Bureau of Land Management Nevada

Management of Non-Native, Invasive Grasses

Quinn Young

Weeds Program Coordinator

Nevada State Office, Reno

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Photo: Medusahead
Mark Coca 2014

BLM Nevada

Noxious Weeds and Invasive Species Program

NATIONAL SYSTEM OF PUBLIC LANDS

Definition of a weed: nuisance v. noxious

Nevada Department of Agriculture's Definitions

Common/nuisance weed - Any plant which is seen as bothersome and is ordinarily found throughout the state. Common weeds have varying levels of negative impact and are normally not particularly invasive or difficult to control. These plants are not regulated by the state.

Noxious weed - The Nevada Revised Statutes (NRS) defines a noxious weed as "any species of plant which is, or likely to be, detrimental or destructive and difficult to control or eradicate." Per NRS 555.130 "The State Quarantine Officer may declare by regulation the weeds of the state that are noxious weeds, but a weed must not be designated as noxious which is already introduced and established in the State to such an extent as to make its control or eradication impracticable in the judgment of the State Quarantine Officer." All noxious weeds are regulated by the Nevada Department of Agriculture.

Noxious Weeds and Non-Native, Invasive Grasses

Noxious Weeds – well documented, rapid spread of noxious weeds on western range and forest lands over the past half century

Noxious weeds impact native ecosystems by:

- Altering hydrologic conditions and soil characteristics
- Altering fire intensity and frequency
- Modifying ecological, successional pathways
- Competing for pollinators and displacing rare plant species
- Serving as reservoirs of plant pathogens
- Reducing biodiversity and replacing complex communities with simple communities

Non-native invasive annual grasses – *Medusahead, Ventenata, red brome, Mediterranean grass, cheatgrass*

- ❑ Current inventories show that approximately 28 million acres of lands managed by the BLM NV are impacted by invasive species (23 million of which is infested with annual grasses).
- ❑ Fire can release cheatgrass and initiate a cheatgrass fire cycle, and dominate a landscape
- ❑ BLM NV places a high priority on completing annual weed inventories and treatments in an effort to locate and treat new infestations before they become widespread.
- ❑ BLM prioritizes hazardous fuels treatments and treatment of non-native annual grasses in Sage Grouse habitat (cheat grass) in the Great Basin and desert tortoise habitat (red brome) in the Mojave.

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48 million acres of Great Basin and Mojave Desert

District Offices

- Battle Mountain
- Carson City
- Elko
- Ely
- Southern Nevada
- Winnemucca

Special Designations include Wilderness and Monuments

Management of noxious weeds and invasive grasses

PREVENTION

- Campaigns for education/outreach
- Training – weeds identification and ecology
- Weed Coordinating Groups/Data-sharing
- Certified weed-free resources
- Native plant competition – planting or re-seeding with natives

Photo: Volunteers plant native grasses at Laughlin High School. Photo by Johnny Jones.

PARTNERSHIPS

- Cooperative Weed Management Groups - BLM Nevada is actively engaged in over 25 Cooperative Weed Management Groups whose members include landowners, employees of County, State, and Federal agencies, and members of the public
- Agreements and contracts - BLM NV Districts hire temporary staff but also rely on Weed Districts, Conservation Districts, County, State and Federal agencies for weed management and treatment
- MOU - Interagency Collaborative Weeds Treatment
- Shared Stewardship - Cooperative Weed Management

Management of noxious weeds and invasive grasses

INVENTORY, TREATMENT, AND MONITORING

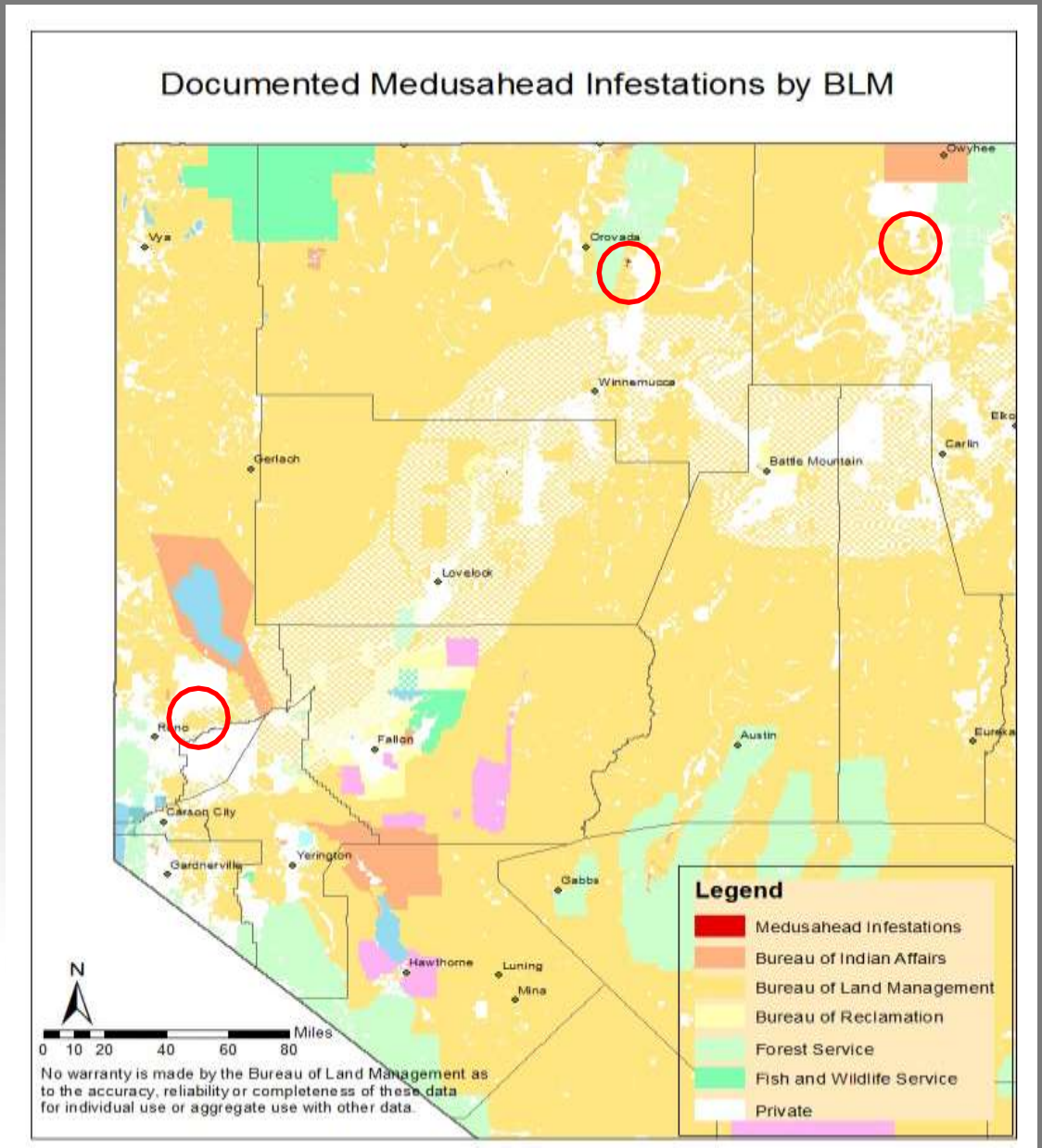
- **Early Detection/Rapid Response**
  - ❑ Opportunity to respond with the goal of eradication. For example, Ely District works closely with Tri-County Weed Control

- **Integrated Pest Management** - planning and implementing pesticides use, in an integrated pest management approach while assuring maximum protection to environment and human health
  - ❑ Mechanical
  - ❑ Manual
  - ❑ Biological – Targeted and prescribed grazing (Nevada Great Basin Ecoregion)
  - ❑ Chemical – BLM weed specialists receive training and hold federal and state licenses for the use of herbicides

- **Emergency Stabilization and Rehabilitation** – 15,000 acres average treated annually as part of post fire rehabilitation efforts for soil stabilization, erosion control, and invasive species prevention

- **Hazardous Fuels** – projects to reduce fuels and protect resources including sage grouse habitat

Medusahead Distribution (estimated)



Treatment of non-native, annual invasive grasses

Aerial treatment – Medusahead+cheatgrass: FY 2019: 45,240 acres, FY 2018: 41,100 acres

Targeted Grazing – BLM NV: FY2019: 9688 acres, FY2018: 500 acres

Partnerships (Examples)-

- Carson City District - In 2018 – 2020, 3 year Integrated Pest Management project with fall herbicide applications of medusahead and cheatgrass (approx. 2,000 ac) with subsequent seeding following season. Objectives to create fuel break and enhance wildlife habitat. Project developed with partners: USDA-ARS, NRCS, NDOW and BLM.

- Carson City District - In 2020, treatment north of Reno to control cheatgrass (2268 ac) while creating fuel breaks for safety of wildlife fire fighters, protect infrastructure and high value wildlife habitat . Treatment on public and private and partners BLM, NDOW, NRCS, ARS and private landowner.

- Winnemucca District – consistent support with reseeding on the Martin fire and 15,000 acres annual grass treated aerially.

- Paradise Valley Weeds District - sprays approximately 200 acres of roadside medusahead each year.

- Elko District – collaborates with NDOW and private landowners on landscape scale approach to rehabilitation – cheatgrass herbicide treatment in combination with re-seeding.

Mapping Tools for BLM Weeds Program

VEGETATION MANAGEMENT ACTION PORTAL (VMAP)

- National data entry portal (tabular + spatial) for projects and associated Management Actions, as well as biological and chemical proposals.
- Management Actions include:
  - Treatments (chemical, biological, fire, physical, revegetation),
  - Structures (fences, pipelines, troughs, etc.),
  - Activities (planning, monitoring, inspections, etc.), and
  - Other Actions (signs, flood warning systems, closures, etc.)

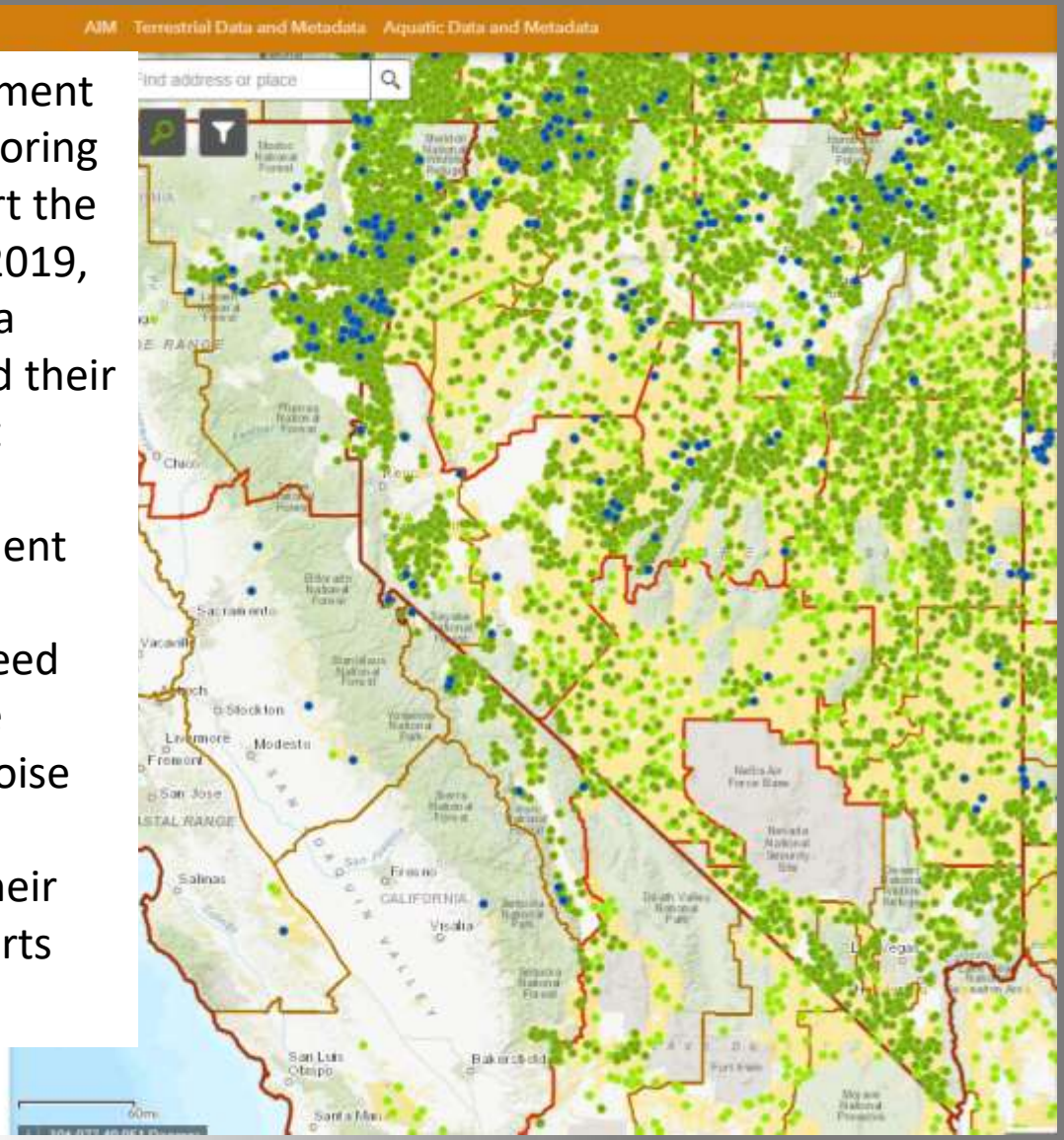
- VMAP also includes a mobile field data collection component that allows users to collect treatment, infestation, and survey data in the field and have this data imported directly into VMAP.
- VMAP will host NISIMS (National Invasive Species Information Management System).
- VMAP may eventually be linked to EDDMapS with public viewing of BLM QC'd data.

Mapping Tools for BLM Weeds Program

AIM Data Portal - Assessment, Inventory, and Monitoring

aim.landscapetoolbox.org/aim-data-portal

BLM NV uses Assessment Inventory and Monitoring (AIM) data to support the Weeds program. In 2019, our Southern Nevada District Office started their first year of AIM plot repeat sampling to evaluate past treatment success, identify expansion of new weed populations, and the effect on desert tortoise habitat. Our other Districts will begin their repeat sampling efforts this year.



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Next Steps

- Continue improvement with inventory and mapping
- Continued Partnerships
- NEPA (Targeted and Prescribed Grazing EA)
- Continue data-sharing process through VMAP development and AIM Data Portal
- Continued integrated approach for Sage Grouse conservation actions

Questions?

Quinn Young
qyoung@blm.gov
775-861-6475