



Utah Department of Agriculture & Food

Invasive Species Mitigation (ISM)

Noxious Weed Program



Leafy
Spurge

(Euphorbia esula)



Mission Statement

Promote the healthy growth of Utah agriculture, conserve our natural resources and protect our food supply.

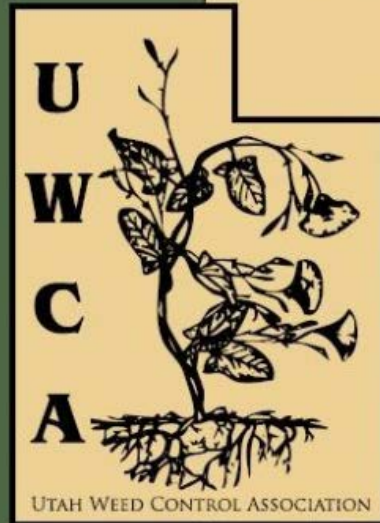
Improve communication and awareness of agriculture

Conserve and enhance Utah's lands and natural resources

Ensure food safety and consumer protection

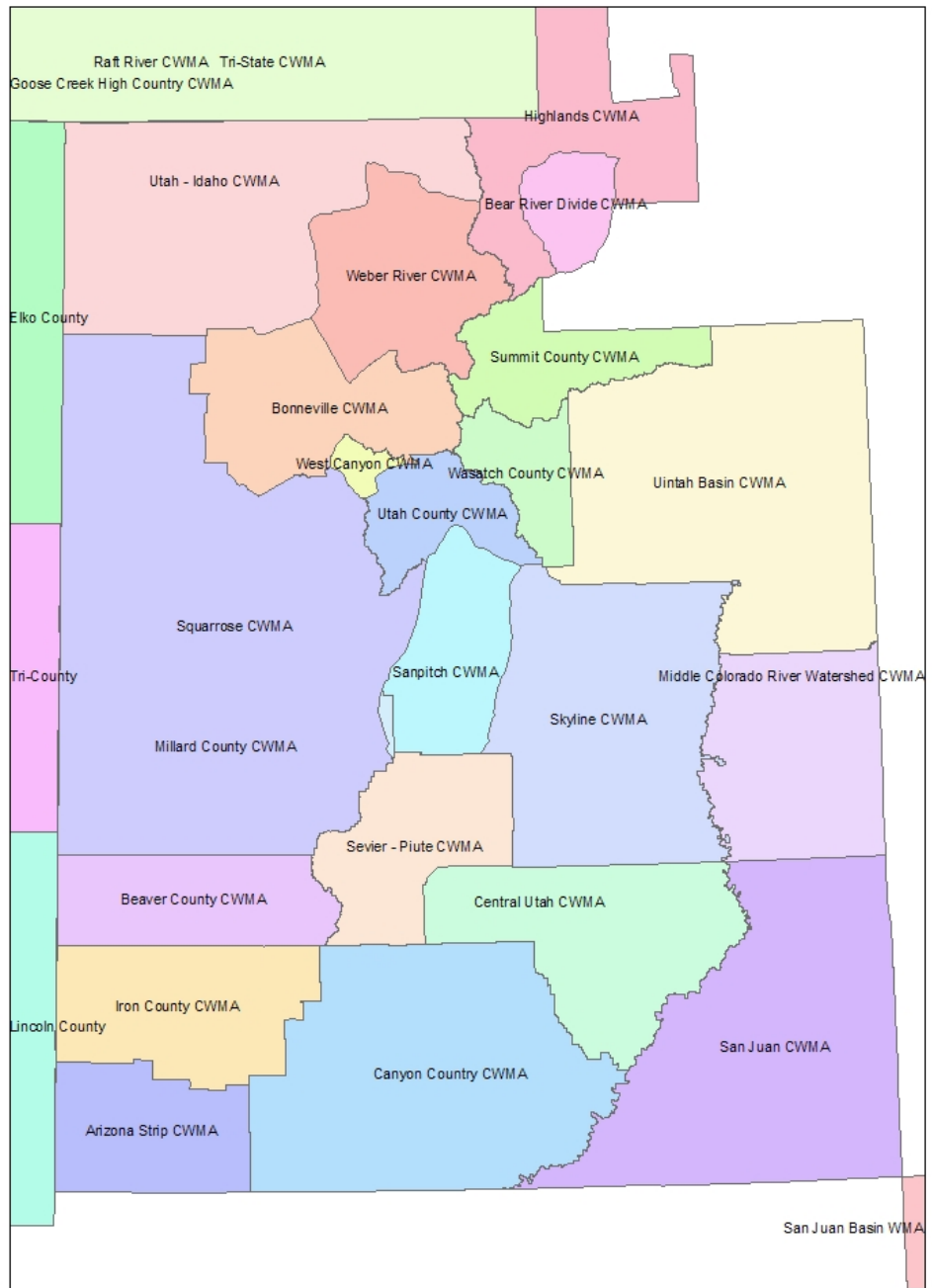
Build partnerships, advocates and develop agricultural leaders

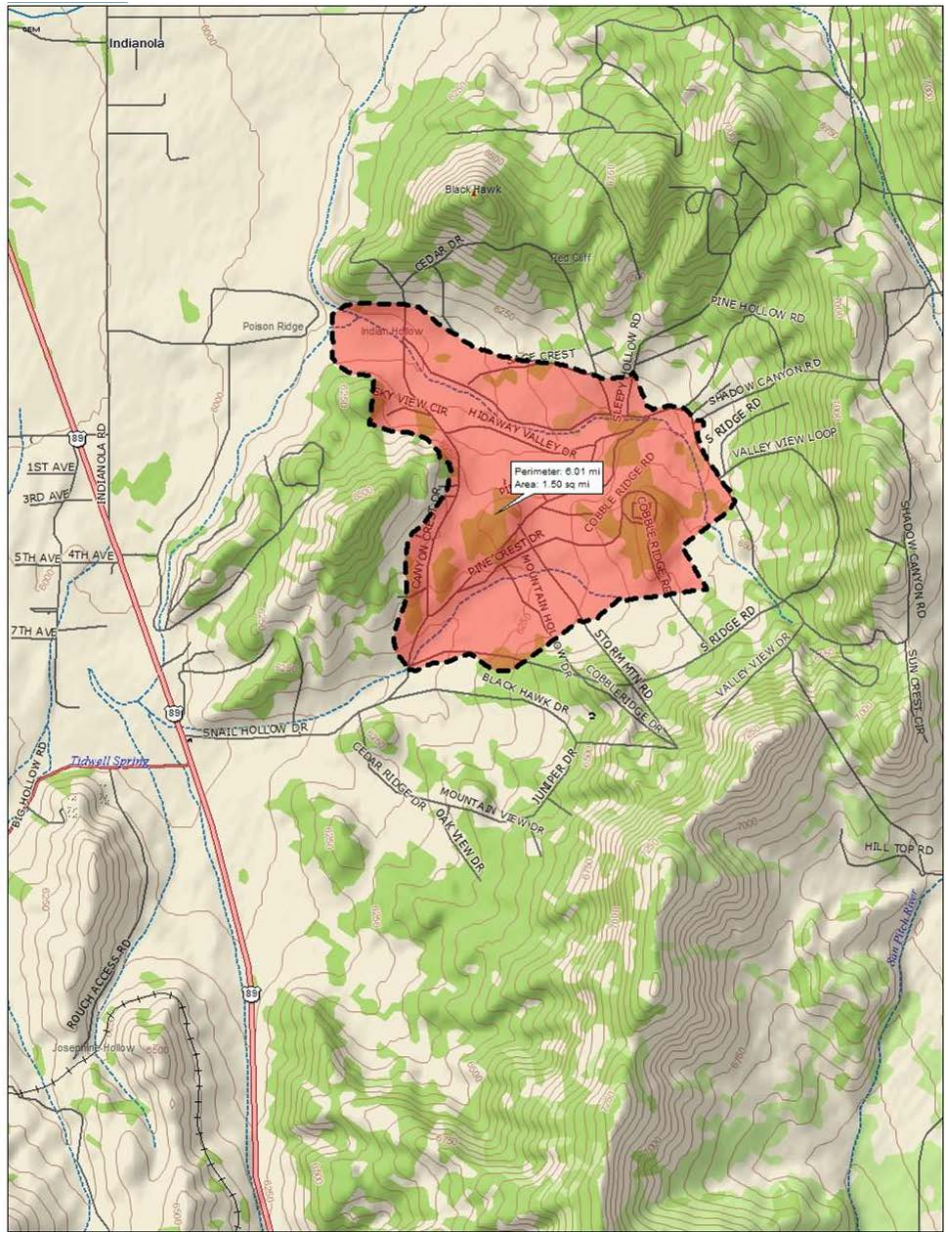
THE UTAH STRATEGIC PLAN FOR MANAGING NOXIOUS AND INVASIVE WEEDS

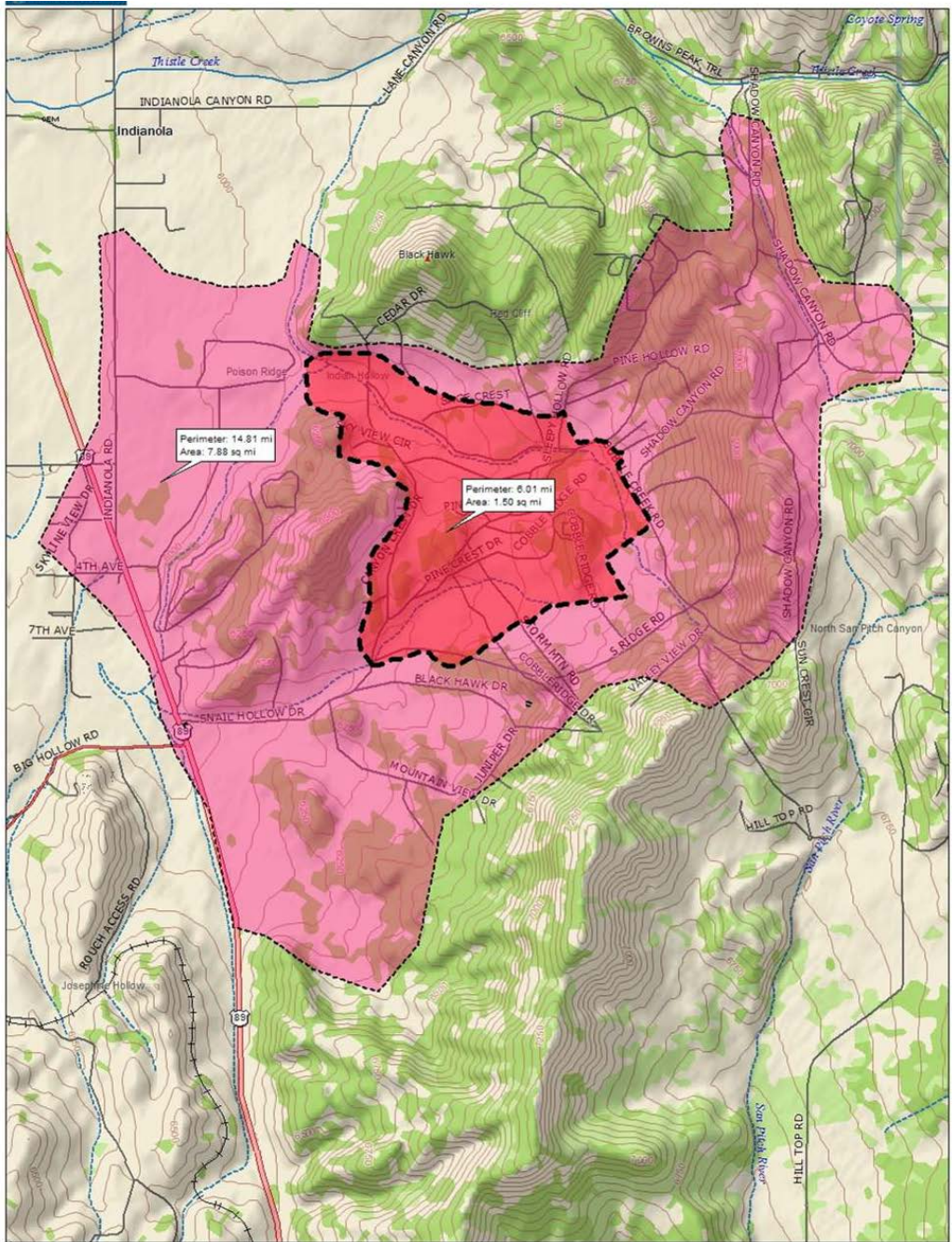


Utah Weed Advisory Council and
The Utah Weed Control Association

In cooperation with:
State and Federal Agencies
Utah Weed Supervisor Association
Private Land Managers







Squarrose Knapweed



From a dozen plants in 1954



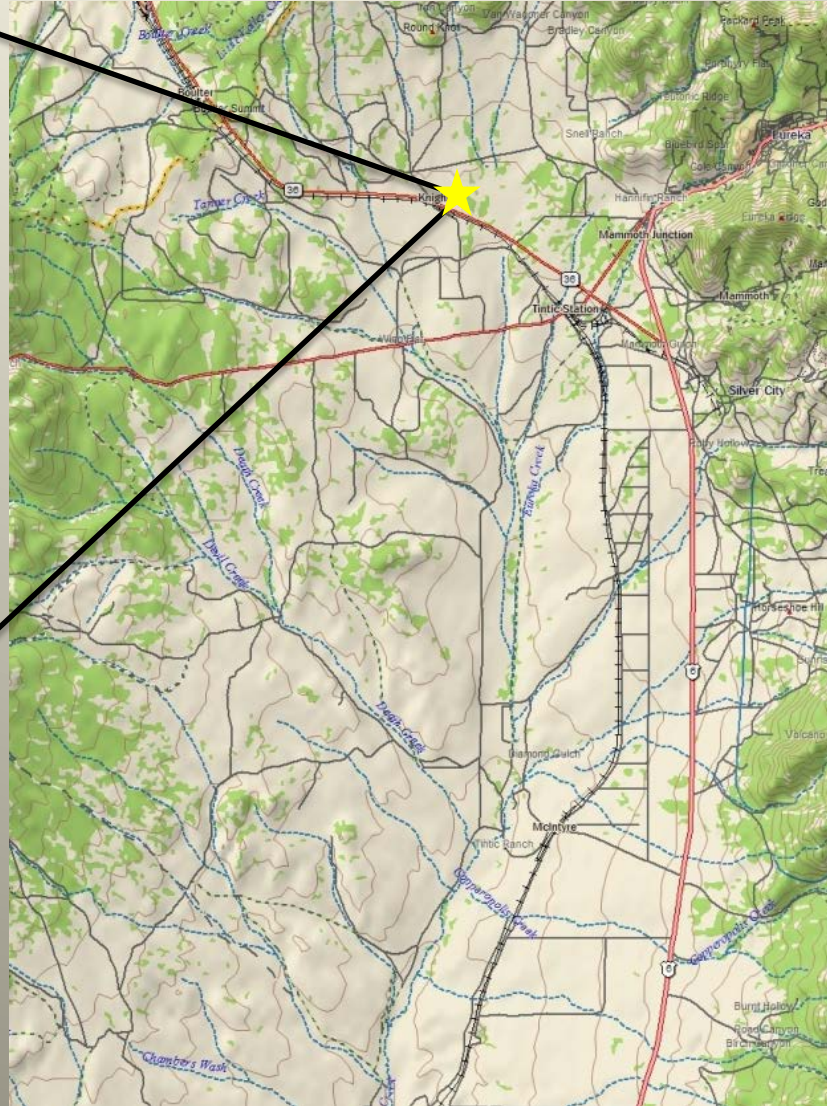


To More Than 200,000 Acres
58 years later

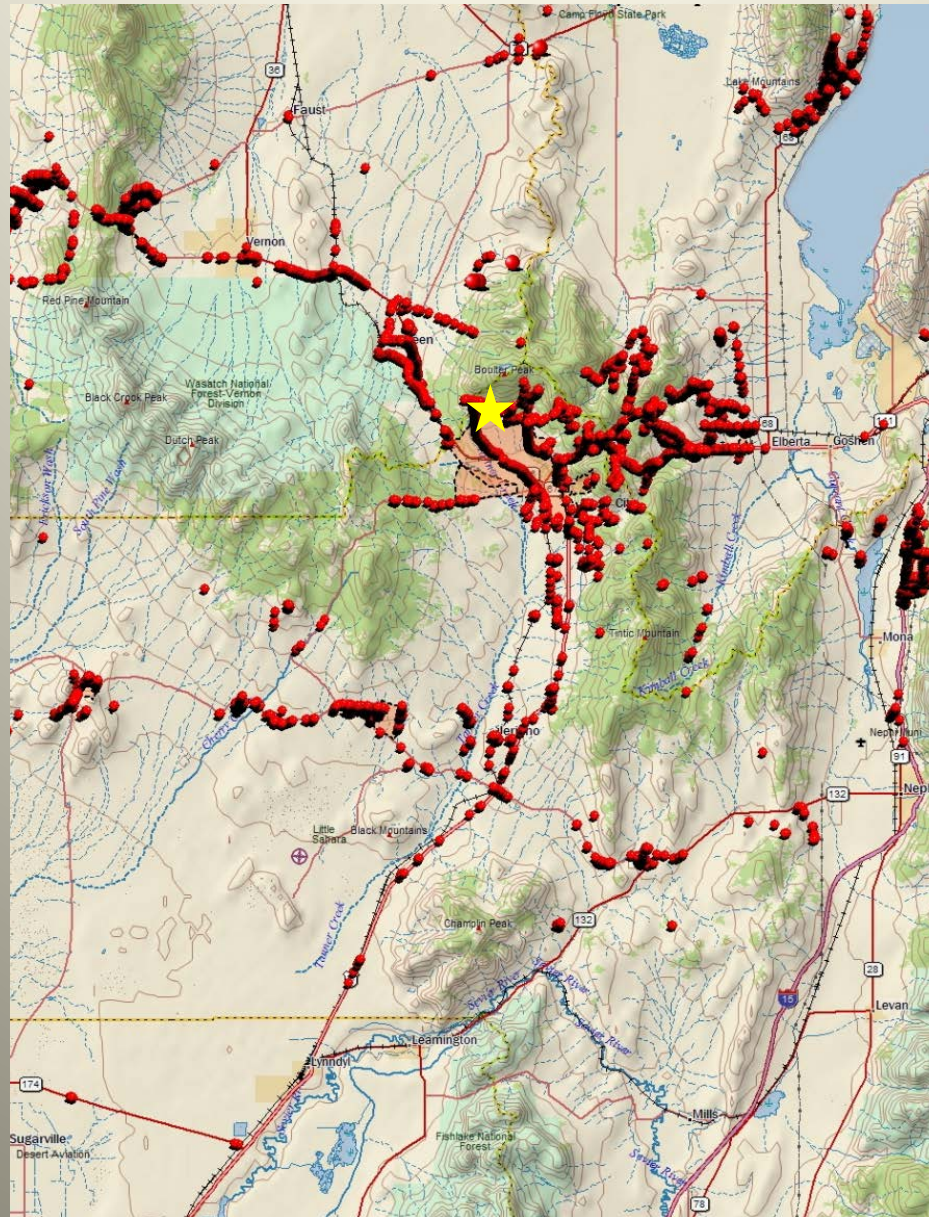
Impacts

- Over \$1,000,000/year in forage loss
- Reduction in Wildlife
- Increased fire suppression costs

1954



Squarrose Knapweed in 2012



Invasion



Spraying Ray Hunting's Hoary Cress,
Pepperweed and Russian Olives.



Field edges and misses were sprayed using ground equipment

Spraying Brad Dickson's
Pepperweed with the ATV.



Treatment and Revegetation



Restoration



Cooperation

BLM

DWR

UDAF

SITLA

Counties

Cattlemens
Assoc.

Water Users
Assoc.

Private Land
owners



CWMA Steering Committee: Uintah County Weed Department, Dinosaur National Monument, NRCS, Ouray Bird Refuge, State Ag Inspector, Uintah County Ext. and Duchesne County Ext.





2012-2013 ISM Grants

Invasive Species Grant Recipient	Counties	Grant Amount	Partnerships	Target Species	Project Status	Acres Treated
Beaver County	Beaver	\$ 10,000.00	UACD, County	Leafy Spurge	In Progress	1,765
Beaver County CWMA	Beaver, Iron	\$ 6,000.00	UACD, County, BLM	Scotch Thistle	In Progress	1,000
Blacksmith Fork District (Medusahead)	Cache, Box Elder	\$ 125,000.00	UACD, Private Land Owners	Medusahead	In Progress	2,000
Bonneville CWMA	Salt Lake, Summit	\$ 22,344.00	County, Salt Lake City, DWR	Garlic Mustard	Complete	500
Box Elder County	Box Elder	\$ 16,000.00	County, Private Land Owners	Rush Skeletonweed	Reporting	2,500
Canyon Country CWMA - UACD Zone 5	Garfield, Kane	\$ 23,600.00	UACD, BLM, Private	Yellow Starthistle	Reporting	1,910
Daggett County	Daggett	\$ 12,000.00	County, Forest Service, UACD	Hoary Cress	In Progress	676
Duchesne County	Duchesne	\$ 10,000.00	County, Private Land Owners	Russian Olive	Complete	150
Emery County	Emery	\$ 35,000.00	County, State, BLM	Russian Olive	In Progress	3,350
Great Salt Lake Audubon Society	Salt Lake, Davis	\$ 6,000.00	County, Private Land Owners	Phragmites	In Progress	56
Iron County CWMA	Iron	\$ 5,000.00	County, State, BLM, UACD	Scotch Thistle	Reporting	500
Juab County	Juab	\$ 7,000.00	County, Private Land Owners	Squarrose Knapweed	Reporting	250
Millard County CWMA	Millard	\$ 15,000.00	County, State, BLM	Squarrose Knapweed	Reporting	1,800
Natural Resources - DWR	Juab, Tooele	\$ 14,260.00	DWR, Private Landowner, County	Squarrose Knapweed	Reporting	300
Ogden Nature Center	Weber	\$ 12,000.00	County, Private Land Owners	Dyer's Woad	In Progress	152
Rich County	Rich	\$ 10,000.00	County, Private Land Owners	Hoary Cress	Reporting	600
Sanpitch CWMA	Sanpete, Juab, Utah	\$ 80,000.00	County, State, Forest Service, Private	Russian Knapweed	Reporting	7,000
School and Institutional Trust Lands(SITLA)	Sevier, Sanpete	\$ 8,979.00	State, County	Russian Knapweed	Reporting	30
Skyline CWMA	Carbon, Emery	\$ 7,350.00	County, State, BLM, Forest Service, Private	Yellow Toadflax	In Progress	4,000
South Central CWMA	Sevier, Piute, Wayne	\$ 70,000.00	County, State, BLM, Forest Service, Private	Leafy Spurge	Reporting	5,000
South Oquirrh CWMA (West Canyon)	Utah, Tooele	\$ 12,000.00	County, State, Private, Forest Service	Black Henbane	Complete	300
Squarrose CWMA	Juab, Tooele, Utah	\$ 119,200.00	County, State, DWR, Private, BLM	Squarrose Knapweed	Reporting	1,500
U.S. Fish & Wildlife Uintah Ouray Bird Refuge	Uintah	\$ 30,000.00	Federal, State	Russian Olive	Complete	50
U.S. Forest Service - Ferron Ranger District	Emery, Sanpete	\$ 2,500.00	County, State, Federal	Musk Thistle	Complete	500
Utah County	Utah	\$ 113,000.00	County, State, Private, Forest Service	Phragmites	Reporting	1,600
Utah-Idaho CWMA (Cache Zone)	Cache, Box Elder	\$ 8,000.00	County, State, UACD, Private	Russian Knapweed	Reporting	500
Utah Open Lands Conservation Association	Salt Lake, Davis	\$ 12,000.00	County, Private Land Owners	Russian Olive	In Progress	14
Wasatch County	Wasatch	\$ 12,000.00	County, State, Private, Forest Service	Dalmation Toadflax	Reporting	970
Wasatch County CWMA	Wasatch, Summit	\$ 60,000.00	County, State, DWR, Private, BLM	Leafy Spurge	Reporting	2,000
Washington County Water Conservancy	Washington	\$ 30,000.00	County, State, Private, Forest Service	Giant Reed	Complete	40
Wayne County	Wayne	\$ 6,000.00	County, State, Private	Hoary Cress	In Progress	250
		\$ 900,233.00			Total Acres Treated	41,263

Projects

- Squarrose Knapweed – 3,850 acres
- Rush Skeletonweed – 2,500 acres
- Medusahead Rye – 2,000 acres
- Phragmites (Utah Lake) – 1,700 acres
- Other weed species – 31,213 acres

Total Treated Acres – 41,263

2012-2013 ISM Grants Species Specific Treated Acres

Leafy Spurge	8,765
Russian Knapweed	7,530
Yellow Toadflax	4,000
Squarrose Knapweed	3,850
Russian Olive	3,564
Rush Skeletonweed	2,500
Medusahead Rye	2,000
Yellow Starthistle	1,910
Phragmites	1,656
Hoary Cress (Whitetop)	1,526
Scotch Thistle	1,500
Dalmatian Toadflax	970
Garlic Mustard	500
Musk Thistle	500
Black Henbane	300
Dyer's Woad	152
Giant Reed	40
	41,263

Designated County Noxious Weeds

Blue Flowering Lettuce

Buffalobur

Bull Thistle

Camelthorn

Burdock

Common Teasel

Garlic Mustard

Goatsrue

Jointed goatgrass

Myrtle Spurge

Puncturevine

Purple Starthistle

Rush Skeletonweed

Russian Olive

Silverleaf Nightshade

Velvetleaf

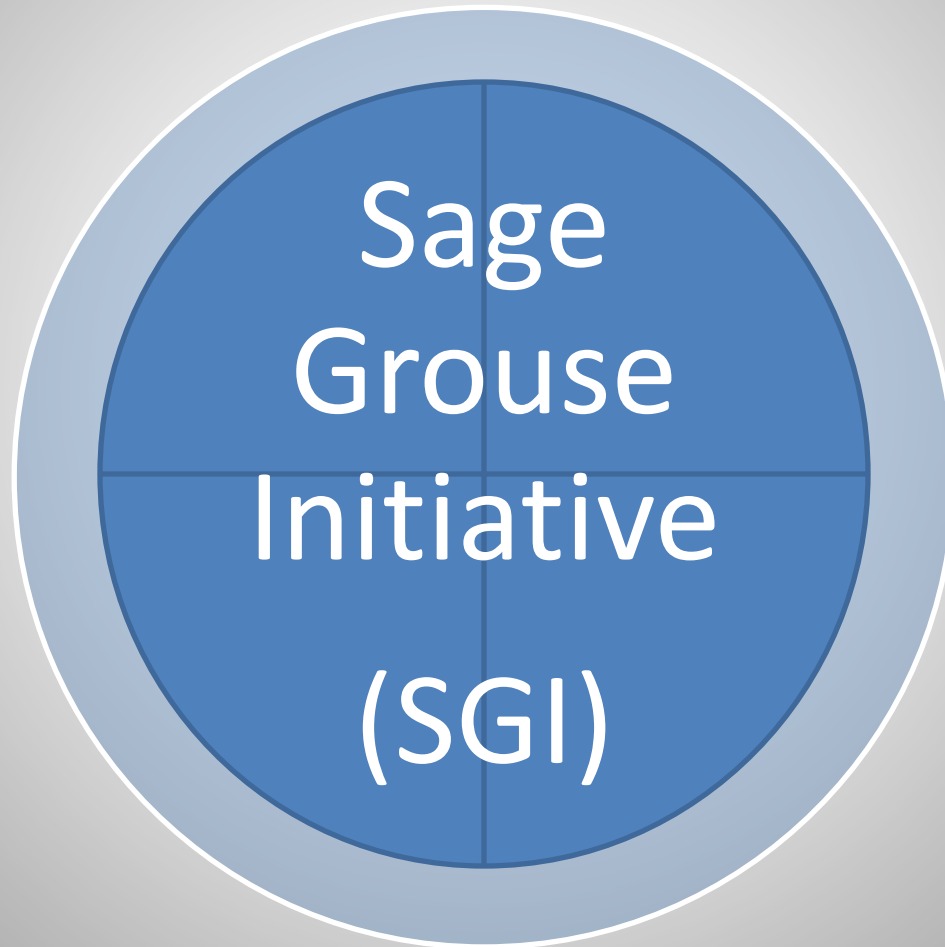
Western Water Hemlock

Western Whorled Milkweed

Yellow Nutsedge

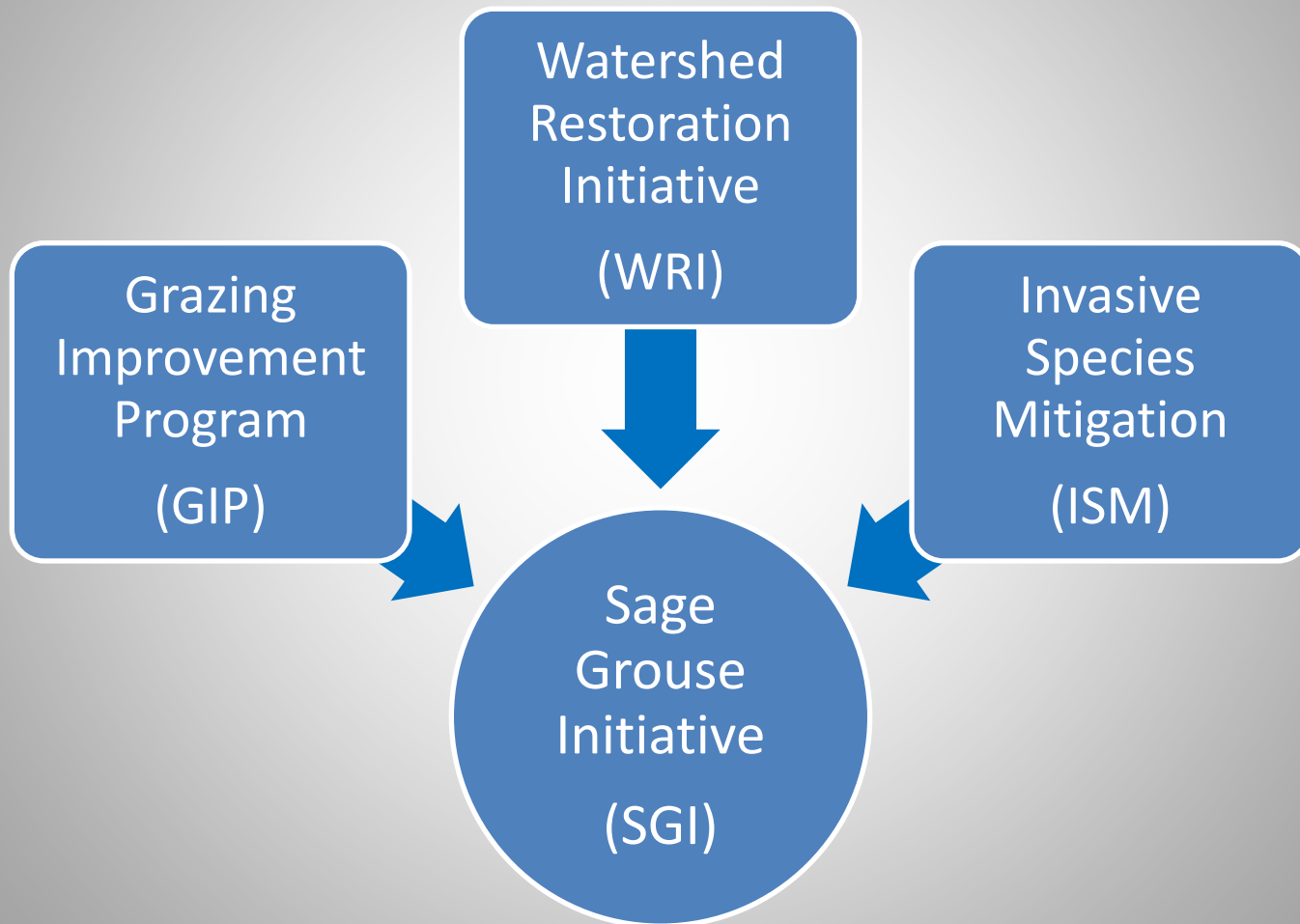
Sage Grouse Partnership

Target Sage Grouse Habitat



Sage Grouse Partnership

Common Goal: Increase Sage Grouse Habitat



SAGE GROUSE HABITAT RESTORATION

Rehabilitate Areas to Provide More Acres for Sage Grouse

Watershed
Restoration
Initiative
(WRI)



Sage
Grouse
Initiative
(SGI)

Increase Acreage by:

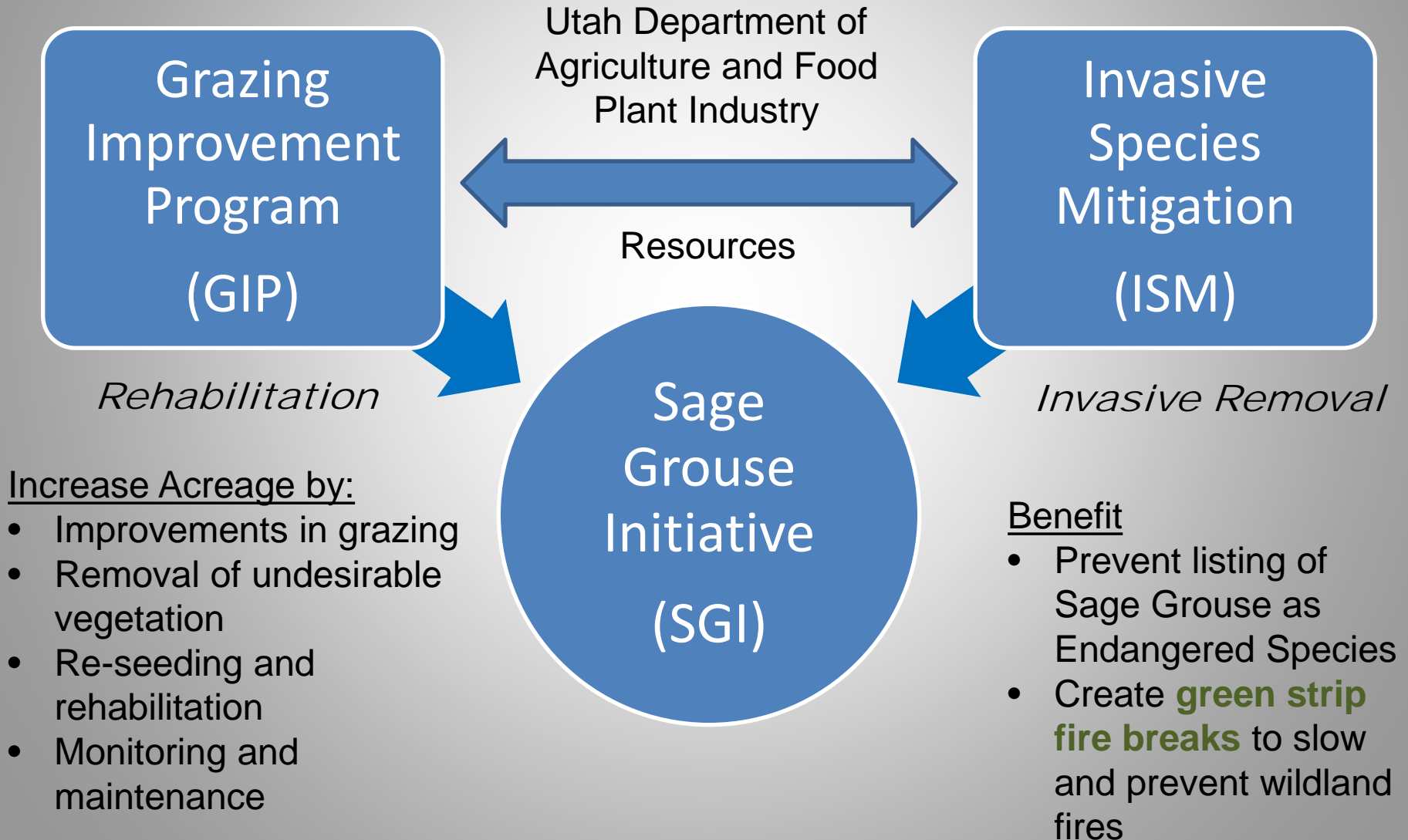
- Pinion juniper removal
- Removal of undesirable vegetation
- Re-seeding and rehabilitation
- Monitoring and maintenance

Benefit

- Prevent listing of Sage Grouse as Endangered Species
- Create **mosaic fire breaks** to slow and prevent wildland fires

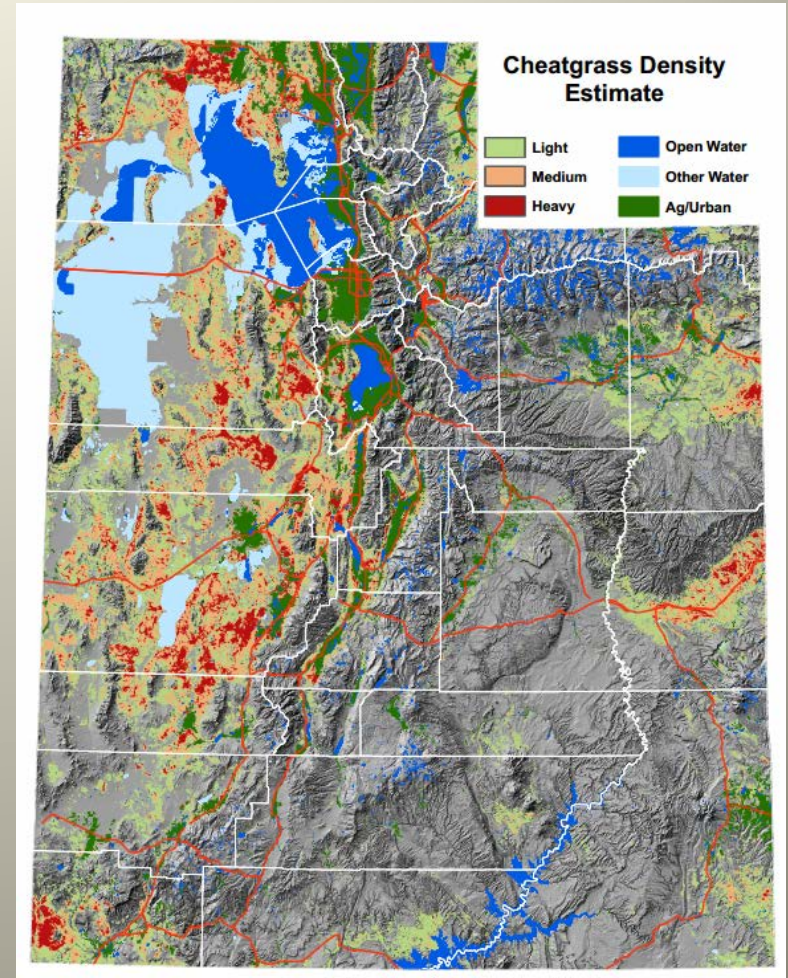
Sage Grouse Partnership

Common Goal: Increase Sage Grouse Habitat



WAR ON CHEATGRASS

The size of wildfires is directly linked to the infestation of Invasive Species



R. Douglas Ramsey
Department of Wildland Resources
Utah State University

WILDFIRE REDUCTION PLANNING

- Dept. of Agriculture & Food GIP/ISM
Green-Strip Firebreaks
- Natural Resources WRI Program
Mosaic Firebreaks

Photo by: Rudy Sandoval

GREEN-STRIP GRAZING FIREBREAKS

- Natural solution to control wildland fires
- Added benefit to grazing animals
- Improve Habitat for other wildlife species
- Reduce the risk of catastrophic wildfires
- Already in limited use by Grazing Program



MOSAIC FIREBREAKS

- Support Sage Grouse Habitat
- Improve Habitat for other wildlife species
- Reduce the risk of catastrophic wildfires
- Already in use by the WRI Program

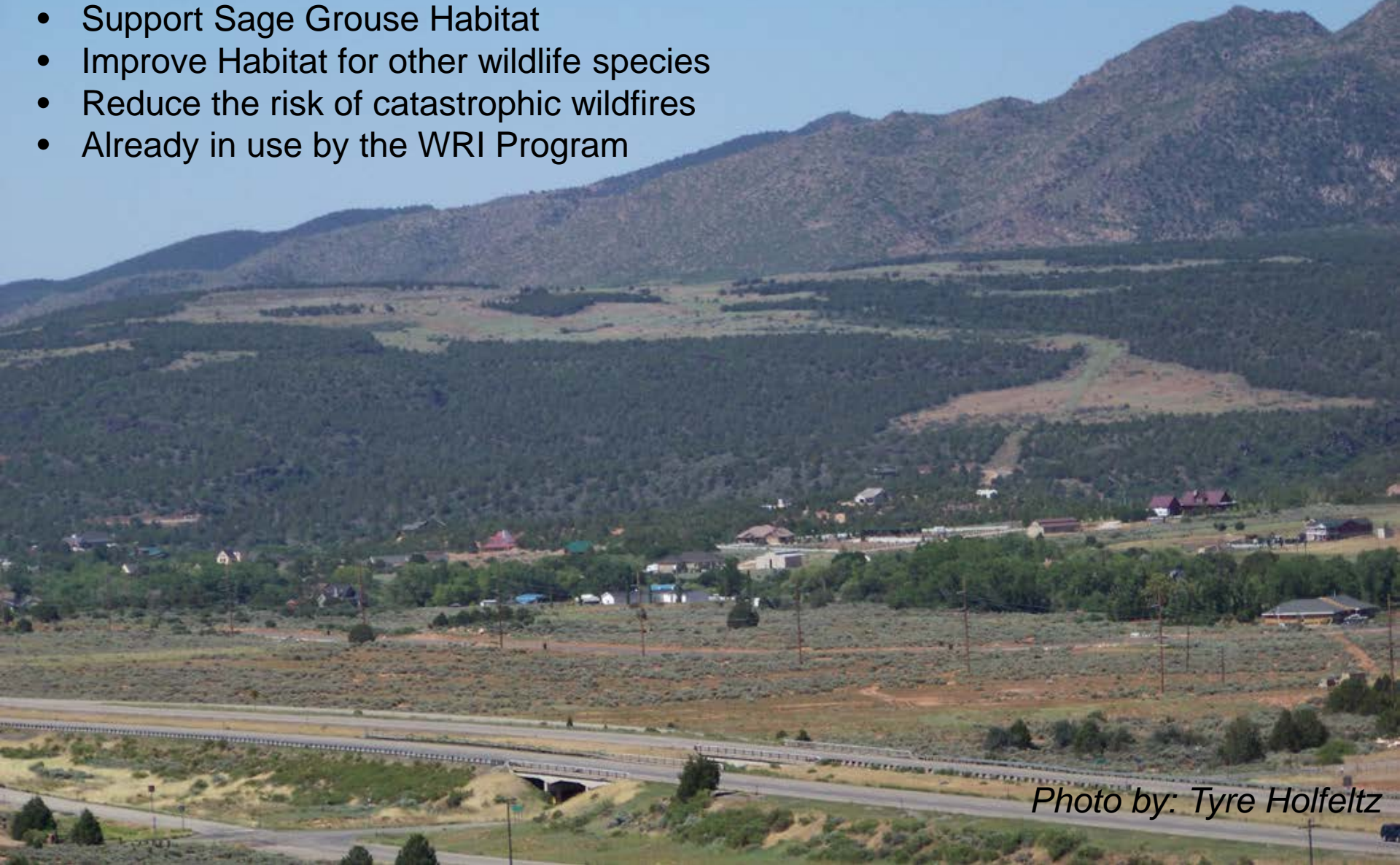


Photo by: Tyre Holfeltz



rush skeletonweed (*Chondrilla juncea*)



UGA1459567

rush skeletonweed (*Chondrilla juncea*)



UGA1459572

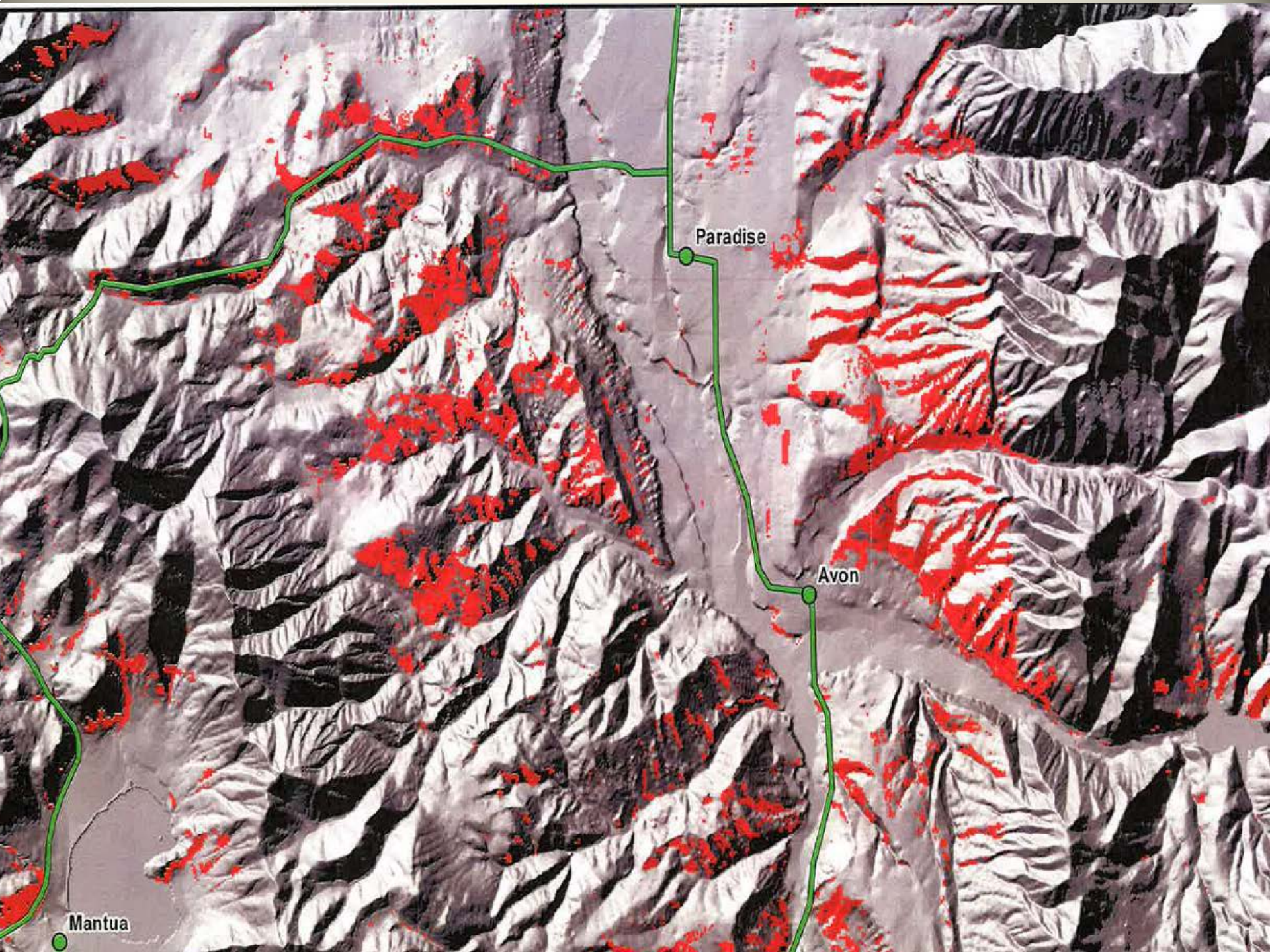
Invasive Weed Medusahead



Medusahead Invasion



UGA1459332



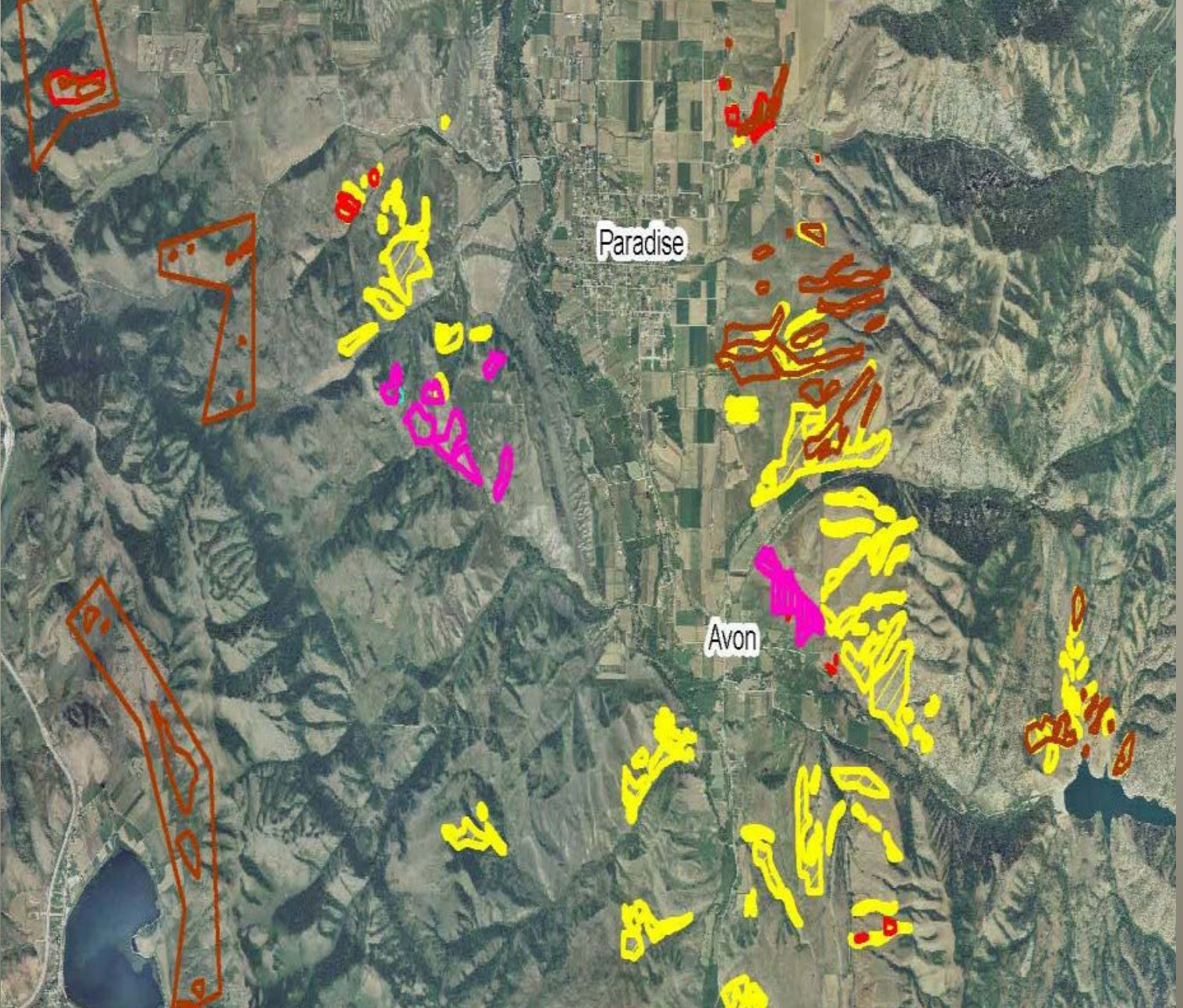
Paradise

Avon

Mantua

Paradise

Avon





2010 6 11

Fire Danger



UTAH LAKE – SARATOGA SPRINGS PHRAGMITES



Common Reed (*Phragmites australis*)



Creeping rhizomes and stolons help this plant spread along waterways

PHRAGMITES

- Great Salt Lake = 51,652 Acres
- Utah Lake = 15,130 Acres
- GSL Duck Clubs = 2,380 Acres
- Bear Lake = 1,225 Acres
- Total Estimated Area 70,387 Acres
- Approx. Cost/Acre \$ 235.00
- Total Estimated Cost
- \$ 16,540,945.00

**Acreage estimates taken
From "Management of
Phragmites in the Great
Salt Lake Watershed**

Photo by: K. Kettenring











GIANT REED (ARUNDO DONAX)



Leaves



Look alike (Phragmites)



Inflorescence

giant reed (*Arundo donax*)



camelthorn (*Alhagi maurorum*)



camelthorn (*Alhagi maurorum*)



Steve Dewey, Utah State University, Bugwood.org

Challenges

- New Invasions from Surrounding States
- Interagency Coordination
- Seed Movement by Recreational Vehicles
- Spread of Invasive Species by Animals
- Lack of Resources and Equipment