From: Kenneth E Mayer
To: Noreen Walsh
Subject: Re: Fire Briefing
Date: Wednesday, October 30, 2013 12:07:34 AM
Attachments: WAFWA Wildfire WG Progress Report5 DOI 11.1.13.pdf

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Ok--I know what your going to say--what part of short a sweet is this :) But as I reorganized it and began to tell the story I was afraid that without some of the detail it might create more questions than it answered; especially for those that are hearing it for the first time. Additionally, I was afraid that since everyone will have the PDF version of the PPT it was better to have the detail there. Anyway, I will be interested in what you think. Please let me know that this made it ok, as I have problems sending large files to federal email.

KM

P.S. can you call me at 2:30 instead at 2:00 PM your time. If not its ok but Director Wasley wanted to have lunch tomorrow. I think something is up :)

Ken Mayer
P.O. Box 9891
Reno, NV 89507
(775) 741-9942
K. E. Mayer, LLC

On Tue, Oct 29, 2013 at 12:39 PM, Noreen Walsh <noreen_walsh@fws.gov> wrote:

Oh just something simple like WAFWA is working with the Service on this issue because we both recognize the significance of this threat not only to sage grouse but also the entire ecosystem. That's all I was thinking.

Separate but related is to make sure they get invasives is a big part of it, not just fire. :).

Does that help?

Sent from my iPhone

On Oct 29, 2013, at 12:47 PM, Ken <ken.e.mayer@gmail.com> wrote:

Noreen--I'm working on the updated PPT. I wanted to add your perspective of "why WAFWA" into my slide that will resonate with the folks on the phone. I also want to stay away from any mines. Can you shoot me some of your ideas?

KM

Sent from my iPhone
Ken Mayer

On Oct 29, 2013, at 9:11 AM, Noreen Walsh <noreen_walsh@fws.gov> wrote:

They moved yyou to 730 Pacific - sorry - can you do that???

Noreen Walsh
Regional Director
Mountain-Prairie Region
U. S. Fish and Wildlife Service

Begin forwarded message:

From: "Connors, Markee" <markee_connors@ios.doi.gov>
Date: October 29, 2013, 9:58:58 AM MDT
To: Noreen Walsh <noreen_walsh@fws.gov>
Subject: Re: Fire Briefing

Thanks Noreen. I was just trying to accommodate some folks here at DOI in DC. Please let me know when you know something.

Markee

Markee S. Connors

Immediate Office of the Secretary
Department of the Interior
1849 C Street, NW
Room 6128
Washington, DC 20240

202-208-5344
markee_connors@ios.doi.gov

On Tue, Oct 29, 2013 at 11:56 AM, Noreen Walsh <noreen_walsh@fws.gov> wrote:

Thanks Markee, just wanted to note that our speaker Ken Mayer is on Pacific time so unless you already have, I will check with him about availability . This will be 730 am Pacific Time. He's very anxious to do the briefing but it may be difficult if we need to go much earlier than this.

Noreen Walsh
Regional Director
Mountain-Prairie Region
U. S. Fish and Wildlife Service

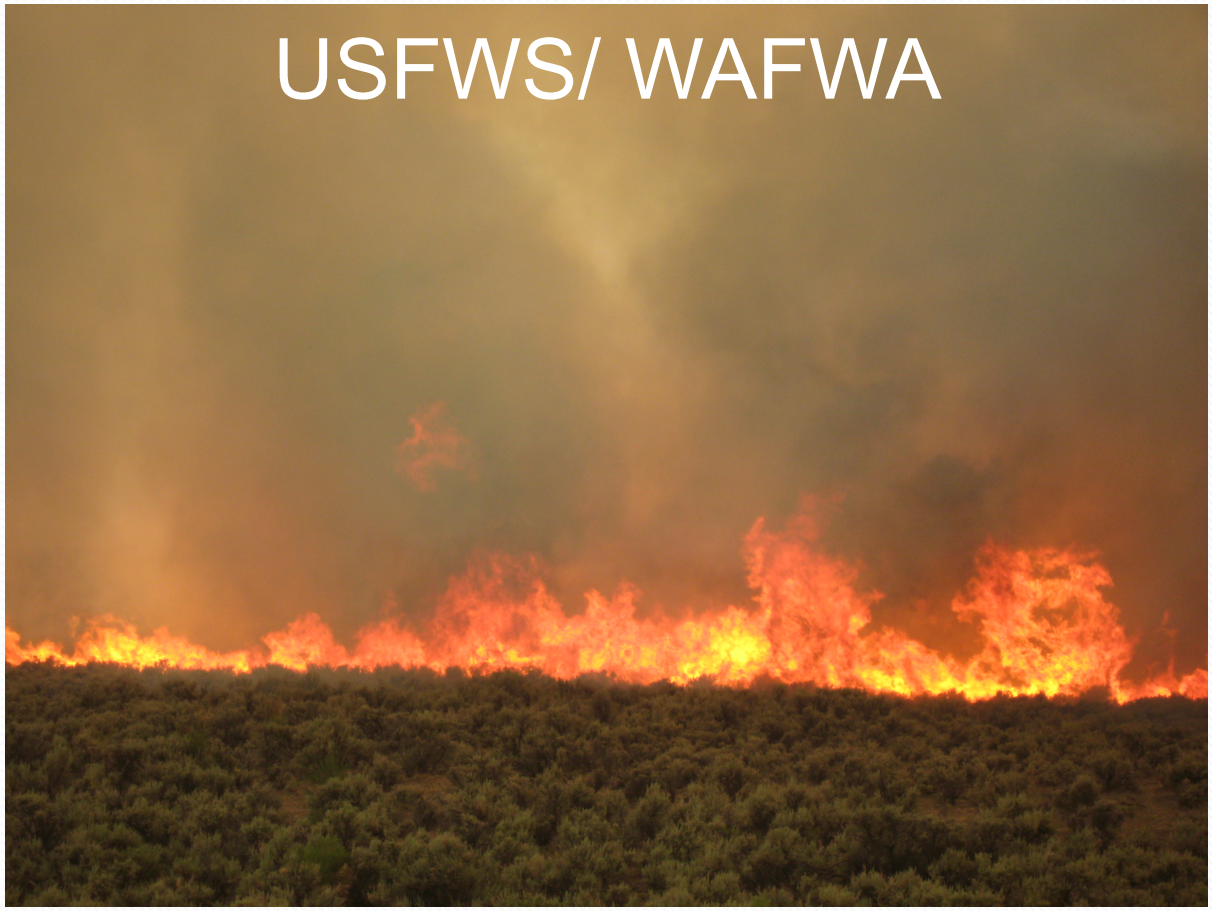
On Oct 29, 2013, at 9:30 AM, Markee Connors <markee_connors@ios.doi.gov> wrote:

> This event has been changed.
>
> Title: Fire Briefing
> Fire Briefing
> When: Fri Nov 1, 2013 8:30am – 9:30am Mountain Time (changed)
> Where: Room 6119
> Calendar: noreen_walsh@fws.gov
> Who:
> * sarah_greenberger@ios.doi.gov - organizer
> * Markee Connors - creator
> * Edward Boling
> * Jeff Rupert
> * Timothy Murphy
> * Dan Ashe
> * Peter Ditton
> * Gary Frazer
> * James Lyons
> * Steven Ellis
> * Claudia Walker
> * Pam Haze
> * David Repass
> * Bret Birdsong
> * Noreen Walsh
> * Stephen Guertin
> * Michael Anderson
> * Stephen Small
> * Sheila Basey
> * Neil Kornze
> * Edwin Roberson
> * Kimberly Edwards
> * Stephenne Harding
> * Roslyn Sellars
> * Kimberly Thorsen
> * Thomas Irwin
> * James Douglas
> * Michael Bean
>
> Event details:
> https://www.google.com/calendar/event?action=VIEW&eid=YnRibGFqZWM3azU5ZmpoZGgxZzkxcXI1cW8gbm9yZWVuX3dhbHNoQGZ3cy5nb3Y&tok=Mjkjc2FyYWhfZ3JlZW5iZXJnZXJAaW9zLmRvaS5nb3Y1YTlmOTEzMjBhZGI4NTg2MWQ2Y2JkOGJlNWY0MjZjNGI4ODYzZjVj&ctz=America/Denver&hl=en

>
> Invitation from Google Calendar: https://www.google.com/calendar/
>
> You are receiving this email at the account noreen_walsh@fws.gov because
> you are subscribed for updated invitations on calendar noreen_walsh@fws.gov.
>
> To stop receiving these notifications, please log in to
> https://www.google.com/calendar/ and change your notification settings for
> this calendar.
> <Fire Briefing>

Wildfire and Invasive Initiative

Presented by Ken Mayer



Why WAFWA

- WAFWA possesses the unique capability to coordinate and leverage the capacity and research capabilities of multiple Western state fish and game management agencies.
- WAFWA and the FWS have a mutual interest and concern for sage-grouse and the entire Great Basin Ecosystem.
- WAFWA is uniquely positioned to organize and lead a scientifically based assessment that includes all interest and agencies (public and private)

Mission

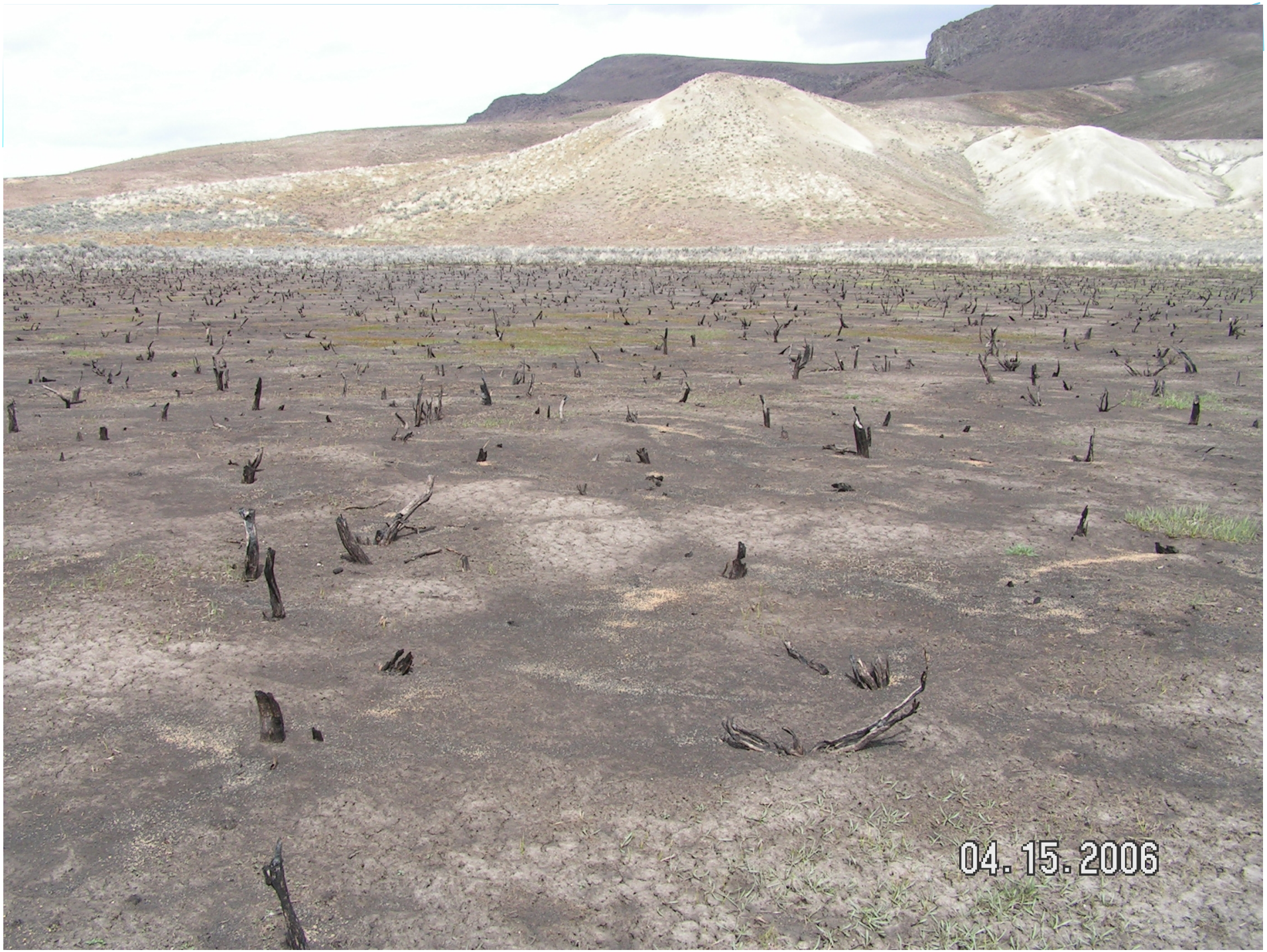
- To develop a report of the current work and set of concise, concrete, prioritized and integrated actions land managers and policy makers can take to effectively preclude the dominance of invasive species and reduce their influence on the fire cycle in sagebrush ecosystems in the west.

Goals

- The primary goal is to not recreate what is currently being done.
- To initiate a collaborative assessment of management options for the conservation of sagebrush-steppe habitats across multiple ownerships.

Goals Cont.

- To benefit all sagebrush dependent species of mutual management interest to the FWS and WAFWA member agencies.
- Compile and coordinate existing information and management efforts.


04.15.2006

Objectives

- Identify what is going on in the Great Basin to manage or affect the wildfire/invasive threat (who, what, when, where and why?)

Objectives

- Develop an objective, biologically based approach to assess these efforts.
- If the efforts are not working identify the problems/ shortcomings and or "gaps"
- Suggest ways to improve or fix these problems/ shortcomings of conserving sage-grouse habitat.
- Based on this assessment propose a new integrated approach to manage the wildfire/invasive threat (building on the programs or efforts that are working as a better plan going forward).

Wildfire/Invasive Initiative Working Group

- A 16 Member Working Group Representing Expertise in:
- Fire Ecology and Fire Suppression (Pete Anderson-NV State Forester; Laurie Kurth-USFS; Ted Milesneck-BLM; Doug Havlina-BLM)
- Restoration Ecology, Range Management, Invasive Species (Chad Boyd-OSU; Jeanne Chambers-USFS Research; Mike Ielmini; Brian Mealor-UoWY; Mike Pellant-BLM; David Pyke-USGS Research; Jason Vernon-UTDW
- Wildlife Management and Sage-grouse Ecology (Tom Christiansen-WYGF; Dawn Davis-ODFW; Shawn Espinosa-NDOW; Don Kemner-IDFG; Jeremy Maestas-NRCS)
- Federal Land Management and Planning (Joe Tauge-BLM)

Products To Date

- 1. A Conceptual Landscape Approach to Assessing the Wildfire/Invasive Threat (Managing invasive annual grasses and altered fire regimes using resilience concepts – An integrated approach. A Sage-grouse Habitat Matrix).

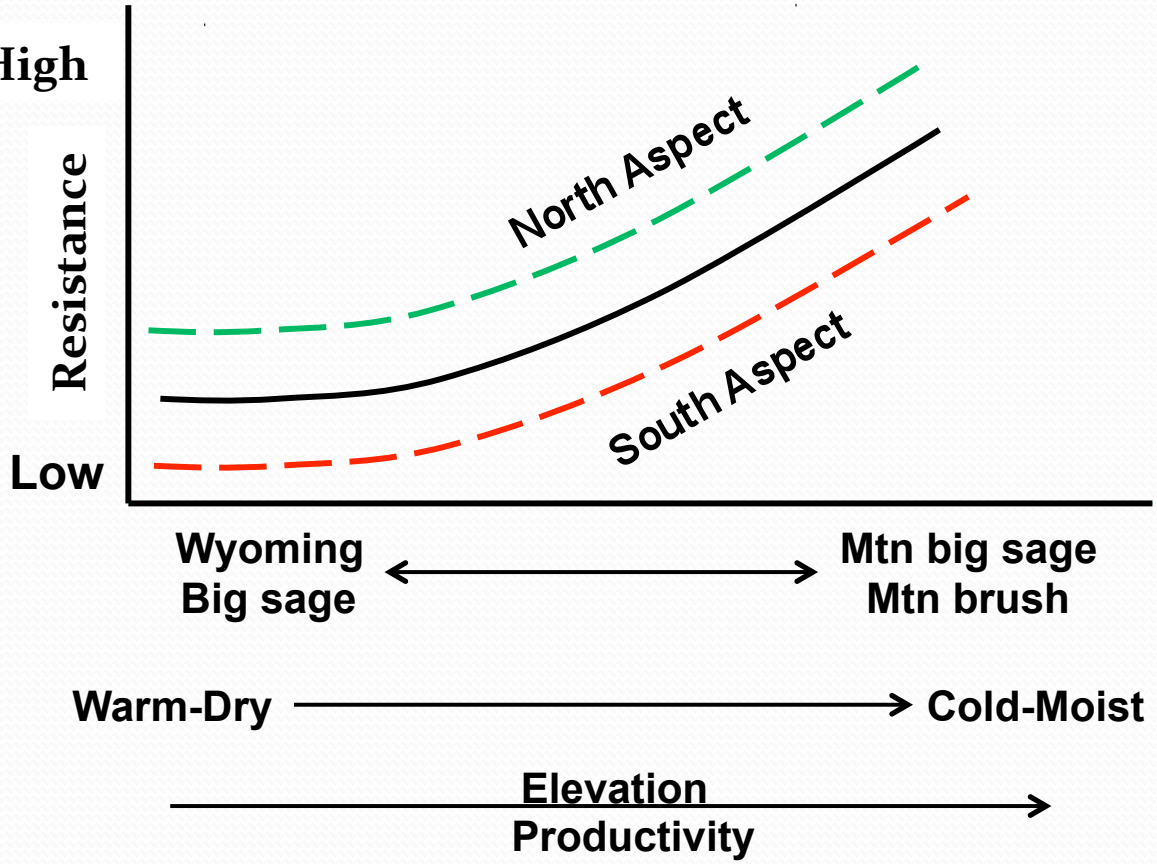
- 2. Preliminary "Gap Analysis" (Wildfire and invasive species in the west: Challenges that hinder current and future management and protection of the sagebrush-steppe ecosystem).

ENVIRONMENTAL GRADIENTS

Warm-Dry → **Cold-Moist**

Elevation/Productivity →

Resistance to Cheatgrass



(Chambers et al. 2007)

Resistance reflects environmental suitability

- Suitability is greater with warm-dry conditions
  - Highest- Wyoming sage
  - Lowest- mountain sage/ shrub

Sage-grouse Matrix and Management Strategies

- **Based on resilience and resistance concepts, and the proportional cover of the landscape dominated by sagebrush for sage-grouse management zones III, IV and V.**
- **The matrix is meant to be applied to [historic, potential, or current] sage-grouse habitat.**
- **The rows show the plant communities' relative resilience to disturbance and resistance to invasive annual grasses based on the five generalized ecosystem types.**
- **The columns show the current proportion of the landscape (5 km rolling window) dominated by sagebrush. Percentage of the landscape dominated by sagebrush is used here to indicate the capacity of large landscapes to support viable sage-grouse populations over the long term.**
- **The management goal is to move toward a better site condition within a row; it is not possible to move between rows within a landscape or site.**
- **Management strategies are provided.**
- **Priority landscapes for management activities will vary depending on the limiting habitat for sage-grouse in the management unit of concern, the relative costs and ecological benefits of implementing treatments, and other resource concerns.**

Proportion of Landscape Dominated by Sagebrush

Resilience to Disturbance & Resistance to Invasive Annual Grasses	***Low*** **< 25% Sagebrush-Dominated Landscape**	***Moderate*** **25-65% Sagebrush-Dominated Landscape**	***High*** **> 65% Sagebrush-Dominated Landscape**
High	Sagebrush lacking - Natural recovery likely Sufficient PNH Low annual invasive risk Seedling success high Appropriate livestock grazing **Strategies - M1, M5, M6, M7, R1, R2**	Sagebrush limiting- Natural recovery likely Sufficient PNH Low annual invasive risk Seedling success high Appropriate livestock grazing **Strategies - M5, M5,M6, M7, R1, R2, R3**	Sagebrush sufficient- Natural recovery likely Sufficient PNH Low annual invasive risk Seedling success high Appropriate livestock grazing **Strategies - M2, M5, M6, M7, M8, R3**
Moderate	Sagebrush lacking Natural recovery possible PNH site dependent Invasive risk moderately high on warmer and drier sites Seeding success site dependent **Strategies – M4, M5, M6, M7, M8 R1, R2, R3, R5**	Sagebrush limiting Natural recovery possible PNH site dependent Invasive risk moderately high on warmer and drier sites Seeding success site dependent **Strategies – M1, M4, M5, M6, M7, R1, R2, R3**	Sagebrush sufficient -Natural recovery likely on cool moist sites PNH site dependent Invasive risk moderate Seeding success site dependent **Strategies: M1, M2, M4, M5, M6, M7,M9, R3**
Low	Sagebrush lacking Natural recovery unlikely PNH lacking High annual invasive risk Seeding success low **Strategies - M2, M3, M4, M6, M7, M8,R4, R5, R6**	Sagebrush limiting Natural recovery unlikely PNH lacking High annual invasive risk Seeding success low **Strategies - M1, M2, M3, M4, M7, R4, R5, R6**	Sagebrush sufficient Natural recovery unlikely PNH lacking High annual invasive risk Seeding success low **Strategies - M1, M2, M3, M4, M6, M7, M9, R3, R5, R6**

Management Strategies

- **Maintain/conserve**
- **M1**. Immediately suppress wildfires to protect highest priority habitats
- **M2.** Establish fuel breaks in strategic locations to facilitate compartmentalization of future fires
- **M3**. Contain existing invasive annual grasslands using integrated approaches
- **M4**. Manage livestock grazing to increase abundance of perennial grasses and forbs
- **M5**. Remove early to mid phase post-settlement conifers (typically pinyon pine and/or juniper species) to retain shrub/herbaceous cover and reduce fuel loads
- **M6**. Detect and control new weed infestations and control invasion corridors and vectors
- **M7**. Protect remaining sagebrush patches from disturbances that decrease resilience and resistance including those resulting from management actions
- **M8**. Suppress wildfires once suppression is provided for in highest priority habitats
- **M9**. Apply wildfire preparedness (e.g., resource positioning, prevention outreach) in the highest quality habitats

Management Strategies

Restore

- **R1**. Seed/transplant sagebrush in strategic corridors and/or large patches to serve as seed sources and decrease the time required to increase landscape cover of sagebrush
- **R2**. Remove later phase post-settlement conifers (typically pinyon pine and/or juniper species) to reduce conifer dominance and reestablish shrub/ herbaceous cover. Since these areas represent non-habitat for sage-grouse, prescribed fire may be appropriate on cooler/moister sites, but restoration of sagebrush and perennial native herbaceous species may be necessary.
- **R3**. Seed native perennial herbaceous plants in areas where they have been depleted
- **R4**. Seed/transplant sagebrush and fire-tolerant perennial herbaceous plants. Use integrated strategies and plan for repeated interventions in the least resilient/resistant sites.
- **R5**. Reduce fine fuel continuity to decrease risk of repeated fire during the restoration process
- **R6.** Stabilize annual grasslands by seeding introduced perennial grasses on warmer and drier sites, and native perennial grasses on cooler and moister sites. Use integrated strategies and plan for repeated interventions in the least resistant/resilient sites.

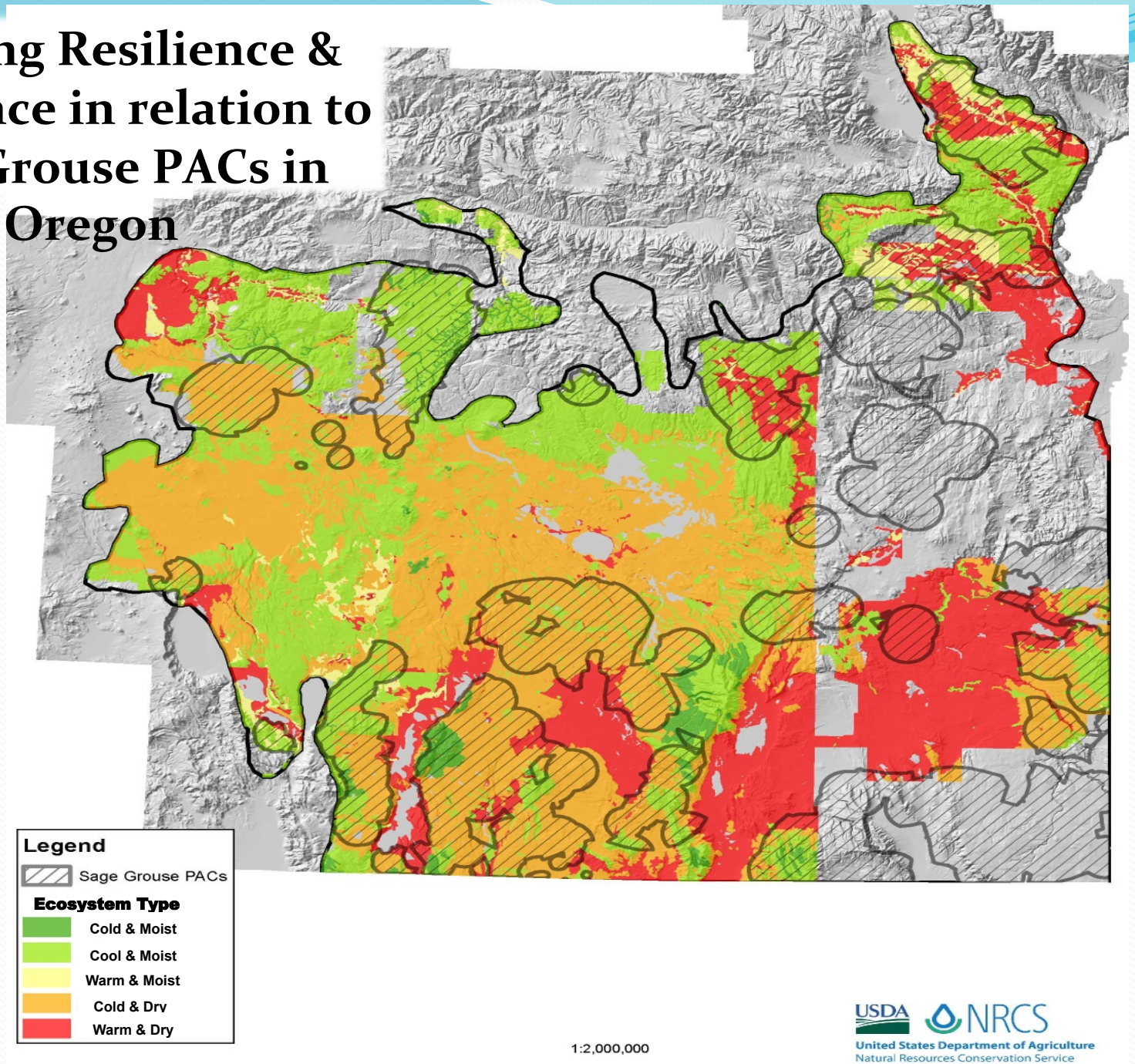
How Can This Tool Be Used?

- The Matrix is an effective planning and reporting tool (it is not a stand alone product)
- It can be used to develop recommendations, from an ecological perspective, for improvement to current programs and actions designed to address the wildfire/invasive threat (it is to be used to guide decisions or actions).
- The Matrix will used to recommend a new landscape approach to manage the wildfire/ invasive threat, building on successful programs.

How Can the Matrix Be Used

- It can be used, at the regional or local scale by agencies or programs to annually assess the success or failure of their efforts to manage invasive species and sage-grouse habitat.
- It can be used by agencies or in programs to better determine and report short-term and long-term impacts of wildfire and invasive species and associated treatments on sage-grouse habitats.
- Managers on the ground can use the Matrix to better select management actions that will benefit habitat restoration and rehabilitation goals and have the highest chance of success based on site capabilities.

Mapping Resilience & Resistance in relation to Sage-Grouse PACs in Oregon



Gap Analysis

- Wildland Fire Management – Funding & Policy
- Resource Management – Funding & Policy
- Coordinated, Strategic Approach – Tools & Policy
- Science and Technology

"Gaps"

Wildland Fire Management - Funding & Policy

- We lack a Wildland Urban Interface (WUI) type focused analysis for SG PPH and PGH – this would enable development of a prioritized suppression plan for sage-grouse habitats.
- Rancher, private landowners and agency fire management coordination (Rural Fire Districts) for fire suppression activities is being implemented in selected areas across the west to improve initial attack on wildfires. This program needs to be accelerated and funded throughout the GB.
- While we catch 95-97% of the fire starts in the Great Basin, we lack resources for the inevitable 3-5% that escape and become large, catastrophic fires. Resources are needed to better plan and implement programs that focus on pre-suppression and post-fire activities that aid suppression activities and lessen the effect on sagebrush and SG.

Wildland Fire Management - Funding & Policy *Con't*

- Federal, state and local agencies need to re-visit post-fire rehabilitation policies to make them more ecologically responsive and less rigid and to provide for an "adaptive" process that facilitates on-going modification as conditions change. Post-fire management funds need to be available for more than one year.
- Current policies and procedures for the Emergency Stabilization and Rehabilitation program (ES&R) may limit land managers from efficiently allocating scarce resources. Short windows required for ES&R plan development and fund expenditure do not allow for more targeted and effective rehabilitation. The three-year limit to the expenditure of ES&R funds restricts the ability of managers to effectively implement practices needed to restore a trajectory to sagebrush dominance and sage-grouse habitat.
- The coupling of funds for fire suppression, fuels treatment, and stabilization/rehabilitation limits our ability to both manage fire risk and promote recovery after fire in bad fire years. Each of these elements should be able to stand alone, such that adequate funding is available annually to sustain efforts on all fronts.

Resource Management - Funding & Policy

- We do not have a program in place that can reliably provide sufficient native seed for appropriate ecotypes at any given time. Current federal policies and procedures that direct post-fire treatment and availability and expenditure of funds, create an artificial "boom or bust" seed availability situation. This funding "boom and bust" cycle is a disincentive to the private sector to produce seed that is purchased or to establish new seed businesses that can contribute to an inadequate seed supply in big wildfire years.
- Current policy limits post fire restoration to a one-time intervention following fire. In arid sagebrush ecosystems, multiple interventions are often required due to the variability in annual precipitation, and the policy needs to be changed to allow for this.
- We lack a continuous evaluation process and the necessary policy and administrative support for changes in duration, intensity, season of livestock use where it is warranted, especially removal or reduction of livestock grazing on public land for a sufficient period of time to allow for

Coordinated, Strategic Approach – Tools & Policy

- Currently, we lack a spatially explicit wildfire/invasive species risk assessment and vegetation maps at management scales for the Great Basin that can be used to aid in targeting pre-suppression and suppression efforts in sage-grouse habitat.
- We do not have an objective landscape tool to predict where green-strips should be established or what best management practices (BMP's) are needed to accomplish fire reduction, desired vegetation or sage-grouse (SG) objectives.
- Fire planning lacks a strategic approach that considers the ecosystem type and the ramifications of the fire and fire suppression activities on ecosystem resilience to disturbance and resistance to invasion.

Science and Technology

- We lack fire rehabilitation studies, with true control treatments, and the necessary long-term monitoring to inform us on how to be successful in rehabilitation after fire and restoration of degraded habitats.
- We lack science and long-term monitoring studies on the effectiveness of fuels treatments.
- We lack a comprehensive funding for the understanding of the factors that affect ecosystem resilience to wildfire and resistance to invasive species.
- We do not understand the complex set of variables that controls seeding success of many of the species that occur in sagebrush ecosystems.
- We lack rigorous/credible studies on the effects of grazing by livestock, wild horses and burros on wildfire reduction, post-fire rehabilitation and sage-grouse habitat, under various grazing systems (season of use, distribution, intensity of use, kind of use, etc.).

Current Year Funding Ideas

- Fund the development of native seed stock and establish warehouses to service the Great Basin.
- Fund research aimed to improve seeding establishment for perennial grasses on low elevation sites.
- Establish and fund state Rural Fire Districts across the Great Basin.
- Establish a dedicated fund (separate from fire management) to conduct fuels treatments, and fire restoration specifically for sage-grouse. To facilitate this:
- Decouple funds for fire suppression, fuels treatment, and stabilization/ rehabilitation. This will facilitate our ability to both manage fire risk and promote recovery after fire in high fire years and in low fire years. Each of these elements should be able to stand alone, such that adequate funding is available annually to sustain efforts on all fronts.
- Fund and initiate a long-term monitoring program for the effectiveness of fuels treatments and restoration activities.

Questions?