



Annual Program Nonpoint Source Coordination Meeting

February 28th, 2019

9:30-4:30

Department of Environmental Quality

Multi Agency State Office Building

195 North 1950 West

Salt Lake City, Utah 84116

Water Quality Board Room, 1st Floor

- I. *Introductions, housekeeping-Jim Bowcutt* **9:30****

- II. *Erica Gaddis- Utah Division of Water Quality- Director* **9:45**
 - a. Welcome, and importance of agency cooperation**

- III. *Overall purpose of the meeting projected deliverables* **10:00**
 - a. What is the objective of the meeting?
 - b. Importance of identifying targeted areas
 - c. Expectations of agency presentations
 - d. Introduction of agenda**

- IV. *Bureau of Land Management-Ken Bradshaw* **10:30**
 - a. Funding Sources
 - b. High Priority Areas
 - c. Additional Needs
 - d. 10 minutes Discussion**

- V. *Department of Agriculture and Food* **11:00**
 - a. Grazing Improvement Program- Troy Forrest
 - b. UCC Grants- RJ Spencer
 - c. 10 minutes Discussion**

- VI. *Watershed Restoration Initiative-Tyler Thompson* **11:30**
 - a. High Priority Areas in the State
 - b. Additional Needs**

- VII. Utah Division of Wildlife Resources-Don Wiley 12:00**
- a. Funding Sources
 - b. High Priority Areas in the State
 - c. Additional Needs
 - d. 10 minutes Discussion
- Lunch (on your own) 12:30**
- VIII. Natural Resources Conservation Service- Norm Evenstad 1:30**
- a. 2019 High Priority Watersheds
 - b. Additional Needs
 - c. 10 Minute Discussion
- IX. U.S. Forest Service- Mark Muir 2:00**
- a. High Priority Watersheds
 - b. Additional Needs
 - c. 10 Minute Discussion
- X. Trout's Unlimited- Paul Burnett 2:30**
- a. Funding
 - b. High Priority Areas
 - c. Additional Needs
 - d. 10 Minute Discussion
- XI. Utah Division of Water Quality-Jim Bowcutt 3:00**
- a. Funding Available
 - b. High Priority Areas
 - c. Watershed Plans
 - d. Additional Needs
 - e. 10 Minute Discussion
- Break 3:30**
- XII. Open Discussion 3:45**
- a. Where is there programmatic over lap
 - b. Where is there a high demand for funding
 - c. Group activity to identify state high priority areas
 - d. Questions, comments, concerns

XIII. Adjourn

4:30

Name	Organization
Jodi Gardberg	DWQ
Brenden Waterman	USFS
Charlie Condrat	USFS
Bill Zanotti	FFSL
Ken Bradshaw	BLM
Ellen Bailey	USU
Dax Reid	UDAF
Ben Radcliff	USBR
Ryan Williams	WBWCD
Paul Dremann	TU
Don Wiley	DWR
Karl Fleming	USFWS
Tyler Thompson	DNR
Troy Forrest	UDAF
Chris Haight	SL County
Clayton Schmitz	NRCS
Norm Evenstad	NRCS
Amy Dickey	DWQ
Brooke Shakespeare	USFS
Natalie Cabrera	USFS
Wally Dodds	UDAF
Andy Pappas	UDAF
Jordan Nielson	Trout Unlimited
Jim Bowcutt	DWQ
Tony Richards	UDAF
Gabe Murray	UDAF
Kristy Davis	UACD



What is the purpose of this meeting????



We need to develop an organized approach to conservation activities in the State of Utah



“The Single biggest problem in communication is the illusion that it has take place”

George Bernard Shaw



Working Together

- Even though the overall goals of our programs may be different, there is often times enough of an overlap that someone from the outside may not be able to see where one program ends, and one program begins.
- Everyone has something to bring to the table:
 - Relationships with landowners
 - Grant programs
 - Knowledge about various resource concerns
 - Monitoring capabilities
 - Staff available for technical assistance
 - Engineers to assist with project design



Benefits of identifying high priority areas:

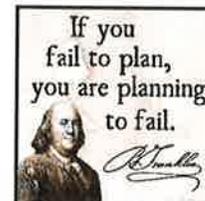
- Allows for the development of management plans.
- Allows partners to be aware of these areas, and earmark funding in future years.
- Targeting efforts to a smaller area helps facilitate monitoring of project effectiveness.
- Helps generate excitement of private landowners within the priority areas.



Resource Planning Avoiding “Random Acts of Conservation”

Benefits of Resource Plans

- Identify causes and sources of the resource concern?
- What will the plan accomplish?
- Are there critical areas that should be targeted?
- Estimate the technical and financial assistance needed.
- Will there be an Information and Education Component to the plan?
- Schedules and milestones need to be developed.
- How will you measure the effectiveness of the plan?



Monitoring Project Effectiveness

- Is what we are doing making a difference?
- Are we looking in the right places to fix the issues?
- Have we achieved our goals?
- Expenditures without monitoring, are just expenditures.



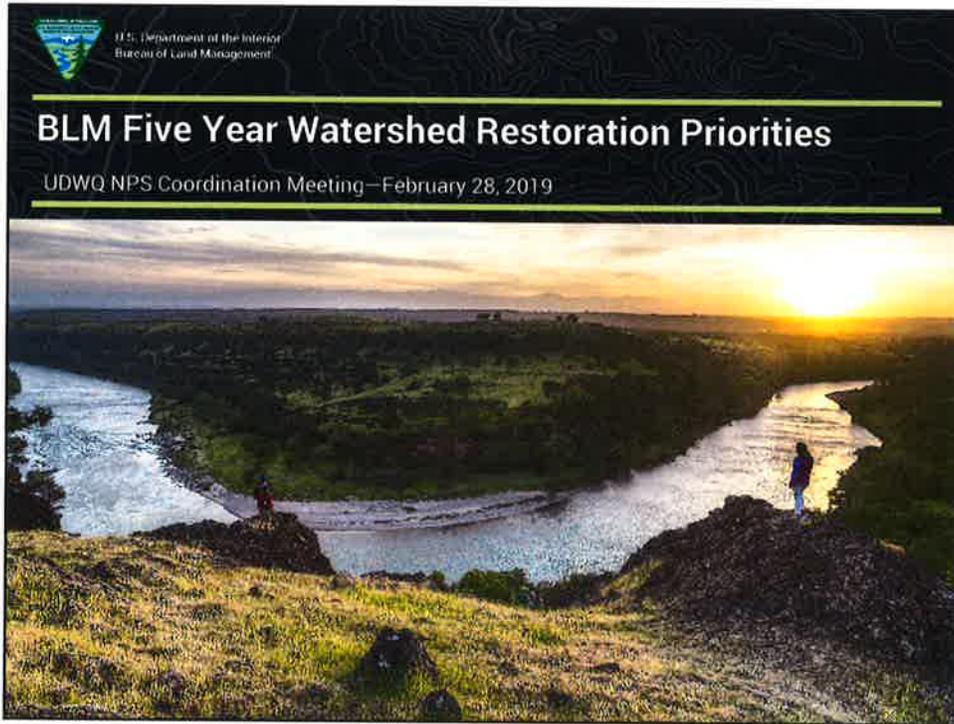
Meeting Format

- Each presenter will have 20 minutes to give their presentations.
- Ideally the following topics will be presented:
 - What the the priority areas for their respective programs?
 - Are there any management plans currently in place for those priority areas?
 - Are they doing any project effectiveness monitoring in the priority area?
 - Are there any needs in the basin you are working in?
- Once the presentation is over there will be a 10 minute period for questions and answers.
- When your presentation is over write down 3-5 of your priority watersheds on the paper at the back of the room
- At the end of the day we will be having a group discussion. If any other agencies would like to talk about what they are doing, or where they are working we would welcome that.
- We will also discuss possible priority areas we can all work in over the coming years.



QUESTIONS





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Bureau of Land Management

Outline

- Funding Sources
- High Priority Areas
- Additional Needs
- Discussion

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Funding Sources

BLM Program Funding

- Rangeland Management (1020)
- Aquatic Habitat Management (1160)
 - Combined Riparian, Fisheries, and Water Resources
- Forest Management (1030)
- Wildlife Habitat Management (1170)

Other Funding Options

- WRI
- DWQ
- NRCS—Emergency Watershed Stabilization

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BLM Priority Watersheds

Ranking Criteria

- Water Quality/Riparian Impact
- NEPA Status
- Funding Status

Project Types

- BDAs
- Grazing Management
- Vegetation Treatments
- Erosion Control

Legend

- Priority_HUC8s

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BLM Priority Watersheds West Desert District

Projects

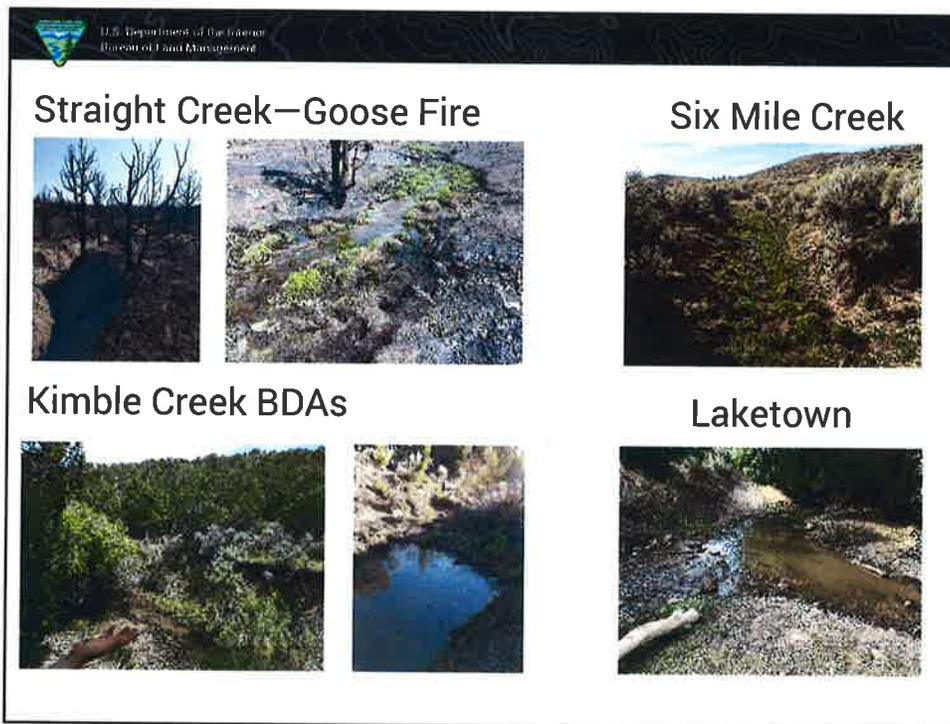
- Straight Fork Ck—Fire Rehab
- Kimble Ck—Expand BDA work
- Laketown—Riparian exclosures and road crossing
- Three Cks—Monitoring and Adaptive Mgmt

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BLM Priority Watersheds West Desert District

Projects

- Deep Ck Water Right Impairment
 - Senior WR—~14 mi p2p
 - Riparian Exclosures & Grazing Management, Diversion Control



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BLM Priority Watersheds Green R. District & Moab

Green R. Projects

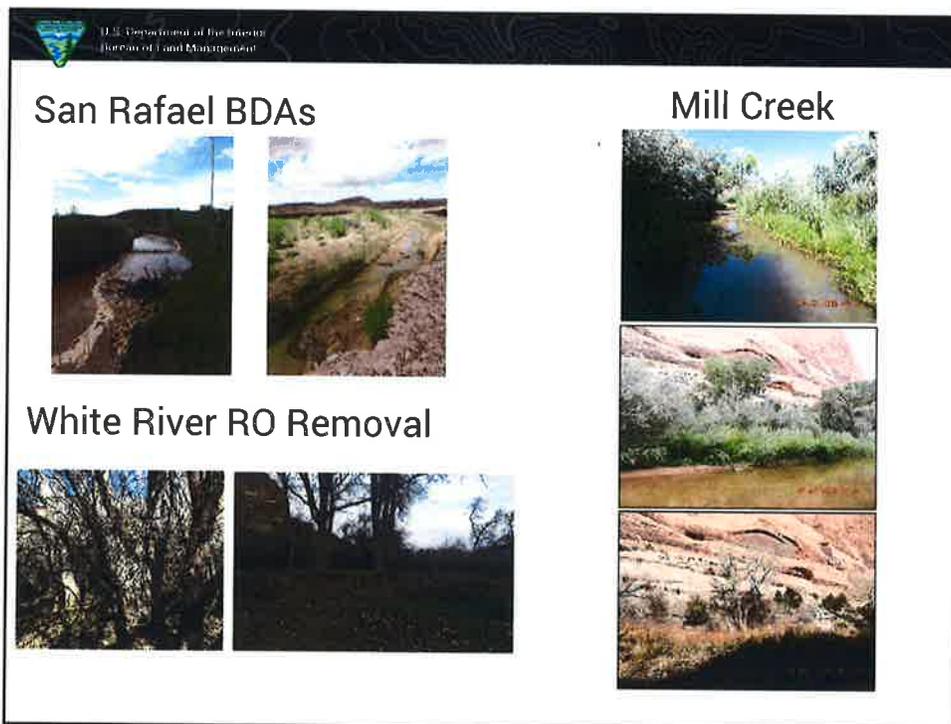
- White R. (3 HUC12s)—
RO/Tamarisk & BDAs
- Price & San Rafael—
RO/Tamarisk & BDAs
- Chipeta—BDAs & Willow
restoration

Moab

- Mill Ck—Riparian
restoration and Erosion Ctrl

Legend

- Priority
- High
- Medium
- Low
- Field Office Boundary



BLM Priority Watersheds Kanab, GSENM, & Richfield

Kanab & GSENM

- Upland Veg Treatments, Riparian Exclosures
- Escalante R. – RO/Tamarisk, non-native fish, install BDAs

Richfield

- Deep & Otter Cks – Grazing Mgmt, BDAs, Upland Res.
- Fremont R. – Emergency Watershed Stabilization

Legend

High Priority

Medium

Low

Not DRA Basin

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BLM Priority Watersheds Cedar City

- Beaver R. & Smith Canyon—Tamarisk removal, BDAs, grazing management; WRI-4944
- Quichapa—Tamarisk removal, sediment removal, gw recharge, waterfowl habitat
- Rose Spring—Riparian Exclosure, Veg Trt, Off-site water

Legend
Priority
High (Red)
Medium (Yellow)
Low (Green)
Field Office Boundary (Yellow outline)

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BLM Priority Watersheds Cedar City

- Pine, Hamlin, South Ck—Veg treatments, BDAs
- Mud Spring, Jack Rabbit, and Lund Flats—Upland veg treatments with some riparian restorations

Legend
Field Office Boundary (Yellow outline)
NUCID
Priority
High (Red)
Medium (Yellow)
Low (Green)

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Ranch Canyon



Quichapa Lake



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Additional Needs

- BLM & USU partners anticipate funding request through DWQ for BDA and Riparian restoration work (i.e. Otter Creek & Price River)
- Help with field work is always needed and appreciated
- Assistance with Watershed Plans where necessary



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Discussion/Questions?

Three Creeks – Rich County

- ◆ Improve land management by switching to rest rotational grazing across 136,000 acres, 10 public land grazing allotments, multiple land owners, 36 permittees. Cows, horses, sheep



Three Creeks- Rich County

- ◆ 50% of the Rich County economy comes from production agriculture. The large Three Creeks grazing management project totals over 6% of the Rich County economy or about \$3.2 million.
- ◆ Good grazing management and healthy lands have a large effect in small rural communities and economies.



Monroe Mountain

Aspen stands are being encroached on by Conifer trees, reducing available forage, water holding capacity, and wildlife habitat



To address the encroaching conifer trees, the Richfield Ranger District is conducting prescribed burns and mechanical treatments to remove the trees and improve the Aspen stand.



Monroe Mountain

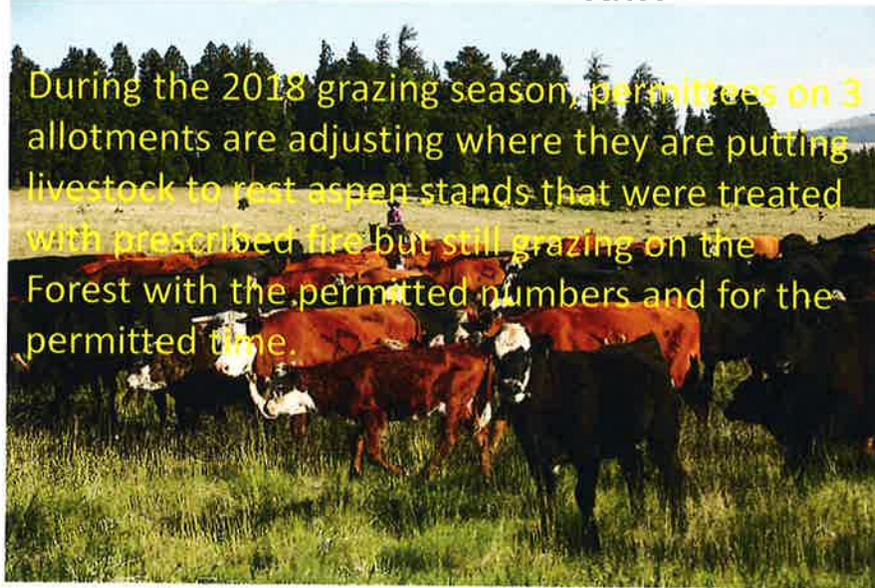
Livestock were at risk of losing access to grazing pastures due to the policy of resting treated to facilitate vegetation recovery.



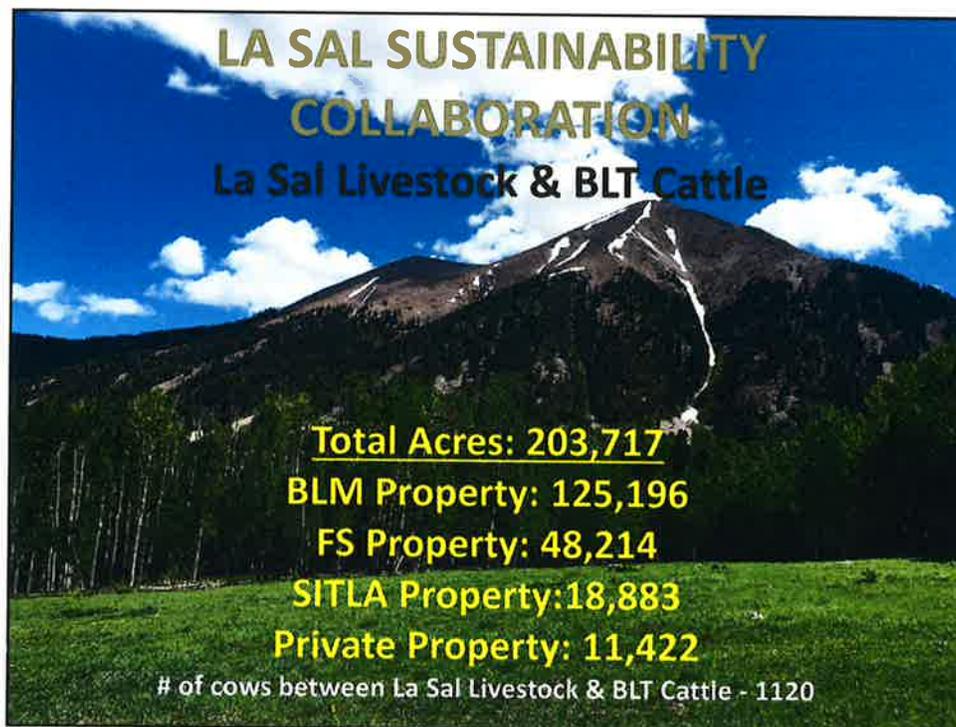
Grazing Improvement Program assisted with the installation of infrastructure to help keep livestock on Forest Service grazing allotments so that permittees will not lose time or numbers.



Monroe Mountain



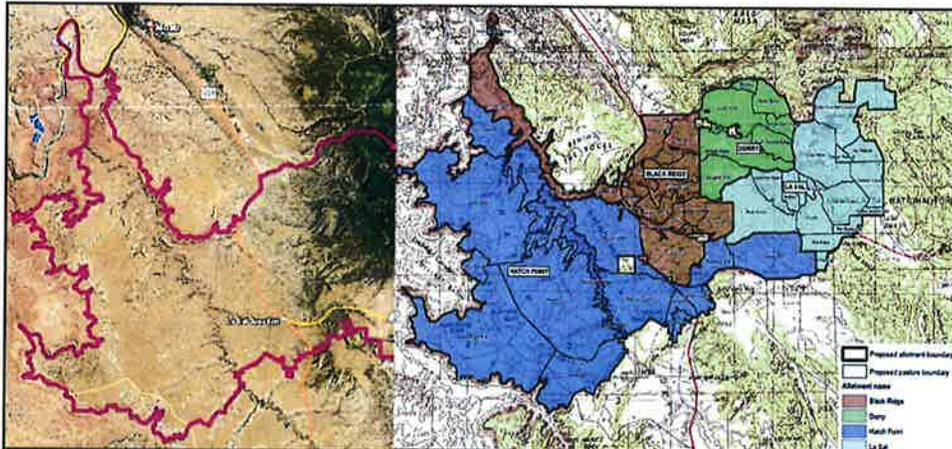
During the 2018 grazing season, permittees on 3 allotments are adjusting where they are putting livestock to rest aspen stands that were treated with prescribed fire but still grazing on the Forest with the permitted numbers and for the permitted time.

A graphic featuring a mountain landscape with a blue sky and white clouds. The text is overlaid on the image in yellow and white. The text includes the title 'LA SAL SUSTAINABILITY COLLABORATION', the subtitle 'La Sal Livestock & BLT Cattle', and a list of land ownership statistics: Total Acres: 203,717, BLM Property: 125,196, FS Property: 48,214, SITLA Property: 18,883, and Private Property: 11,422. At the bottom, it states '# of cows between La Sal Livestock & BLT Cattle - 1120'.

LA SAL SUSTAINABILITY COLLABORATION La Sal Livestock & BLT Cattle

Total Acres: 203,717
BLM Property: 125,196
FS Property: 48,214
SITLA Property: 18,883
Private Property: 11,422

of cows between La Sal Livestock & BLT Cattle - 1120



Why collaboration?

- Address some management issues – rotation schedule, condition of some riparian areas
- Give the agencies the political backing/support to do the right/best thing or will to try new proposals.
- Close a 15 day permit gap between FS (Summer) & BLM (Winter) permits.
- Decreased number of allotments from 7 to 4
- Increased the number of pastures from 38 to 59
- **Passing the ranch to the next generation!**

• Members & Stake Holder Representatives

- Lowry Redd - La Sal Livestock
- Steve Dieter - BLT Livestock
- Nathan Roberts - UDAF/Grazing Improvement Program
- David Erley - Grand Canyon Trust
- Wayne Hoskisson - Sierra Club
- Chris Wood - UDNR/Division Wildlife Resources
- Jim Keyes - USU Extension, San Juan County
- Harv Forsgren - Trout Unlimited
- Agency help from, BLM, FS, and SJTLA
- Facilitated By: Michele Straube, Director of Environmental Dispute Resolution Program - UofU



UCC UPDATE

January 17, 2019



Legislative Update

- **Commissioner Adams**
 - Funding for Conservation Projects – new funding
- Like last year, UDAF will send legislative updates to your email, if it is on file.

**UTAH LEGISLATIVE
SESSION START
JANUARY
28-MARCH 14, 2019**



FY19 CD Elections

- Official Lists may include eligible voters from:
 - County Greenbelt
 - County Agriculture Use (under 5 acres)
 - Opt-In - not included on county lists
 - Include list from 2 previous elections
 - Opt-in will be available each election cycle
 - UCC will provide best effort to advertise, inform and educate about options for opt-in voter eligibility
- Nomination Committee will still be active from statute
- UCC will still run special election -2019 (April-Nov)
 - Election costs will be higher than previous years



UCC STAFF

- ARDL – 3
- Resource Coordinators – 6
 - *Zone 1 RC interviews will take place in January*
- CD Planners – 10
- Watershed Coordinators - 5
- Administrative Assistants – 5
- Executive Office - 3



38 Utah Conservation Districts

- 36 CD's have signed UCC grant agreement and other 2 are in process
 - Reimbursements are the same as last year, must follow Attachments A & B.
- FY19 ARDL Grants - \$500K
 - All 6 ARDL grants are signed and in process
 - From 2017 grants – UCC carried over 4 projects; 3 are completed and 1 is still in process

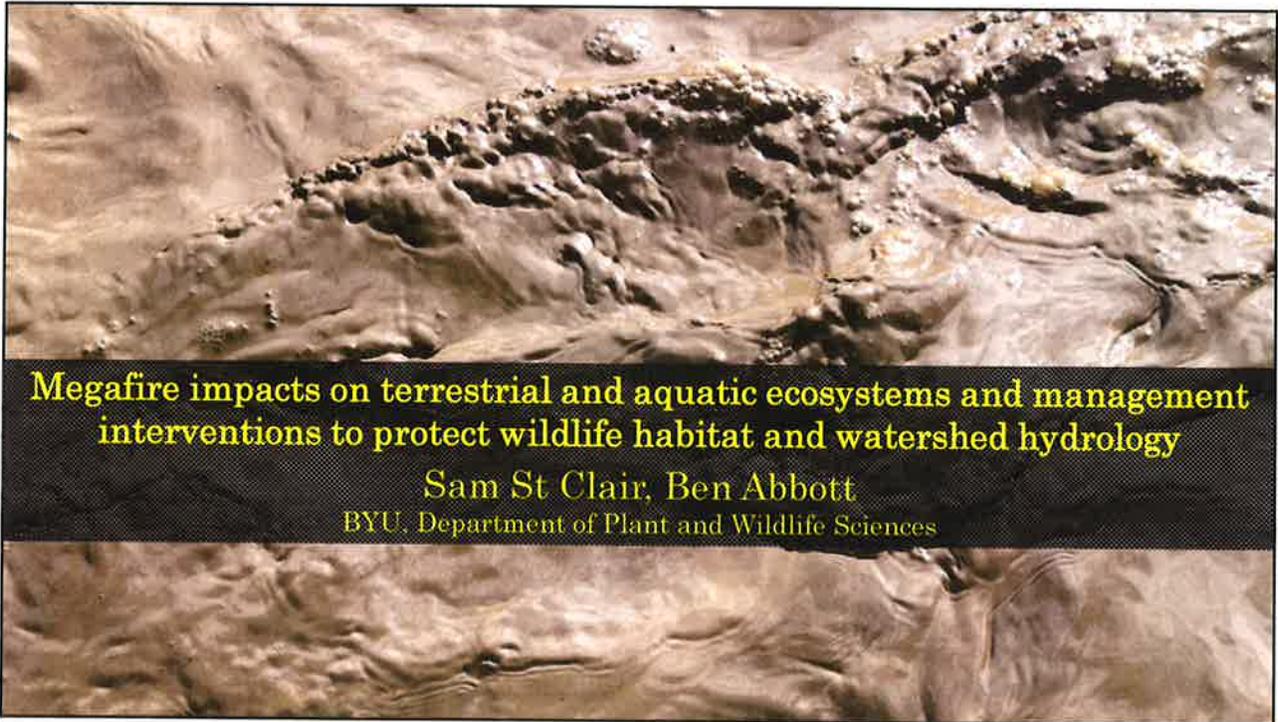
**QUESTIONS
ABOUT
REIMBURSEMENT**

**Call Sherie at
801-538-7120**

Or

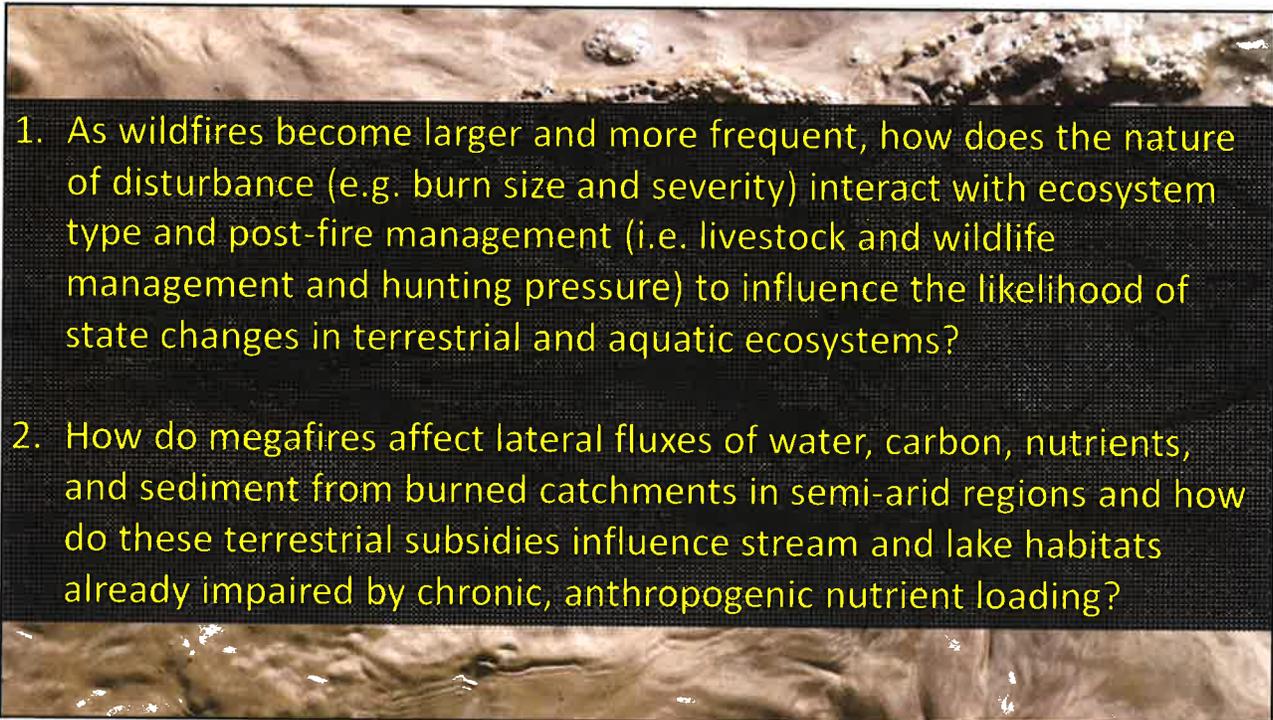
**RJ at
801-538-7171**





- 610 km² (>150,000 acres) burned near Mount Nebo last summer and fall
- Long-term evacuation of ~10,000 residents
- In October, the remnants of Hurricane Rosa dumped torrential rain on the fire scars, triggering debris flows and massive erosion
- Both wildfire and extreme precipitation events are increasing in the western U.S. (Abatzoglou & Williams 2016; Prein et al. 2017)





1. As wildfires become larger and more frequent, how does the nature of disturbance (e.g. burn size and severity) interact with ecosystem type and post-fire management (i.e. livestock and wildlife management and hunting pressure) to influence the likelihood of state changes in terrestrial and aquatic ecosystems?
2. How do megafires affect lateral fluxes of water, carbon, nutrients, and sediment from burned catchments in semi-arid regions and how do these terrestrial subsidies influence stream and lake habitats already impaired by chronic, anthropogenic nutrient loading?

Objective 1) Characterize post-fire ungulate redistribution and forest regeneration across the Pole Creek megafire complex as a function of burn severity and hunting pressure

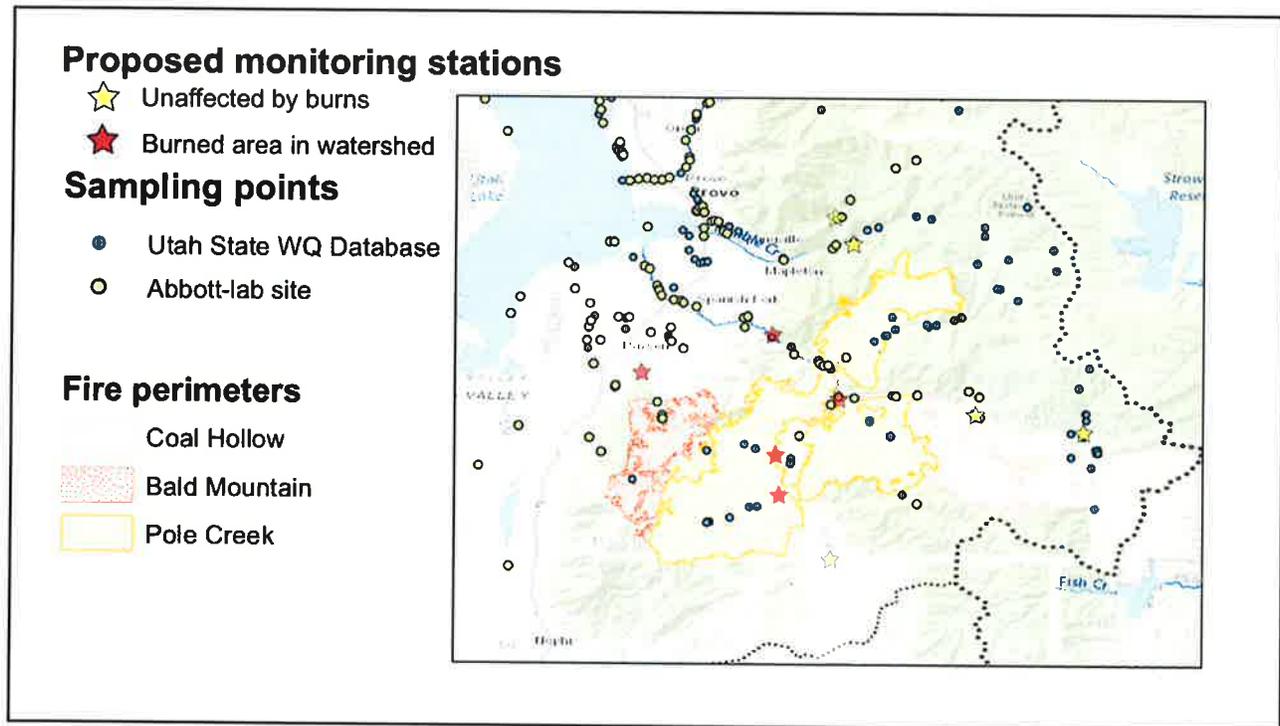
Objective 2) Examine how burn severity and ungulate herbivory impact soil hydrology, nutrient availability, and plant community succession



Objective 3) Characterize algal, invertebrate, and fish redistribution in burned and unburned stream reaches across the Pole Creek megafire complex

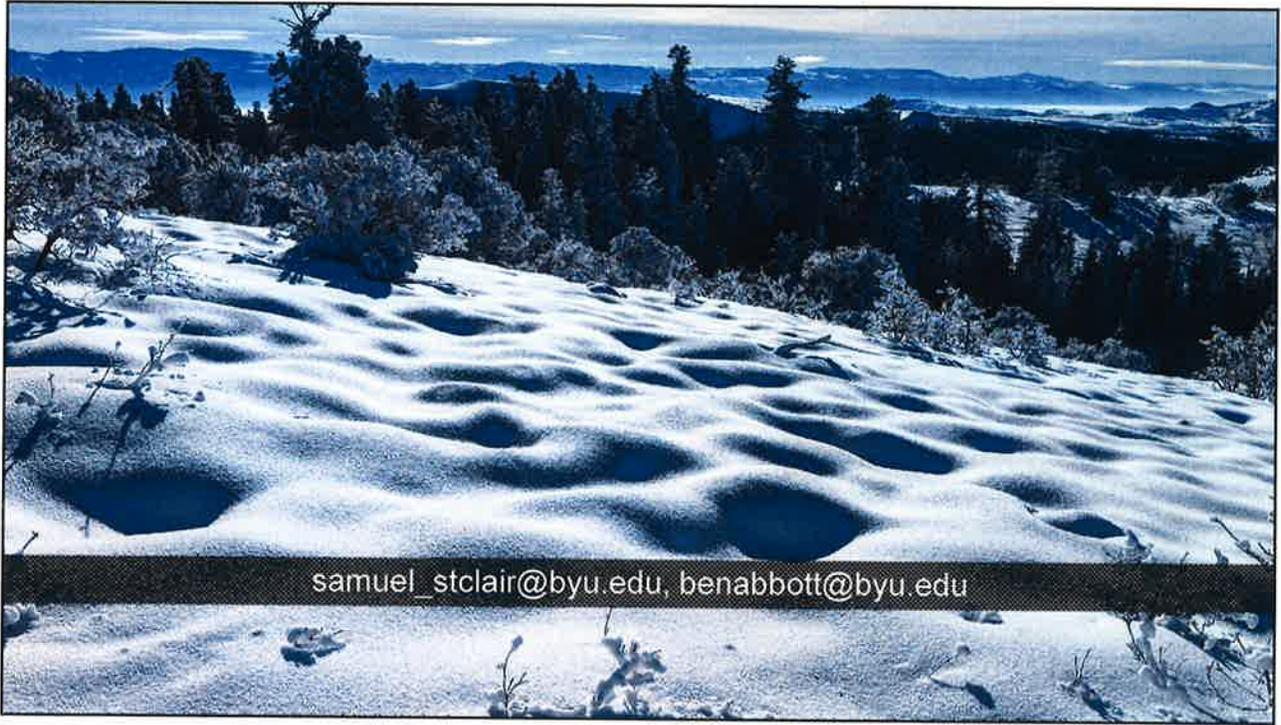


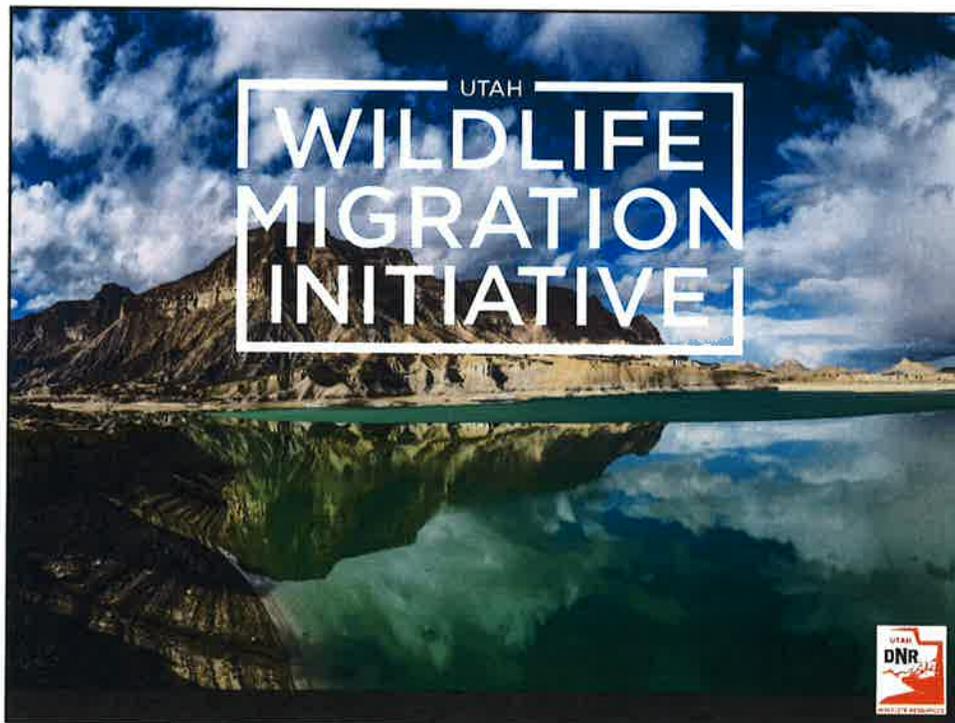
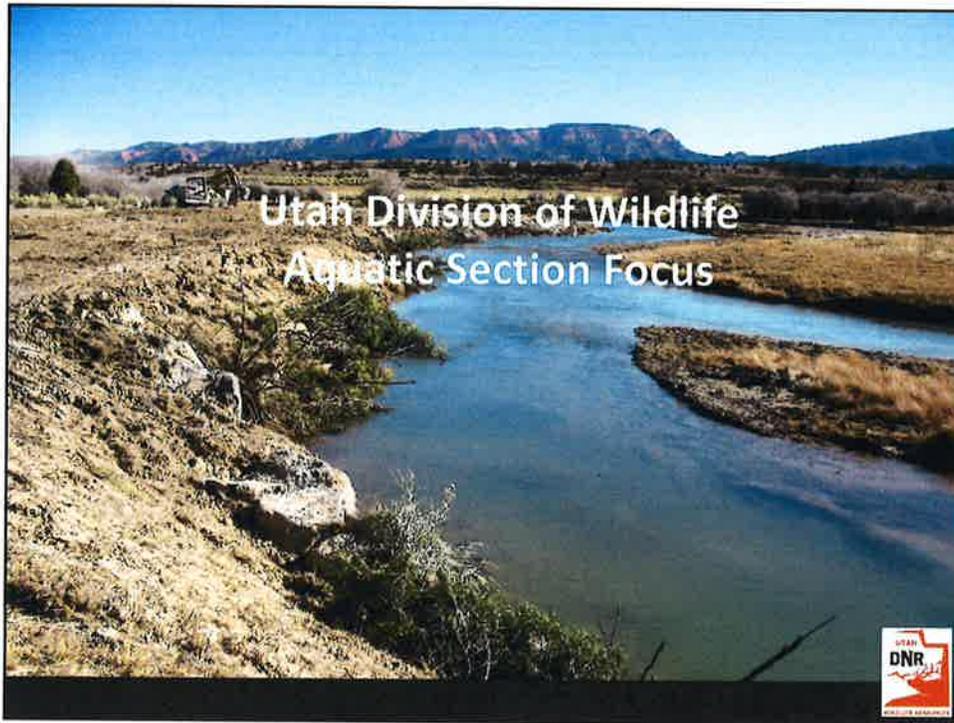
Objective 4) Quantify riverine fluxes of water, carbon, nutrient, and pollutants immediately after and during recovery from a megafire

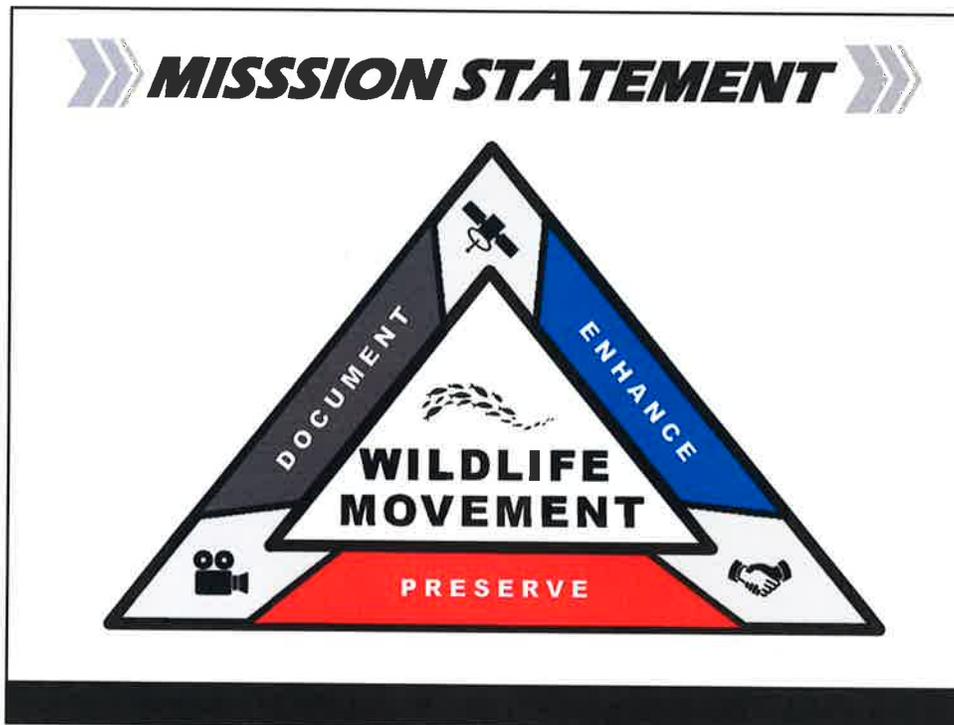
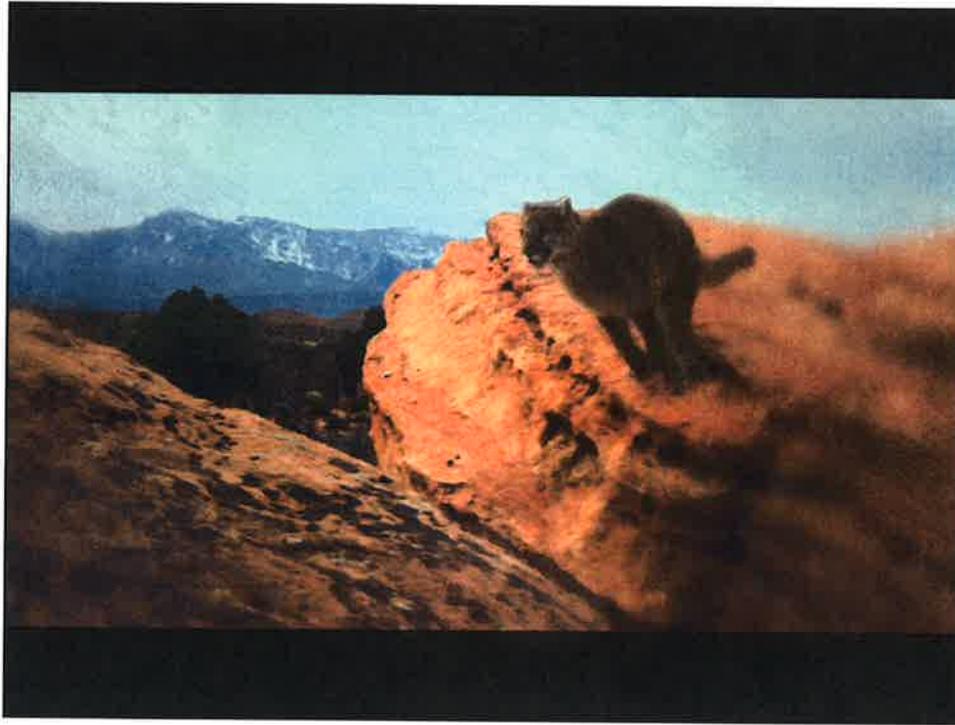


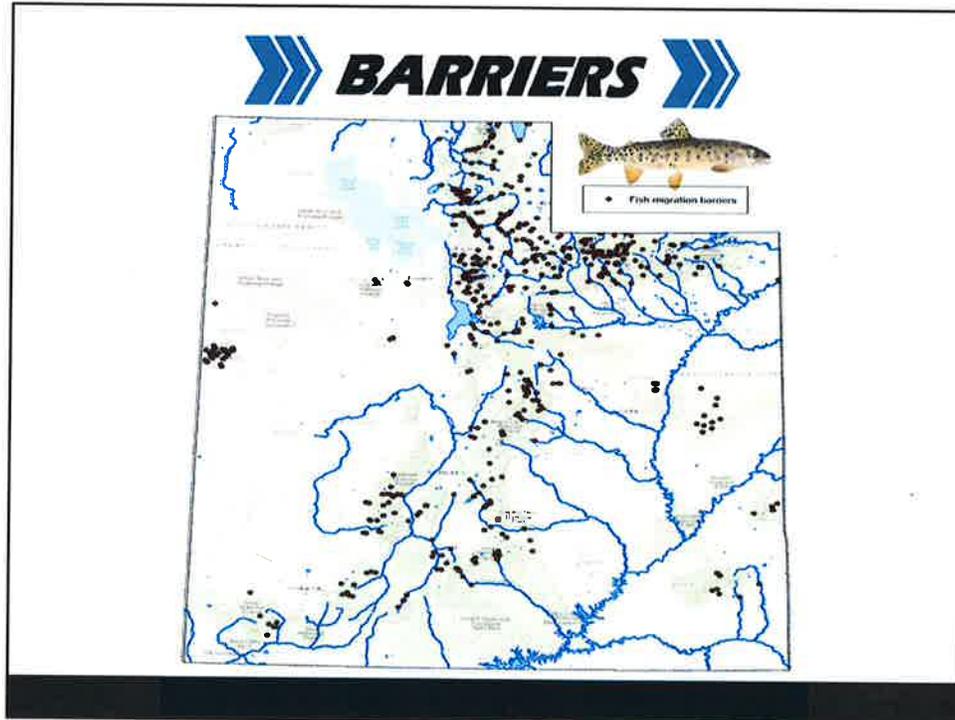
Project deliverables

1. Two M.S. theses and a Ph.D dissertation
2. Annual reports will be produced during the funded period with more frequent updates available when needed.
3. Conference presentations at The Wildlife Society, the Ecological Society of America or American Geophysical Union meetings.
4. At least 10 published papers in the peer-reviewed scientific literature are anticipated.
5. Ungulate herbivory maps that link landscape heterogeneity and burn severity in the Pole Creek megafire to variation in herbivory risk and forest regeneration failure so that ungulate management can be targeted to specific times and places to reduce cost
6. Hunting pressure recommendation report
7. Aquatic biodiversity maps that show rate of redistribution of native and non-native algae, invertebrates, and fish through the stream network
8. Invasion maps to identify how post-fire conditions and ungulate management may facilitate or limit distribution of invasive aquatic and terrestrial species
9. Estimates of sediment and nutrient loads to vulnerable water bodies following wildfire
10. Public outreach to affected communities through presentations and fact sheets









Modeling aquatic habitat suitability and connectivity in Utah rivers



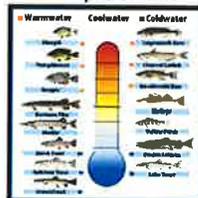
Dr. Sarah Null
Associate Professor
Dept. of Watershed Sciences
Utah State University

Understanding Aquatic Species Movement

Water Quality



Temperature



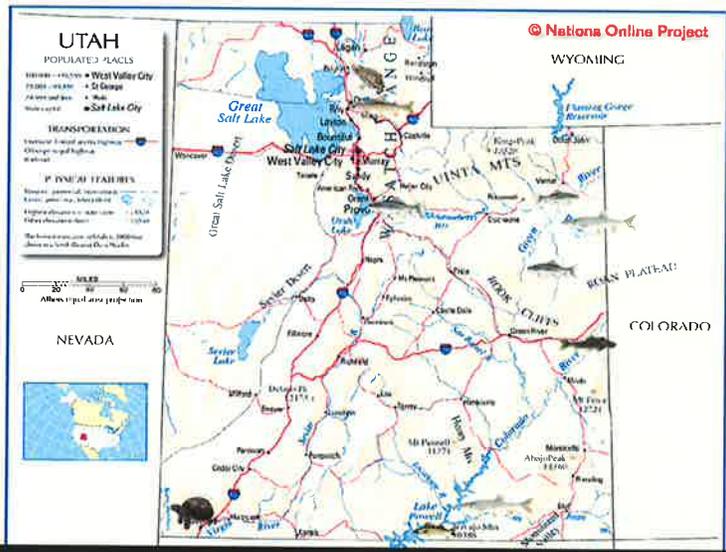
Water Quantity

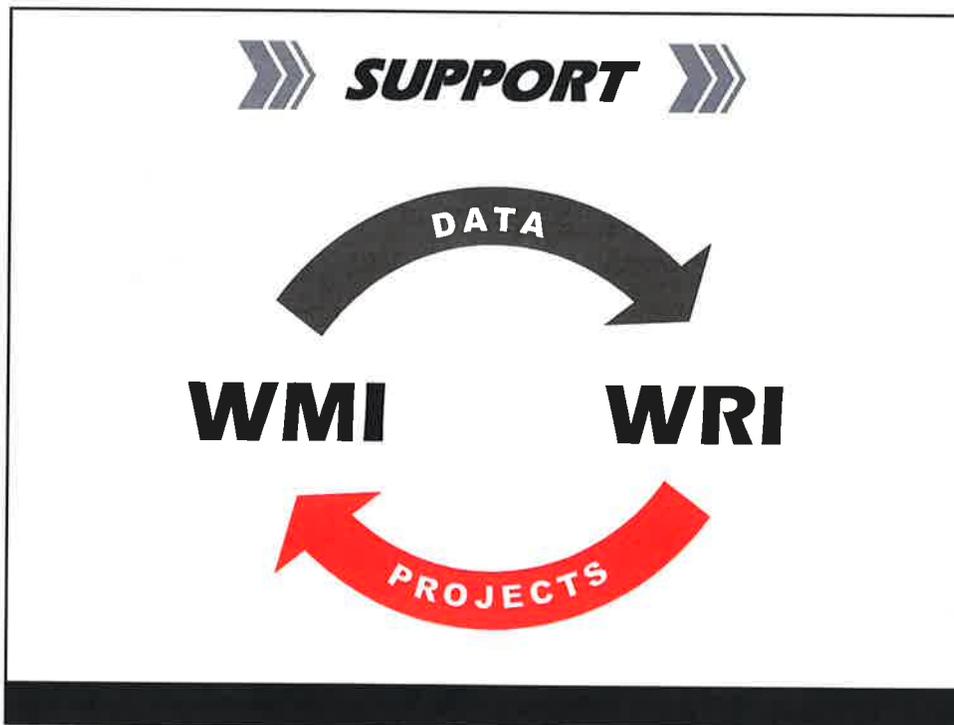
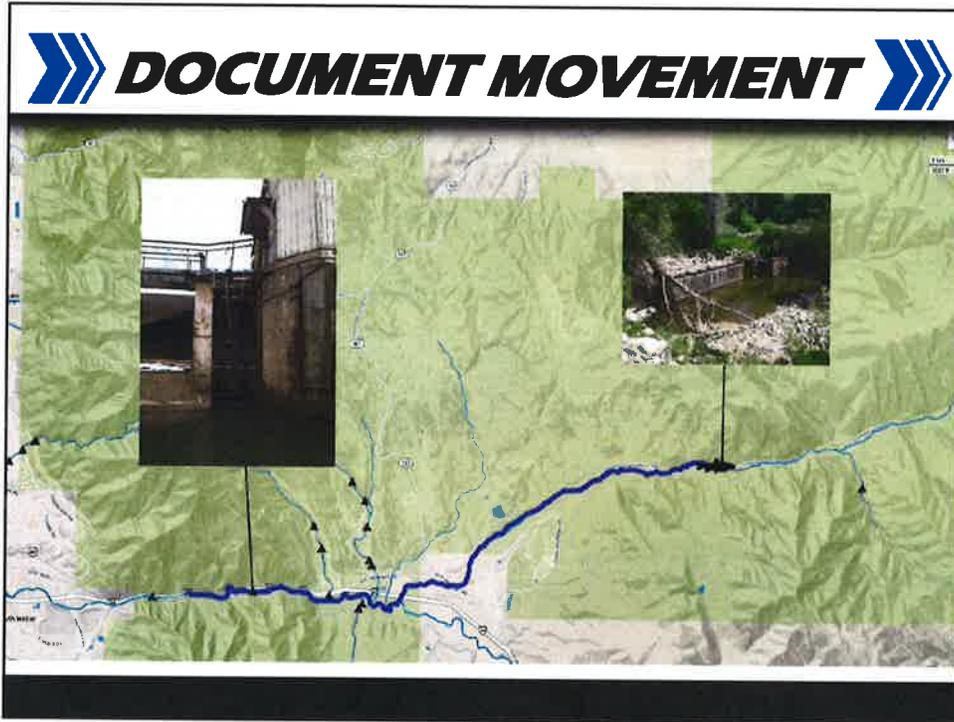


Physical Barriers



DOCUMENT MOVEMENT









BLUE RIBBON
Fisheries

Focus:

- Individual waters
- Fish population health
- Angling experience
- Habitat improvement
- Economic benefit



BLUE RIBBON
Fisheries

Budget:

- Funding comes from fishing license sales
- \$400,000 annually
- 70% to focal waters
- Projects are divided into a 3 year period
 - Project planning/engineering – YR1
 - Construction – YR2
 - Any wrap-up work – YR3

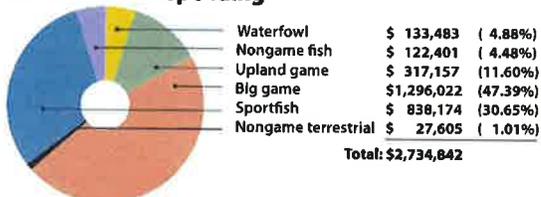


FY	Planning	Implementation	Wrap-Up
2018	Pelican		
2019	Fish Lake	Pelican	
2020	Lost Creek Reservoir	Fish Lake	Pelican
2021	Huntington Creek	Lost Creek Reservoir	Fish Lake
2022	Weber River	Huntington Creek	Lost Creek Reservoir
2023		Weber River	Huntington Creek
2024			Weber River

Wildlife Habitat Account

- Created in the 1995
- Provides dedicated funds to be used for protection of fish and wildlife, improving public access, etc
- Generates about \$2 million dollars each year for projects

Habitat Council spending



Motorboat Access Program

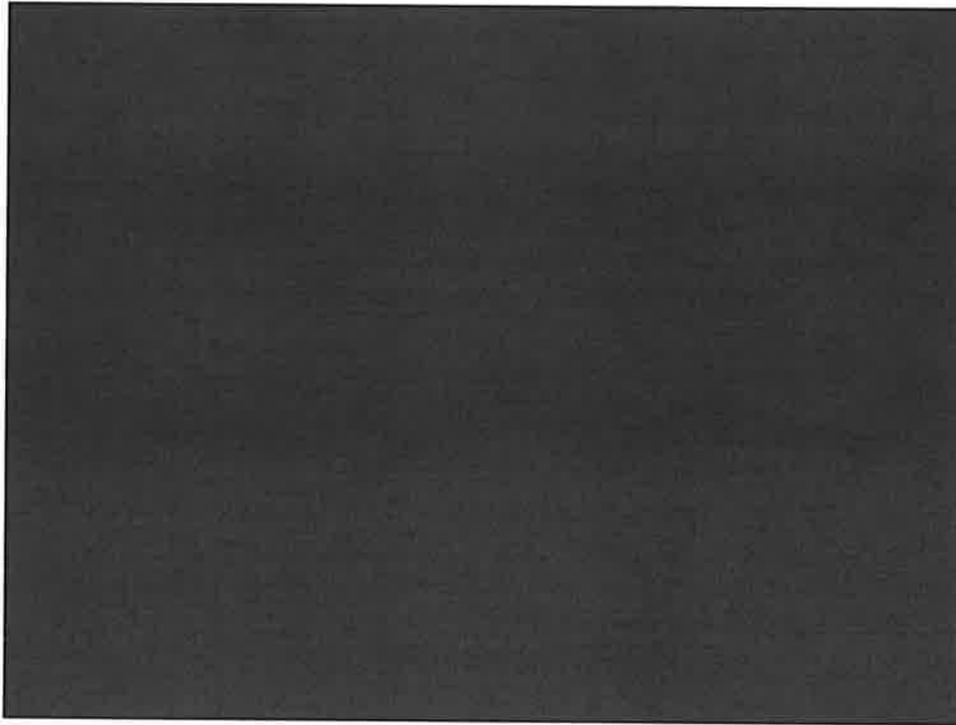


- Provides funds to states wildlife agencies to provide access to waterways
 - 1.3 million annually
- Construction, restoration, repair and other improvements of publicly owned boating facilities
 - ramps, docks, campgrounds, parking lots, shelters, picnic tables, restrooms, fish cleaning stations, pumps, water systems and other such facilities

Monitoring

- Widespread lack of post project appraisals
- When monitoring occurs, usually consists of;
 - Fish population surveys
 - Photo points
 - Angler survey
 - Cross channel profile surveys





The projects listed below have been funded through the USDA-NRCS Public Law 83-566 (PL566) Watershed Protection and Flood Prevention Program and are in various stages of the NEPA/Planning process. The 2017-funded projects have completed scoping and are underway with planning/engineering and preparation for the public comment period. The 2018-funded projects are initiating planning or about to start pending selection of a contractor. NRCS-Utah encourages input and feedback from state and federal natural resource agencies to help make all these projects better.

1. North Ogden Watershed (FY2017)

- Sponsor: Weber-Box Elder Conservation District, North Ogden City
- Purpose: Construct a detention basin, storm drain piping, an irrigation reservoir, and pump station to improve the management of irrigation water and stormwater and potentially provide recreational benefits
- Engineering: J-U-B Engineers
- Status: Draft Plan-EA under review; Economics needed; Eng. Memos

2. Pleasant Grove-Mill Ditch Piping (FY2017)

- Sponsor: Pleasant Grove City
- Purpose: Piping Mill Ditch to conserve irrigation water lost to seepage and evaporation
- Engineering: Horrocks Engineers
- Status: Plan-EA Review complete by NWMC; Addressing Comments; Funded for design phase;

3. Santaquin City Watershed (FY2017)

- Sponsor: Santaquin City
- Purpose: Construct multiple debris basins to protect homes, agricultural land, and the Highline Canal
- Engineering: Horrocks Engineers
- Status: Draft Plan-EA under review by NRCS-Utah; Prep for NWMC

4. Uintah Co. Water Conservancy District (RCPP)

- Sponsor: Uinta Water Conservancy District
- Purpose: Canal conversion to pipe, flood protection/detention basins
- Engineering: Jones and DeMille Engineering
- Status: Plan-EA Draft; Res Inventory, Alternatives Eval, Coord with BOR

10. Duchesne County Water Conservancy District (FY2018)

- Sponsor: Duchesne County Water Conservancy District
- Purpose: Flood damage reduction, water use, improved agricultural operations
- Engineering: RFP out for selection of Contractor for EA/Engineering.
- Status: RFP out for Contractor selection.

11. Ashley Valley Watershed (FY2018)

- Sponsor: Uintah County Commission
- Purpose: Flood damage reduction and watershed protection, agriculture water management, public recreation development; BOR Coordination
- Engineering: Sponsor – pending Agreement execution
- Status: Agreement items transferred from County to Ashley Canal Co; Sigs pending

12. Price River Restoration-UPPER (Garley Wash-FY2018)

- Sponsor: Price City
- Purpose: Increase water supply by adding storage reservoir, increase distribution efficiency, improve water quality; Garley Wash Dam proposed-10K ac-ft
- Engineering: Jones & DeMille Engineering
- Status: Agreement to Sponsor for Signature; pending citizen advisory comm set-up

13. Price River - LOWER (Olsen Res -FY2018)

- Sponsor: Utah Division of Wildlife Resources
- Purpose: Increased water storage and timed release to improve water quality and quantity during low-flow periods and drought (agriculture water, wildlife habitat, fish habitat)
- Engineering: Sponsor-RFP – pending Contractor selection for EA/Engineering.
- Status: Pending Contractor selection by UDWR for EA/Engineering.

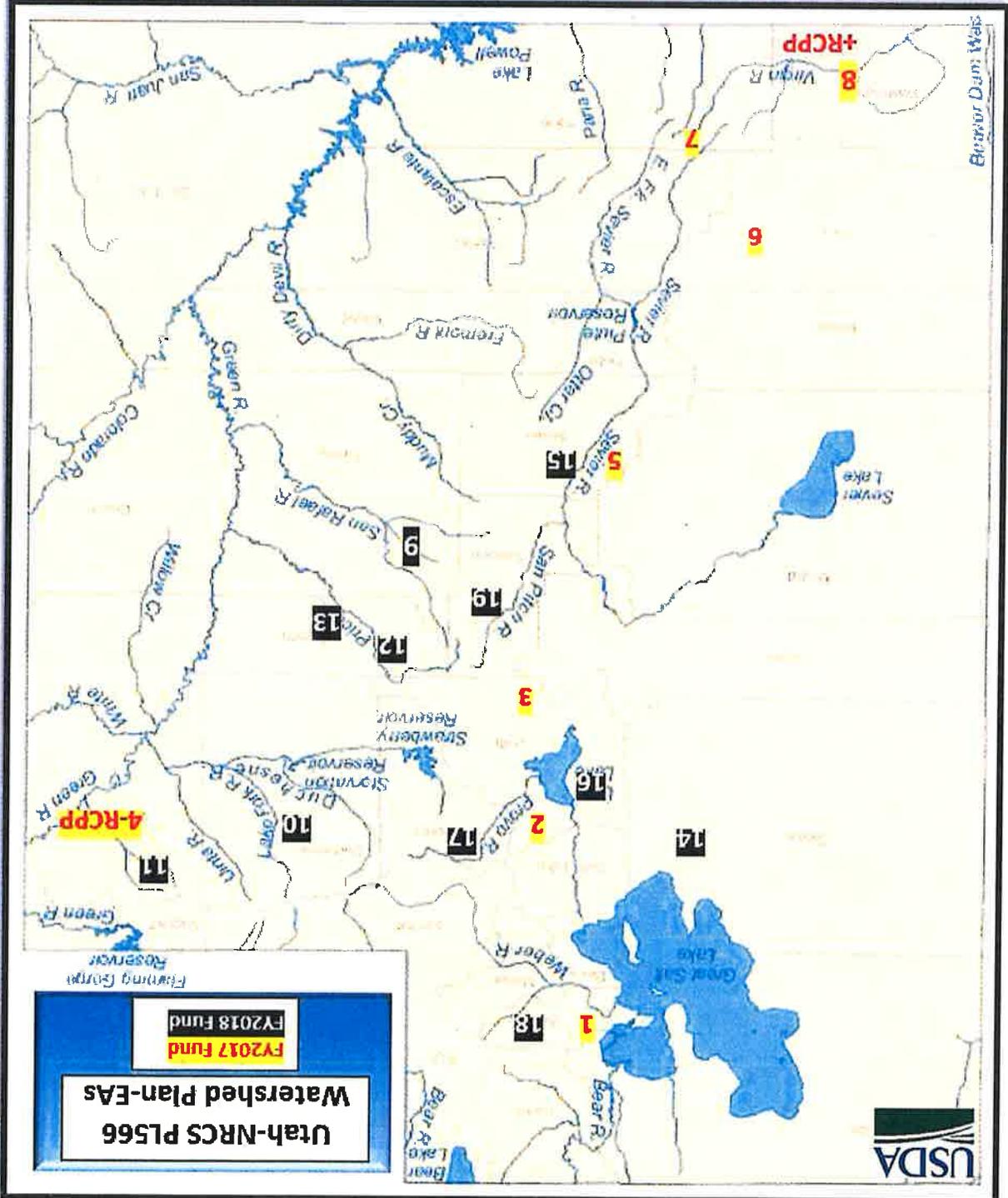
14. Skull Valley Goshute Tribe (FY2018)

- Sponsor: Skull Valley Band of Goshute Indians
- Purpose: Detention dam construction for flood damage reduction
- Engineering: RFP out – pending selection of Contractor for EA/Engineering
- Status: pending selection of Contractor

15. Glenwood Town – Flood Channel (FY2018)

- Sponsor: Glenwood Town
- Purpose: Enhancement of flood channel through town, public safety
- Engineering: RFP out for selection of Contractor for EA/Eng.
- Status: pending Contractor selection.

1	North Ogden Basin-Irrigation
2	Pleasant Grove-Canal Piping/Diversion
3	Santaquin City – Flood Protection
4	Uintah WCD (RCP) -Piping-Flood
5	Richfield-West Sevier – Flood Protection
6	Parowan Valley – Flood Protection
7	Cove Reservoir – Water Supply, Rec.
8	Warner Draw (+RCP) - Irrig, Flood, Hab
9	Cottonwood Creek – Flood Protection
10	Duchesne Co Water Con Dist – Irrig, Flood, Rec.
11	Ashley Valley Watershed-Piping, Flood Protect.
12	Price River-Upper – Piping, Flood Prot, Rec.
13	Price River-Lower- Reservoir, Habitat, Rec.
14	Skull Valley Goshutes – Flood Protection
15	Glenwood Town – Flood Channel
16	Saratoga Springs City – Flood Protection
17	Tri-Valley Watershed – Irrigation, Flood Protect.
18	Weber River-Upper – Irrig, Flood, Recreation
19	Mt Pleasant-Pleasant Crk – Irrig, Flood, Rec.



USDA-Natural Resources Conservation Service (NRCS)
Watershed Flood Prevention Operations (WFPO) - PL566 Planning/Design/Construction



Authority: Public Law 83-566 (PL566) the Watershed Protection and Flood Prevention Act of 1954, as amended.

Scope: National Watershed Program Manual (NWPM) sets the policy for all watershed plans developed under the Watershed Program. No project funded for planning or implementation under PL566 authority unless it meets all requirements set forth in the NWPM.

Project Sponsors: Local organizations (as defined in PL566, Section 2), that have legal authority and resources to install, operate, and maintain works of improvement.

Overview: Program requires the development of physically, environmentally, socially and economically sound watershed project plans with actions scheduled for implementation over a specified period of years. Actions are within a specified geographic area by sponsors for the benefit of the general public.

General Purposes:

- i) Preventing damage from erosion, floodwater, and sediment
- ii) Furthering conservation, development, utilization, and disposal of water
- iii) Furthering conservation and proper utilization of land

Authorized Project Purposes: *CS= Cost-Share*

- | | |
|---|---|
| 1) Flood Prevention (Flood Damage Reduction)-100%CS | 6) Municipal & Industrial Water Supply-50% CS |
| 2) Watershed Protection – up to 75% CS | 7) Water Quality Management – % TBD planning |
| 3) Public Recreation – 50% CS | 8) Watershed Structure Rehabilitation-65% CS |
| 4) Public Fish and Wildlife – 50% CS | |
| 5) Agricultural Water Management – up to 75% CS | |

Maximum Watershed Size: 250,000 acres → can be separated sub-watersheds.

Maximum Structure: No structure providing more than 12,500 ac-feet of floodwater detention or > 25K total capacity

Economics: Show allocations per Purpose. Benefits and costs may be expressed in monetary & nonmonetary terms.

Must contain benefits directly related to agriculture, including rural communities → account for 20% of the total benefits.

Recreation Development Limitations:

- 1 development in watershed less than 75,000 acres
- 2 developments for watersheds 75,000 to 150,000 acres
- 3 developments (max) for watersheds greater than 150,000 acres

Sponsor Responsibilities:

- 1) **Power of Eminent Domain:** At least one Sponsor must have so that it may acquire real property, water, other.
- 2) **Permits and Licenses:** Sponsor must acquire needed permits, and licenses per local, State & Federal laws.
- 3) **Authority to Levy Taxes:** At least one Sponsor must have and exercise authority to levy taxes.
- 4) **Land Treatment above Reservoirs:** Sponsor must obtain agreements from landowners to implement soil conservation plans that meet NRCS Field Office Technical Guide criteria....on not less than 50 percent of the lands situated in the drainage area above each retention reservoir to be installed with Program funds.
- 5) **Public Participation:** Sponsor must arrange and carry out activities that encourage public to participate in planning.
- 6) **Financial:** Sponsor must show evidence of commitment for funding, installing, operating and O&M. Sponsor will perform all contracting for construction of any structure...except upon request NRCS may perform.
- 7) **Watershed Management:** Sponsor must implement needed watershed management features such as permitting, zoning, land use regulations, easements or upstream watershed protection.
- 8) **Municipal & Industrial (M&I) Water:** Sponsor must provide all technical services to implement M&I water supply. USDA to be reimbursed for at least one-half of the cost of M&I storage for current demand and all of the cost of M&I storage for future demand.
- 9) **Operation and Maintenance:** Sponsor use authority to ensure installation, operation and maintenance as planned.
- 10) **Storm and Sanitary Sewers:** Storm & sanitary sewers, or relocations and changes to existing = sole cost of Sponsor.

Contact: Bronson Smart, P.E.
State Conservation Engineer/Program Manager
USDA-NRCS, Salt Lake City, UT
(801) 524-4559 bronson.smart@ut.usda.gov

Contact: Norm Evenstad, P.G.
Water Resources Coordinator
USDA-NRCS, Salt Lake City, UT
(801) 524-4569 norm.evenstad@ut.usda.gov



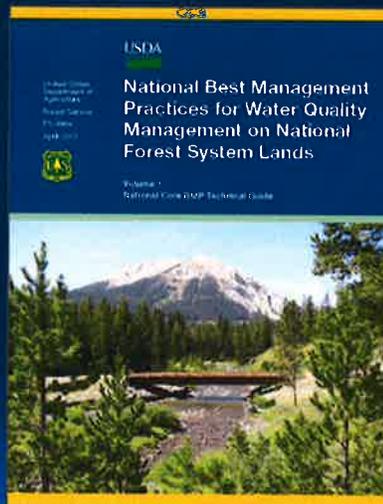
U.S. Forest Service Recent Accomplishments and Future Priorities, 2019-2022



National BMP Program-Update



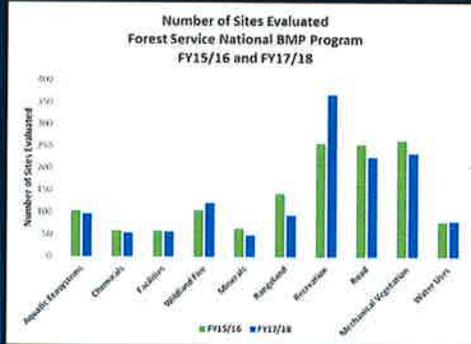
- Aquatic Ecosystems
- Chemical Use
- Facilities / Special Uses
- Fire Management
- Minerals Management
- Rangeland Management
- Recreation Management
- Roads Management
- Vegetation Management
- Water Uses



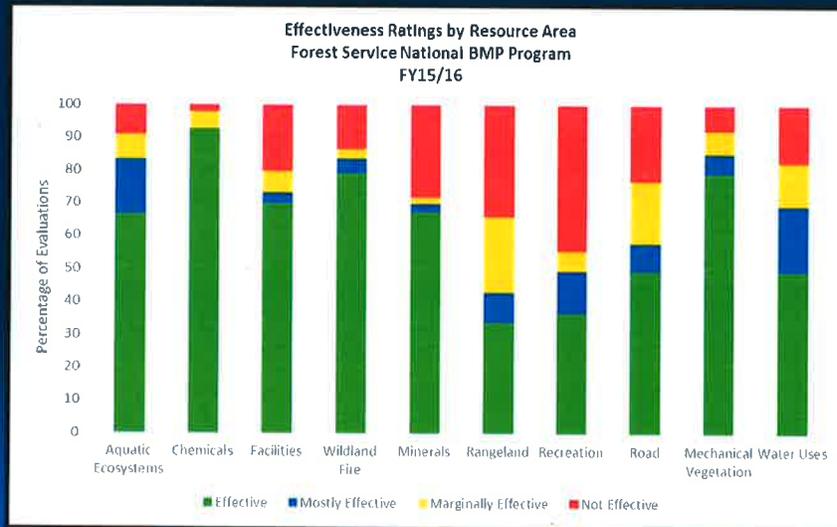
<https://www.fs.fed.us/biology/watershed/BMP.html>



Reporting Period	Number of Sites Evaluated	Percentage of Sites Randomly Selected	Percentage of Administrative Units Participating
FY15/16	1,394	77	85
FY17/18*	1,368	79	94

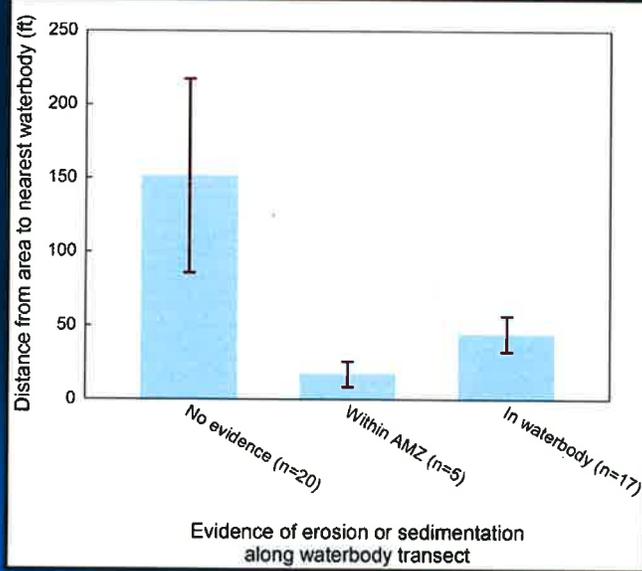


BMP Data and Results FY15-16

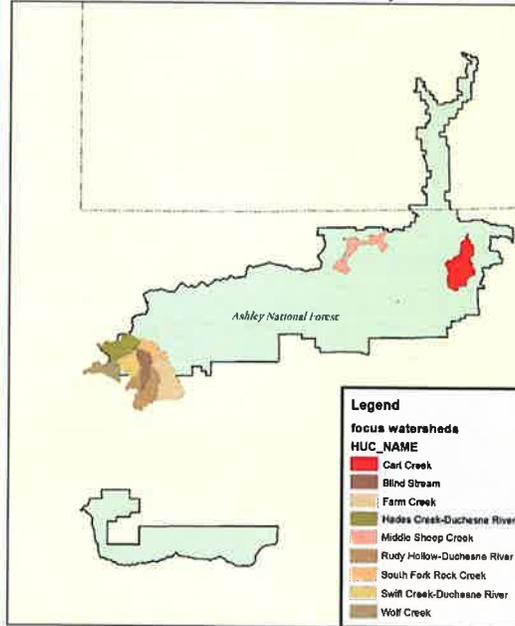




Example of BMP Using data

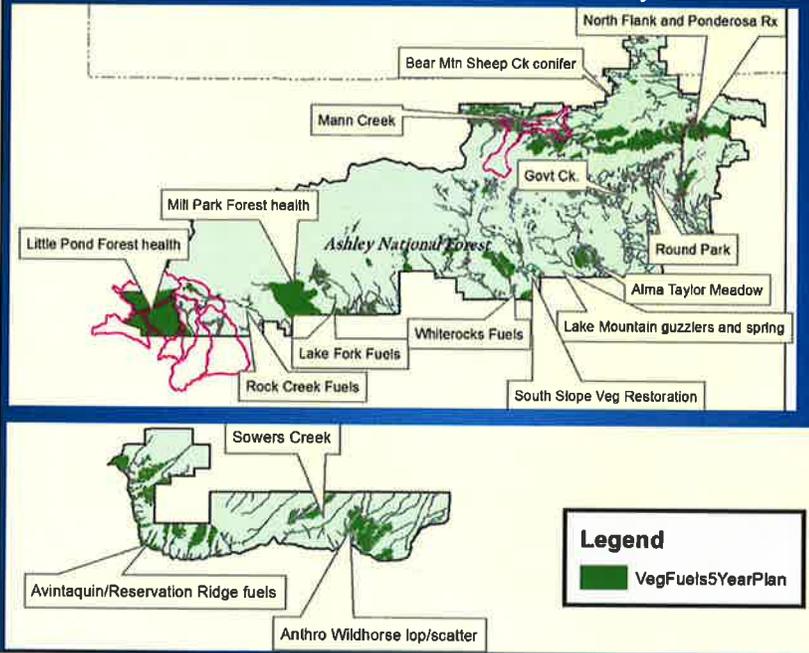


Active and Planned Focus Watersheds on Ashley National Forest



Users need to exercise caution regarding the accuracy of these data. The accuracy of these data may vary. No warranty is made by the USFS for any use of these data, including use of these data for navigation purposes.

Ashley NF, Vegetation and Fuels Projects



Partnership projects ongoing for Ashley National Forest in 2019

Project	Fund source	Description
Sowers Creek channel restoration	State Nonpoint Grant	Stream channel stabilization to raise the water table/improve riparian zone in an incised stream.
Round Park nonpoint improvements	Fish and Wildlife Service	FWS mitigation funding to improve water quality. Funds will be used to improve system roads and fords, close/rehab 1200' of nonsystem road adjacent to Little Brush Creek, and repair instream structures in Dyer Creek. (Actions will coincide with a USFS-funded fence project in Round Park to improve livestock distribution.)
Government Creek meadow restoration	WRI	Stream channel stabilization and riparian fencing. (channel work completed, fencing to be completed in 2019)
North Fork Ashley Creek fish habitat	WRI	Large woody debris placement/fish habitat improvement
Lake Mountain Guzzlers	WRI	Installation of 6 guzzlers to improve livestock distribution and wildlife benefits
Limestone Spring exposure and pipeline	WRI	Install .7 miles of exclosure fence around spring, install pipeline and trough system to improve livestock distribution, side benefits for wildlife
South Slope Vegetation Restoration	WRI	Treatments on Mosby Mountain for encroachment of cheatgrass in sagebrush/grassland
Bear Mountain Sheep Creek conifer encroachment	WRI	Juniper lop/scatter project in sagebrush communities
Flaming Gorge Bighorn Sheep conifer encroachment	WRI	Fuels and juniper lop/scatter project to improve bighorn sheep habitat
Anthro lop and scatter (Wildhorse Ridge)	WRI	Juniper lop/scatter project in sagebrush communities
Forest System Road Maintenance County Agreement	County Govt	Ongoing annual agreement with Duchesne, Daggett, Uintah, Sweetwater Counties for schedule A road maintenance of USFS road system (routine grading, ditch and culvert maintenance, etc)
Yellowstone Bridge replacement	Federal Highway Fund	Federal Highway Fund contribution to replacement of FS Rd 119 bridge on Yellowstone River in Yellowstone Canyon
Montana Conservation Corps	USFS	Partnership funded by USFS for trails improvement/trail work in the High Uintas Wilderness and approach trails

Other projects ongoing on Ashley National Forest in 2019

Project	Watershed HUC 5	Description
Whiterocks Canyon Fuels Rx	1406000312	Combination of prescribed burn, and mechanical treatments to reduce fuel loading and improve timber stands.
Lake Fork Canyon Fuels Rx	1406000306	Combination of prescribed burn, and mechanical treatments to reduce fuel loading.
North Flank Ponderosa Pine Rx Restoration	multiple	Combination of prescribed burn, and mechanical treatments to reduce fuel loading.
Duchesne/Roosevelt RD roadside hazard trees	multiple	roadside salvage of dead/dying timber
Alma Taylor precommercial thinning and meadow restoration	1406000202	Precommercial thinning for wildlife, and nonsystem road closures in wet meadow
Mann Creek tributary headcut stabilization	1404010606	instream project, to stabilize channel and raise water table in an incised stream
Lower Sheep Creek bank stabilization	1404010606	meander stabilization where threatens system road
Riverview Campground bank stabilization	1406000307	bank stabilization in recreation area

Ashley NF

Developing projects planned for implementation 2-3 years out

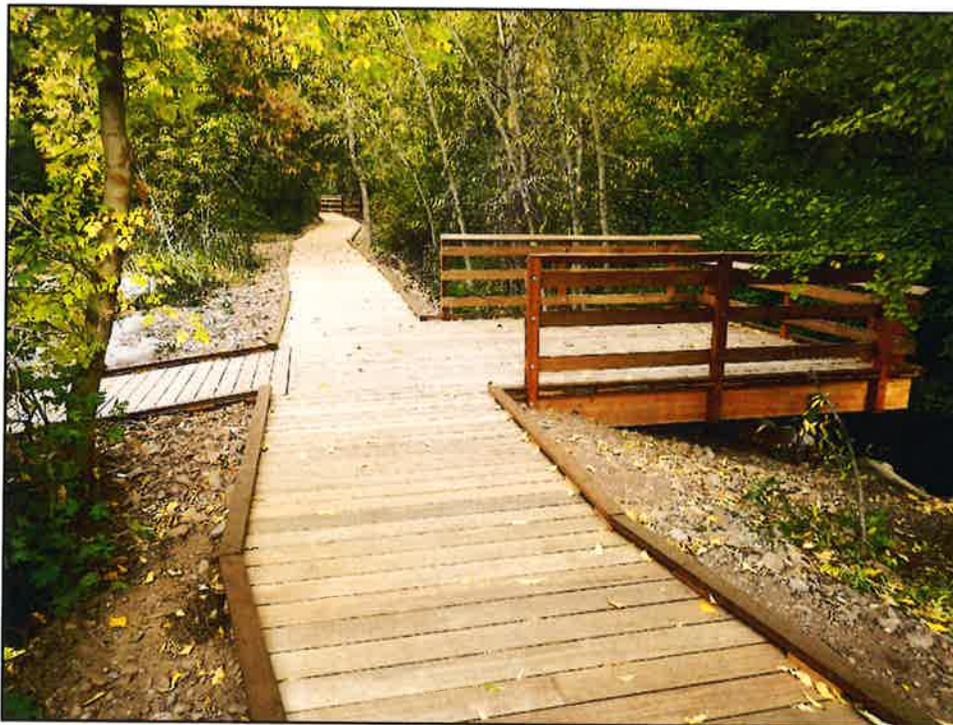
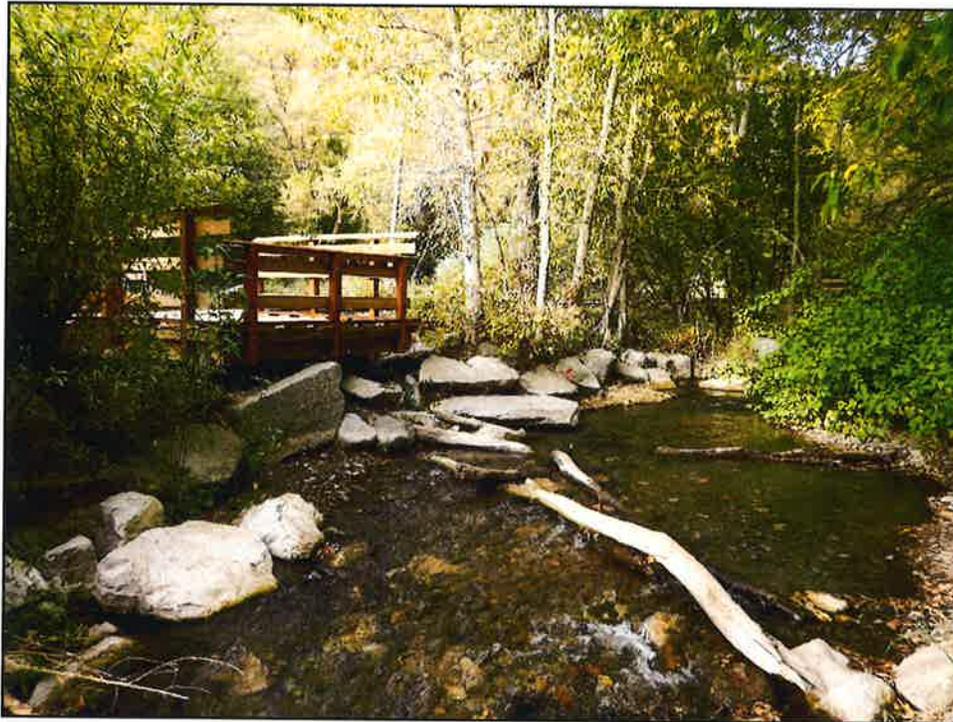
Project	Watershed HUC 5	Description
Tri Peaks Fuels Rx	1404010605	shaded fuel breaks and prescribed burns planned Aspen and conifer stand improvements planned,
Cart Creek forest restoration	1404010605	other projects for water quality in Cart Creek Focus Watershed already completed
Mill Park forest health	1406000301	Forest health/timber stand improvement project, includes side projects to improve OHV impacts in Mill Park and riparian/stream channel work in Cow Park.
Little Brush Creek/ Round Park ATV trail relocation	1406000205	Relocate/improve motorized trail where current impacts exist in wet meadows and stream
Mill Flat and Wilderness Trails reroutes	1406000301	Relocation of a trailhead and selected wilderness trails segments impacting wetlands
North Flank foothills sagebrush restoration	1404010605	restoration/maintenance of mountain and sagebrush communities
Uinta Moutains meadow restoration	multiple	lop and scatter conifer encroachment in selected meadows across 2 districts

Uinta-Wasatch-Cache NF, Current Priorities

- The UWCNF current priority watershed is Mill Creek east of Salt Lake City, final projects include:
- Many projects have already been implemented, including culvert work, removal of old 12 ft high hydropower dam, and stream/riparian restoration work.
- Last summer, the boardwalk along Mill Creek above Porter Fork was replaced to provide fishing access and protect stream banks.
- Two culverts in Porter Fork will be replaced by the end of June 2019 to provide fish and aquatic organism passage.



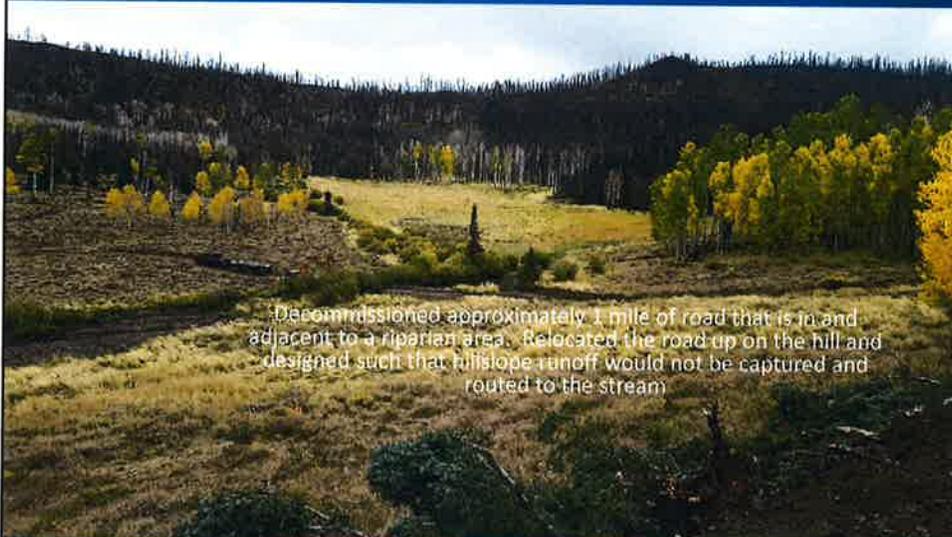
Willow growth along Mill Creek just downstream of the new boardwalk where old 12 ft hydropower dam was removed



Uinta-Wasatch-Cache NF, Future Priorities

- Priority areas for the next few years will be Nebo and Diamond Fork areas where the Pole Creek and Bald Mountain fires burned last summer and fall.
- The FS is working through Watershed Restoration Initiative partners and the BOR for planting riparian trees.
- Burned Area Emergency Response work has included a variety of erosion control and road/trail stabilization work, as well as public safety and facilities protection.

Dixie NF, Recent Projects



Decommissioned approximately 1 mile of road that is in and adjacent to a riparian area. Relocated the road up on the hill and designed such that hillslope runoff would not be captured and routed to the stream.

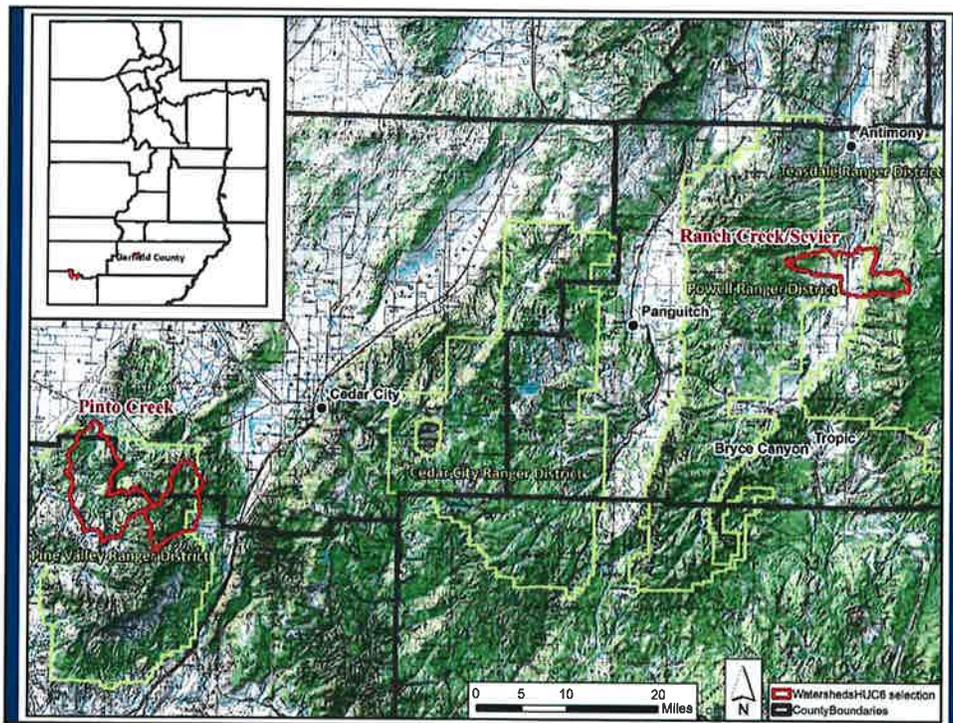
- Built riparian exclosures where grazing management was difficult for the permittee to meet standards because of the remoteness of the location
- Removed pinyon and juniper ladder fuels from Cottonwood, Birch, and Aspen in the riparian area on over 4 miles of stream as part of a larger watershed restoration project



- Rerouted portions of a non-motorized trail and added drainage features reduce runoff and sediment routing to a nearby stream on over 2.5 miles of trail

Dixie NF, Future Priorities

- Ranch Creek watershed improvement project.
- 2018 was year 1 of multiple years worth of watershed restoration work to be done in Ranch Creek.
- Partner funding received from WRI – multiple partners. State assisting with contracting.
- Some specific items relating to water quality will be road relocation and closures, stream channel work, and fuel reduction in heavily loaded mixed conifer areas, to help minimize or prevent wildfire effects.
- Pinto Creek Priority Watershed, Pine Valley Mountains



Fishlake NF, Current and Future Priorities

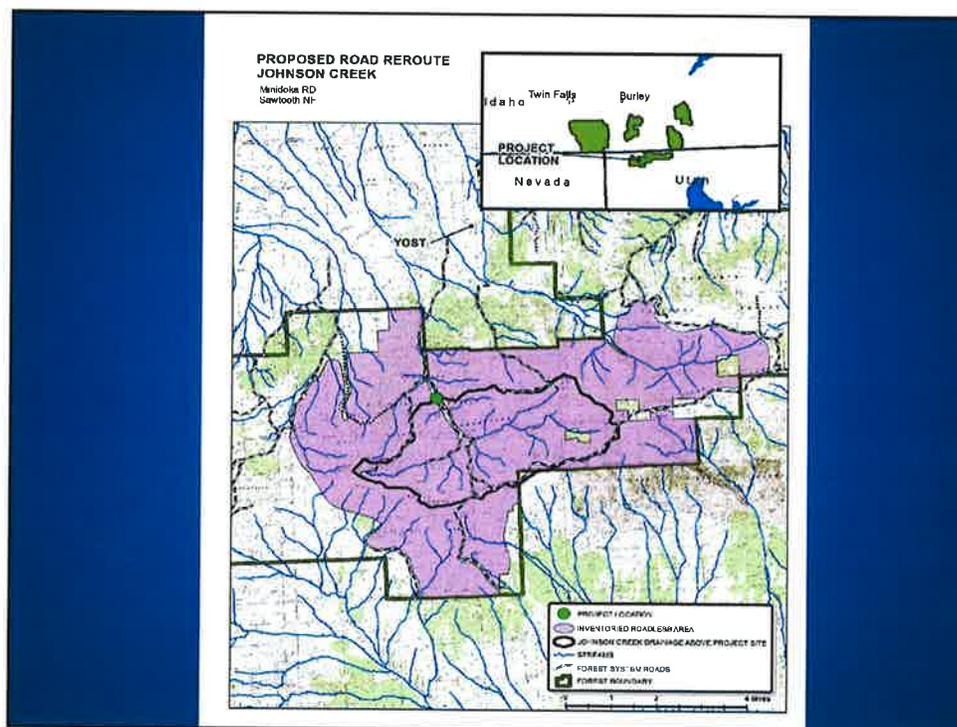
- Monroe Mountain Vegetation Project has been a key focus for the past few years, with treatments in multiple drainages. 45,000 to 50,000 acre project.
- Box Creek has a lot of interest and activities. The Forest is looking at adding a new fuels reduction project near the bottom of the drainage. Recovery of other fuels projects in this drainage have been successful. This is also part of the Otter Creek study area, led by UT DEQ and partners.

Manti-La Sal NF Priority Watershed Status

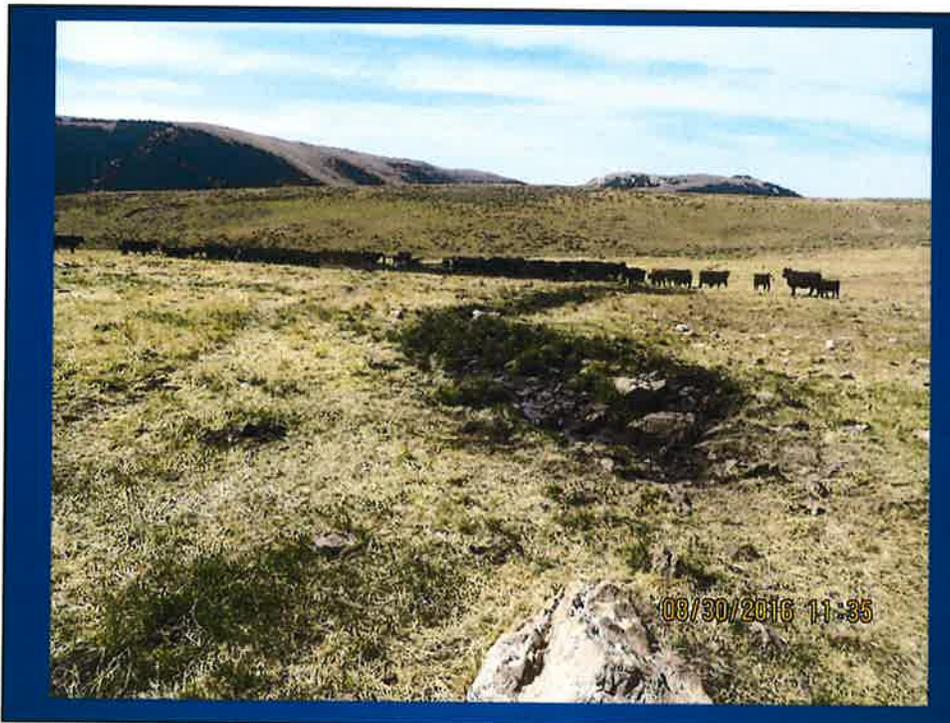
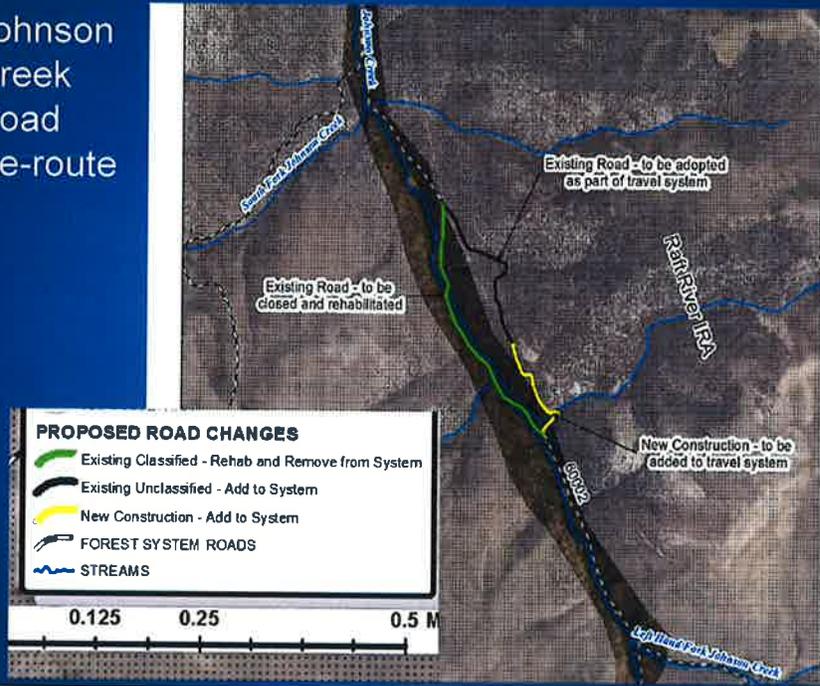
Status	HUC6 Sub-Watershed Name [HUC6 Code]	Scheduled Completion Date	Total Acres	Plan-Area Acres	% of Watershed FS
Active	Left Fork Huntington Creek [140600090101] Wasatch Plateau	12/31/2020	30,538	30,538	100.00 %
	Lowry Water [140600090202] Wasatch Plateau	12/31/2020	43,910	43,910	100.00 %
	Johnson Creek [140802010301] Abajo Mountains	12/31/2018	15,542	12,575	80.91 %
Planned	Right Fork Huntington Creek [140600090102] Wasatch Plateau	NA	40,101	40,101	100.00 %
	Stevens Canyon [140300050801] Abajo Mountains	NA	24,886	19,852	79.77 %
	Deer Creek-La Sal Creek [140300020902] La Sal Mountains	NA	24,854	15,642	62.94 %

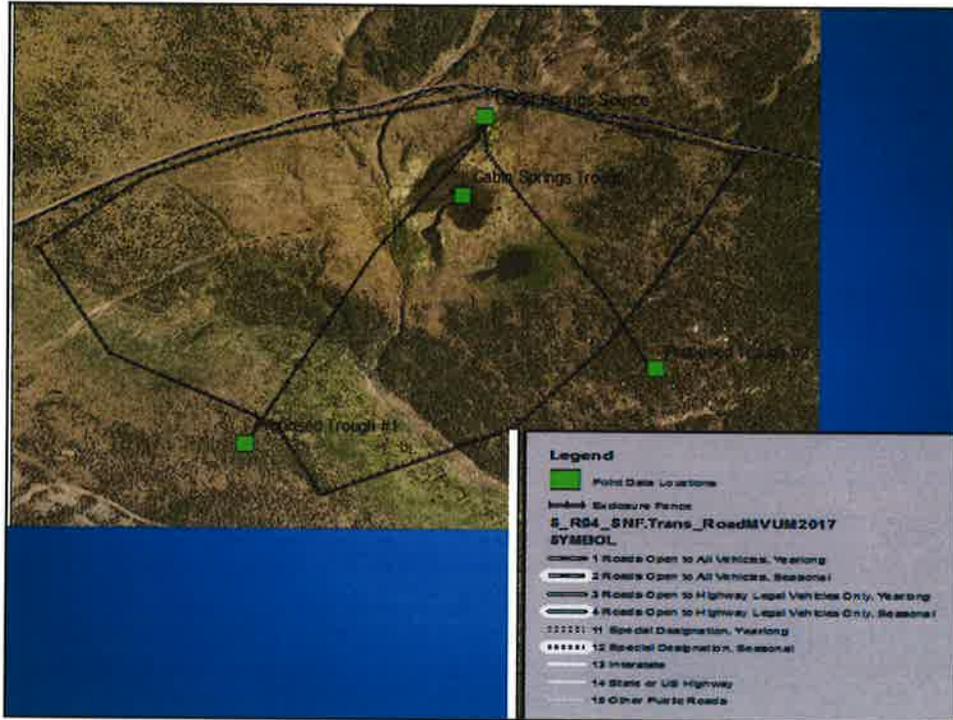
Sawtooth NF, Raft River Range

- Johnson Creek Road reroute. This project has NEPA completed and is simply awaiting funding for implementation/Partners?
- Cabin Springs and Harry Neil Springs restoration. Both of these projects involve moving a trough away from a spring source and fencing the riparian habitat. This project is ready for implementation and won't need additional funding.
- Projects currently Proposed to WRI
 - Aspen restoration project (mechanical treatment)
 - Riparian and meadow restoration grazing/water development/riparian improvement.
- Discussions of potential beaver reintroduction work



Johnson Creek Road Re-route





U.S. Forest Service Key Watershed Contacts - Utah

Mark Muir, Regional Hydrologist. Ogden, UT

801-625-5267, mjmuir@fs.fed.us

Charlie Condrat, Uinta-Wasatch-Cache NF. Watershed Program Manager

801-999-2173, ccondrat@fs.fed.us

Chris Plunkett, Ashley NF. Watershed Program Manager

435-781-5140, cplunkett@fs.fed.us

Denise Laes, Manti-LaSal NF. Hydrologist

435-636-3571, radavidson@fs.fed.us

Brooke Shakespeare, Dixie NF. Watershed Program Manager

435-865-3721, bshakespeare@fs.fed.us

Adam Solt, Fishlake NF. Forest Hydrologist.

435-896-1079, asolt@fs.fed.us

Mark Dallon, Sawtooth NF. Hydrologist.

208-678-0430, mdallon@fs.fed.us

Trout Unlimited Restoration Priorities in Utah



Paul Burnett, Jim DeRito, Jordan Nielson

Trout Unlimited – Who Are We?

- ☛ Non-profit conservation organization founded in 1959
- ☛ Mission: To conserve, protect, and restore North America's coldwater fisheries and their watersheds.
- ☛ 400+ chapters and 160,000+ members throughout the U.S
- ☛ 6 Staff in Utah

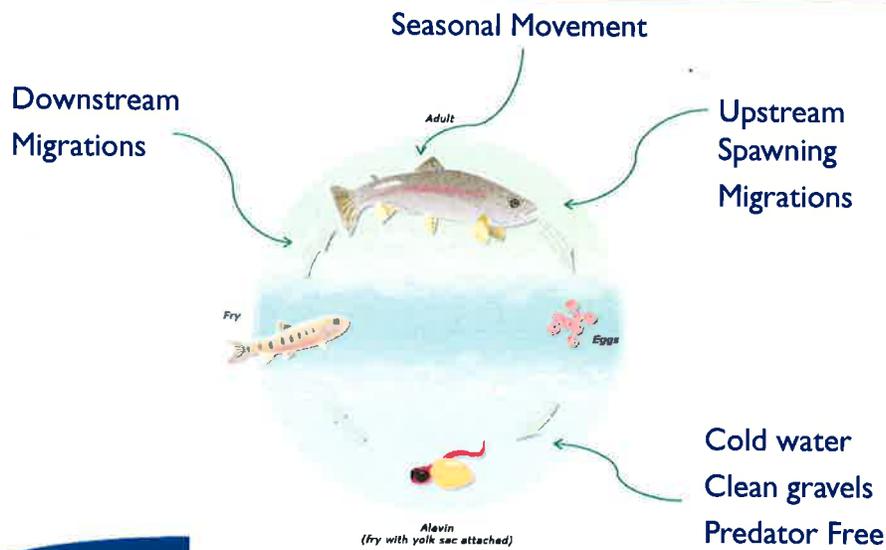


Where We Work

- 📍 Hire staff in places with important fisheries.
- 📍 Staff live in local communities and understand local issues
- 📍 Support native and wild fish conservation
 - Focus on areas with migratory fish
- 📍 Add capacity to watershed restoration efforts
 - Collaborative, inclusive projects



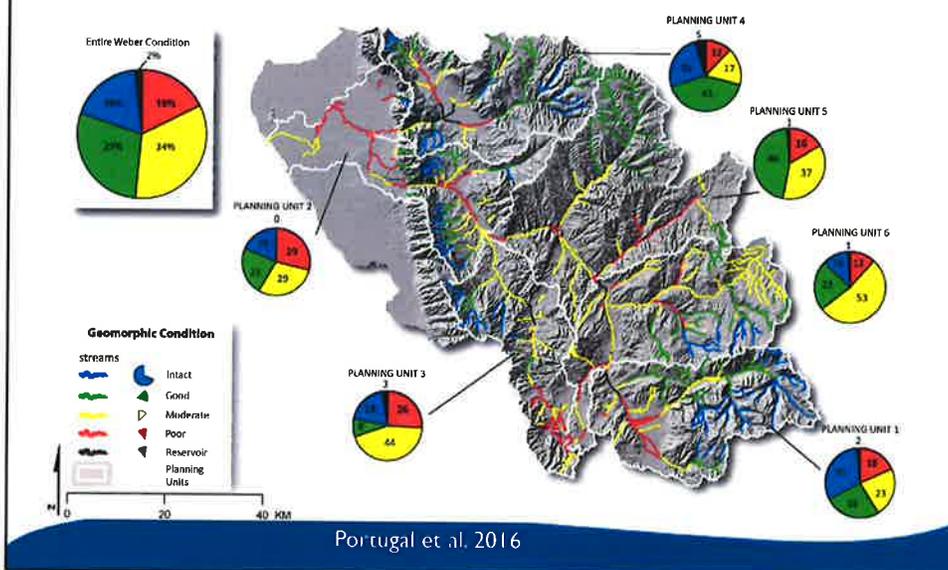
Cutthroat Trout Life History



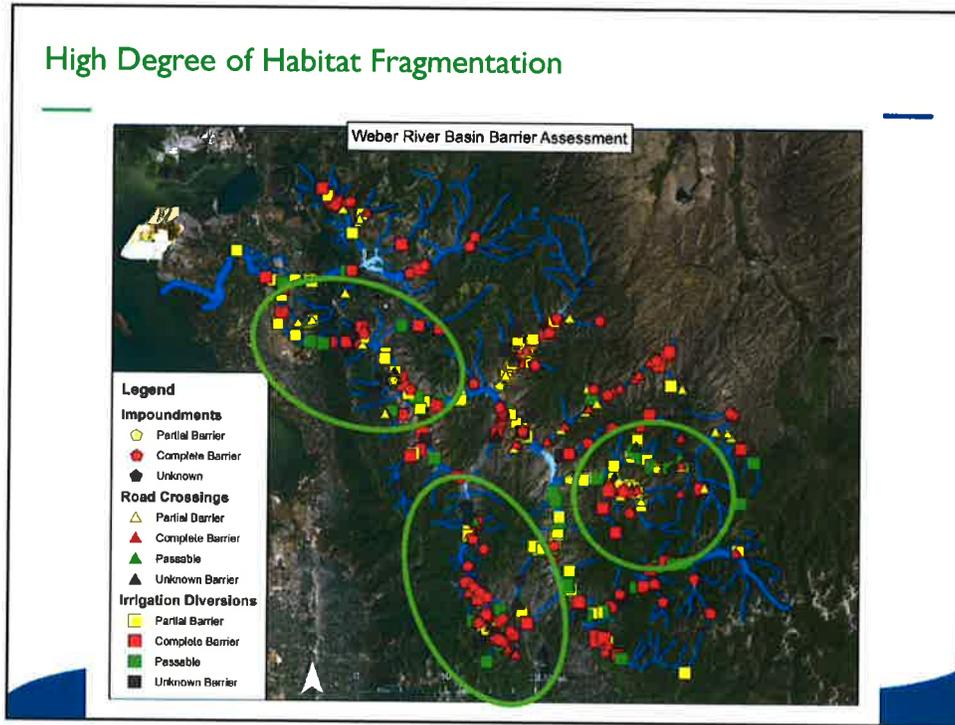
Weber River Program Goals

- ☞ Reconnect critical habitats for large migratory Bonneville cutthroat trout and bluehead sucker in the lower Weber River
 - Mainstem barrier removal
 - Hydro power relicensing
 - Tributary habitat reconnection at road crossings and irrigation diversions
- ☞ Reconnect habitat for Bonneville cutthroat trout in Chalk Creek an important population
 - Irrigation diversion reconstruction
 - Fish passage at infrastructure, such as road crossings
 - Restore habitat for Bonneville cutthroat trout in Chalk Creek
- ☞ Collaborate with private landowners and agencies to improve water quality and habitat through riparian restoration and livestock management practices

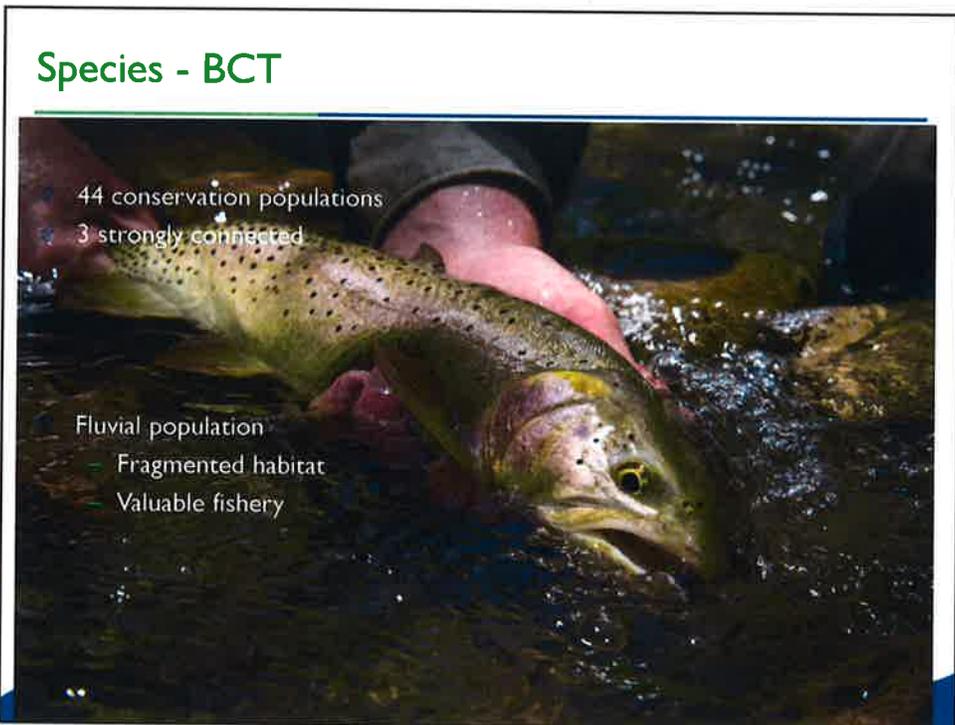
Poor Geomorphic Conditions



High Degree of Habitat Fragmentation



Species - BCT

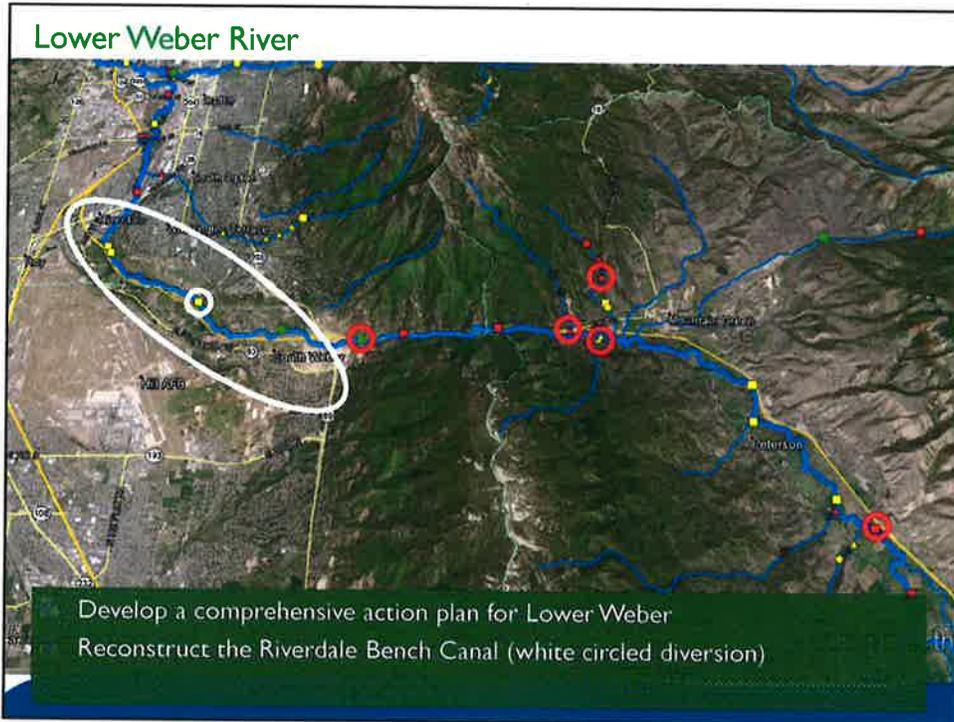


Important Actions in Priority Areas

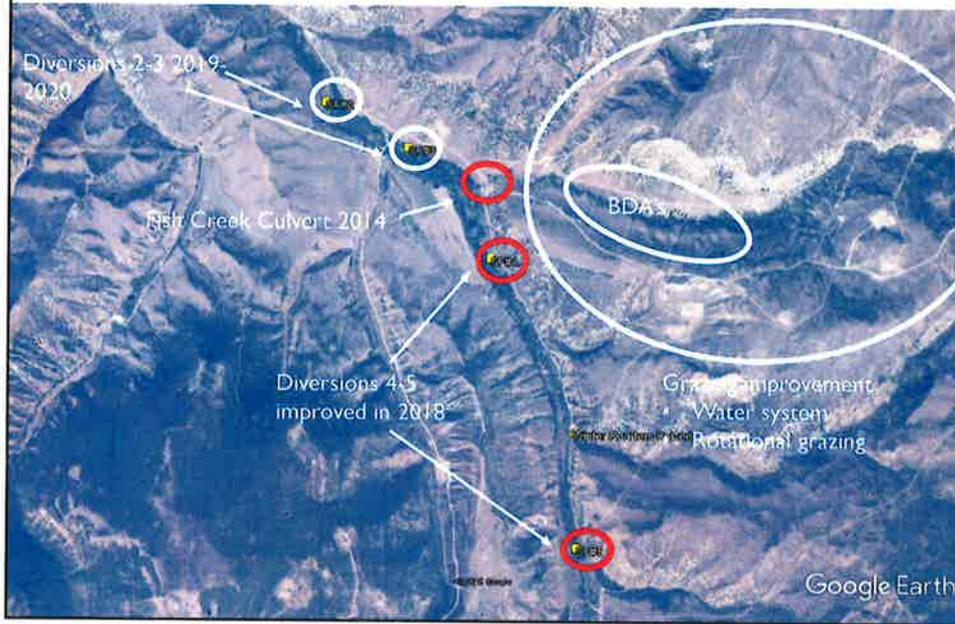
- 📍 East Canyon Creek
 - Study temperature/Flow relationship during summer
 - Improve water quality through water leases
 - Riparian and rangeland improvement below Jeremy Ranch
- 📍 Chalk Creek
 - Monitor Huff Creek riparian fence
 - Improve grazing management on South Fork and Fish Creek
 - Install BDAs on Fish Creek
 - Diversion reconstruction to improve passage and instream flows
 - Pipeline on South Fork Chalk Creek diversion #5
 - Chronic dewatering
- 📍 Lower Weber – Morgan
 - Reconstruct/remove large rock diversions
 - Riverdale Bench
 - Morgan (3)
 - Develop action plan/risk assessment from Mouth of Weber Canyon to Ogden
 - Identify risks of erosion and channelization
 - Identify opportunities to develop habitat features for Bluehead sucker

Lower Weber River



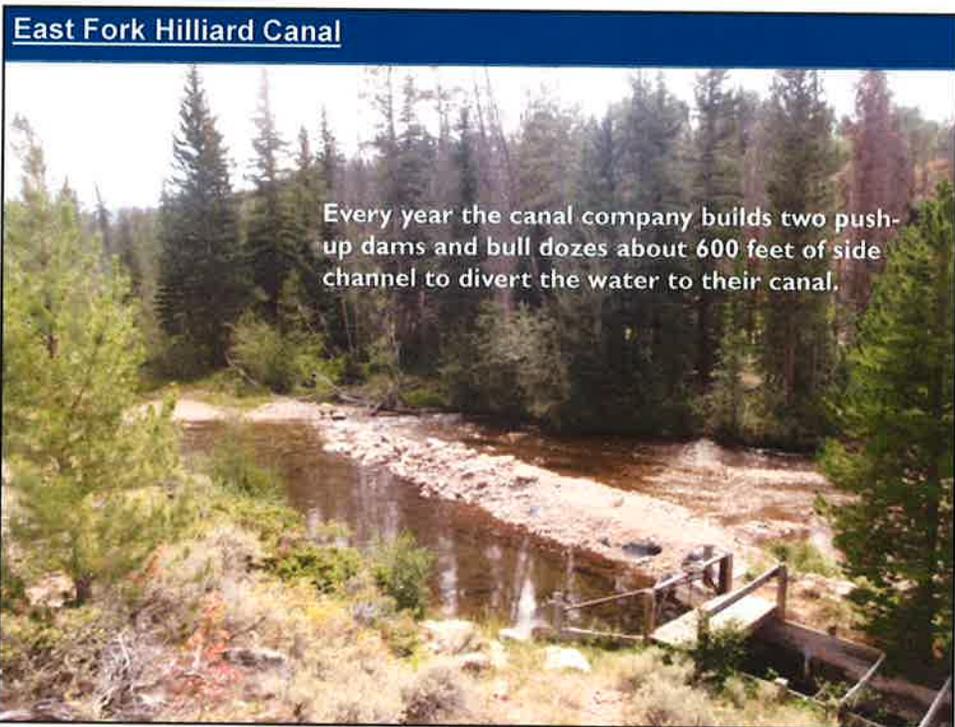
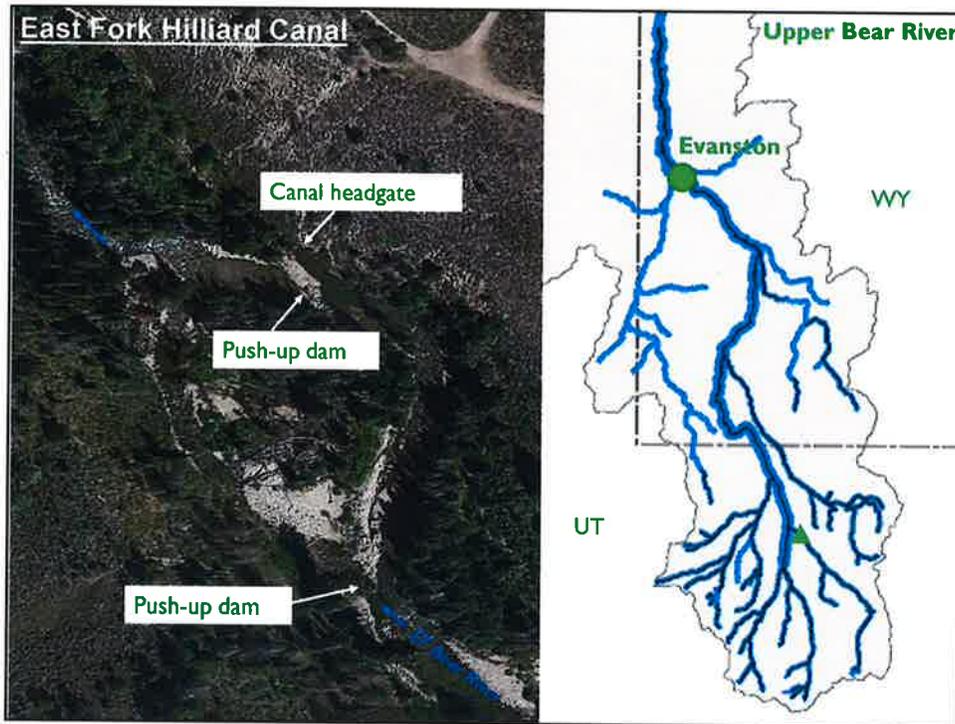


South Fork Chalk Creek



Partnerships





East Fork Hilliard Canal



- Rock cross vanes will be used to turn water into the side channel and then into the canal.
- Fish screen for 40 cfs maximum will be installed in canal to eliminate entrainment.
- ~2,000' of pipe will be installed in canal to improve water delivery.
- TU will be working with Gabe Murray on a non-point source grant application.
- Construction planned for late summer/autumn 2019.

Project Partners



U.S. FISH & WILDLIFE SERVICE

TROUT UNLIMITED

UPPER BEAR RIVER Trout Unlimited Chapter

FOREST SERVICE U.S. DEPARTMENT OF AGRICULTURE

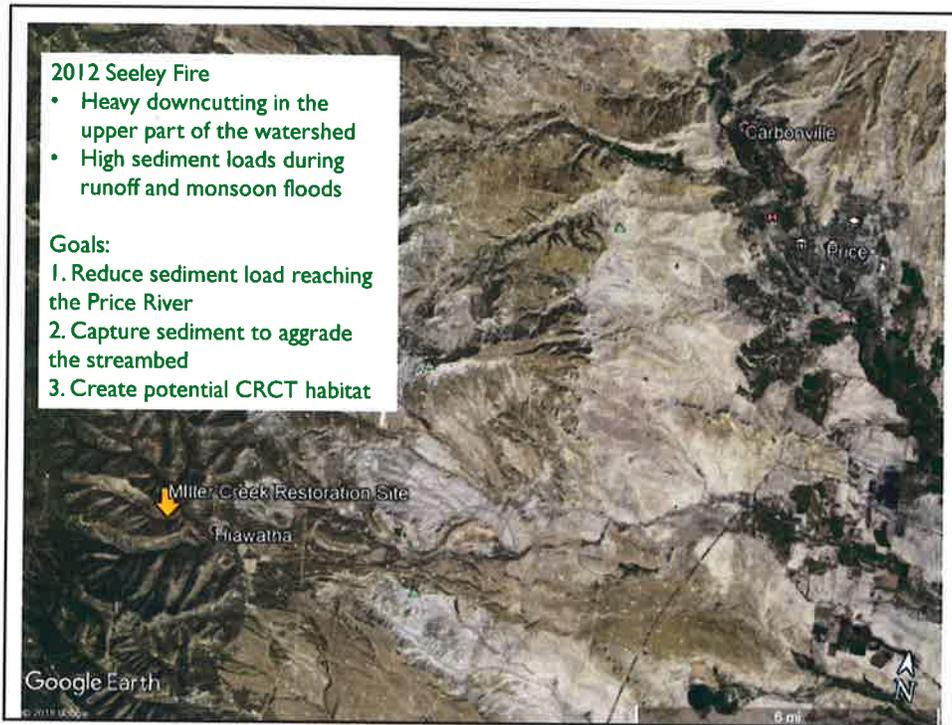
NRCS Natural Resources Conservation Service

UTAH DNR WILDLIFE RESOURCES

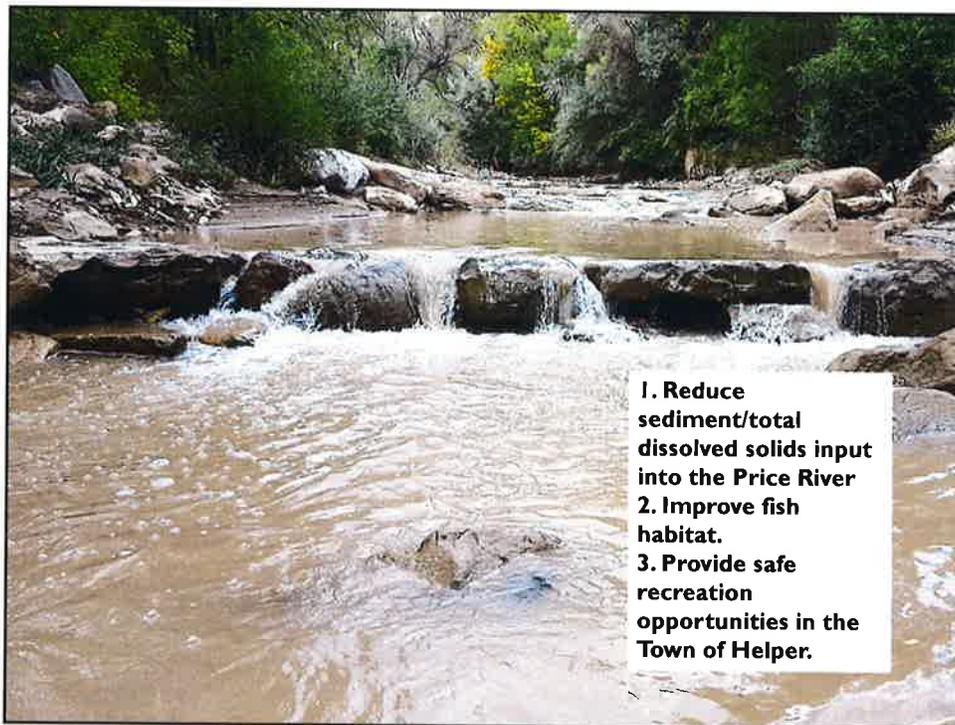
Western Native Trout Initiative

Utah's Watershed RESTORATION INITIATIVE

UTAH DEPARTMENT of ENVIRONMENTAL QUALITY WATER QUALITY







- 1. Reduce sediment/total dissolved solids input into the Price River**
- 2. Improve fish habitat.**
- 3. Provide safe recreation opportunities in the Town of Helper.**



Future Priority Areas

🌿 Uinta Basin

🌿 Southern Utah



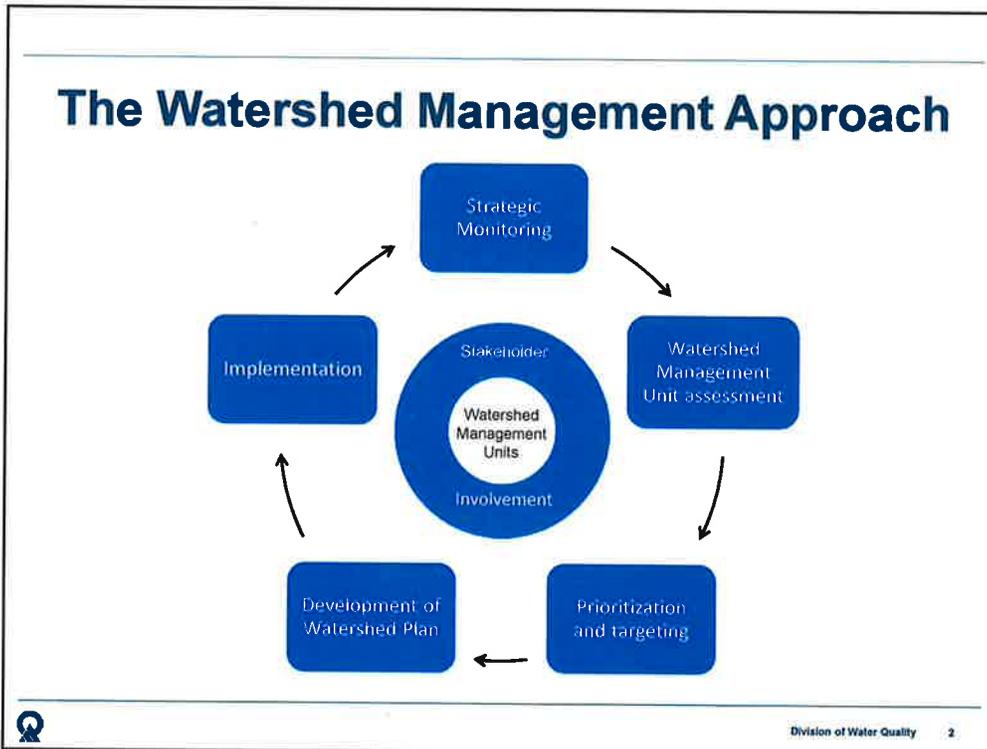
Thank You





 UTAH DEPARTMENT of ENVIRONMENTAL QUALITY
WATER QUALITY

2019 Annual Coordination Meeting
DWQ NPS Priority Areas
February 28, 2019



Two grant programs that can be used to help implement Water Quality Projects

State Nonpoint Source Grants

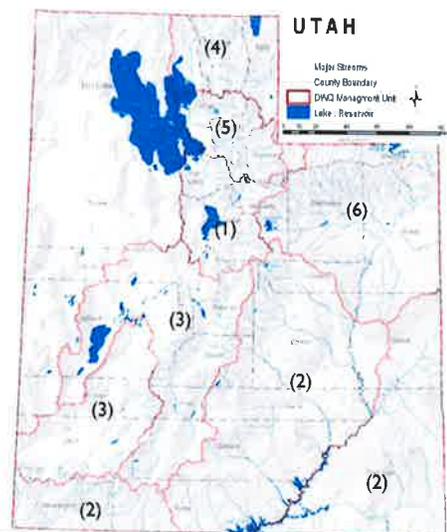
Funding comes from the State Water Quality Board. There is a \$150,000 per project cap, and a mandatory 90/10 match requirement. Anyone is eligible for this funding. Applicant will have 2 years to complete the grant. There is a total of \$1,000,000 in State nonpoint source available throughout the state.

Section 319 Funding

Funding comes from EPA. There is no limit on the amount that can be applied for, but there is only \$590,000 available for project implementation every year. There is a 60/40 match requirement. Anyone is eligible, but can be trickier for federal agencies to receive a grant. Recipient will have 3 years to complete the grant.



Watershed Management Unit Funding Cycle



Watershed	2019	2020	2021	2022	2023	2024	2025
(1) Jordan/Utah lake							
(2) Colorado River							
(3) Sevier, Cedar-Beaver							
(4) Bear River							
(5) Weber River							
(6) Uinta Basin							



Current Watershed Plans

Watershed	Date Approved
Middle and Lower Sevier	October-10
San Pitch	January-06
Upper Sevier	June-04
Virgin River	February-06
Paria River	2006
Escalante River	2006
Salt Lake Countywide Water Quality Stewardship Plan	2009
Wallsburg CRMP	10/01/2012
Duchesne River	7/31/2014
Strawberry River Watershed	12/18/2014
Spanish Valley Watershed Plan	01/05/2014
Upper Bear River Watershed Plan	January-17
San Pitch Watershed Plan (revision)	6/2/2017
Lower Weber River	Submitted to EPA for Approval
South Fork of Chalk Creek	Submitted to EPA for Approval
Spanish Fork River	Submitted to EPA for approval
Upper Sevier River (revision)	Initiated
Montezuma Creek	Submitted to DWQ for Approval
Logan River	Submitted to EPA for Approval
Otter Creek	Initiated
Pelican Lake	Submitted to EPA for approval
Huff Creek	Submitted to EPA for Approval



Current Priority Areas

Chalk Creek Watershed

- Projected completion date: September 2020
- **Remaining Work**
 - Riparian Restoration (lower South Fork of Chalk Creek)
 - Riparian Pasture Fence 25000 feet +- 1000 feet (Fish Creek)
 - 5000 riparian plants (Huff Creek)
 - Fix last 3 of 5 Diversions to be fish friendly (South Fork)
 - 15-20 BDA's in headwaters of South Fork of Chalk Creek
- **Monthly monitoring runs are conducted from May- Sep**
 - Monthly runs parameters collected: Flow, Temperature, Ph, DO, Specific Conductivity, Total Suspended Solids, and Total P and Total N.
 - Hobo loggers are deployed from May- Sep taking hourly temperature readings.
 - Yearly photo monitoring points
 - MIM conducted ever 3 years. Conducted in 2018
 - Fish survey done every 5 years by UDWR, Conducted in 2017
- **Partners:**
 - Landowners
 - NRCS
 - DWQ
 - DWR
 - UDAF
 - GIP
 - TU
 - Weber Basin Water



Current Priority Areas

San Pitch Watershed

- Watershed Plan Completed
- Projects work scheduled to be completed December 2019
- Remaining implementation work:
 - AFO relocation
 - Pasture management (100 acres)
 - Riparian stabilization (10,000 feet)
 - Brush management
 - Beaver management plan
 - Irrigation water management (20 acres)
- Effectiveness Monitoring
 - Chemical parameters
 - MIMs,
 - Flow vs Pressure Rating Curve
 - Beaver Management
 - Snow College monitoring project – Monitoring wells in pasture priority areas to help identify future projects



Current Priority Areas

Pelican Lake

- Watershed completed for lake, and upstream areas
- Partners Include:
 - DNR
 - DWR
 - DWQ
- Project Summary
 - Carp Removal
 - Inlet and outlet screens
 - Sediment Basin
 - Inlet canal erosion reduction
 - Wetland biofilter
 - Improved diversion structures
- Monitoring
 - Real-time water quality buoys in reservoir
 - Grab samples from inlet
- Estimated completion spring of 2020



Future Priority Areas

Otter Creek Watershed

- Watershed Plan currently being written (completed by July 2019)
- Demonstration Projects to take place in 2021
- **Project Description**
 - Grazing management
 - Stream bank stabilization/re-vegetation
 - Beaver dam analogue structures
- **Current Partners**
 - Local Conservation District
 - Fish and Wildlife Service
 - BLM
- **Needs**
 - Landowner participation
 - Partner participation
 - Fishery survey monitoring



Future Priority Areas

Fremont River

- TMDL and 9 element implementation plan currently being written to address *E. coli* impairment.
- Much of the issue located on Spring Creek (Loa) and Sulfur Creek (Capitol Reef National Park).
- Implementation work projected to take place in 2021
- **Resource Concerns/Project Description**
 - Grazing management
 - AFO/CAFO
 - Stream bank stabilization/re-vegetation
 - Riparian Fencing
- **Current Partners**
 - Local Conservation District
 - National Park Service
- **Needs**
 - Landowner participation
 - Partner participation
 - Additional Funding



Future Priority Areas

Pinto Creek

- Watershed plan will be developed in 2020
- Demonstration projects have already taken place
- **Project Description**
 - Grazing management
 - Stream bank stabilization/re-vegetation
 - Beaver dam analogue structures
 - Pinion Juniper Removal
- **Current Partners**
 - Forest Service
 - County
 - Local Landowners
- **Needs**
 - Landowner participation
 - Partner participation
 - Additional Funding



Future Priority Areas

Heber Valley

- TMDL currently being developed. Completed by summer 2020.
- **Project Description**
 - Grazing management
 - Spring Protection
 - Storm water/ pet waste
 - AFO/CAFO
- **Current Partners**
 - Provo River Watershed Council
 - Local Conservation District
 - Local Landowners
 - NRCS
 - Wasatch County
 - Heber City
 - North Fields Irrigation
 - UDAF
- **Needs**
 - Landowner participation
 - Partner participation
 - Additional funding
 - Problem solutions



NPS Grant Application Process

February 1st – DWQ began accepting nonpoint source grant applications

April 12th- Application deadline

May 17th Grant recipients will be announced

July 1st- State NPS funding is available for contracting

Spring of 2020- Section 319 funding is available

Targeted Basin for 2020 is the Jordan River/Utah Lake



QUESTIONS???



Dot Exercise

-  First Priority Watershed (can be placed on a watershed you presented on, but does not have to be)
-  Second Priority Watershed (cannot be placed on a watershed you presented on)
-  Third Priority Watershed (cannot be placed on a watershed you presented on)
-  Stick it on your shirt. Congratulations, you Voted!



Dot Scoring

-  4 points
-  3 Points
-  2 Points
-  1 Point
-  Come on People!



NWQI Watersheds

- Need to identify 1-2 NWQI Watersheds for FY-2019.
- Watershed plan and SAP need to be developed.
- Can identify a source water protection area, but needs to have a source water protection plan.
- Are there any watersheds, largely privately owned, that we can put this in for the next 3-4 years?



Any Other Discussion Items?



Speaking Points for Activity

- Are there any other partners here that would like to address the group, or add additional focus areas?
- Let's put dots down by the areas you would like to work in.
- Rules
 - You can put the blue dot down on the highest priority watershed that you added to the list, or on another watershed if you'd like.
 - The Red Dot is the highest priority watershed that you did not present on.
 - The Green Dot is the Second
 - The Yellow is your "I voted today" sticker you can wear on your shirt.
- Scoring Rubric
 - Gold Dot -4 points
 - Blue Dots- 3 points
 - Red Dots- 2 points
 - Green Dots- 1 points
 - Yellow Dots- WTH!?!
- What are the top 3?
- What can we all do to help the work move forward in the top three? (go through them one at a time.)
- NWQI Watersheds

Watersheds (results)

San Rafael- 2
Price River- 6
Three Creeks-15
Monroe Mountain-8
Weber River-18
Strawberry-2
Spanish Fork-7
Cottonwood Creek-4
Duchesne River-11
Otter Creek-14
Heber Valley-6
Pinto Creek-7
Fremont-1
Huntington-3
Diamond Fork-6
Bear River-8
Colorado River-10