

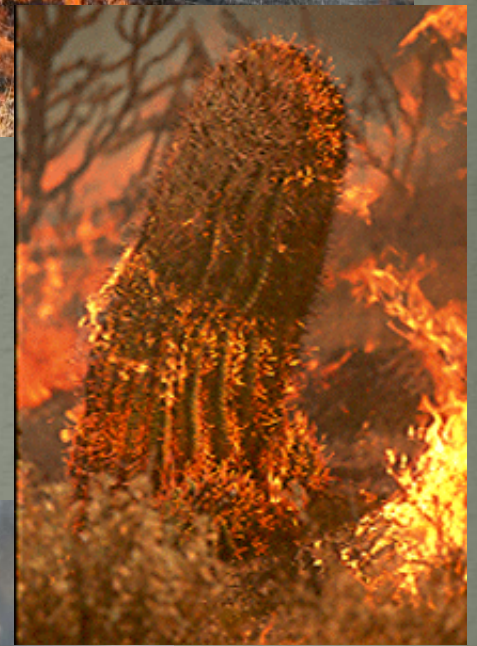
Approaches to Managing Altered Fire Regimes and Their Consequences

Jim Douglas – Assistant Director, Fire &
Aviation, Bureau of Land Management



Introduction

- Fire is being fueled by invasive, fire-prone weeds
- Invasive species are wreaking havoc on ecosystems
- Alterations in fire regimes are affecting firefighting operations and safety



Overview of Situation

- Proliferation of fire-friendly invasives
- National fire trends
- Wildfire trends in American deserts
- Impacts of invasives on fire management
- Communities, people and desert fires
- What the BLM is doing operationally to address the situation

Extent of Fire-Prone Invasive Weeds



Cheatgrass

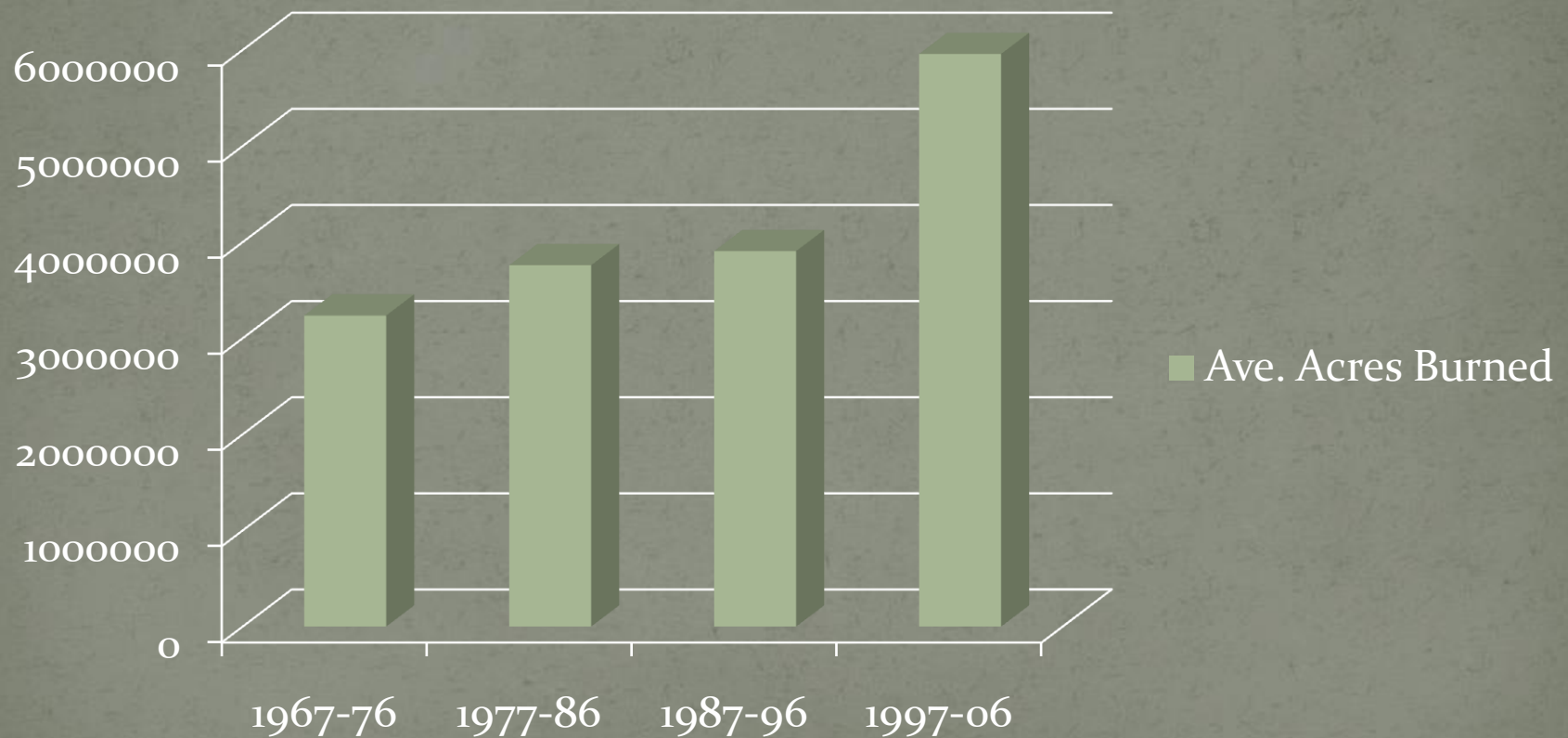
Extent of Fire-Prone Invasive Plants

Cheatgrass and related annual bromus species aren't the only culprits...

- Juniper has encroached into grasslands throughout the Interior West
- Mesquite, creosote, and catclaw have encroached grasslands in the Chihuahuan desert
- Medusahead grass infests millions of acres in the Great Basin and Mojave Desert ecosystems
- Buffelgrass is a concern in the Sonoran Desert due to its flammability

Understanding the National Wildfire Situation

Ave. Acres Burned



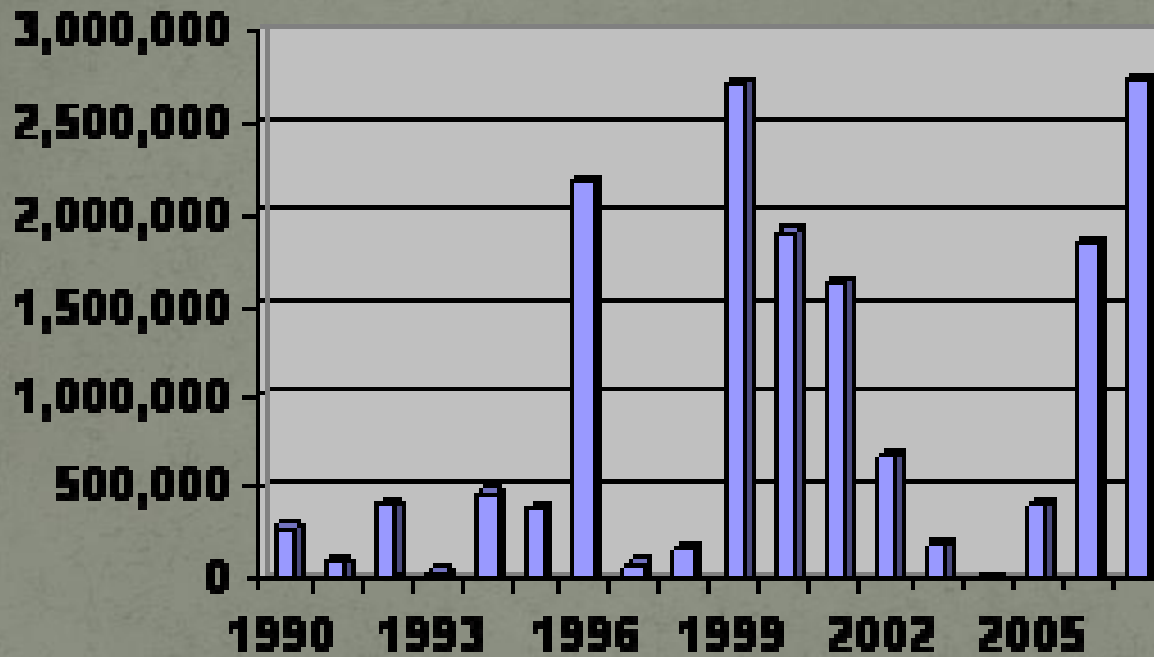
Understanding the Wildfire Situation



Wildland Fire in American Deserts

Fire	Desert	Year	State	Size
Murphy Complex	Great Basin	2007	Nevada/Idaho	653,000 acres
Milford Flat Complex	Great Basin	2007	Utah	363,000 acres
East Amarillo Complex	Chihuahuahua	2006	Texas	907,000 acres
Winters Fire	Great Basin	2006	Nevada	238,000 acres
Southern Nevada Complex	Mojave	2005	Nevada	509,000 acres
Cave Creek Complex	Sonoran	2005	Arizona	248,000 acres

Fire in Desert Ecosystems



Acres burned in the Great Basin: 1990-2007

Impacts of Invasives on Fire Management



Public Lands and Growing Communities



LRMPs and Fire Management Plans



Response to Situation



Response to Situation

First off, creating a bigger firefighting force alone will not resolve the fire/invasive weed situation.



Strategic Response to Situation

The BLM is taking steps to adapt fire suppression strategies and tactics, in light of the changes created by invasive weeds.



Tactical Response to Situation

- Attempt to respond faster to new starts in desert ecosystems using airtankers, engines and crews
- Aerially-delivered firefighters are providing initial-attack and emerging large fire response in the Great Basin on a regular basis
- The interagency fire community is using some interagency hotshot crews for initial attack – in addition to their traditional extended attack role

Appropriate Response to Desert Fires

The appropriate management response to undesired fires in altered desert ecosystems is safe, but rapid and aggressive fire suppression.



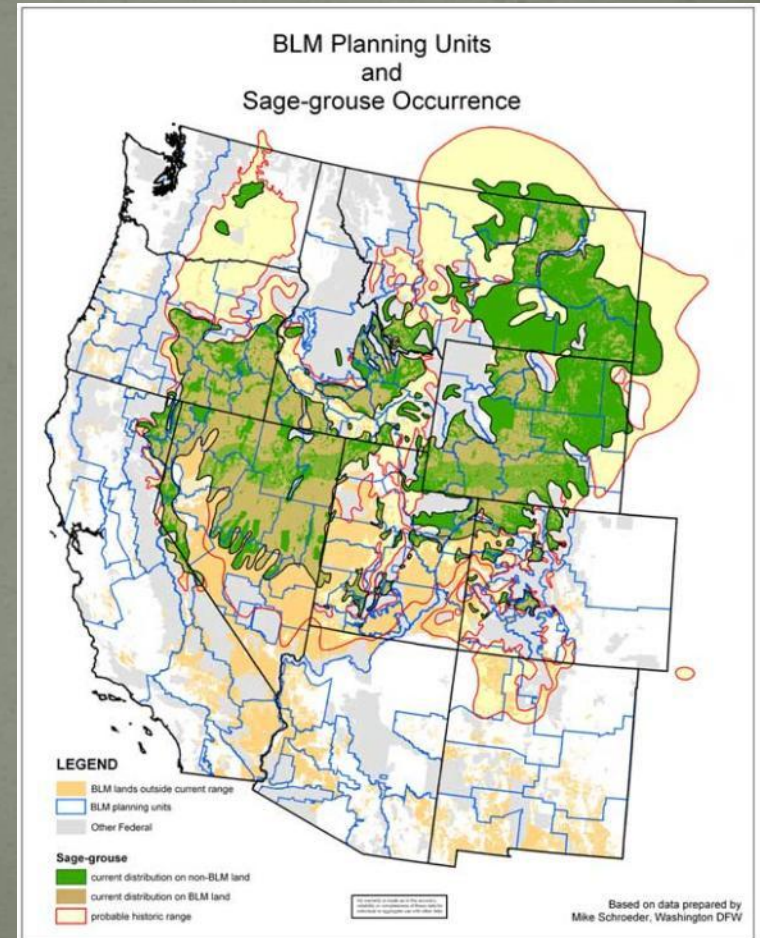
Vegetation Management Before and After a Fire

Vegetation treatments can make a difference for firefighters on the ground.

- Vegetation treatments can slow a fire's spread and create safety zones.
- Fuel breaks and type conversions can create buffers between basins and watersheds.

Protecting Sage Grouse Habitat

- The BLM is particularly cognizant of sage grouse issues.
- The BLM is taking numerous strategic and operational steps to keep fire from further threatening sage grouse.



Gauging Success of Response

What has worked? Rapid initial attack can often succeed in keeping fires small. Green-stripping has been effective in creating fuel breaks in desert ecosystems.



Gauging Success of Response

Where do challenges remain?

- Keeping undesired fires small and out of intact ecosystems.
- Rapid mobilization of resources for initial attack where applicable.



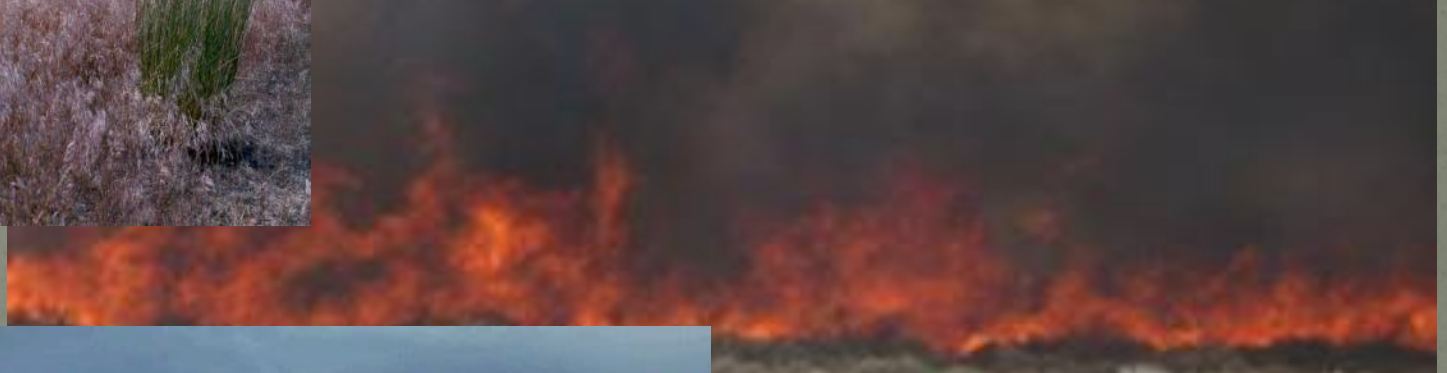
What Does the BLM Need?



What Does the BLM Need?

- Better tools to evaluate long-term productivity of post-fire treatments
- Greater understanding of site conditions in order to grasp strategies and effects of ES&R treatments
- Better tools for landscape level change monitoring
- Research specific to desert ecosystems (as opposed to forested ecosystems)
- Better technology for:
 - Modeling and mapping—especially in discontinuous fuels
 - Weather forecasting
 - And more

Conclusion



What the Solution Will Look Like

It will be integrated.

Attack the weed invasion on multiple fronts:

- Biological
- Chemical
- Mechanical
- Cultural fronts



What the Solution Will Look Like

It will be science-based.

Take advantage of
information research
can provide.

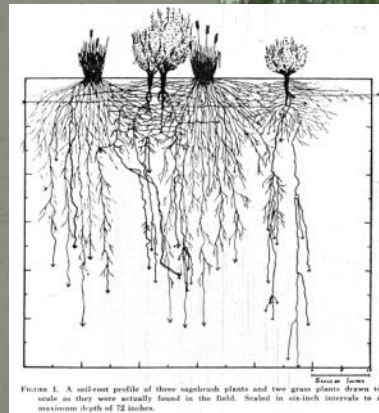
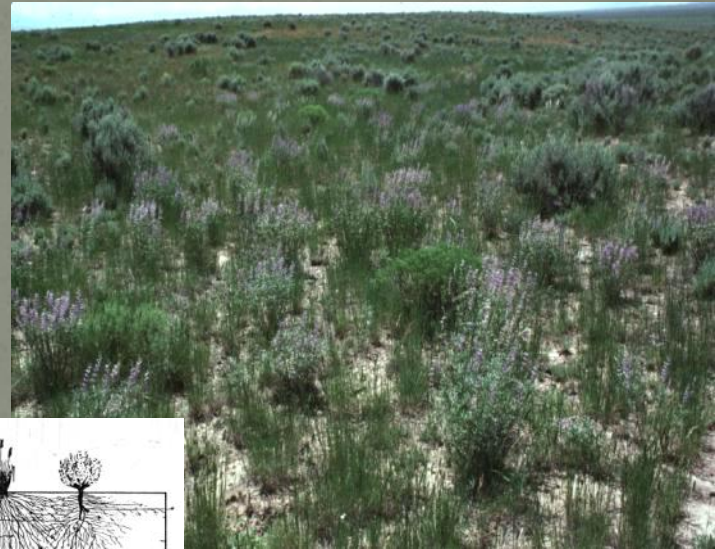


FIGURE 1. A soil-root profile of three sagebrush plants and two grass plants drawn to scale as they were actually found in the field. Scaled in six-inch intervals to a maximum depth of 72 inches.

What the Solution Will Look Like

It will be controversial.

- Big problems require big solutions
- Collaborate and work through the debate
- Leaders from all sides who will inspire unprecedented cooperation



What the Solution Will Look Like

It will be expensive.

Several fire-prone
invasive weeds have
infested huge areas
in the West.



What the Solution Will Look Like

It will be soon.



We are having too many fires in desert ecosystems, and we are losing opportunities.



Thank You

