

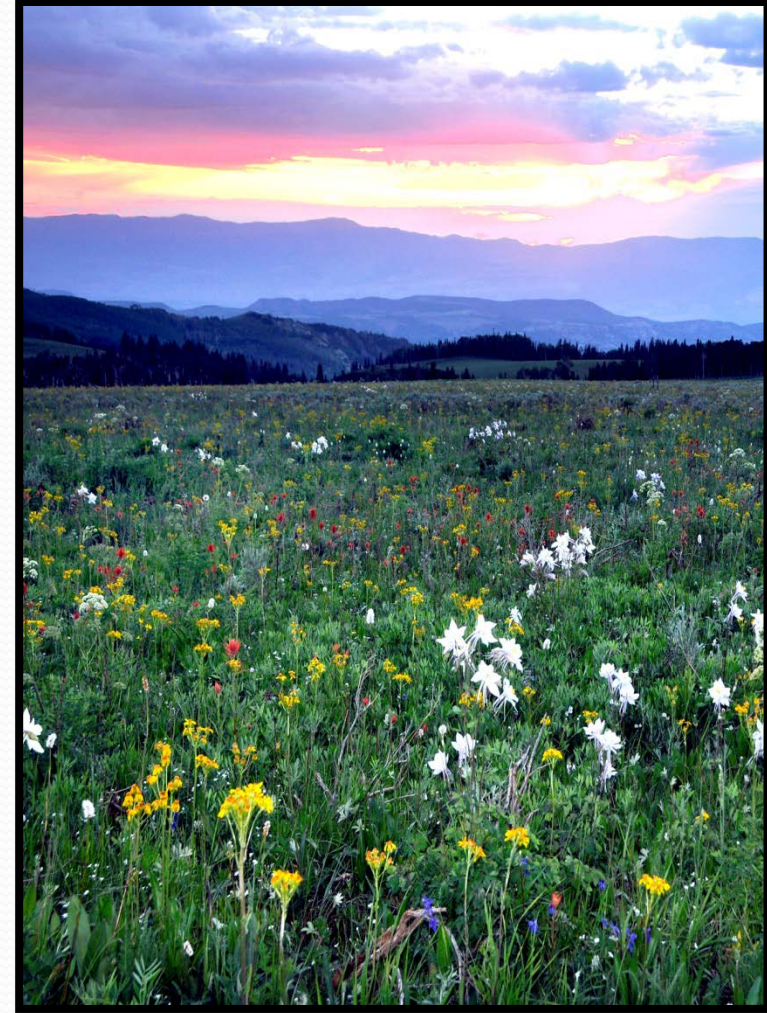


# UTAH's WATERSHED RESTORATION INITIATIVE

Tyler Thompson  
Watershed Program Director  
Utah Department of Natural Resources  
[watershed.utah.gov](http://watershed.utah.gov)

# What is WRI?

- A partnership driven effort to improve high priority watersheds in Utah
- What ecosystem values do we focus on improving?
  - Watershed health and biological diversity
  - Water quality and yield
  - Opportunities for sustainable uses of natural resources







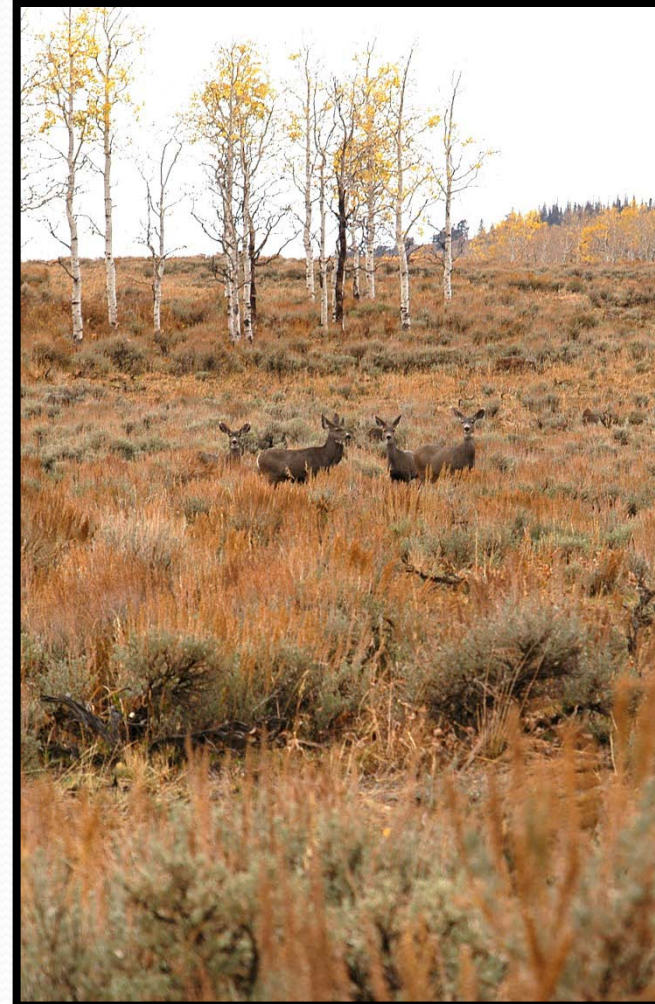
## Utah Partners for Conservation and Development

- Founded in 1993, reconvened in 2003 to address drought/state-wide sagebrush die-off
- Top leaders (Director's Council) of thirteen major federal and state agencies, universities, and NGO
- WRI is a UPCD-sponsored initiative



# Why was WRI Created?

- Address “Threats” to Watersheds/Wildlife
  - Out of balance ecosystems
    - Pinyon-Juniper over abundance
    - Aspen decline due to conifer encroachment
  - Inappropriate Fire Frequency and Intensity
  - Decline of Healthy Stream/Riparian areas
  - Invasive Non-Native Species



# Where Does WRI Work?

## Conservation Focus Areas

- Conservation focus areas must meet one or more of the following criteria:
  - Areas identified for conservation or restoration in planning documents
  - Areas with high biodiversity or the potential for high biodiversity
  - Areas focusing on at risk wildlife species
  - Areas where conservation or restoration action is necessary to meet the long-term goals and objectives in a resource management plan

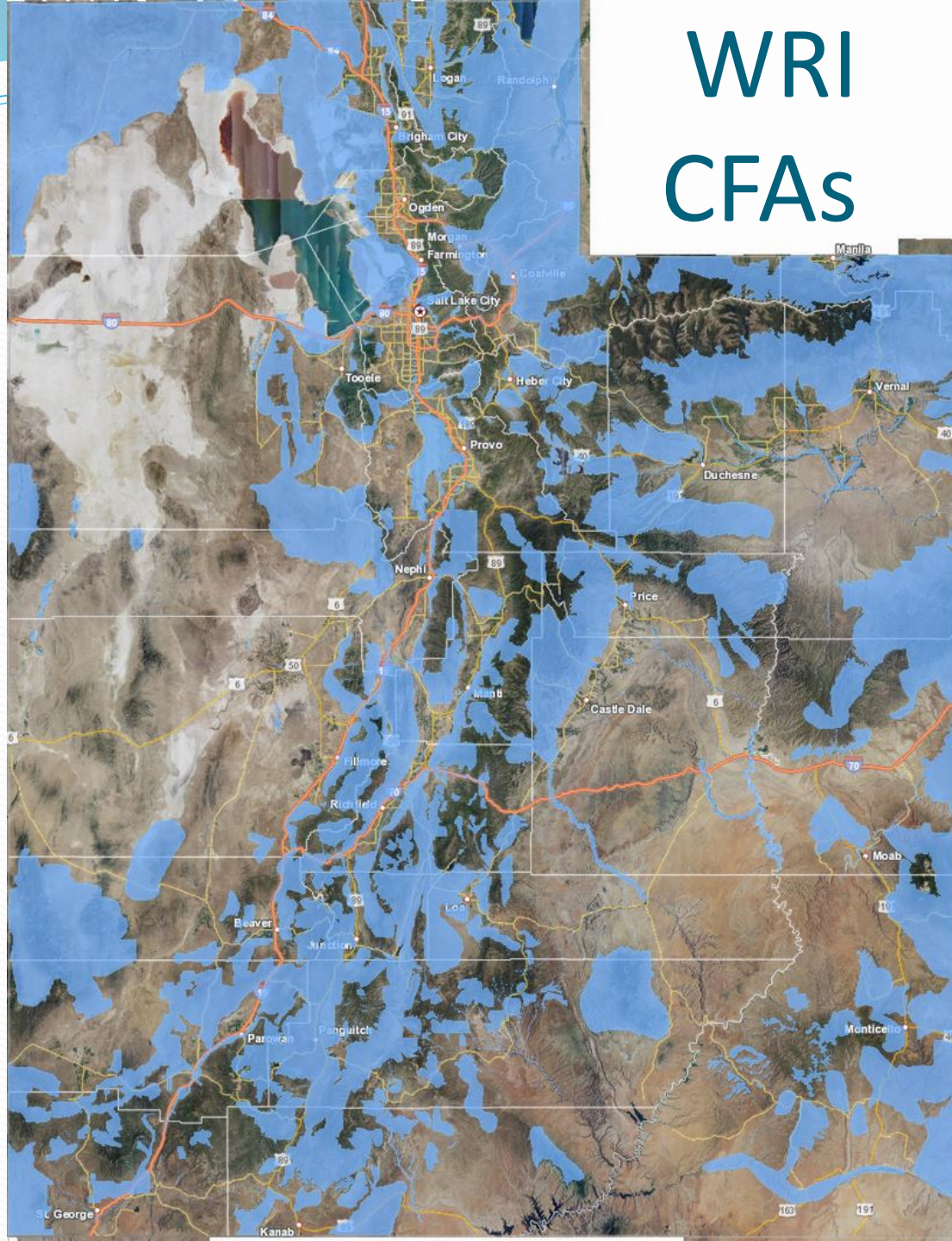
# Where Does WRI Work?

## Conservation Focus Areas

- Conservation focus areas must meet all of the following criteria:
  - Watershed values are currently impacted or under threat (as identified in resource plan documents).
  - There is a high probability that the watershed health can be successfully restored or that threats can be reduced at a reasonable cost over time.
  - The area has the potential to sustain species diversity and WRI values over the long term.



# WRI CFAs





# Scofield Dixie Harrow 2008



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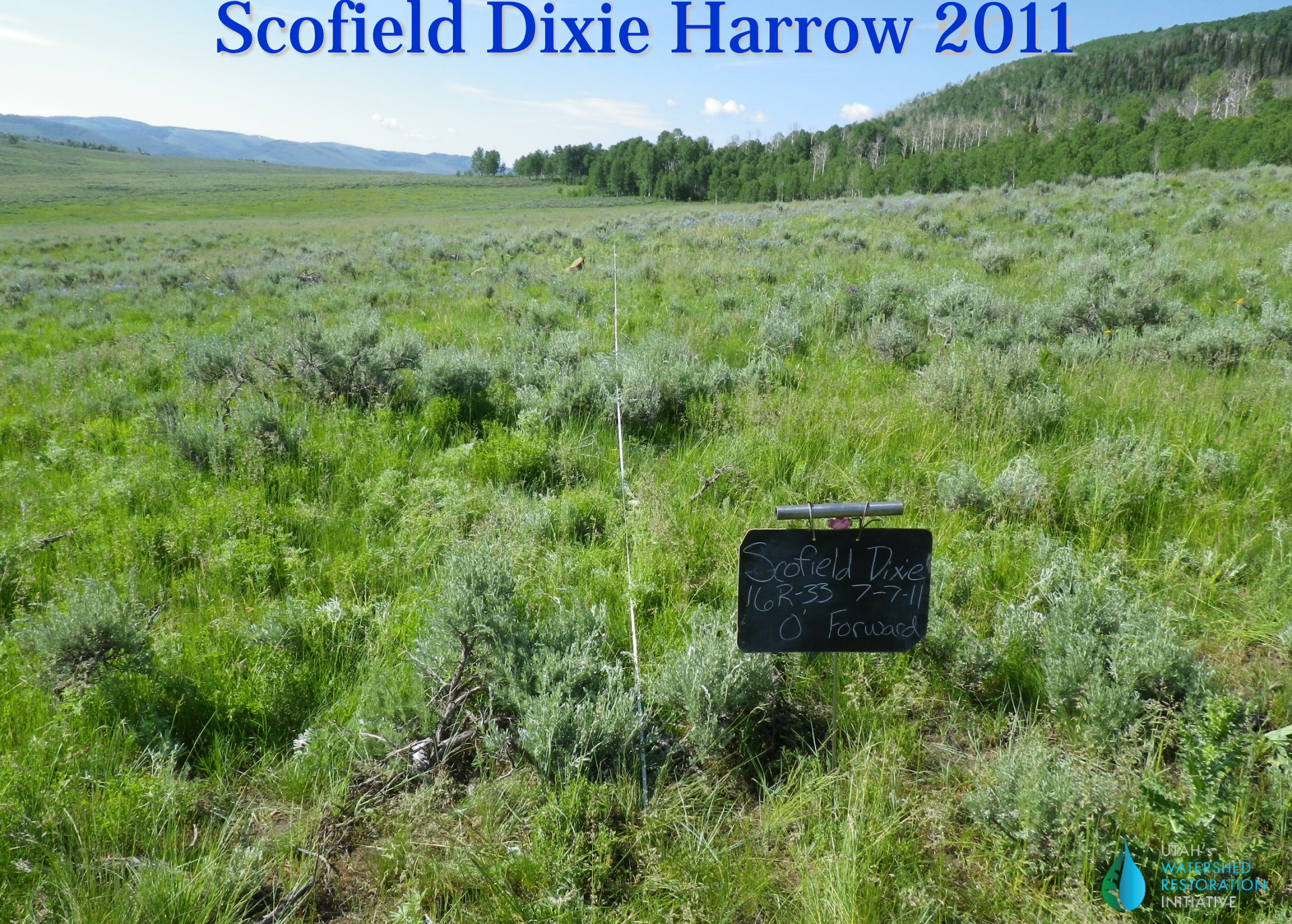
# Dixie Harrow



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# Scofield Dixie Harrow 2011



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# Kanosh Lop and Scatter 2008





# Lop and Scatter





# Kanosh Lop and Scatter 2011

Average Cover	2008	2011
Utah Juniper	20%	0%
Mountain Big Sagebrush	11%	20%
Bitterbrush	10%	22%

KANOSH LOP & SCATTER  
21R-11 6/22/11  
0' FORWARD

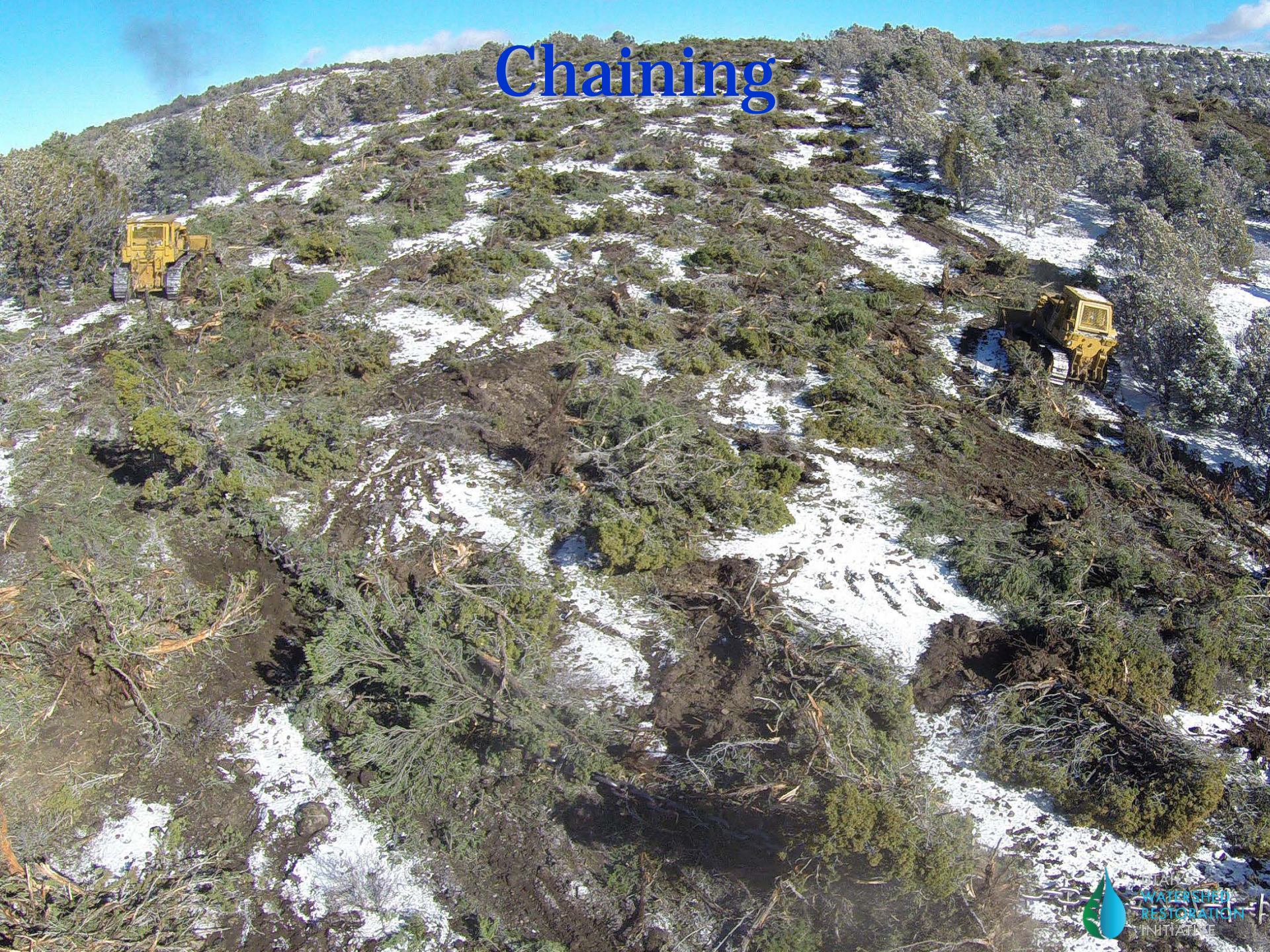


# Bowler Chaining 2006

Bowler Chaining  
20R-03 #17106  
O Fwd



# Chaining





# Bowler Chaining 2011

Bowler Chaining  
20R-3 06/15/11  
0' FWD

## Percent Cover

	2006	2011
--	------	------

Perennial Grass	3%	13%
-----------------	----	-----

Perennial Forb	6%	7%
----------------	----	----

Sagebrush	1%	4%
-----------	----	----

PJ	25%	2%
----	-----	----



# Greenville Bullhog 2004

GREENVILLE  
BULLHOG  
22R-6 7/20/04  
0' FWD

BLM  
Bullhog



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# Bullhog



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WATERSHED  
RESTORATION  
INITIATIVE



# Greenville Bullhog 2007



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# Greenville Bullhog 2012

Average Cover	2004	2007	2012
Cheatgrass	0%	10%	6%
Perennial Grass	0%	7%	15%
Bitterbrush	0%	<1%	2%
Sagebrush	0%	<1%	2%
PJ	32%	3%	4%

GRENVILLE BENCH  
BULLHOG  
22R-6 06/26/12  
0 FORWARD



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# Kingston Canyon 2006





# Stream Restoration Crew



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# Kingston Canyon 2015



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# Horse Hollow Rx Pile/Burn 2018



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# Monroe Mountain Rx Burn 2018





# 1.6 Million Acres Treated since 2006

60% Proactive

40% Reactive



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# What makes WRI Successful?

- State-led Partnership
  - Broad partnership – over 500 unique sources over 12 years
  - Centralize funding - DNR
  - Bulk seed purchasing/mixing
  - Cross-boundary projects
  - Assistance with NEPA & cultural resource clearances
  - Empower regional teams



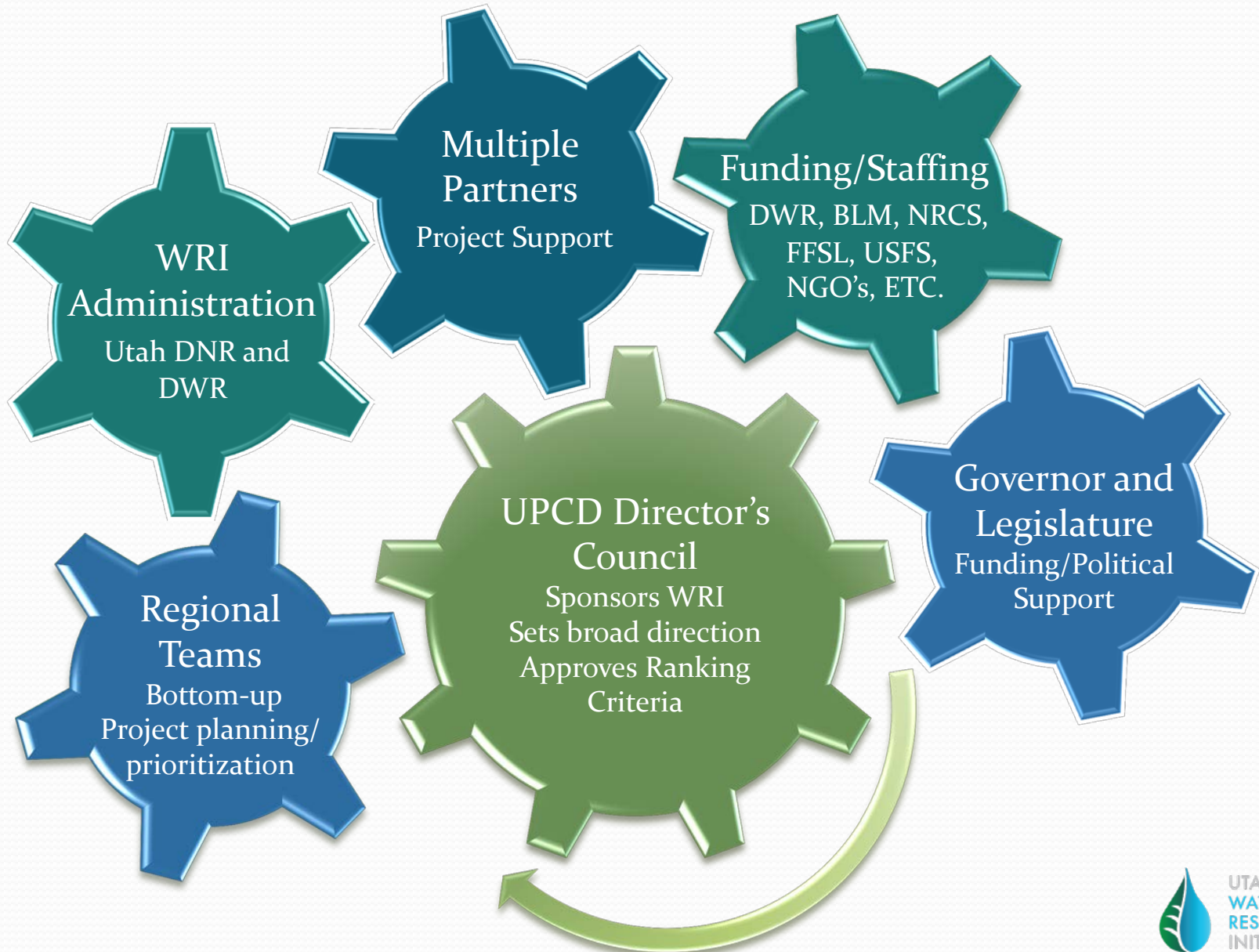


# Partnership Benefits

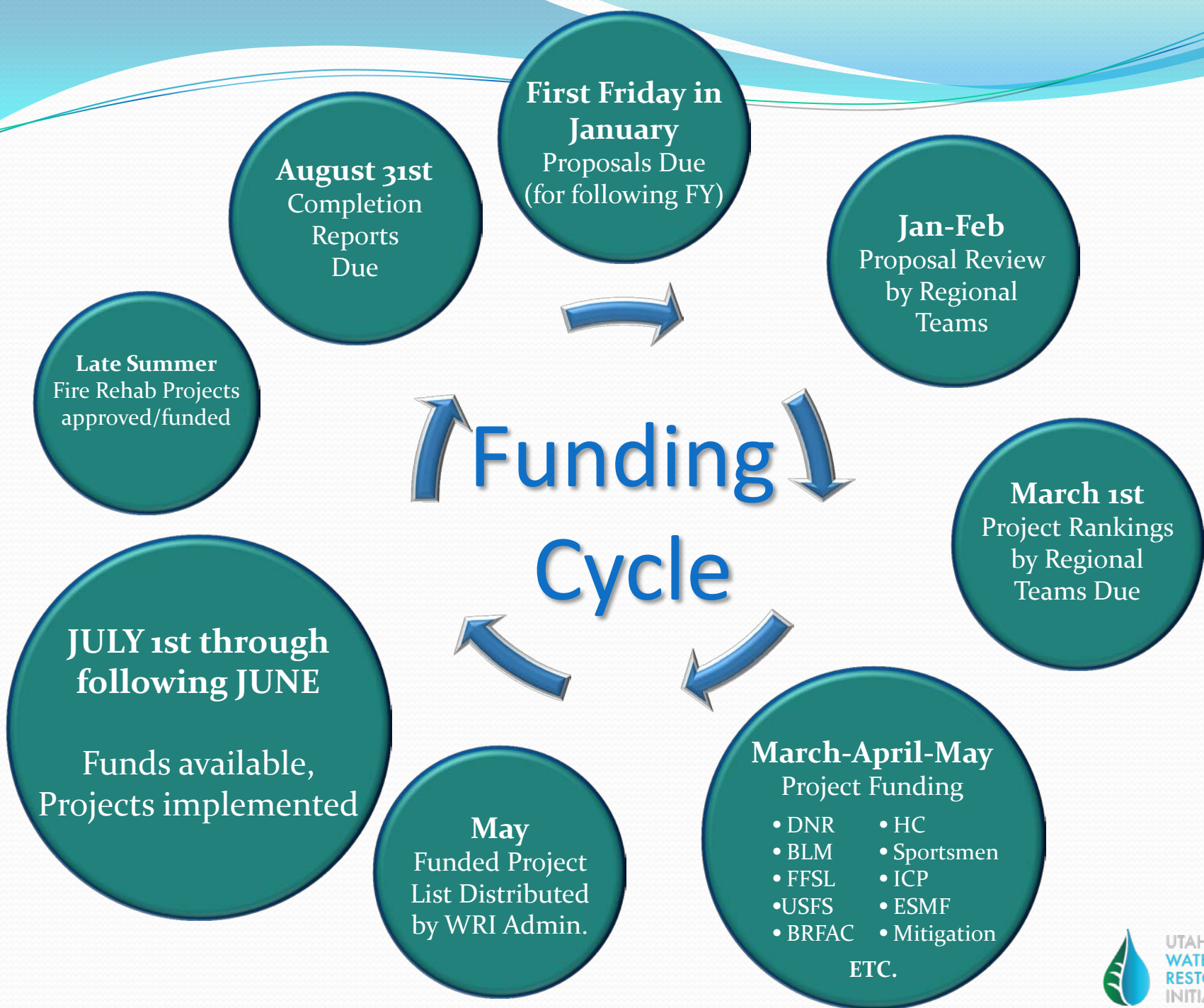
- Locally-led regional teams
- Matching dollars – 5:1 average
- Assistance in project planning & management
- Contracting & accounting
- NEPA and cultural resource survey assistance
- Seed-purchasing, storage, mixing, delivery
- Equipment, including delivery and setup
- Project monitoring & reporting
- Ability to work on a landscape scale across boundaries
- Project database/web application (Business System)



# WRI Supporting Infrastructure









# Current WRI Funding Sources

- BLM Sources
  - HLI, Fuels, Sage-grouse, RL, FIAT, etc.
- State Sources
  - WRI – Backbone funding
  - WRI – NEPA Funding
  - WRI – Pre-Suppression funds
  - Pitman Roberson Federal aid – requires 75/25 match, NEPA
  - Habitat Council Funds
  - Supplemental Fire Rehab funds
  - ESMF, ISM, Blue-Ribbon Council, SITLA, etc.
- Other Sources
  - Sportsman funds – ECP, ICP, Expo
  - USFS regional forest funds
  - Mitigation funds – Oil and Gas development
  - NRCS – RCPP, EQIP, SGI, etc.



# WRI Water Development Fund

- New forage underutilized due to lack of water
- 2018 - WRI received \$2 million one-time funding to develop water for livestock
- Over 120 proposals submitted – requesting over \$7 million
- WRI was able to fund 40 of these proposals
- Preference given to projects that:
  - Had secured water rights/clear public benefit
  - Opened up use of previously unused or underused areas
  - Provided relief for permittees hauling water
  - Improve livestock distribution/timing to help alleviate pressure on sensitive areas



# South Canyon Water Development







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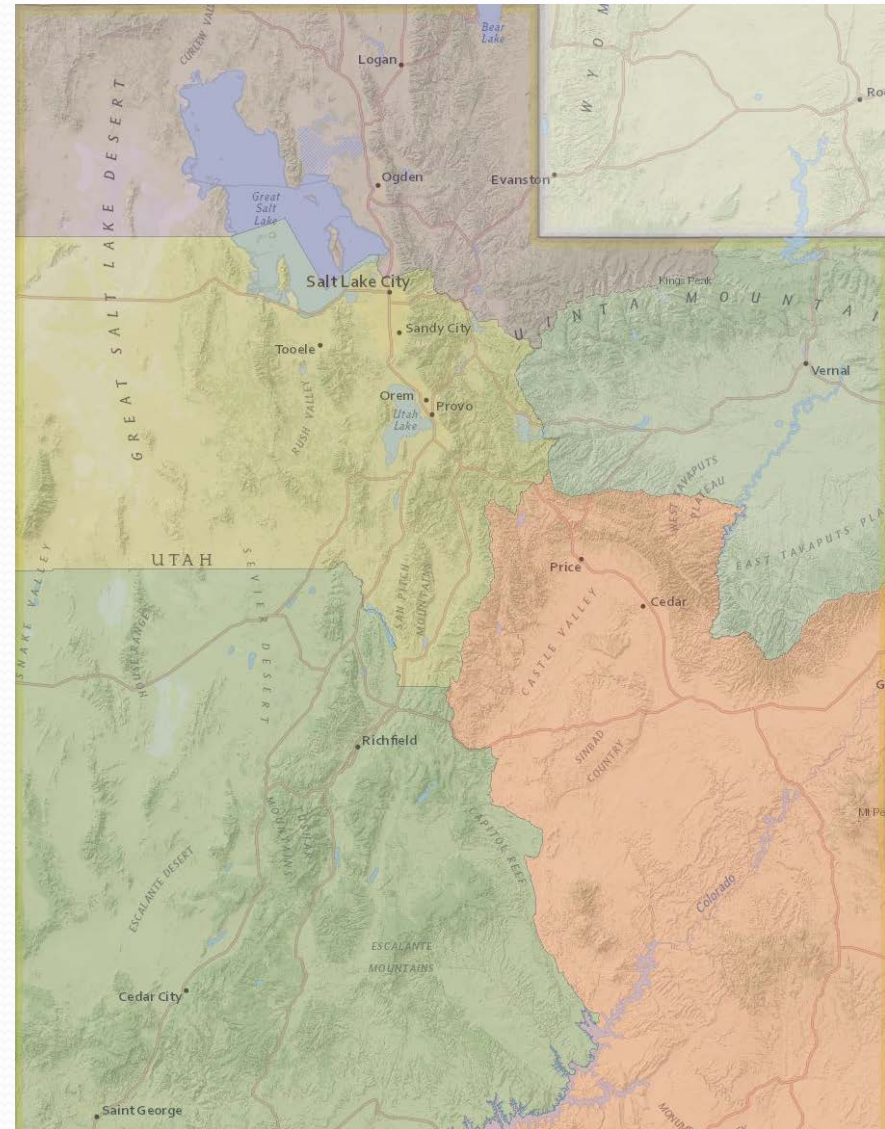


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# Regional Teams

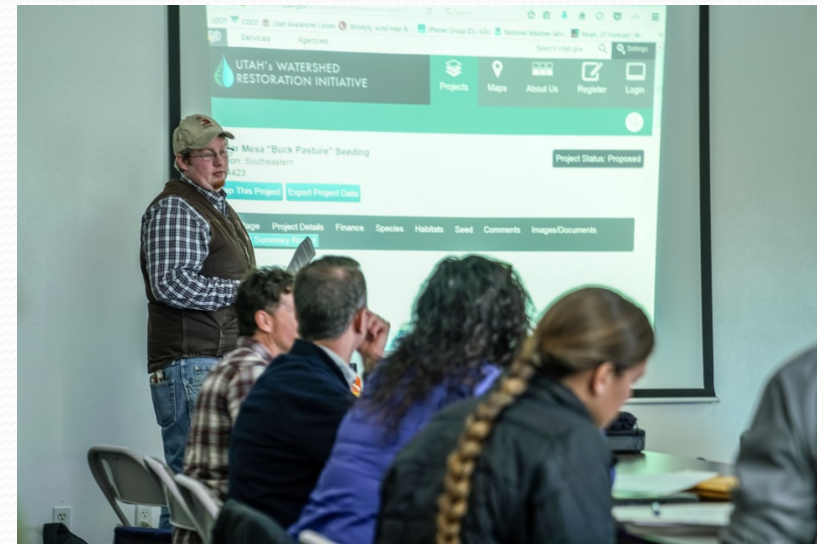
- 5 Regional Teams in Utah
- Follow UDWR Regional Boundaries
- Each Regional Team operates independently
  - Develops and amends their own team charter
  - Elects their own leadership
  - Reviews and works to improve WRI proposals
  - Annually reviews and amends conservation focus areas
  - Annual field tour and project demonstrations
  - Proposal evaluation and scoring





# Regional Team - Project Evaluation

- Policy and Legal Requirements - WRI Three Legs, NEPA & Cultural Resources (Yes/No)
- Water Quality and Quantity
- Watershed Health & Biological Diversity
  - High interest game and fish species
  - Species of greatest conservation need
  - Wildlife Action plan threats – species and habitats
- Sustainable Uses of Natural Resources
  - Livestock forage,
  - Sustainable timber harvest
  - Recreation





# Regional Team - Project Evaluation

- Other Ecological Considerations
  - Fire/Fuels – Reduced Risk, Improved Regime Condition
  - Future Management
  - Conservation Focus Areas
  - Ecological Thresholds
- Administrative & Partnership Considerations
  - Partner Inclusion
  - Project Level Monitoring
  - Relation to Management Plans
  - WRI Proposal/Process Improvement



# Great Basin Research Center

## Seed Warehouse

- Short and Long Term Research/Monitoring
- Plant Materials Development
- Restoration Equipment
  - Free of Charge Use to Utah WRI Projects
  - Maintenance and Repair Costs Included
  - Development of New Technology and Techniques
  - Transport and Setup
- Seed Resources
  - Bulk Ordering and Long Term Storage – Reduces Costs
  - Expert Seed Mix Development
  - Custom Mixing, Bagging



# Great Basin Research Center

## Seed Warehouse

- As of July 2014 GBRC officially part of BLM's regional seed network along with Boise and Ely
- Seed Purchase/Equipment for WRI **and** ESR projects
- Restoration Equipment
  - Ely and smooth chains
  - Drill seeders both rangeland and Truax
  - Chain harrows
  - Broadcast seeders
  - Dixie harrows
  - Rangeland discs



















# Long-Term Fire/Fuels Management

- Most WRI terrestrial projects reduce the risk of catastrophic fire over the long-term
- Healthy ecosystems are more resistant to fire
  - Fire-prone/invasive species are limited
  - Vegetative diversity - limits continuous fuels
- Healthy landscapes are more resilient to fire
  - More natural recovery following fire
  - Lower intensity/smaller size = more positive outcomes following prescribed or natural fires.
  - Fuels treatments provide more opportunity for direct attack on wildfires



# Black Mountain Fire

- 3 miles southeast of Minersville
- 2002 Maple Springs fire re-seeded with diverse flame resistant seed mix
- Millions of fire suppression dollars saved
- Thousands of acres saved from burning

## Watershed Restoration Initiative

- Post fire seeding
- Saves dollars and habitat
- Helps fight future fires by
  - reducing their size
  - providing fuel breaks
  - giving firefighters a safe place to work

2002  
Fire  
Seeding



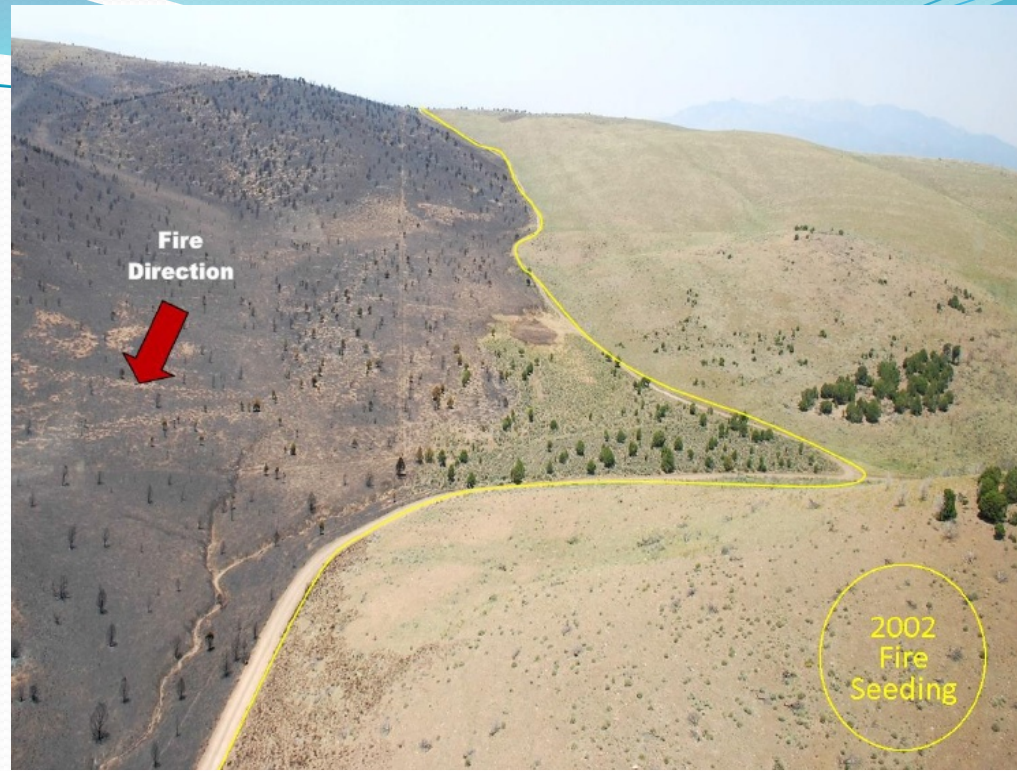
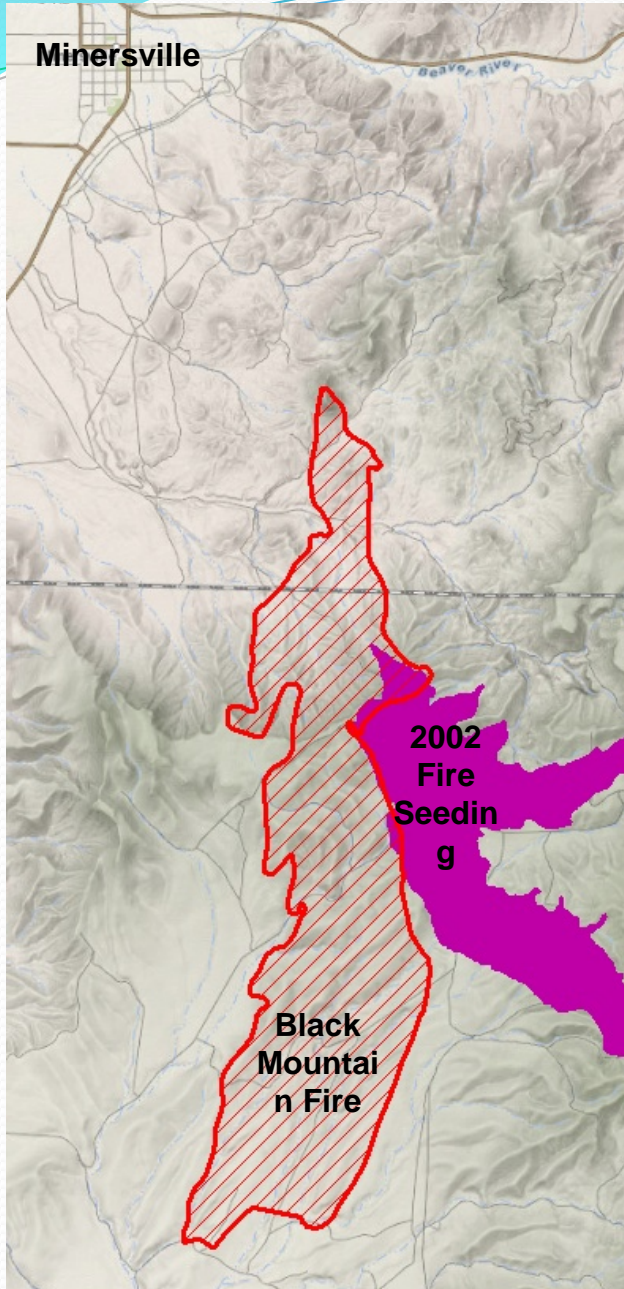
**Fire  
Direction**



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# Black Mountain Fire



**“The return on the investment from this one wildfire alone potentially saved millions of fire suppression dollars and clearly shows how healthy ecosystems are likely to thrive when post fire rehabilitation efforts are implemented successfully.**

**Eliminating or reducing funding for these post fire treatments and pro-active hazardous fuels reduction treatments is not good business as evidenced by the photos.”**

**-Paul Briggs, District Fuels Manager**





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# WRI Led Fire Rehabilitation

- WRI helps facilitate state-led centralized/cross-boundary rehabilitation
  - Funding centralization
  - Seed mix development, testing, mixing, storage
  - Cultural resource inventories
  - Contracting across boundaries through State of Utah purchasing
- Properly rehabilitated areas are more resilient – re-seeding helps defer future fire costs
  - Lower fire return interval
  - Less invasion from more fire-prone plants
  - More productive/diverse/healthy forage for livestock and wildlife



# Centralized Seed Mix Development, Testing, Mixing, Storage





# Aerial Seeding





# Aerial Seeding





# Aerial Seeding



# One-Way Chaining



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# One-Way Chaining





# Drill Seeding





# Drill Seeding





# Herbicide Spraying





# Check Dams





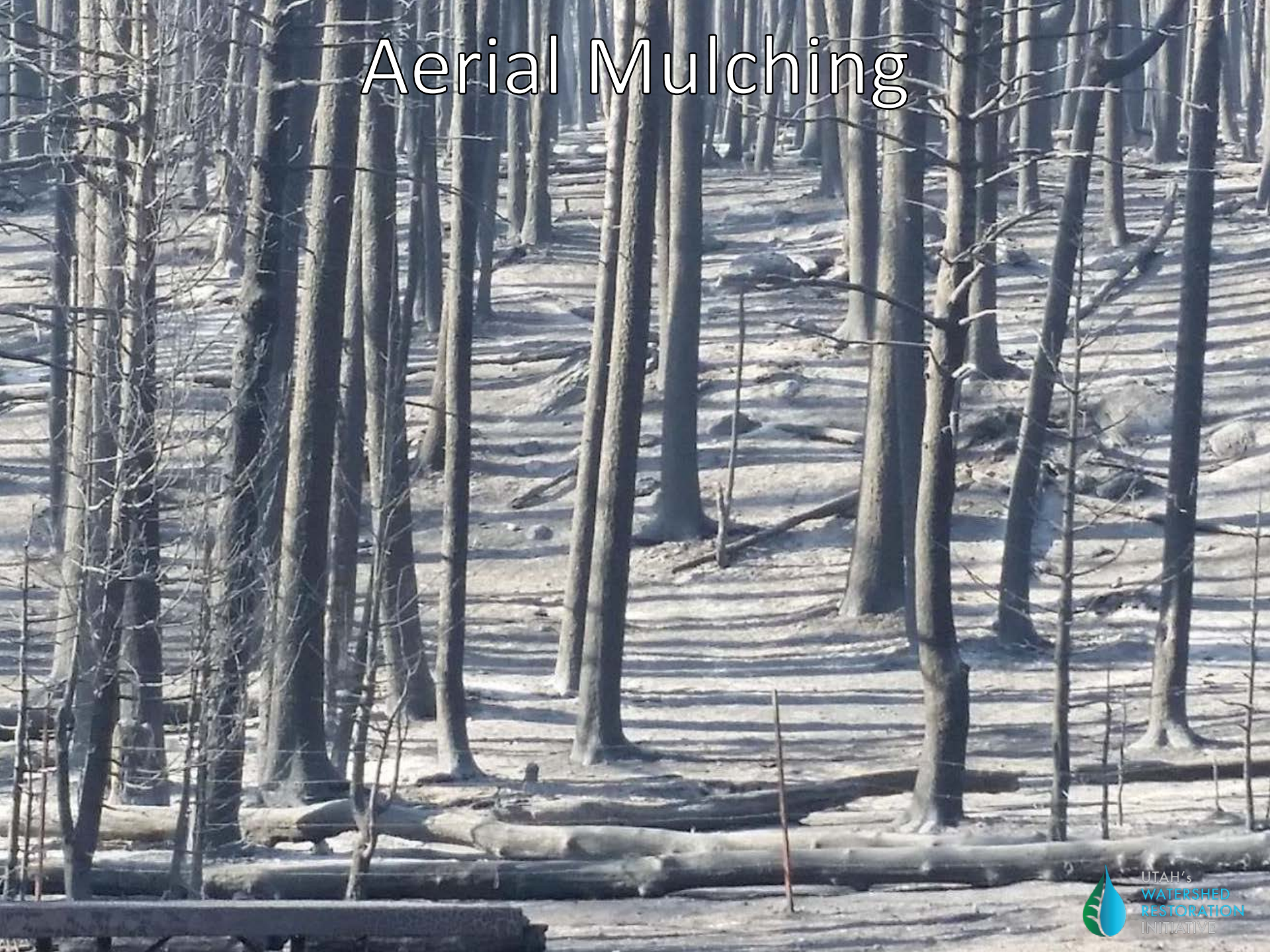
# Check Dams



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# Aerial Mulching



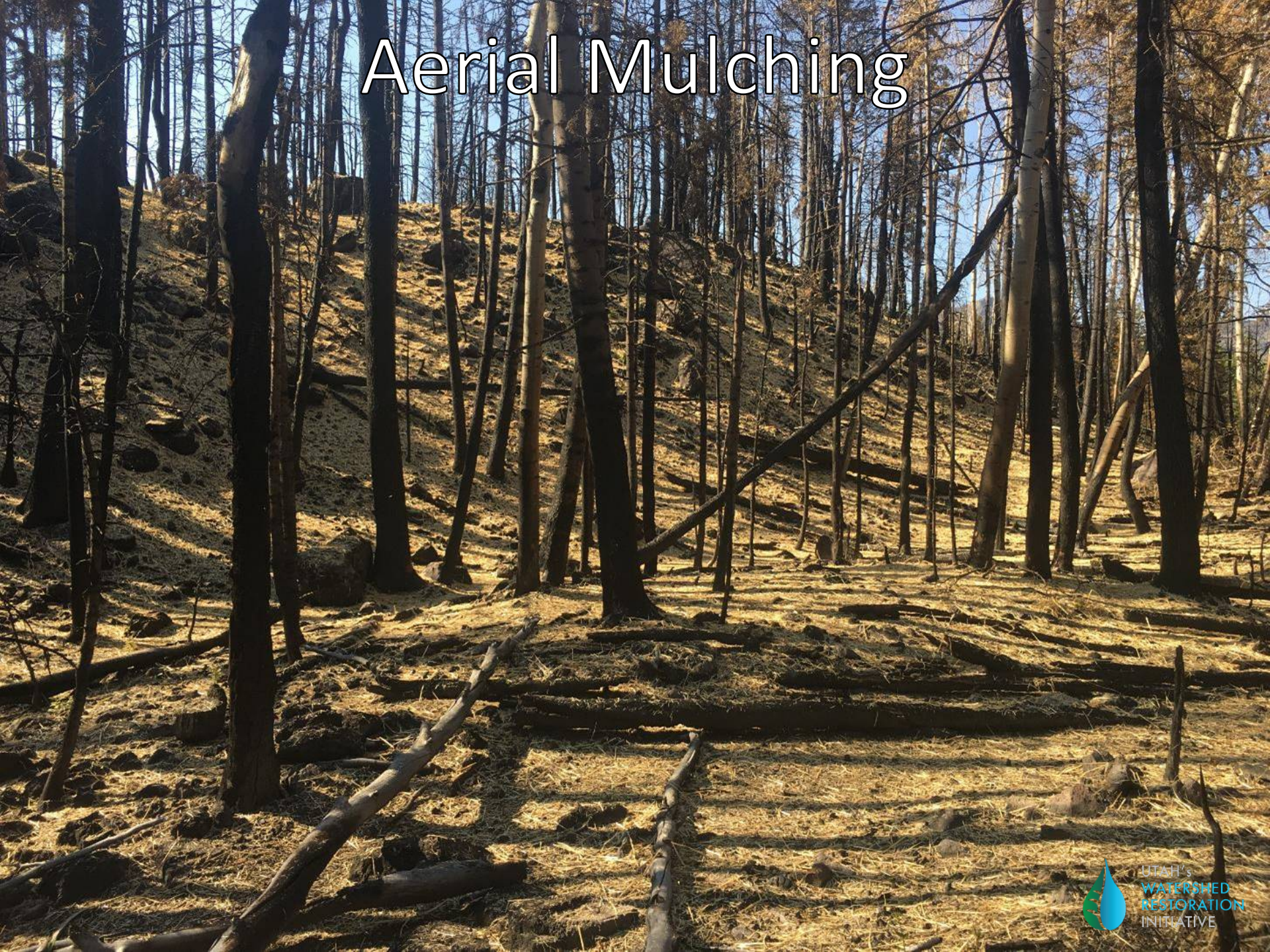


# Aerial Mulching



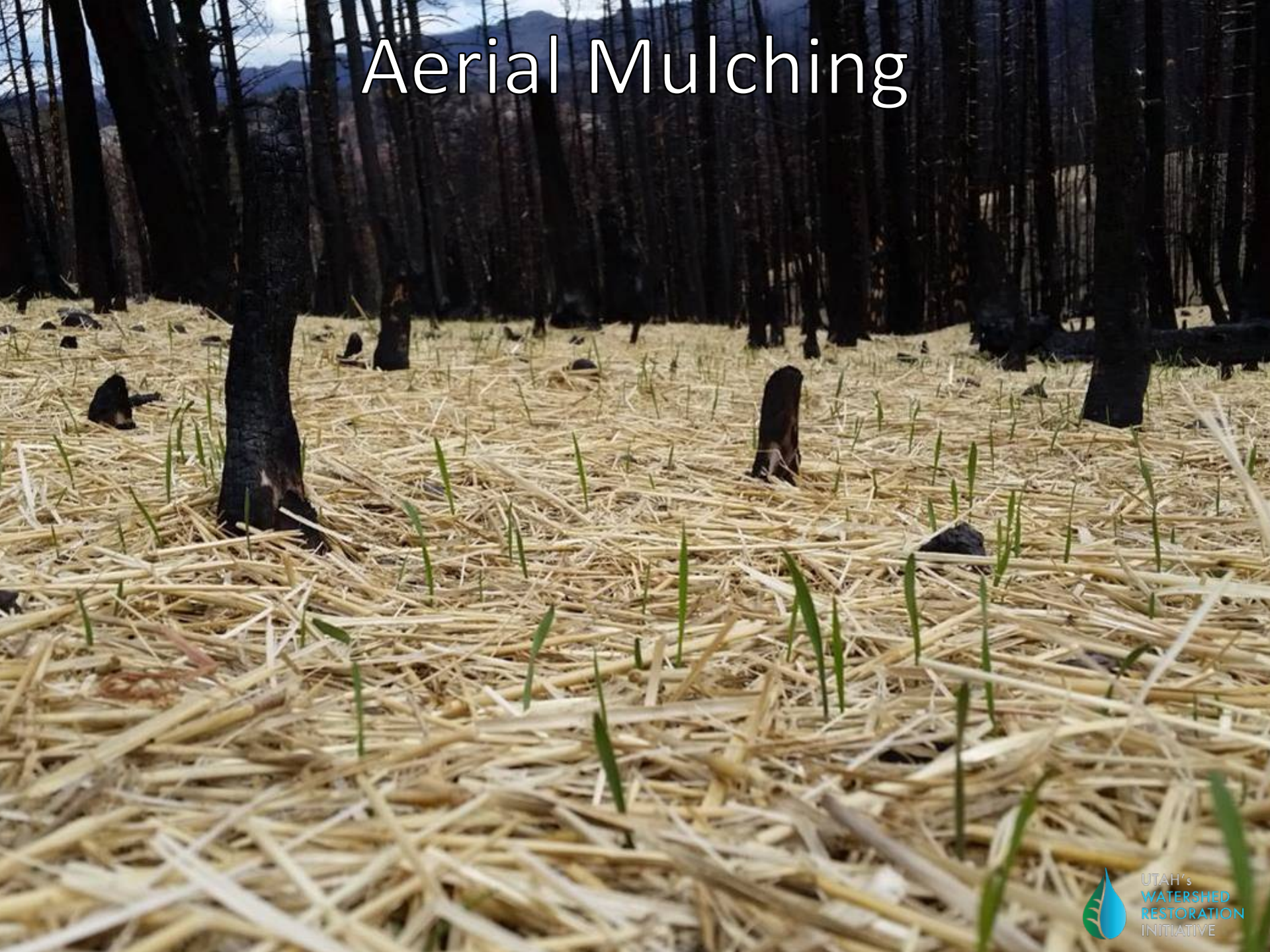


# Aerial Mulching





# Aerial Mulching

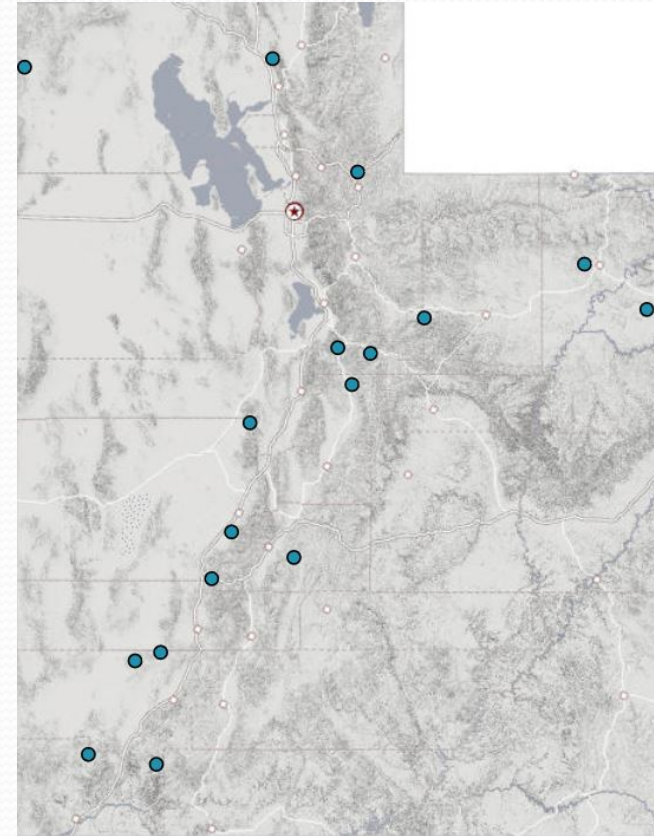




# WRI Led Fire Rehabilitation – FY19

## 17 Fires - 84,000 Acres Treated

- Goose Creek Fire – 24,684 acres
- Pole Creek/Bald Mtn. Fire – 18,720 acres
- Dollar Ridge Fire – 17,713 acres
- Willow Patch Fire – 4,583 acres
- Coal Hollow Fire – 3,768 acres
- Trail Mountain Fire – 3,096 acres
- Black Mountain Fire – 2,523 acres
- Wood Canyon Fire – 2,021 acres
- Hilltop Fire – 1,845 acres
- West Valley Fire – 1,792 acres
- Horse Valley Fire – 1,131 acres
- Other Fires - Cove Creek, Tervels, North, Coldwater, Maeser Highway, Meadow Canyon





# WRI Led Fire Rehabilitation – FY19

17 Fires - 84,000 Acres Treated

- Statewide Fire Rehab Cost - \$11.6 Million (funds through WRI)
  - \$6.2 Million State Funding
  - \$800,001 SITLA funding
  - \$300,000 Private Landowner In-Kind
  - \$4.3 Million Federal Funding
- 1.1 Million pounds of seed





# Fire Rehabilitation Costs - State/NGO/PR Funds Average: \$1.9 Million/Year





# Fire Rehabilitation Fund

\$1 million one-time FY2020 request

- Similar to FFSL fire suppression fund – line item
- Removes the need to ask for supplemental funding in fire years with lower burned acres
- Lessens disruption to WRI proactive work
- Easier to fund multi-year fire rehabilitation work and post-fire research/monitoring
- Allows DNR to pre-purchase and warehouse seed when market is more favorable



# Information Website - watershed.utah.gov

## WHAT IS THE WATERSHED RESTORATION INITIATIVE?



The Watershed Restoration Initiative (WRI) is a partnership based program in Utah to improve high priority watersheds throughout the state. WRI is sponsored by the Utah Partners for Conservation and Development and is in its 11th year. The Watershed Program focuses on three ecosystem values: 1) watershed health and biological diversity, 2) water quality and yield, and 3) opportunities for sustainable uses of natural resources. WRI is a bottom-up initiative where project planning, review, and ranking occur at a local level. Five regional teams elect their own leaders, establish focus areas, review, score and rank project proposals using a comprehensive project prioritization score sheet, and assist their members in implementing projects. See our "Latest News" section for more information.

Tyler Thompson - Director, Watershed Restoration Initiative



# Information Website - watershed.utah.gov



UTAH'S WATERSHED  
RESTORATION INITIATIVE

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## LATEST NEWS

### JOIN US!!!! HELP IMPROVE WATERSHEDS IN UTAH

Apply now for next year's project funding. Proposals are being gathered now and will be due January 9th, 2017. Click the link below to get started. WRI Proposal Page Download [...]

### WRI IN THE NEWS

Take a look at these recent articles announcing this years WRI projects and funding: Deseret News [utahpolicy.com](#) Here is a video from the Western Native Trout Initiative about native fish [...]

### PROJECT MANAGERS: REMEMBER TO SUBMIT YOUR COMPLETION REPORTS

For all project managers that have received funding for projects this last fiscal year (FY2016) or had carry over projects funded in previous years please take the time to submit [...]

### WHAT IS THE WATERSHED RESTORATION INITIATIVE?

The Watershed Restoration Initiative is a partnership based program in Utah to improve high priority watersheds throughout the state. WRI is sponsored by the Utah Partners for Conservation and Development [...]

### WATERSHED RESTORATION INITIATIVE LAUNCHES NEW WEBSITE.

On Monday, December 7 the Watershed Restoration Initiative launched a new website, geo-database and project proposal site. The new site took 10 months to develop and will be much easier [...]

[VIEW ALL NEWS ITEMS](#)



# Information Website - watershed.utah.gov



[VIEW ALL NEWS](#) [HOME](#) [FEATURED PROJECTS](#) [ALL PROJECTS](#) [EVENTS](#) [NEWS](#) [CONTACT](#)

## IMPORTANT WRI DOCUMENTS

[FY-18 WRI Project Prioritization Score Sheet](#)

[Complete List of Threats for Species/Habitat](#)

[FY18 WRI List of High Interest Game and Fish Species](#)

[How To - GIS Feature Upload Document](#)

[Northern Region WRI Team Charter](#)

[Northeastern Region WRI Team Charter](#)

[Southern Region WRI Team Charter](#)

[Southeastern Region WRI Team Charter](#)

[Central Region WRI Team Charter](#)



# Information Website - watershed.utah.gov

WRI's Southeastern Region will hold it's project presentation meeting for all project managers requesting



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## February 2017

### Central Region FY2018 Project Presentation Meeting

**February 7 @ 9:00 am - 1:59 pm**

DWR Central Region Office – Conference Room, 1115 North Main Street  
Springville, UT 84663 United States + [Google Map](#)

WRI's Central Region will hold it's project presentation meeting for all project managers requesting FY2018 WRI funding on February 7th at a location TBD. All project managers requesting funding for...

[Find out more »](#)

### Southern Region FY2018 Project Presentation Meeting

**February 14**

Heritage Center, 105 N. 100 E.  
Cedar City, UT 84720 United States + [Google Map](#)

WRI's Southern Region will hold it's project presentation meeting for all project managers requesting FY2018 WRI funding on February 14th at the Heritage Center Conference room in Cedar City. All...

[Find out more »](#)

### Northeastern Region FY2018 Project Presentation Meeting

**February 15 @ 10:00 am - 1:00 pm**

UDWR Northeast Region Office, 318 N Vernal Avenue  
Vernal, UT 84078 United States + [Google Map](#)

WRI's Northeastern Region will hold it's project presentation meeting on February 15th at the DNR regional office in Vernal. We would like all project managers to come prepared to briefly...

[Find out more »](#)

### Northern Region FY2018 Project Presentation Meeting

**February 6 @ 9:00 am - 1:00 pm**

Bear River Migratory Bird Refuge Visitors Center, 2155 W Forest St  
Brigham City, UT 84302 United States + [Google Map](#)



# Project Tracking Website – wri.utah.gov

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UTAH'S WATERSHED  
RESTORATION INITIATIVE



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Maps



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## Hamlin Valley Habitat Restoration Project - Sagebrush Restoration Year 2

Region: Southern

ID: 3686

Map This Project

Export Project Data

Project Status: Proposed

### Title Page

#### \* Title

Hamlin Valley Habitat Restoration Project - Sagebrush Restoration Yea



#### \* Short Description of Project

Hamlin Valley - Sagebrush Restoration (Year 2) would result in the immediate removal of pinyon /juniper from the sagebrush community on approximately 14,195 acres of BLM managed lands in crucial winter/summer/brood-rearing sage grouse habitat. The project has been Prioritized into 5 projects based on funding.



#### \* Short Description of Project Location

The project is located within Hamlin Valley, which is located north of Modena, Utah. Legal Description:  
Township 31 South, Range 18 and 19 West, Section(s) Numerous



#### \* Project Manager

Dan Fletcher

Project ID

Title Page

Project Details

Finance

Species

Habitats

Seed


Comments

Images/Documents


Project Summary Report





# Business System Map Page


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Hamlin Valley Habitat Restoration Project  
- Sagebrush Restoration Year 2 (3686)

Proposed

Adjacent Projects

Project Details

Details

**Description**

Hamlin Valley - Sagebrush Restoration (Year 2) would result in the immediate removal of pinyon /juniper from the sagebrush community on approximately 14,195 acres of BLM managed lands in crucial winter/summer/brood-rearing sage grouse habitat. The project has been Prioritized into 5 projects based on funding.

**Project Manager:** Dan Fletcher

**Lead Agency:** Bureau of Land Management

**Region:** Southern

**Terrestrial Acres:** 14,195.189 ac

**County**

BEAVER: 9,319.0781 ac

IRON: 4,876.1109 ac

**Land Ownership**

Federal, BLM: 13,086.2298 ac

Private, Private: 0.624 ac

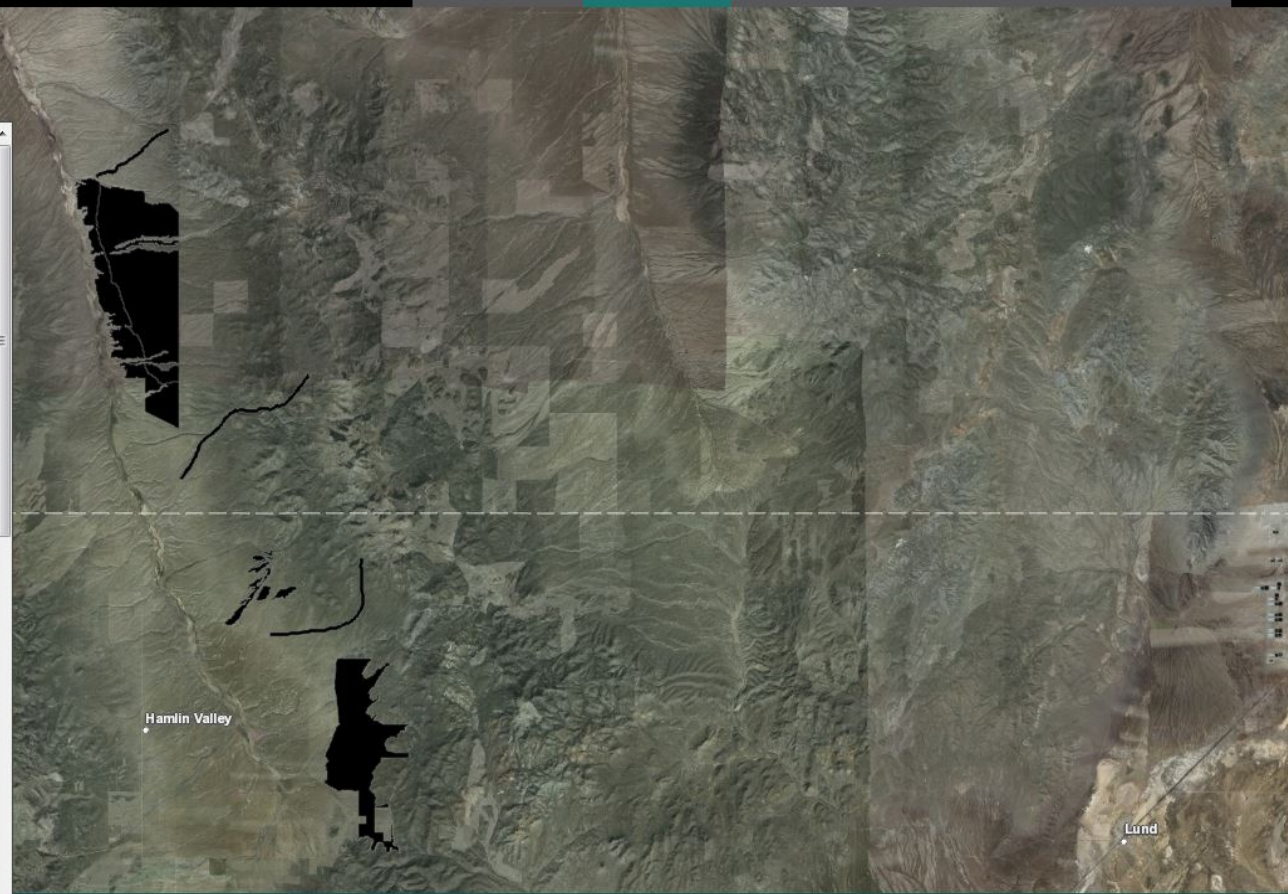
State, SiTLA: 1,108.3352 ac

**Focus Area**

Southern: 14,182.5902 ac

**Sage Grouse**

Hamlin Valley: 14,023.6927 ac



Accessibility Policy

Translate

Contact Us



# Utah WRI – Lessons Learned

- Started with an Obvious Threat and a Big Idea.
  - Obvious threat – Sage-brush die-off, cheat grass invasion and catastrophic wild fire, drought, etc.
  - Big idea (broader than just the immediate threat) – restore healthy watersheds for all interests (water quantity & quality, watershed health , livestock/wildlife forage, fire and fuels, benefit all users).
  - Sellable to big audience.



# Utah WRI – Lessons Learned

- Leadership Provided at Multiple Levels
  - Endorsed and sponsored at the highest levels – UPCD.
  - Local leadership – rotating chairs of regional teams are empowered and act.
  - Largest restoration players are involved.
  - Largest partners willing to take risks and compromise.



# Utah WRI – Lessons Learned

- History on Our Side
  - Great Basin Research Center since 1940s
  - 60 years of habitat experience in DWR, BLM, USFS
  - Long-term cooperation in range trend monitoring – DWR, BLM, USFS, UDAF
  - Range trend data supporting the need for direct action
  - Management and Staff favors “action” over “inaction”



# Utah WRI – Lessons Learned

- Bottom-up Hierarchy
  - All real project work done at regional team level – write own charter, elect own leaders, establish own focus areas, review and rank own projects
  - Centralize only when it makes sense – project database, administration (contracting, accounting support, etc), fundraising, marketing, and training
  - Only broad direction and guidance from top – annual schedule, ranking criteria
  - Administration supports local decisions – e.g., do not change ranking decisions made by local teams
  - Administration removed roadblocks



# Utah WRI – Lessons Learned

- Practice Partnership
  - Easy and safe to participate – no secret handshake
  - Open communication – database, meetings, field tours
  - Play to partners strengths
  - Credit shared by all – “give credit freely”, “WE not I”
  - Report and promote accomplishments
  - Come together, provide support when challenged
- Science Based Approach
  - Use best science available
  - Monitoring is emphasized
  - Adaptive management



# Utah WRI – Lessons Learned

- Operate at a Scale that Matters
  - Big projects – “Go big or go home”
  - Big NEPA, Big funding, Economy of scale
  - Ownership boundaries blurred
  - Reward inclusion of adjacent landowners
- Solution-minded not Problem-minded
  - Analyze problems but quickly get to solutions
  - Move past the “Paralysis of Analysis”



# How to get Involved

- Contact Us:
  - Through our two websites: “contact” webform - [watershed.utah.gov](http://watershed.utah.gov), [wri.utah.gov](http://wri.utah.gov)
  - Habitat Managers or Restoration Biologists located in all five Utah Division of Wildlife Regional Offices
  - NRCS Local Offices– Farm Bill Biologists
- Join Us:
  - Attend a regional team meeting
  - Participate in project evaluation and ranking
  - Attend a field tour



# Questions

