Preparing for the next wildfire and rehabilitating burned lands after it

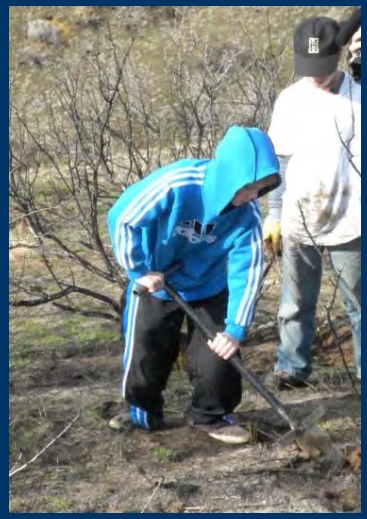
Mike Pellant

Pre-fire Proactive Strategies

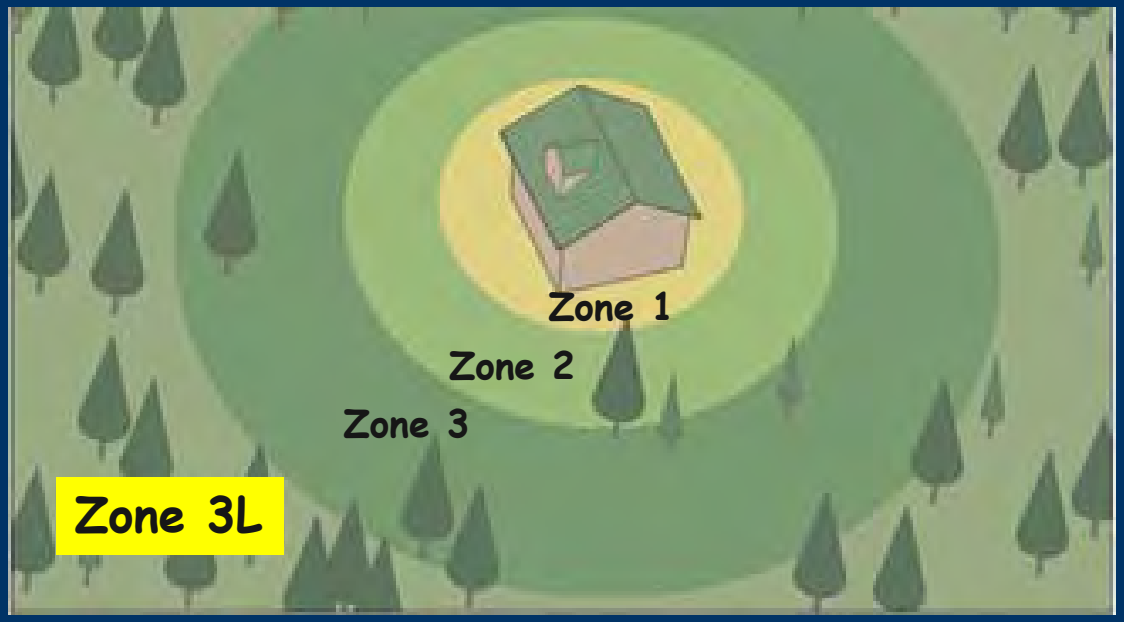
Widely reduce annual grasses & increase perennial vegetation

Strategicalluy reduce or modify fuels to minimize wildfires

Reactive: Post-fire Rehabilitation



Defensible Space



Zone 1—Your Buildings and the First 30-feet (Clean and Green)

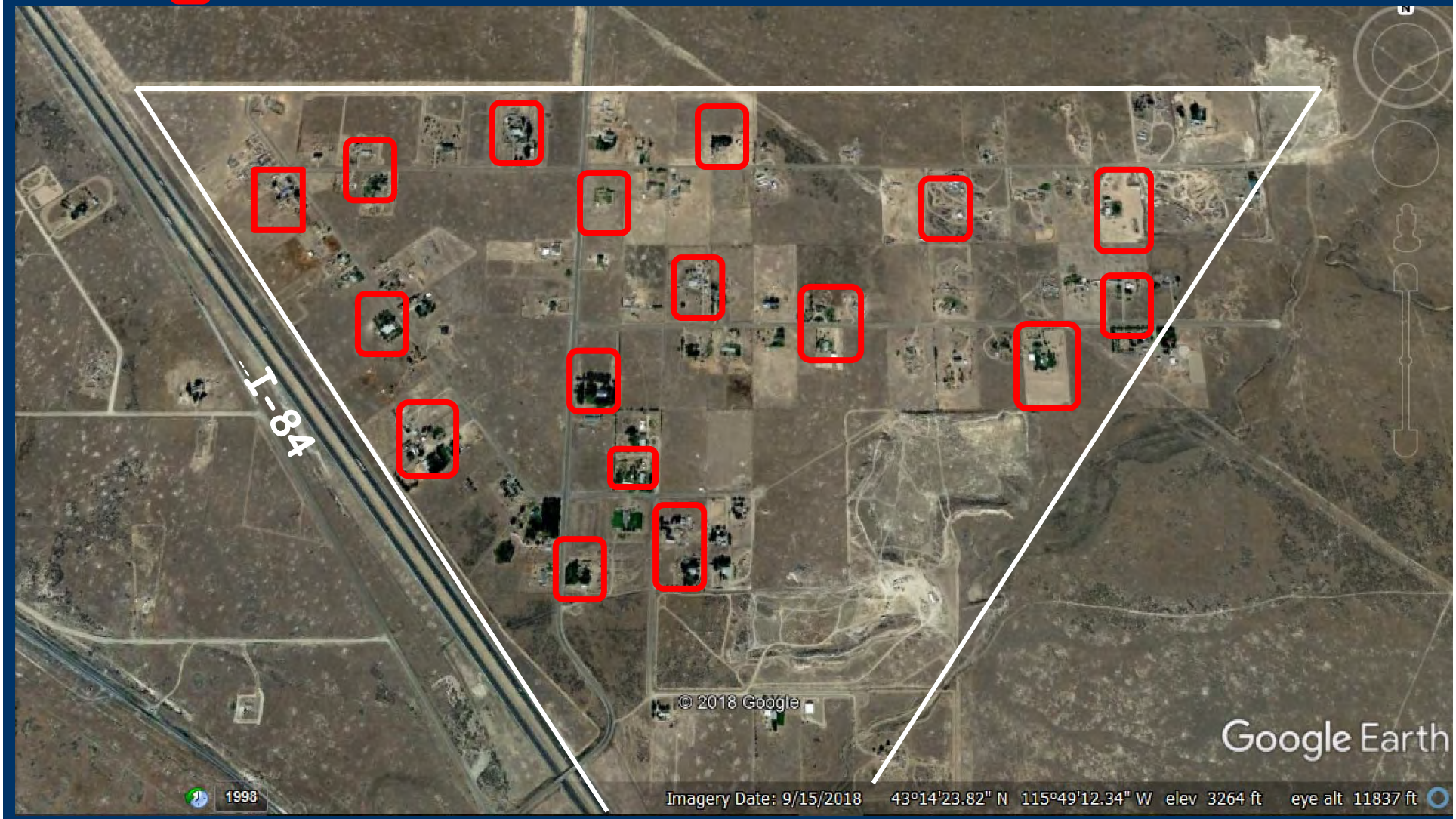
Zone 2—From 30- to 100-feet (Pruned and Groomed)

Zone 3—100-feet and Beyond (Natural vegetation)

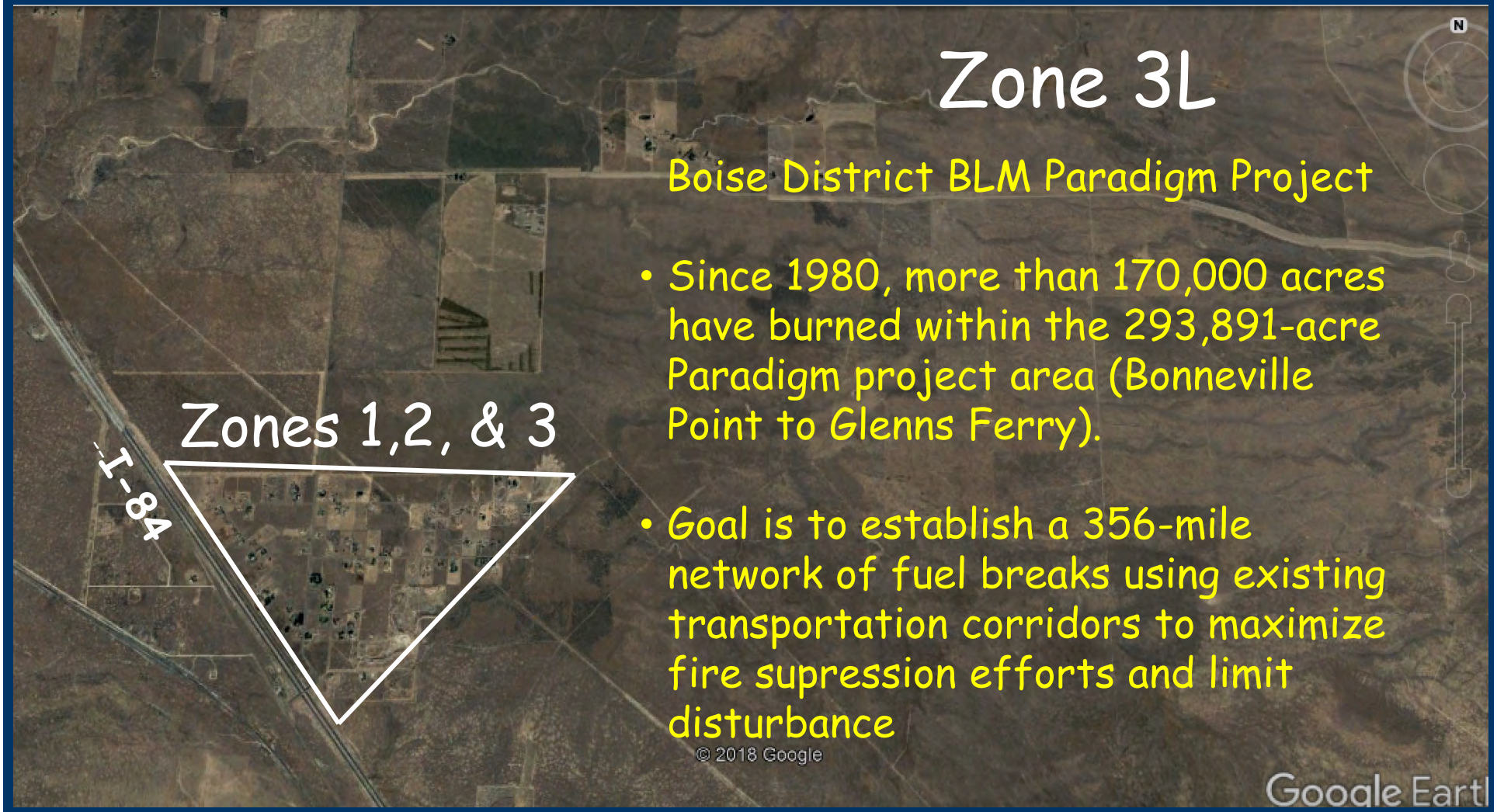
Zone 3L—"Landscape" surrounding towns, communities, subdivisions, etc.

Scale of Application: Zones 1, 2, & 3

--Defensible Space practices implemented on 65% of dwellings



Scale of Application: Zone 3L

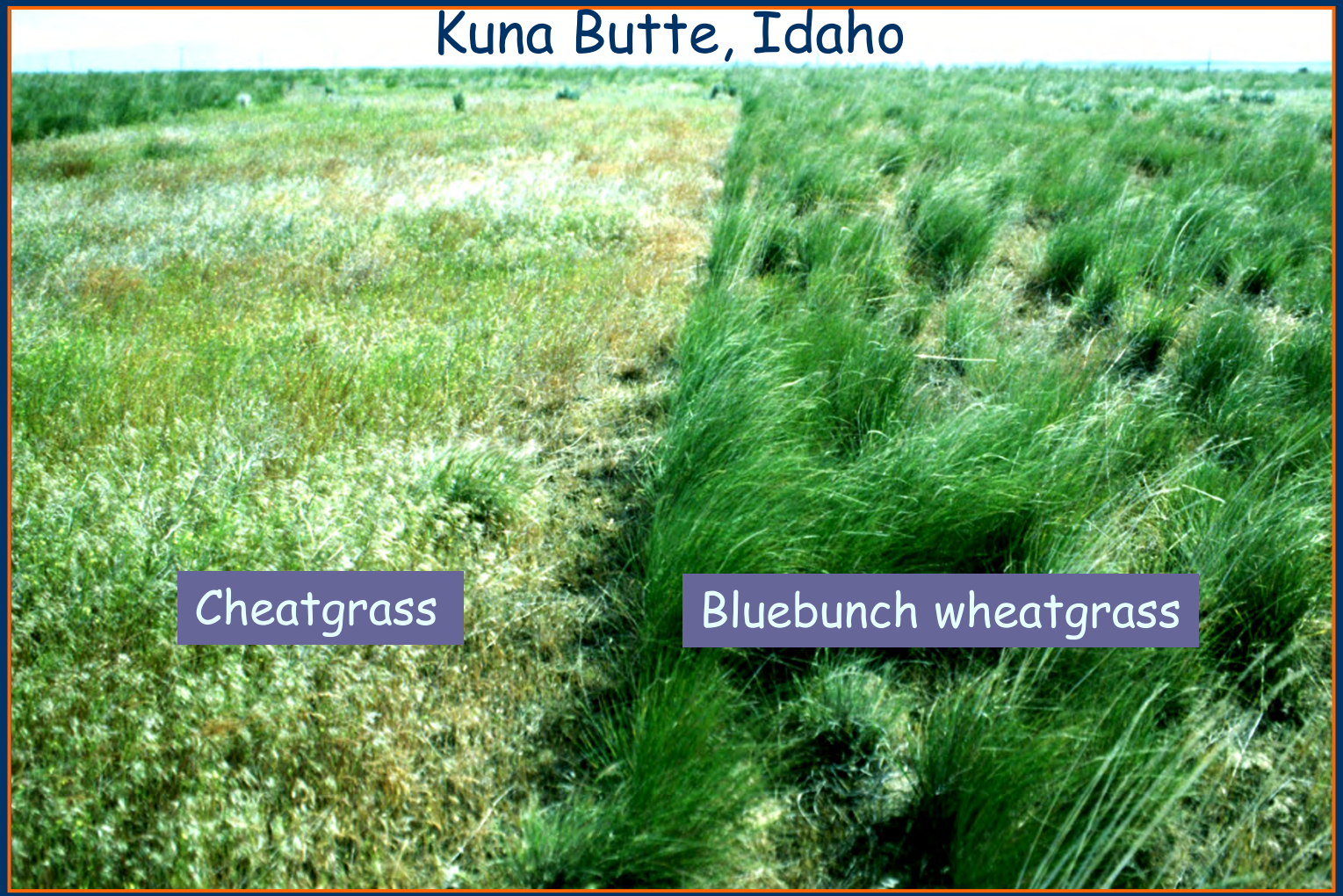


Pre-fire Proactive Strategies

Widely reduce annual grasses/increase perennial vegetation

Strategically reduce/modify fuels to minimize wildfires

Replace Annual Grasses with Pernnial Plants



2007 Murphy Complex Fire

Zone 3

Strategically Reduce or Modify Fuels to Reduce Wildfire Risk- Fuel Breaks

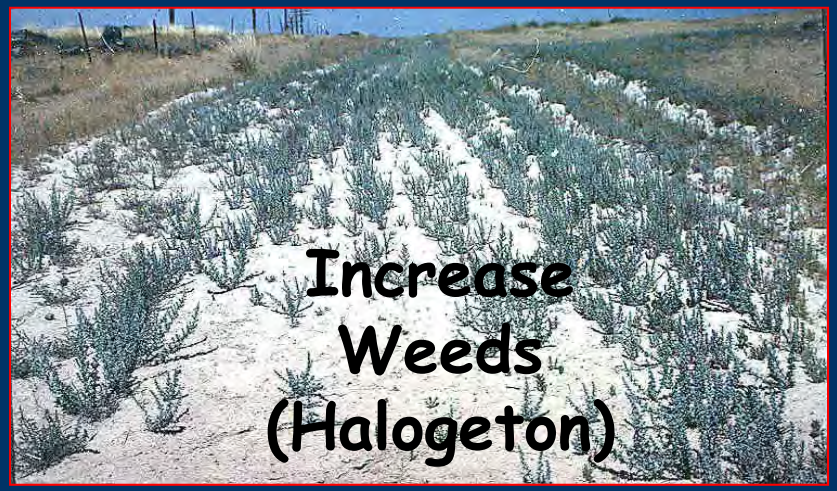
1. Mechanical (Brown Strip)
2. Herbicide
3. Greenstrips
4. Biological- Livestock

Mechanical Fuel Breaks- Brown Strips

Mountain Home Air Force
Base Training Range

Highway 51--Grasmere, ID

Mechanical Fuel Breaks- Disks and Plows Cautions



Mechanical- Mowing Fuel Breaks in Grass Communities

- High cost and small area
- Potential for fire starts
- Multiple mowings may be necessary on an annual basis

Mechanical- Mowing Fuel Breaks in Sagebrush

1. Good treatment location control
2. High cost per unit area
3. Longevity of project varies in part on mowing height
4. Residue (fuels)

Herbicide- Fuel Breaks

- Cost effective
- Label constraints
- No soil disturbance
- WUI/Environmental concerns
- More information-County Weed Control Departments

Imazapic

Glyphosate

Fuels Management- Greenstrips

Strips or bands of fire resistant vegetation (living fuelbreaks) established at strategic locations to:

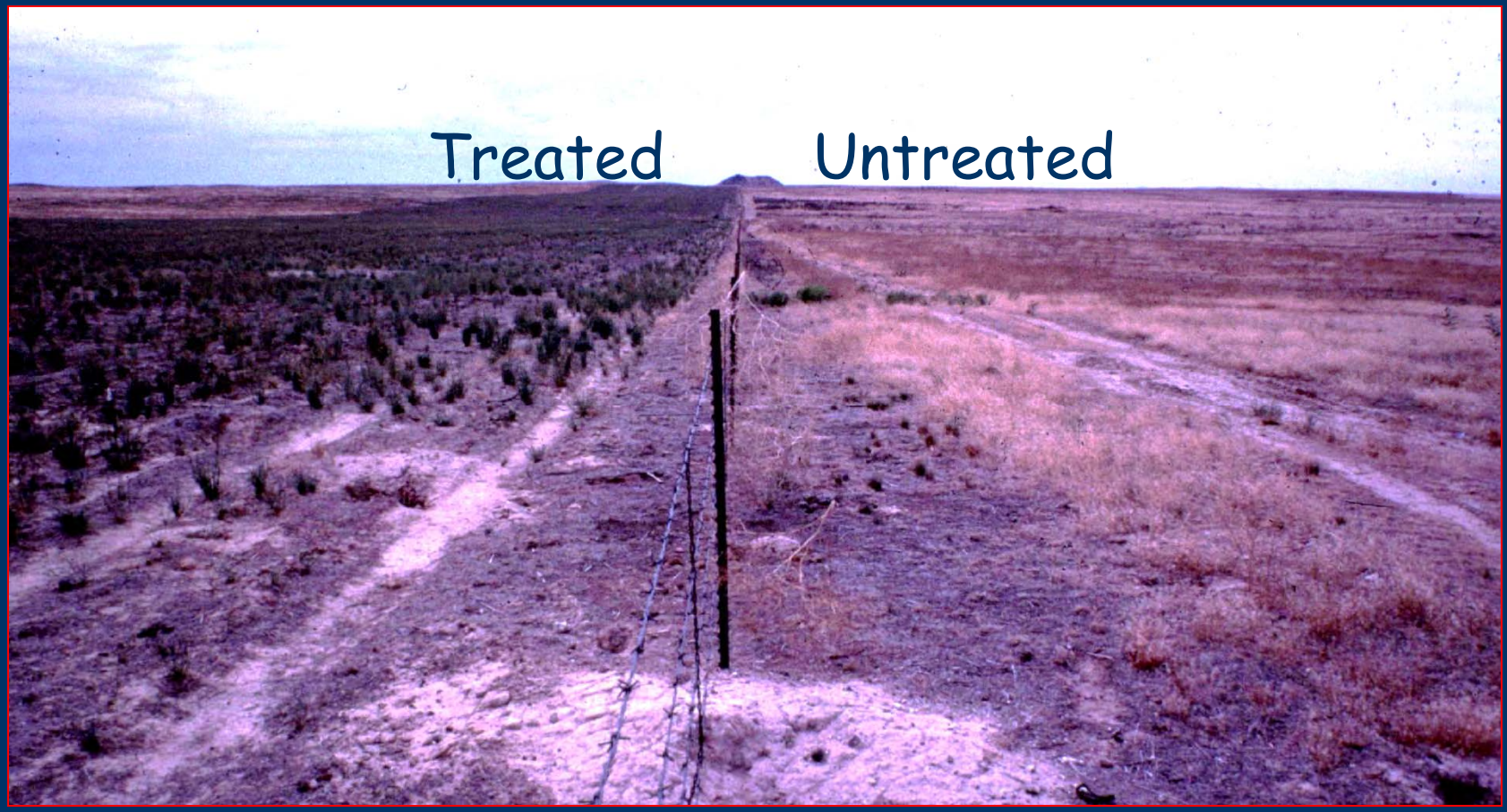
- Slow or stop wildland fires
- Reduce wildland fire starts along transportation routes
- Minimize backfire risks during fire suppression
- Protect shrub stands from unwanted fire
- **Reduce wildfire entry into the urban/wildland interface**

Lockman Butte Greenstrip: I-84 Just West of Mountain Home

Lockman Butte Greenstrip: I-84 Just West of Mountain Home

Herbicide/Greenstrips

Reduce fine fuels and promote perennial plants.



Livestock Used to Reduce Fuels

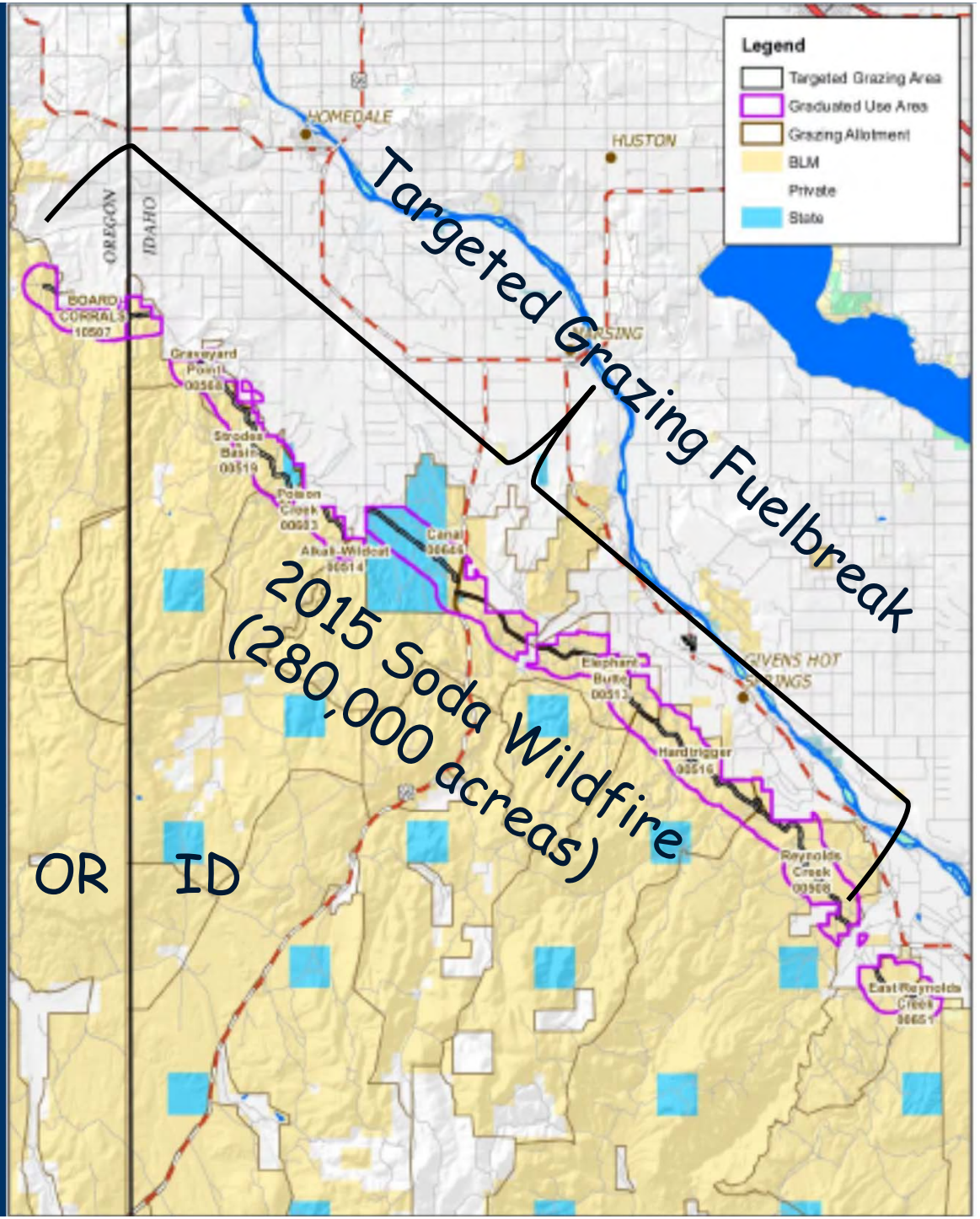
"Targeted Grazing"

Sheep Use- Carson City, NV

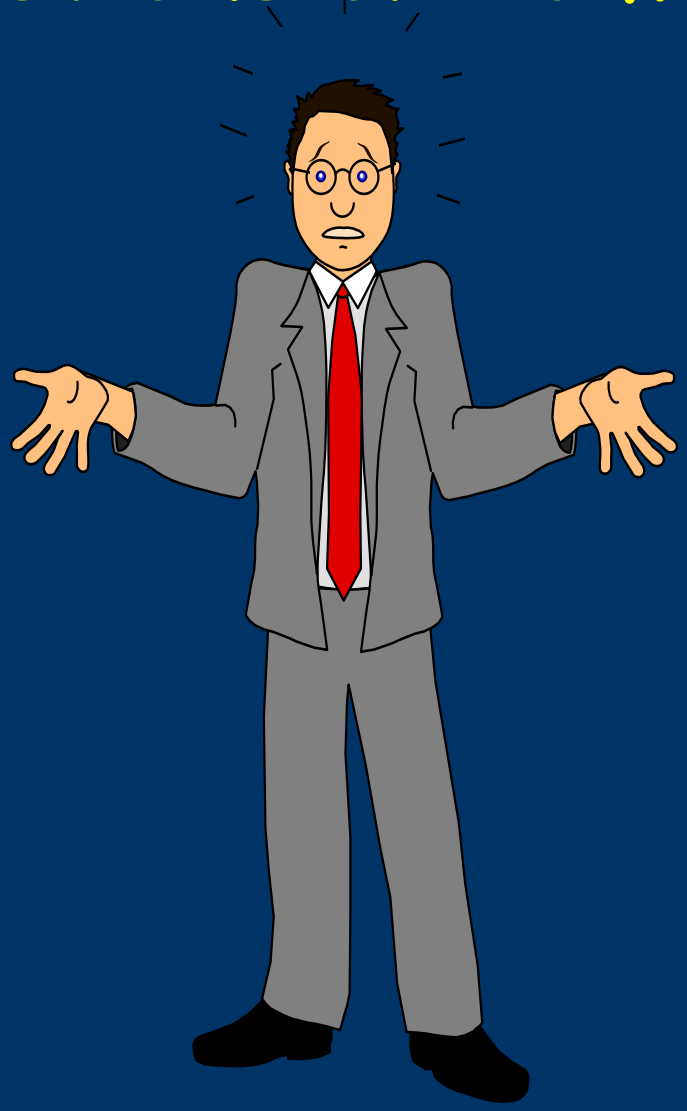
Sheep/Goat Use- Kuna, ID

Soda Fire Targeted Grazing Demonstration Project:

- 36 contiguous miles in Idaho and Oregon (8 permittees)
- Livestock controlled by water, supplements and herding with minimal fencing



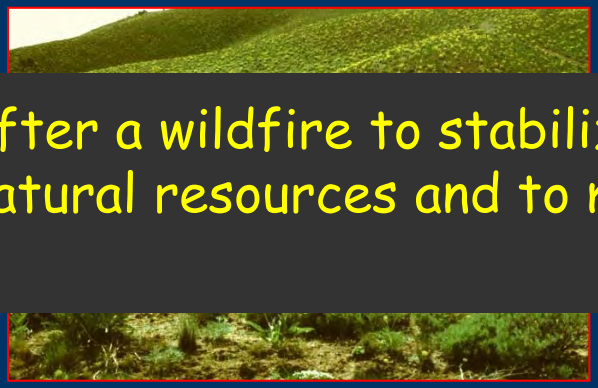
Questions or Comments?

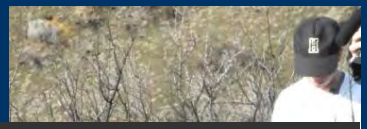


Targeted Grazing to Increase Effectiveness of Greenstrips

Livestock grazing can increase the effectiveness of greenstrips by removing fine fuels…cheatgrass

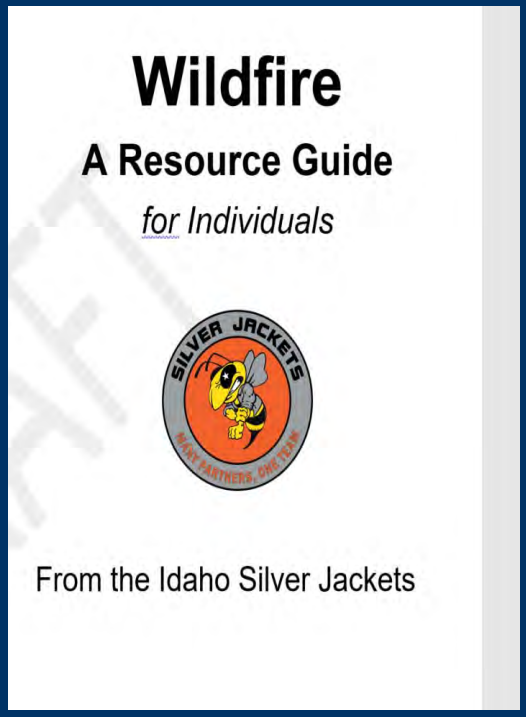
Reactive: Post-fire Rehabilitation





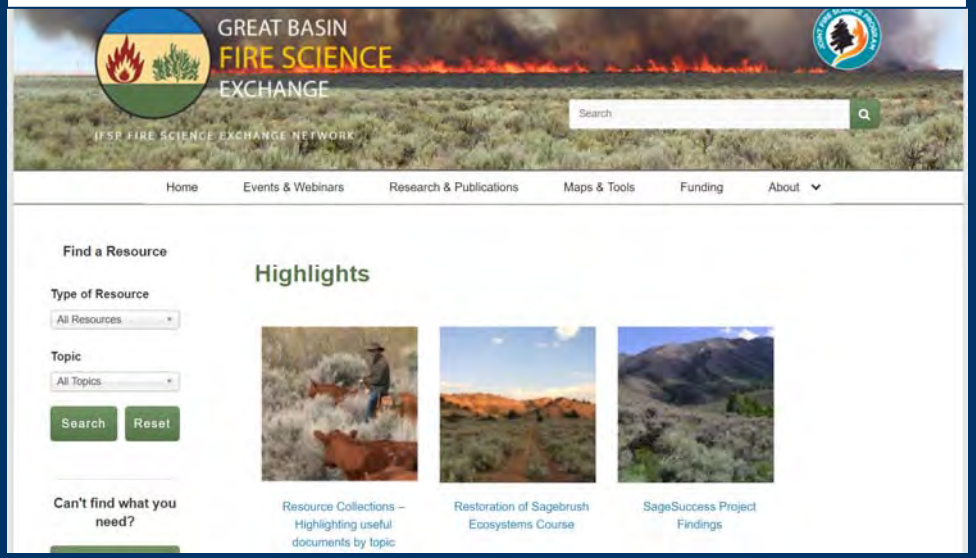
Planned actions implemented after a wildfire to stabilize and prevent unacceptable degradation to natural resources and to minimize threats to life and property.

Resources



- Idaho is developing post-fire resource guides for individuals and communities with steps and resource sources to address post-fire issues including funding opportunities.

www.greatbasinfirescience.org



Post-Fire Actions

1. Team of experts
2. Assess impacts and threats
3. Objectives and plan (including public outreach)
4. Implement treatments
5. Monitor treatment effectiveness
6. Adapt, manage for the long term, learn, & apply to the next fire

Healthy Hills Initiative Case Study

1. Team of Experts

Healthy Hills Initiative

EBIPM
SCIENCE-BASED SOLUTIONS FOR INVASIVE ANNUAL GRASSES

USDA
NRCS
United States Department of Agriculture
Natural Resources Conservation Service

ESC Environmental Conservation Services, Inc.

Ada SWCD

NATIONAL SYSTEM OF PUBLIC LANDS

2. Assess Impacts & Threats

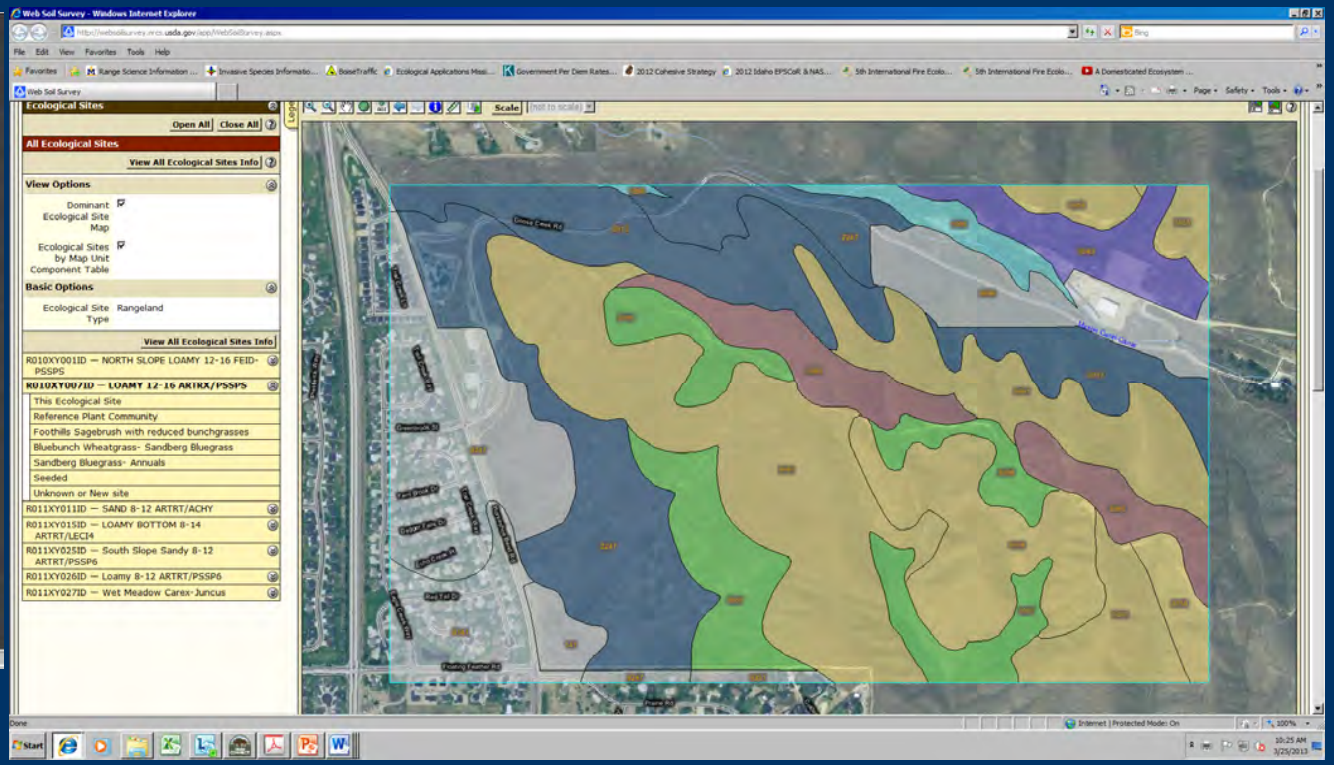
Vegetation concerns- Domination by fire prone invasive grasses (cheatgrass) and increase in other noxious weeds. Loss of remnant wildlife habitat plants

Rush skeletonweed

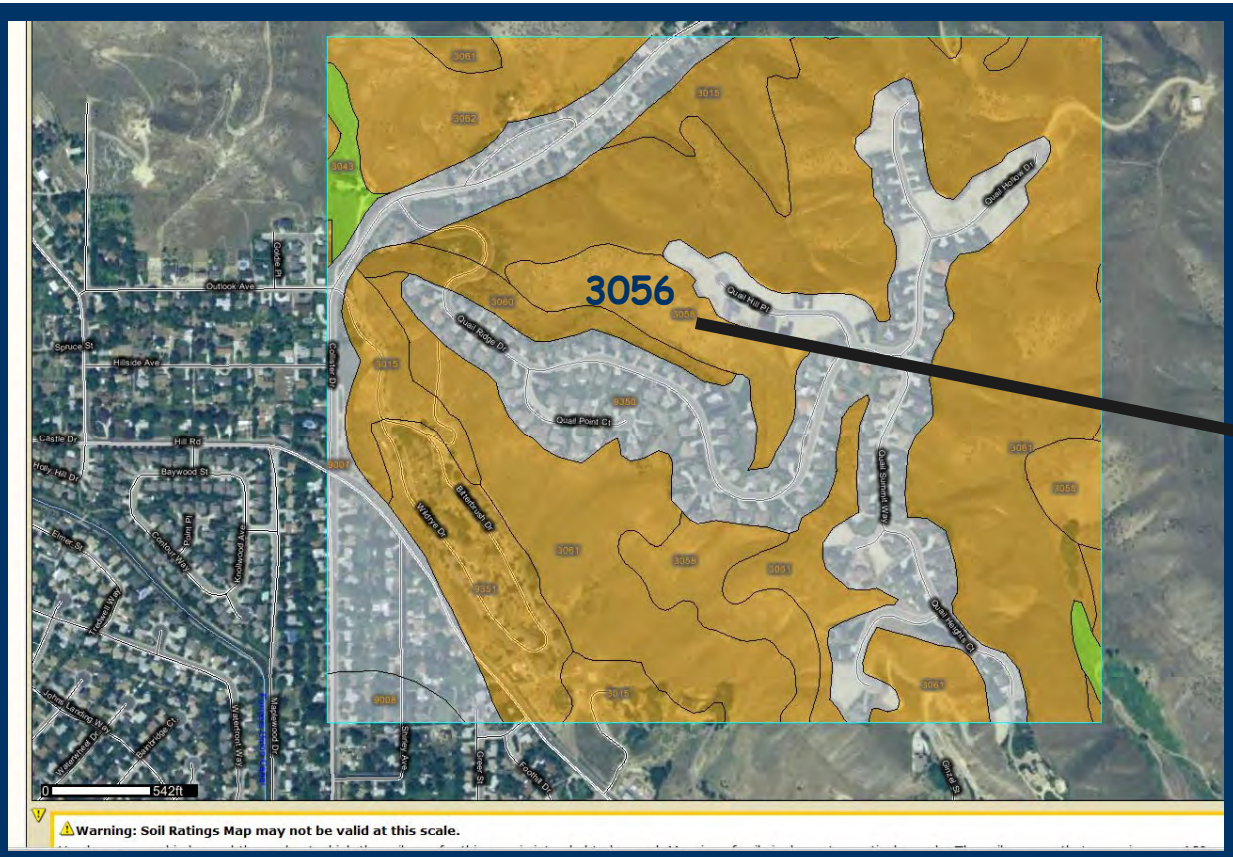
2. Assess Impacts & Threats

Soils and Erosion Potential

Google "web soil survey



Quail Ridge Subdivision-Erosion Potential



Tables — Erosion Hazard (Road, Trail) — Summary By Map Unit

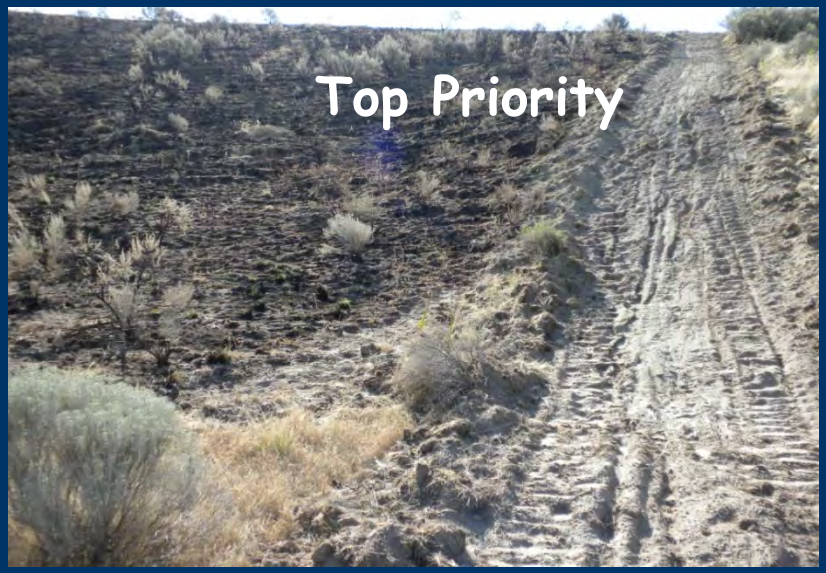
Summary by Map Unit — Ada County, Idaho (ID001)

Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (n
3015	Shadoval-Polecat complex, 25 to 50 percent slopes	Severe	Shadoval (40%)	Slope/erodibility (0.95)
			Polecat (35%)	Slope/erodibility (0.95)
3042	Piercepark coarse sandy loam, 8 to 25 percent slopes	Moderate	Piercepark (85%)	Slope/erodibility (0.50)
3043	Cashmere loamy sand, 8 to 25 percent slopes	Moderate	Cashmere, sandy surface (85%)	Slope/erodibility (0.50)
3056	Cranegulch-Hullsgulch complex, 4 to 15 percent slopes	Severe	Cranegulch (40%)	Slope/erodibility (0.95)
3058	Quailridge-Fortbois complex, 35 to 90 percent slopes	Severe	Quailridge (50%)	Slope/erodibility (0.95)
			Fortbois (30%)	Slope/erodibility (0.95)
3060	Picketpin-Van Dusen complex, 25 to 65 percent slopes	Severe	Picketpin (50%)	Slope/erodibility (0.95)
			Van Dusen, loamy substratum (35%)	Slope/erodibility (0.95)

Healthy Hills Initiative- 2009 Post-Fire Objectives & Plan

- Rehabilitate fire control lines
- Restore wildlife habitat with native species
- Plan & implement fuel breaks, Native Plant Demonstration areas and a Firewise Garden
- Develop an education and public outreach program

Post-Fire Rehabilitation Priorities

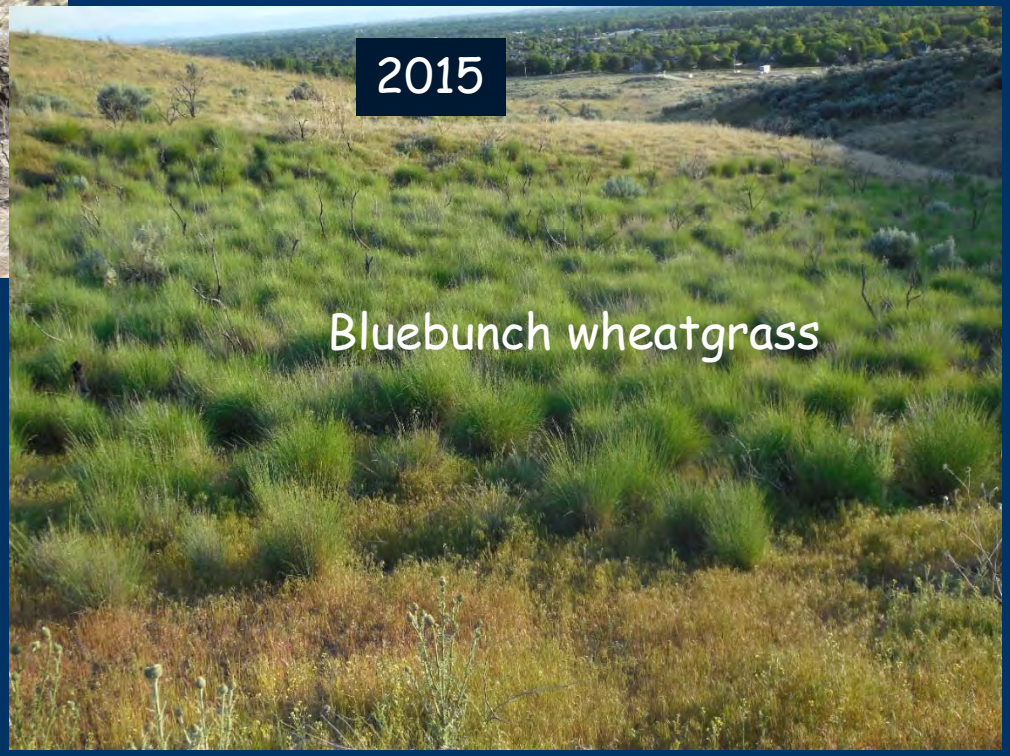


Fire Line Rehabilitation-Fall 2009

5+ miles

Cat Line Rehabilitation Results

Post-Fire Habitat Restoration



Plan and Implement Fuel Breaks

Public Outreach/Education Opportunities

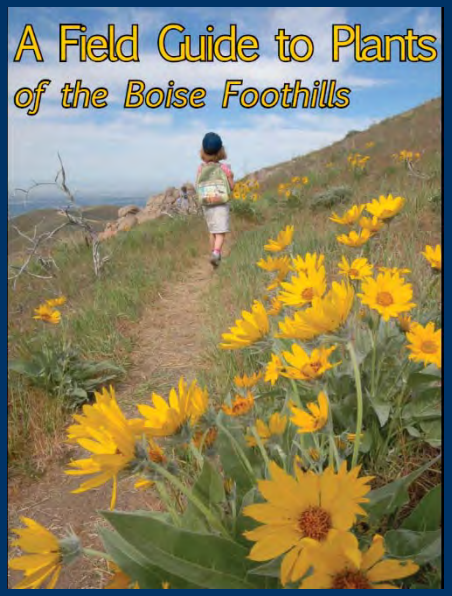

U of Idaho Restoration Class


Land Managers

Educational Signs

- Native Plant Communities
- Wildfires
- Firewise Landscaping
- Invasive Species
- Erosion
- Sensitive Plant Species
- Healthy Hills Initiative

Also established a Firewise Garden



Volunteer Bitterbrush Planting – Spring 2010

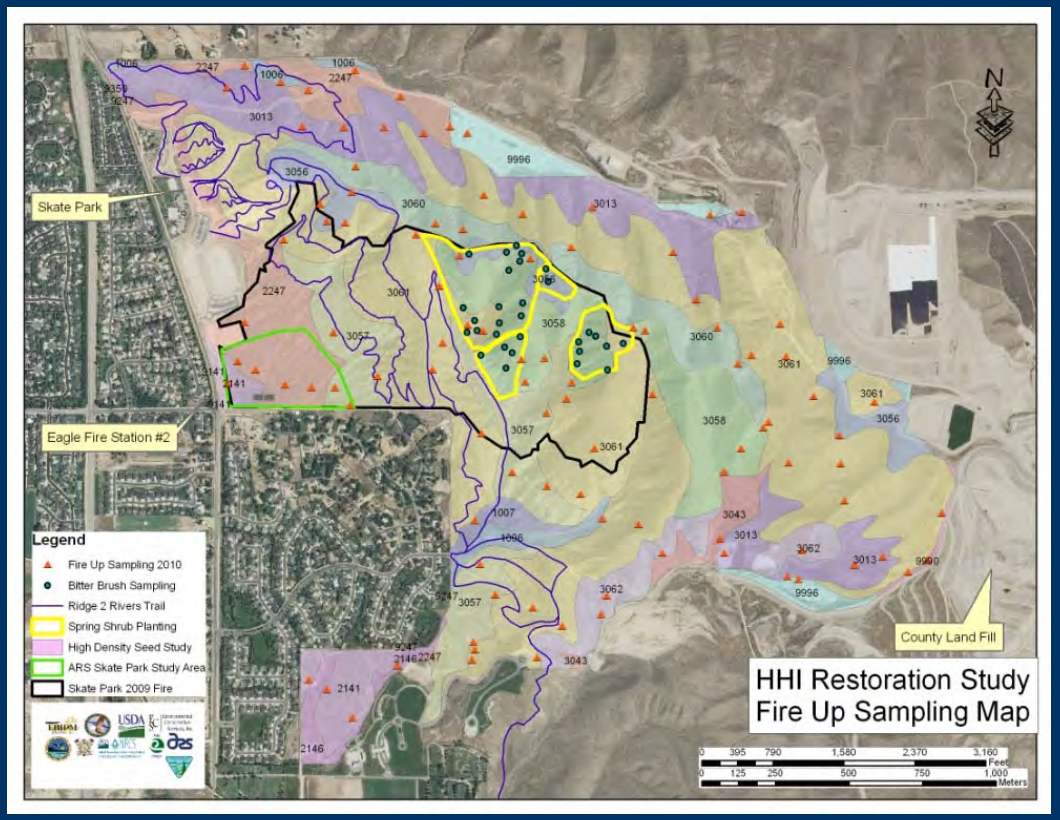
IDAHO FISH AND GAME
preserve · protect · perpetuate

-200+ Volunteers
-8,000 bitterbrush seedlings planted

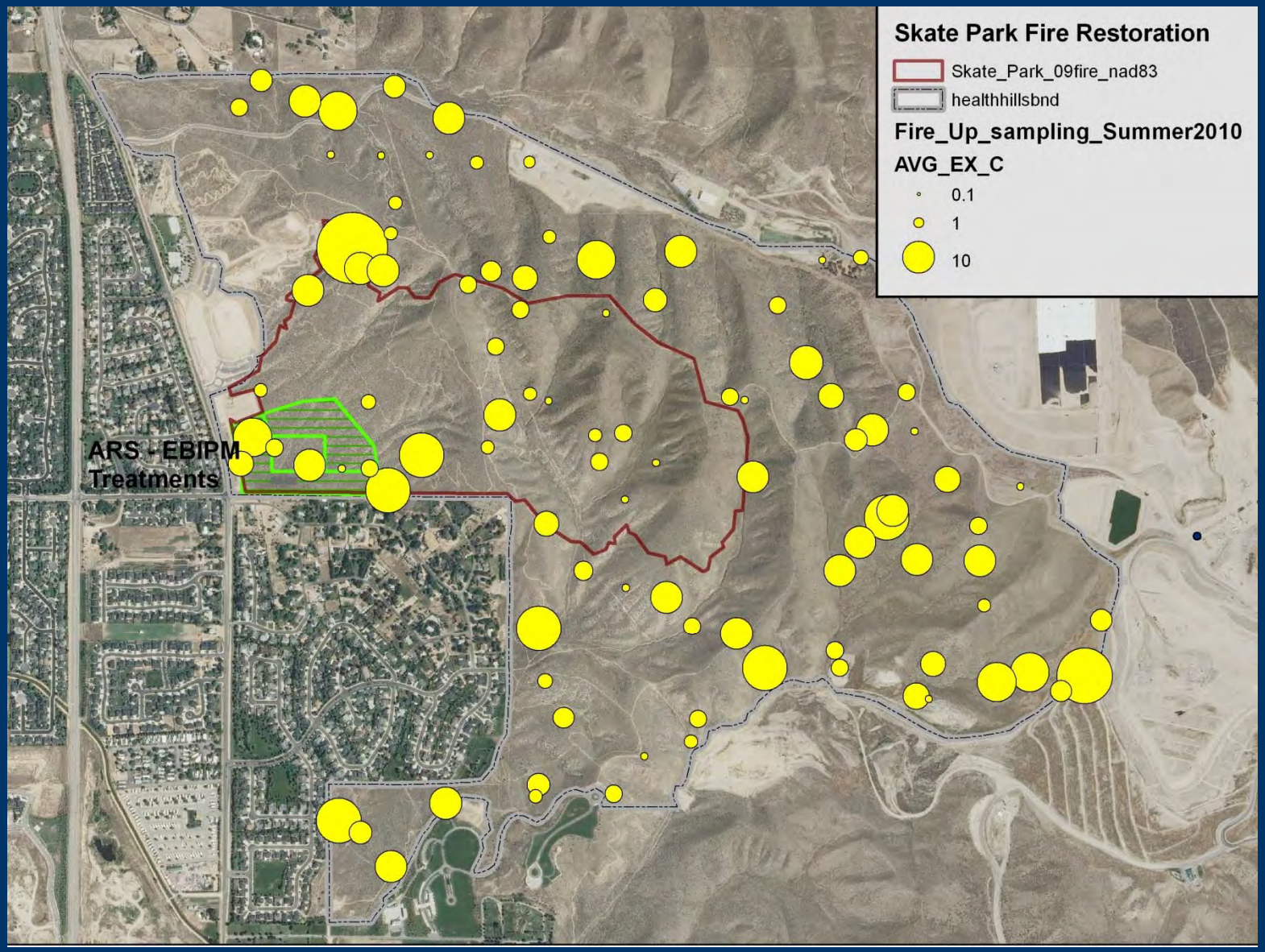
Native Plant Demonstration Area/Firewise Garden

5. Monitor-2010 FireUP High School Project

129 sites monitored



Cheatgrass "Hotspots"



Post-fire Rehabilitation Treatments

Objective: Protect soil to minimize water erosion & openings that promote invasive plants

Post-fire Rehabilitation Treatments

Objective: Reseed to protect soil to minimize wind erosion & invasive annual grasses

Rangeland drill rental available through Ada SWCD via agreement with BLM Equipment Center (Vale, OR)

Take Home Points

1. Be proactive before the fire
   a) Manage fuels at the dwelling and landscape level
   b) Evaluate and select appropriate fuel break options
2. React to and mitigate wildfire threats:
   1. Team to assess damage and develop a plan (objectives)
   2. Implement with public participation/education
   3. Monitor and adapt
3. Be prepared to do it again!


"We are confronted by insurmountable opportunities"
Pogo
Questions?
Mike Pellant
208-867-1571
rangelandsolutions@mail.com