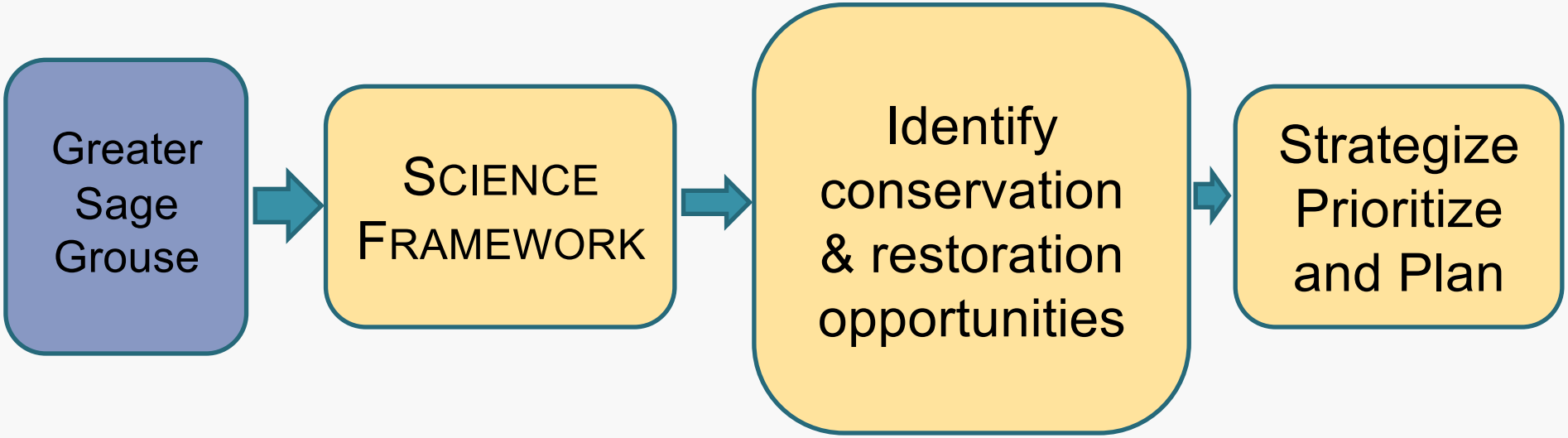
TO AID PRIORITIZATION OF CONSERVATION AND RESTORATION ACTIVITIES IN THE SAGEBRUSH ECOSYSTEM

- *The Conservation and Restoration Strategy (C&R Strategy) will*
  - *include a baseline assessment, conceptual models, and other components necessary to provide an overarching strategy for "on the ground" restoration actions in the sagebrush-steppe*
  - *provide a foundation for adaptive management and budget prioritization.*
  - *acknowledge risks to resource treatments and will incorporate geospatial tools and objectives.*
  - *create a more unified approach that identifies shared objectives and negotiates inconsistencies.*
  - *include consideration of multiple resource management objectives and change agents*
  - *model possible options for implementation*

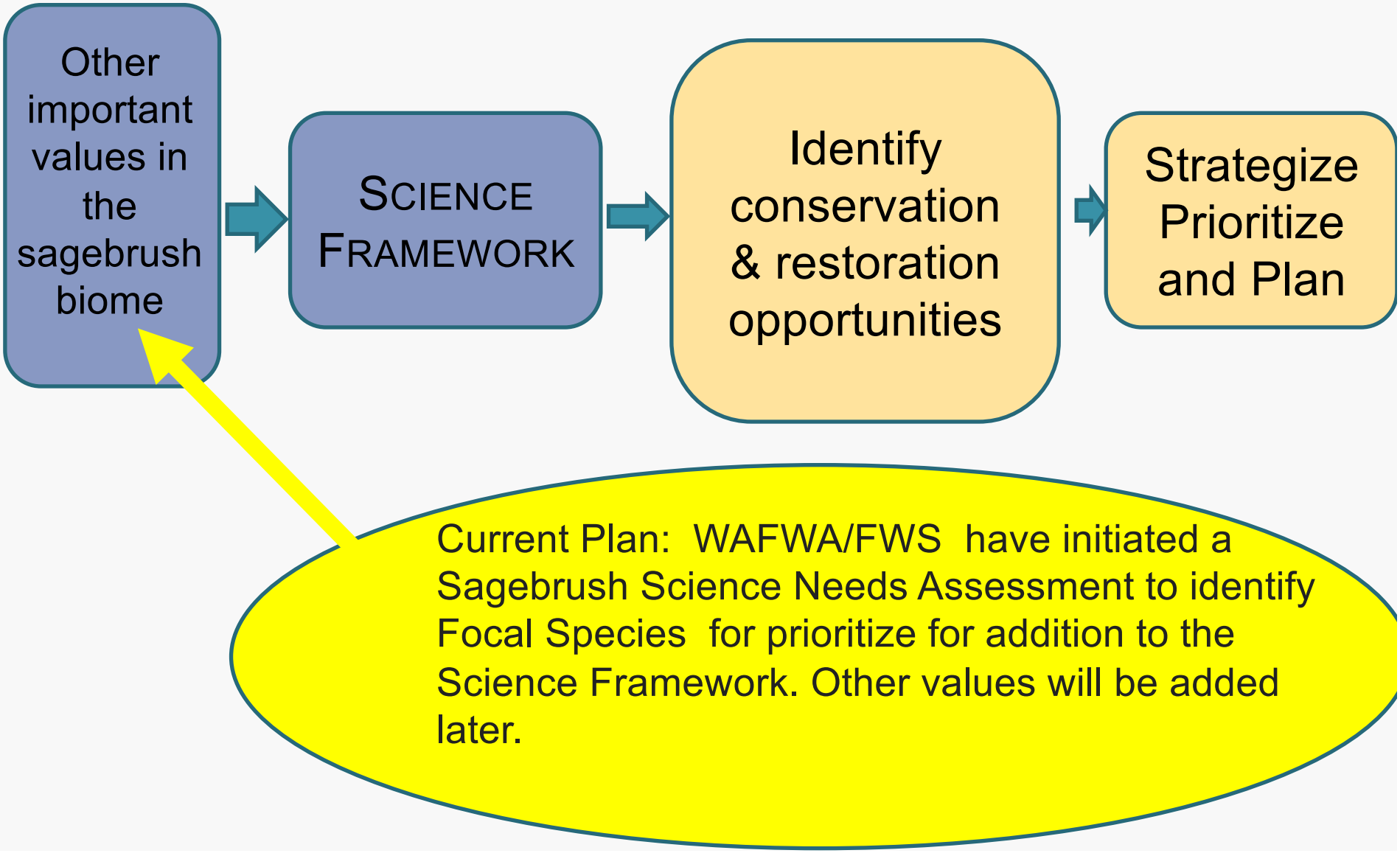

Values and Risks
SCIENCE FRAMEWORK
Identify conservation & restoration opportunities
Strategize Prioritize and Plan



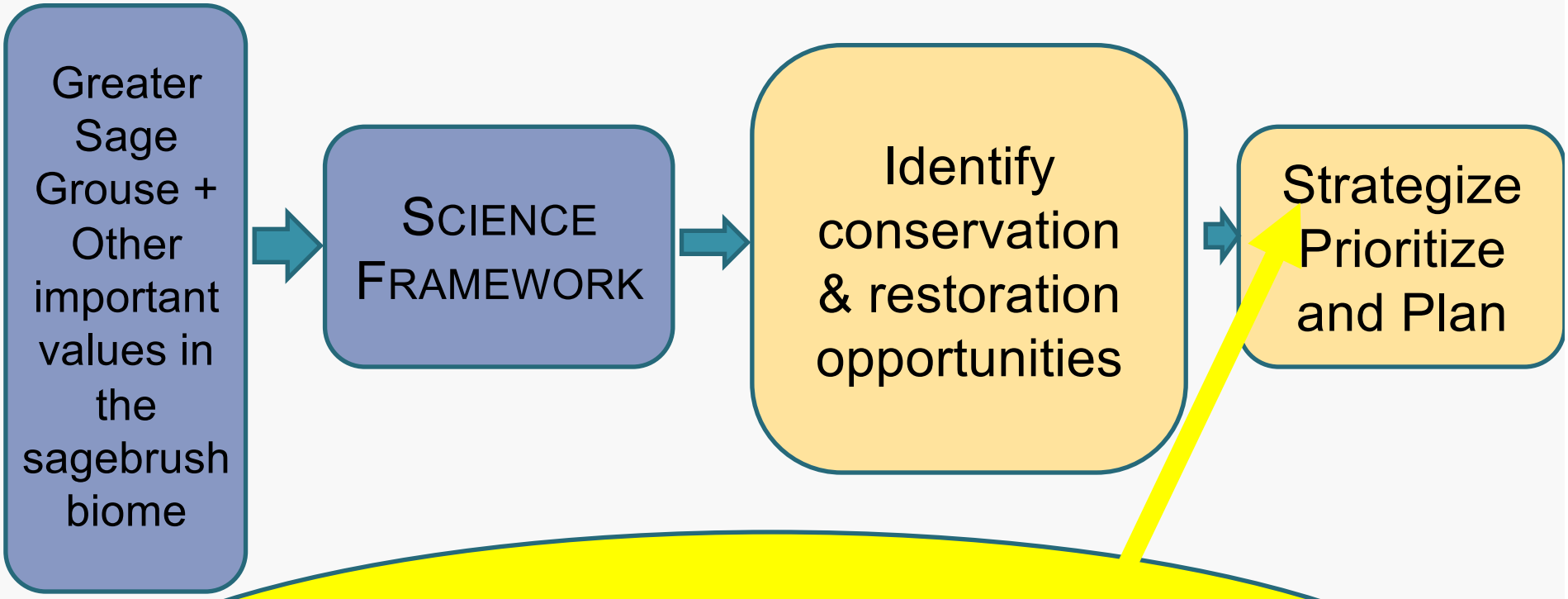
The Science Framework provides a holistic, science-based foundation for assessing resource values and threats across scales in the sagebrush biome


Greater Sage Grouse
SCIENCE FRAMEWORK
Identify conservation & restoration opportunities
Strategize Prioritize and Plan

Looking beyond Greater Sage Grouse and a Species Centric Approach



Developing a Conservation and Restoration Strategy



Current Plan: BLM and WAFWA are planning an October 2016 workshop to guide development of an (invitational) collaborative conservation and restoration strategy for the sagebrush biome.

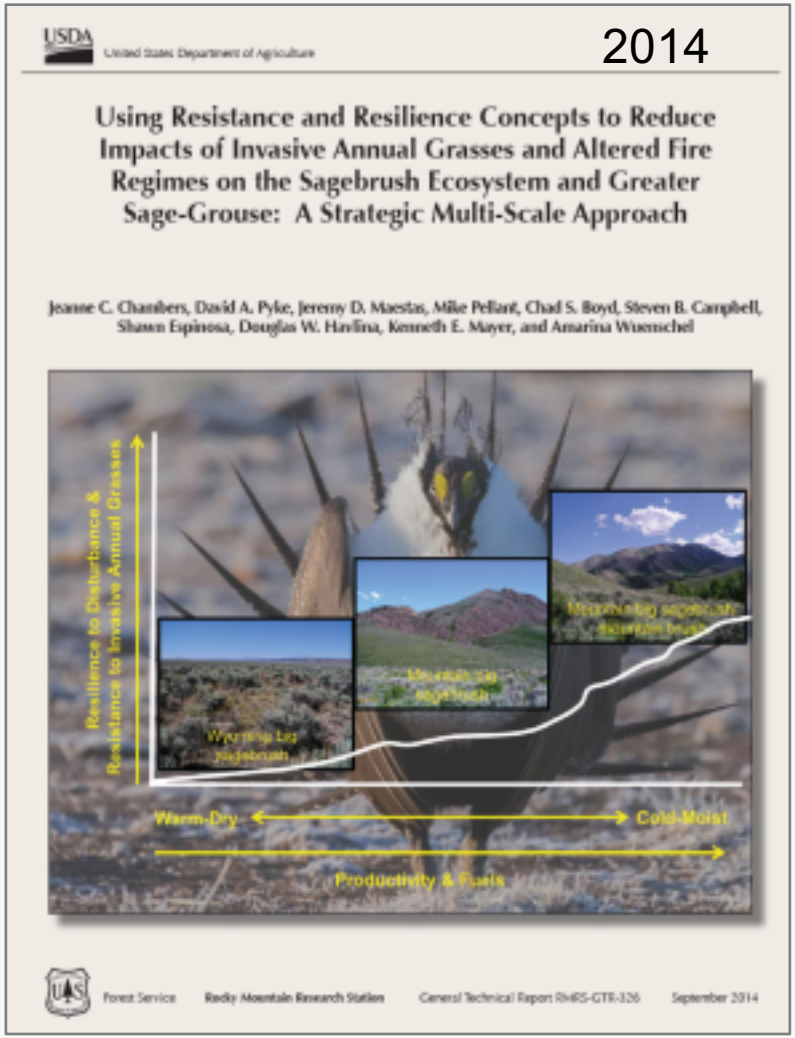
A Strategic, Multi-Scale Approach

Scale/Area	Data/Tools/Models*	Process
	Scale-Dependent/Additive	
Sagebrush Biome	**Habitat** **Soils** **Population data and models** **Priority Resource data** **Fire and other threat data** **Climate change projections**	**National Budget Prioritization** **Rangewide Consistency**
Sage-Grouse MZs and Ecoregions	**Above +** **Assessments & Planning Docs** **Regional Data & Models** **Regional Tools**	**ASSESSMENTS** **Ecoregion/MZ Prioritization**
Local and site planning areas	**Above +** **Local/site Data & Models**	**Project Areas** **Treatment Type**

*USFS, NRCS, USGS, BLM, WAFWA, FWS, NGOs, IPCC, etc.

The Science Basis – Resilience and Resistance

Builds on products from two WAFWA Working Groups

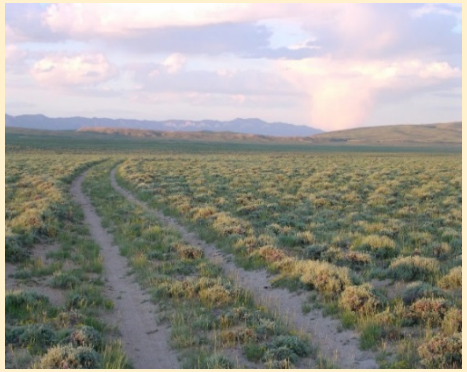


http://www.treesearch.fs.fed.us/pubs/46329

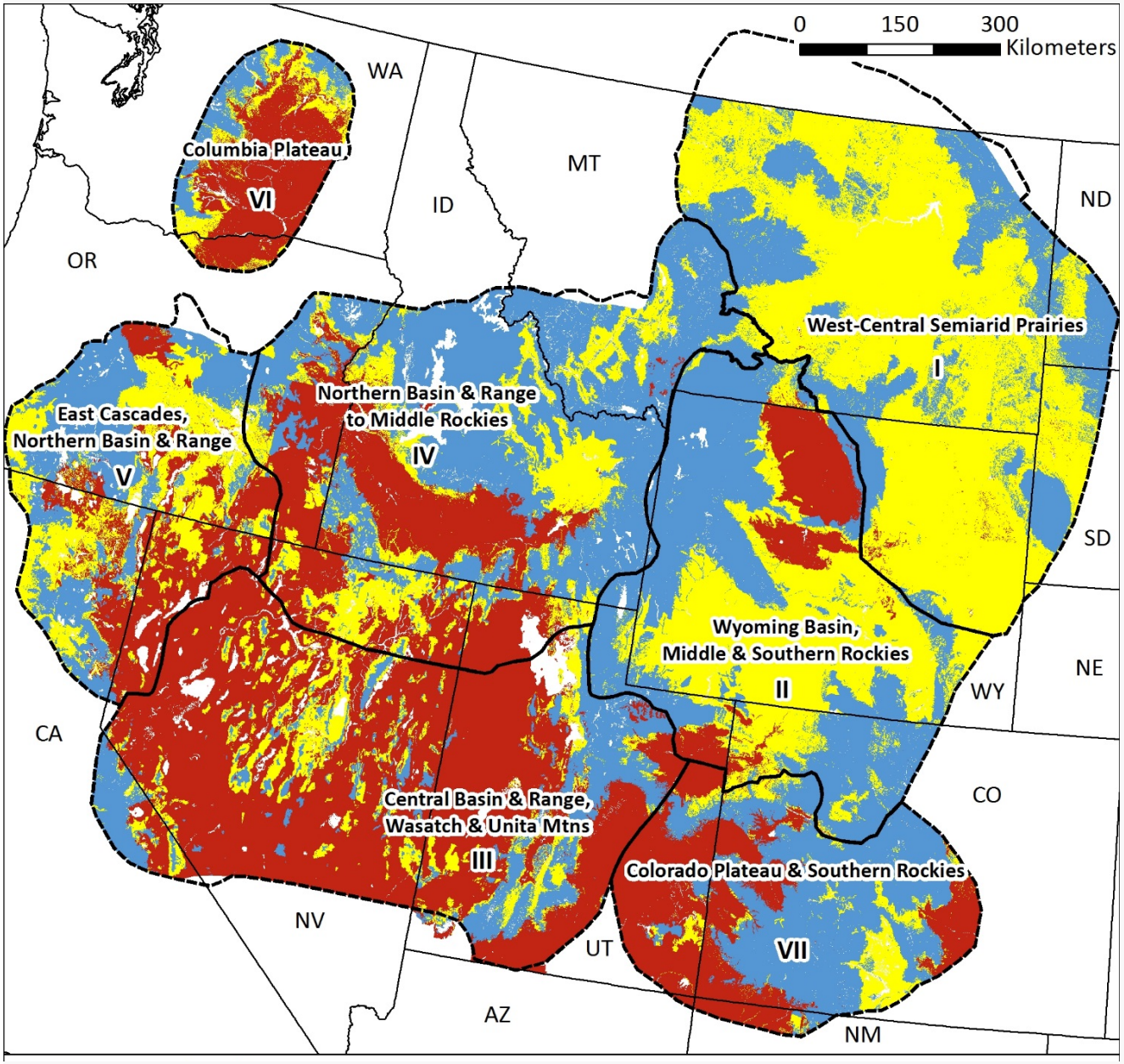
In Press

Using Resilience and Resistance Concepts to Manage Threats to Sagebrush Ecosystems, Gunnison Sage-Grouse, and Greater Sage-Grouse in their Eastern Range: A Strategic Multi-Scale Approach

Jeanne C. Chambers, Jeffrey L. Beck, Steve Campbell, John Carlson, Thomas J. Christiansen, Karen J. Clause, Jonathan B. Dinkins, Kevin E. Doherty, Kathleen A. Griffin, Douglas W. Havlina, Kenneth F. Henke, Jacob D. Hennig, Laurie L. Kurth, Jeremy D. Maestas, Mary Manning, Kenneth E. Mayer, Brian A. Mealor, Clinton McCarthy, Marco A. Perea, David A. Pyke



Resilience & Resistance Classes



Soil Temperature & Moisture Regimes =

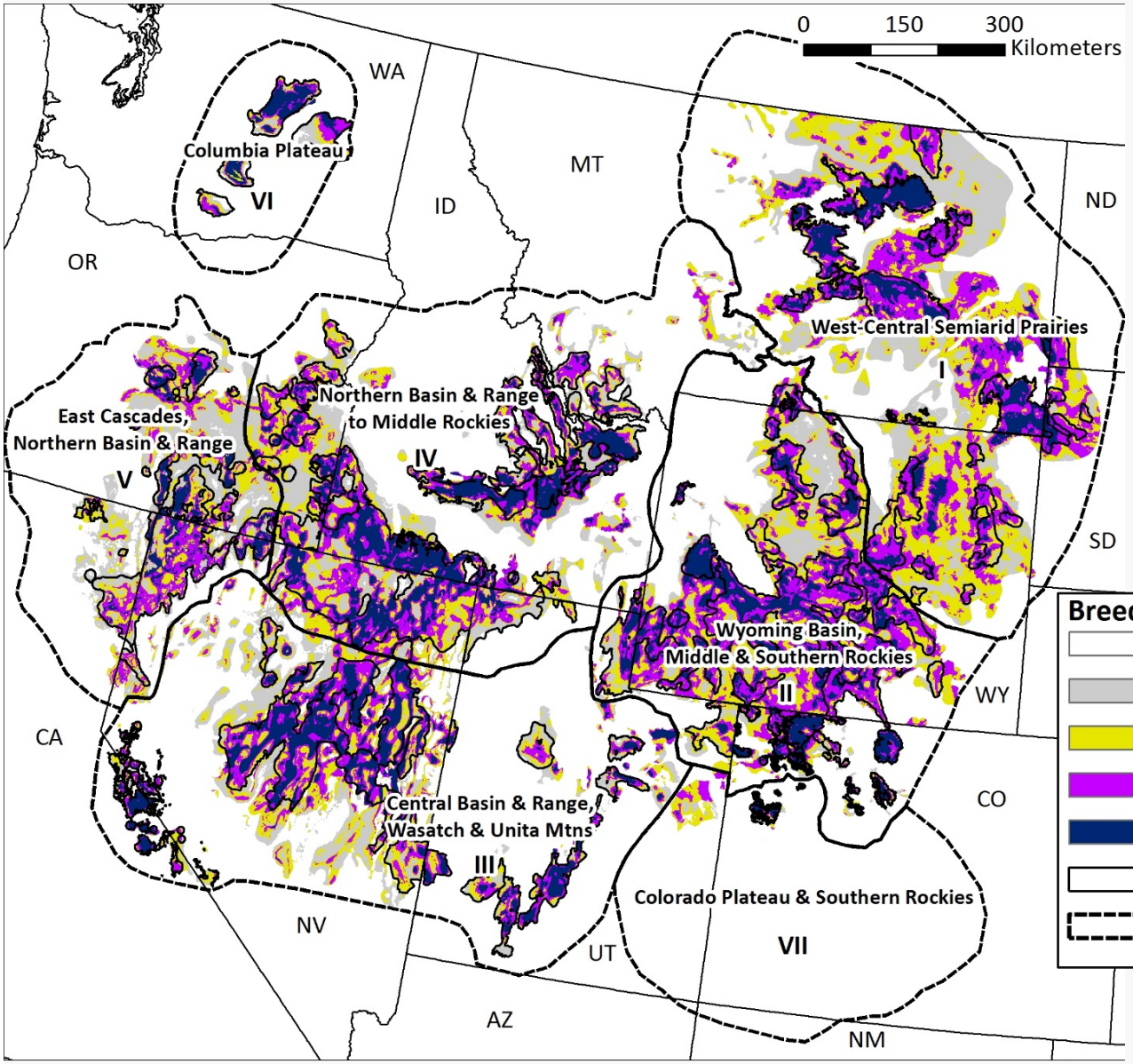
Landscape indicator of resilience & resistance

Resistance and Resilience

- High
- Moderate
- Low
- Management Zones (MZs)

SURGO – 1:24,000 with gaps filled with STATGSO -1:250:000 (Campbell & Maestas 2016, Maestas et al. 2016))

Sage-grouse Breeding Habitat Probabilities



Bases Breeding Habitat on multivariate models –

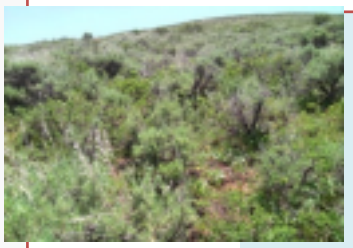
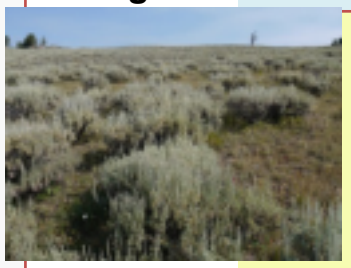
- ***2010 – 2014 BBD data***

- ***General Habitat***
- ***Climate***
- ***Landform***
- ***Disturbance***

Doherty et al. 2015

Sage-Grouse Habitat Matrix

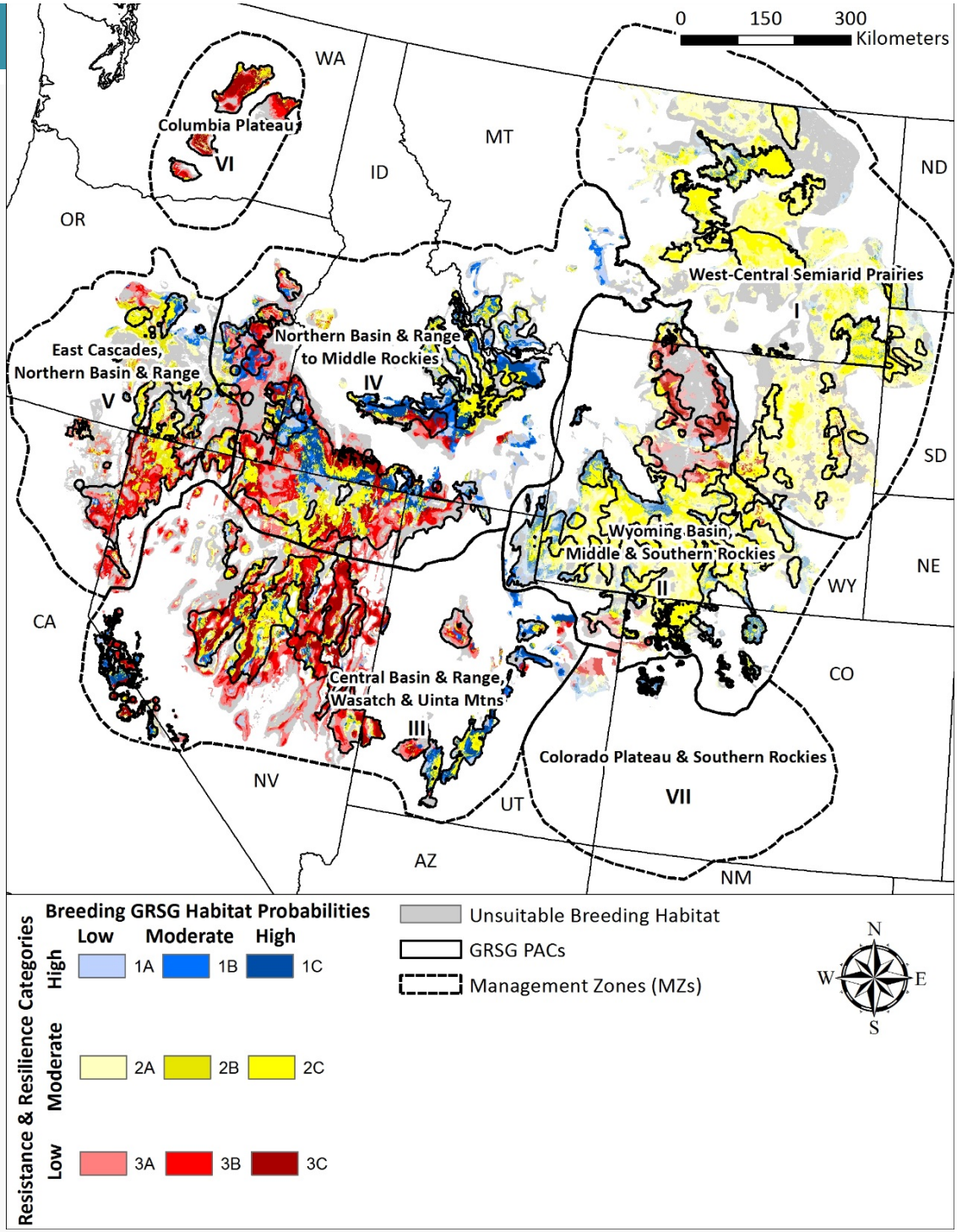
Probability of Sage-Grouse Breeding Habitat

Sagebrush Ecosystem Resilience & Resistance	*Low (0.25-0.50)* Landscape context is likely limiting habitat suitability - significant restoration may be needed.	*Medium (0.5-0.75)* Landscape context may be affecting habitat suitability – improve with management.	*High (> 0.75)* Landscape context is highly suitable to support breeding habitat - maintain and enhance resilience & resistance.
High 	**RESTORATION/RECOVERY POTENTIAL HIGH** *Native grasses and forbs sufficient for recovery* *Annual invasive risk low; Conifer expansion is a local issue* *Seeding success is typically high*		
Moderate 	**RESTORATION/RECOVERY POTENTIAL INTERMEDIATE** *Native grasses and forbs usually adequate for recovery* *Annual invasive risk moderate; Conifer expansion is a local issue* *Treatment success depends on site characteristics*		
Low 	**RESTORATION/RECOVERY POTENTIAL LOW** *Native grasses and forbs inadequate for recovery* *Annual invasive risk is high* *Seeding success depends on site characteristics, invasives & ppt* *May require multiple management interventions*		

Map of GRSG Habitat Matrix

Prioritizing areas for management –

- Management strategies can be matched directly to the Matrix



Threats to Sagebrush Ecosystems

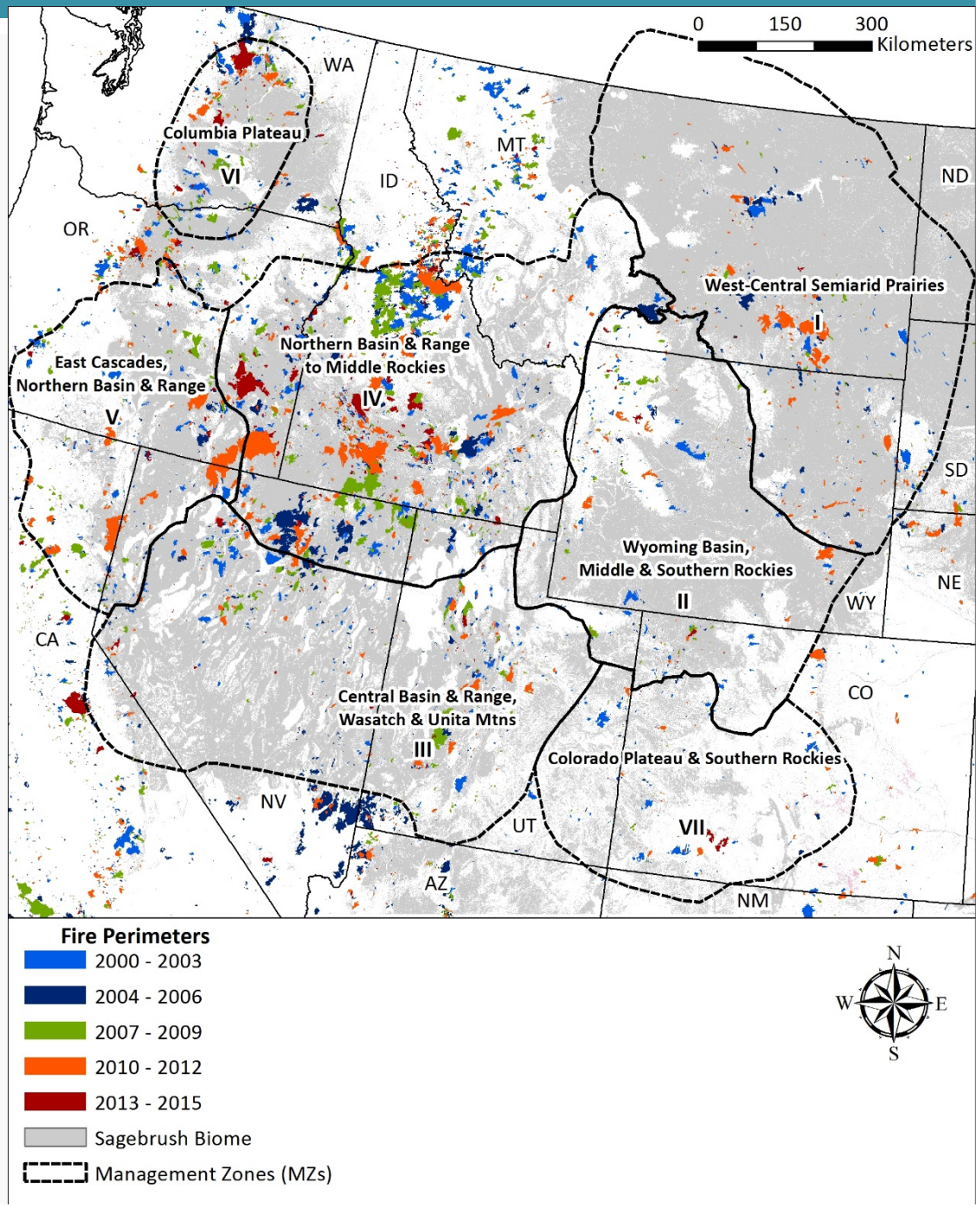
Persistent Ecosystem Threats

- Nonnative Invasive Species
- Altered Fire Regimes
- Conifer Expansion

Climate Change

- Effects on Ecosystems and Species

- Identified in COT Report (2013)



Threats to Sagebrush Ecosystems

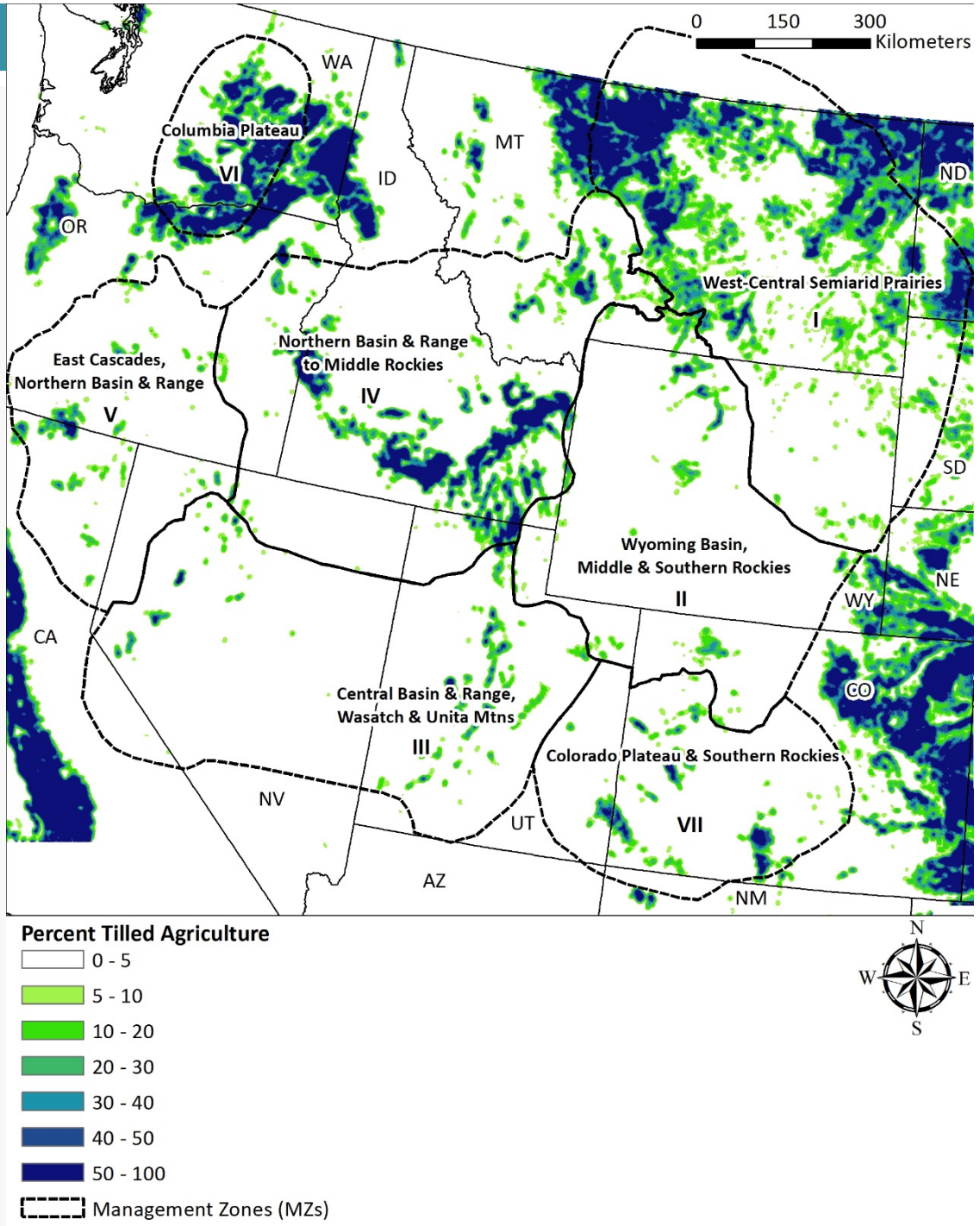
Policy-Regulatable Threats

- Inappropriate Livestock Grazing
- Cropland Conversion
- Oil and Gas Development
- Exurban Development
- Recreation

➢ Documentation of threats already exists

➢ Focus is on secondary ecosystem effects

➢ – fragmentation, weeds



Schedule: “Part 1- Science”

August 5:

Part 1, Pages 1-63 of the current review draft, as reconciled, will be published as a USFS Miscellaneous Publication . Available on Tree Search (http://www.treesearch.fs.fed.us/).

- *A cover note stating that the materials are subject to future revision will be included in the Misc. Pub.*
- *Data to support the Miscellaneous Publication will be available on ScienceBase and will be served through the Landscape Data Portal (Steve Hanser will discuss this).*

November 4 - November 18:

REVIEW PERIOD for a combined document that includes those materials published as Miscellaneous Publication, as revised, AND those materials in Part 2, as revised.

December 16: The combined GTR will be in press.

Schedule- “Part 2- Management Implications”

August 5-Sept 30: Part 2 will be revised.

September 30-October 14: REVIEW PERIOD for “Part 2”

November 4-November 18: REVIEW PERIOD for a combined document that includes those materials published as Miscellaneous Publication, as revised, AND those materials in Part 2, as revised.

December 16: The combined GTR will be in press.

Immediate Opportunities to Engage

-After release, work with the Miscellaneous Publication and data. Provide any additional review comments.

-Help develop Part 2- Management Implications

Wrap-Up

- The Science Framework provides a holistic, science-based foundation for assessing resource values and threats across scales in the sagebrush biome.
- The Conservation and Restoration Strategy for the Sagebrush Biome will be informed by the Science Framework.
- Both the Science Framework and the C&R Strategy are adaptive.
- Agencies within DOI will consider the C&R Strategy as they identify budget priorities and develop programs of work for conservation and restoration investments in the sagebrush biome.
- If you are interested in reviewing a draft of participating, please contact Karen Prentice at kprentic@blm.gov.

Integrated Rangeland Fire Management Strategy Geospatial Framework



Cross-Cutting Action Item #2

- Develop and share a **geospatial tool** that highlights areas of concern and priority habitats in the Great Basin, including within priority greater sage-grouse habitat, particularly in areas identified using the FIAT.

- This tool will provide a **common framework** and common terminology to support the implementation of the Order.

Why is this necessary?

- Difficult to discern correct version or hosting location
  - Numerous places to find data
  - Many versions of data
  - Numerous originating agencies
- Prioritize and facilitate publication and access to essential data

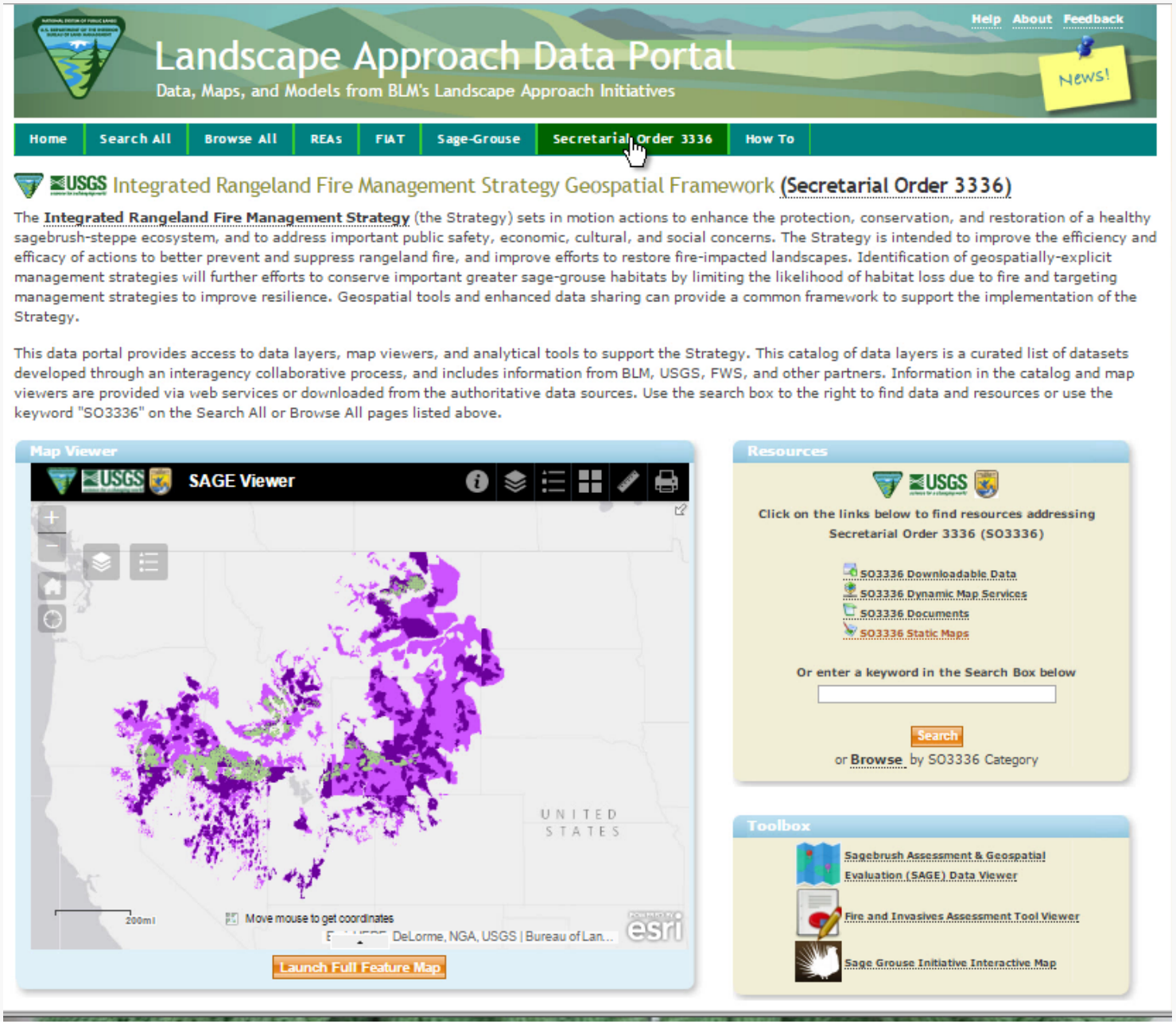
Integrating Organizations through a Geospatial Framework

- Single landing page to numerous authoritative data sources
- Curated Content
- Easy Visualization and Access
- Assistance to partners

Primary Building Blocks

- BLM Landscape Approach Data Portal
  - Landscape focused data
  - BLM Managed
- USGS ScienceBase
  - Data from project to landscape
  - Allows verified partners
  - Open Platform

Geospatial Framework Interface



Data Catalog

Help About Feedback

Landscape Approach Data Portal

Data, Maps, and Models from BLM's Landscape Approach Initiatives

News!

Home | Search All | Browse All | REAs | FIAT | Sage-Grouse | Secretarial Order 3336 | How To

Home

The **BLM's Landscape Approach** Data Portal is a one-stop source for **geospatial data, maps, models and reports** produced by BLM's landscape initiatives including the:

- Rapid Ecoregional Assessments (REAs)
- Fire & Invasives Assessment (FIAT) program, and
- Sage-Grouse Initiative

To learn more about each initiative and the products that are available for them, click on the images to the right or the tabs above. You can find products from all of these initiatives by using the Search or Browse tabs above.

On the Search page, enter any keyword(s) in the Text box or search by:

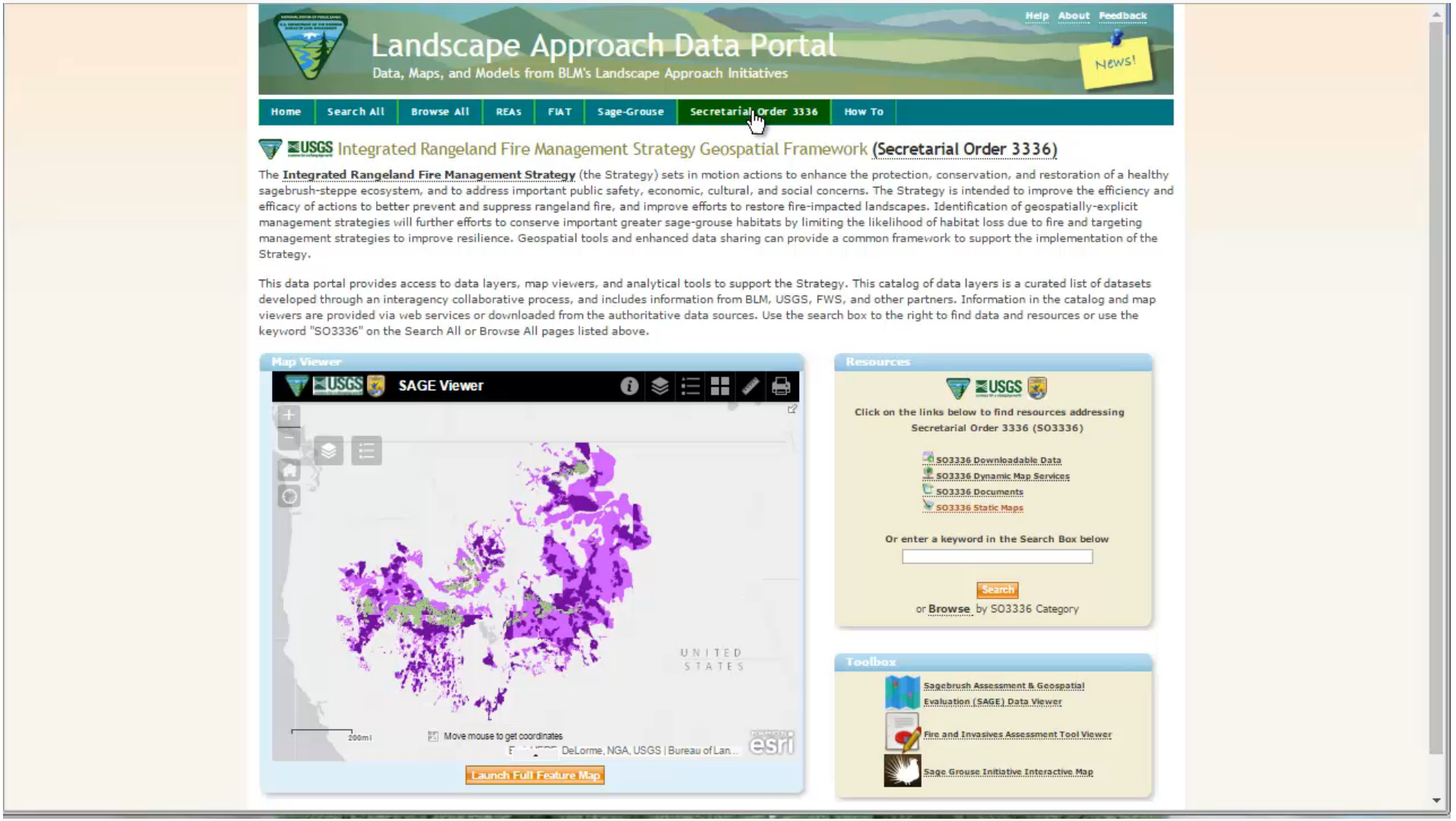
- Initiative — such as *REA, FIAT, or sage-grouse*
- Subject — such as *sage-grouse, soils, intactness*
- Place — such as *CO, Northern Great Basin*

You can conduct advanced searches on the Search page such as filtering by content type (e.g., data, map, model) or geographic extent. You can even search other data portals simultaneously, including USGS Science Base, Data.gov, and ArcGIS Online. Click on this **How To...** link for instructions.

On the Browse page, simply click each header to expand the various categories. For example, you can browse by Content Type (data, maps, models) or a specific REA (e.g., Colorado Plateau REA).

This portal was built using Geoportal Server 1.2.5 as part of the broader BLM ArcGIS for Server program. Please read the pages describing our **Disclaimer** and **Privacy** or **Contact Us**.

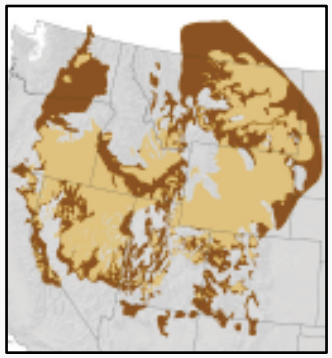
Data Visualization



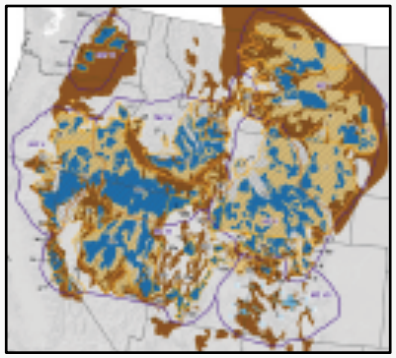
Toolbox

- Visualization
- Decision Support
  - Support for large-scale assessment and prioritization
  - Assist with regional and project level planning

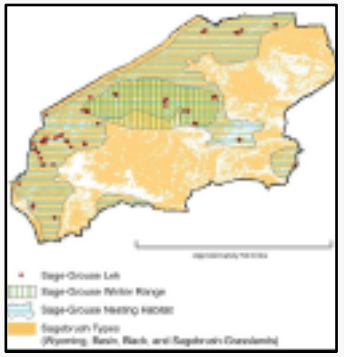
Sagebrush Biome



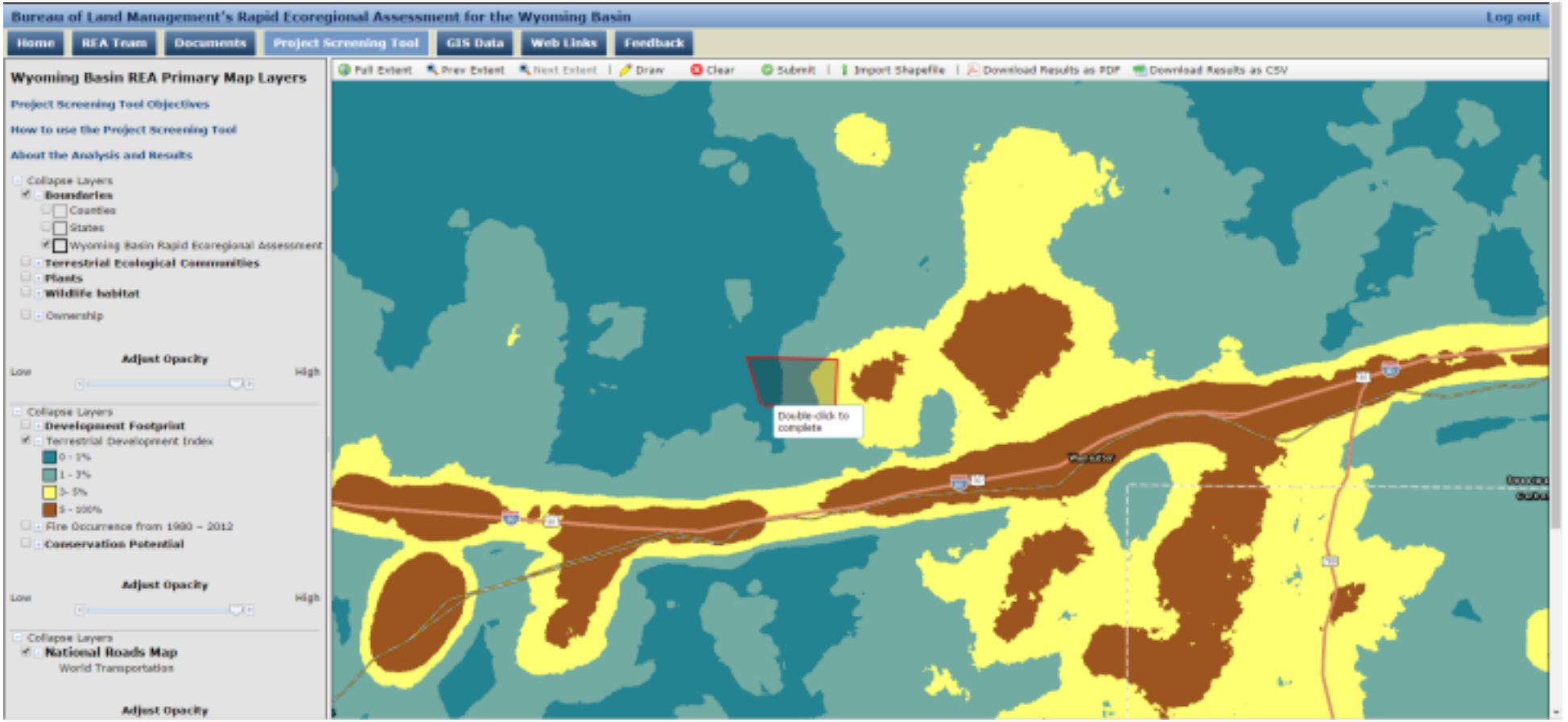
Sage-Grouse MZs and Ecoregions



Local and site planning areas



Example Tool



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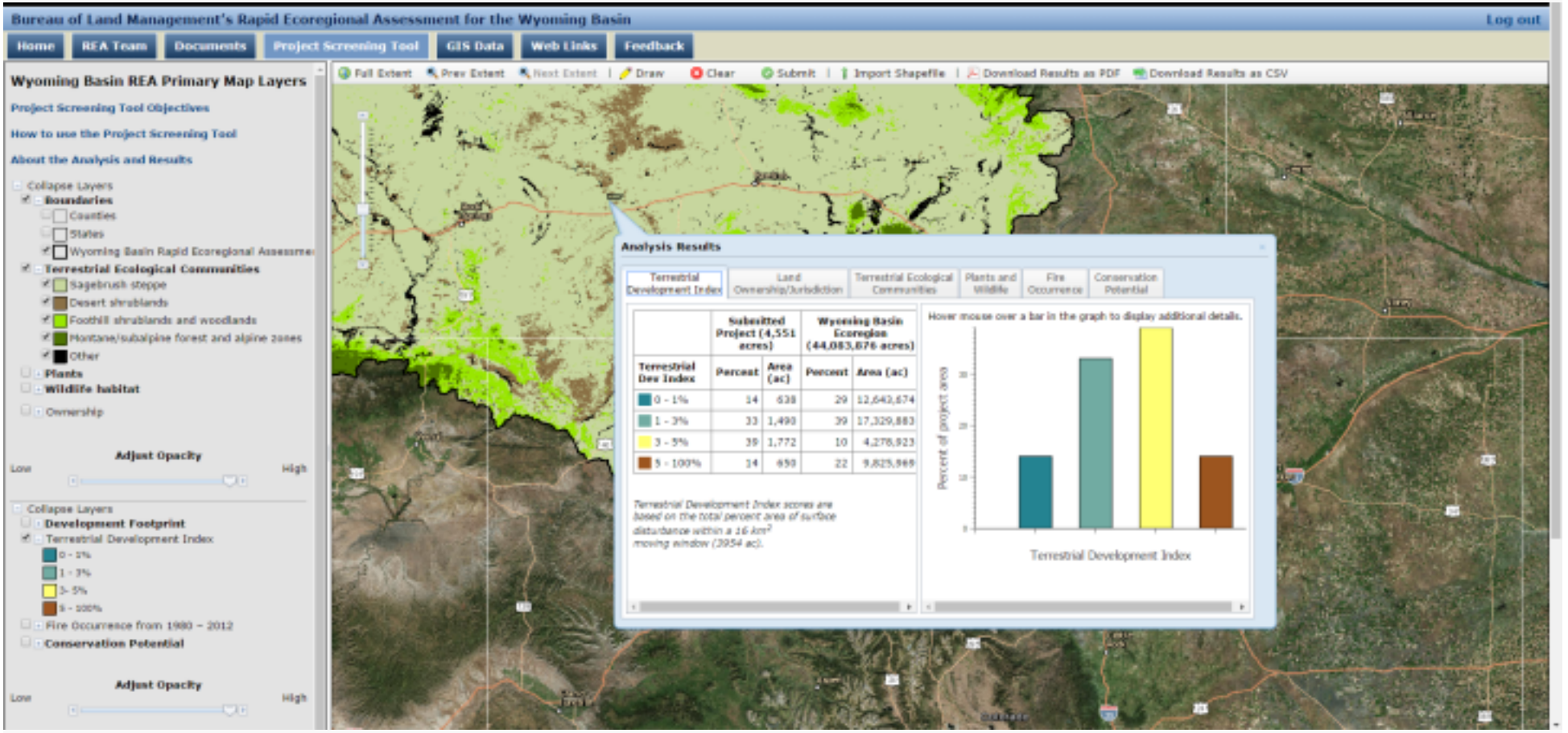

Next Steps

- Continued catalog development
- Develop viewers and decision support tools
- Provide a common access point for geospatial data for the fire and natural resource community
- Web Portal URL:
  http://www.landscape.blm.gov/geoportal/SO3336/SO3336.page