

**Utah Water Quality Task Force Meeting
Minutes**

November 19, 2013 9:00am-12:00am
Utah Division of Water Quality
195 N. 1950 W.
Salt Lake City, Utah

Attendance

Name	Representing
Jim Bowcutt	DEQ/DWQ
Scott Daly	DEQ/DWQ
Hilary Arens	DEQ/DWQ
Gertrudys Adkins	Utah Division of Water Rights
Gordon Younker	UACD
Marian Hubbard	Salt Lake County
Lynn Koyle	Sevier CD
Nancy Mesner	USU Extension
Carl Adams	DWQ
Rhonda Miller	USU Extension
Alan Saltzman	Sanpete CD
Bill Zanotti	UDFFSL
Arne Hultquist	Grand and San Juan WC
Greg Bevenger	USFS
Paul Birdsey	UDWR
Jeremy Jarnecke	BLM
Lon Richardson III	Utah Anglers Coalition/ TU
Paul Dremann	Trout's Unlimited
Wally Dodds	Upper Sevier
Justin Elsner	USU Extension
Evan Guymon	Uintah Basin
Brady Thornock	UACD
David Dodds	UACD
Jake Powell	UACD
Kari Lundeen	DEQ/DWQ
Amy Dickey	DEQ/DWQ
Sandy Wingert	DEQ/DWQ
Bart Powaukee	Ute Indian Tribe
Wayne Urie	NRCS
Norm Evenstad	NRCS
Kevin Miller	BLM
Patti Barney	NRCS
Kevin Williams	NRCS

Carl Adams- Welcome and Introductions

Gred Bevenger- U.S. Forest Service Watershed Condition Framework (See attached presentation)

- The watershed condition framework is being used as a primary model to identify project areas
- Work will take place in sixth level (12 digit) watersheds
- Plans identify where projects are needed
- During implementation the Forest Service will track progress and accomplishments of the work. After the work is completed then they will change the watershed condition if the necessary improvements have addressed watershed stressors.
- The framework is available on the website <http://www.fs.fed.us/publications/watershed/>
- This website contains guidance documents, interactive maps, and GIS Files.
- A 12 indicator model is used to determine the functionality of each watershed.
- When a watershed is scheduled to have work done in it, the work will take place over a 3-5 year period.
- Project work may overlap TMDL and watershed plan implementation to be more effective.
- Just because a watershed has an "Impaired Function", it does not need to be an immediate concern. There could be various reasons for the listing, and some of these reasons for the listings may be more critical than others. Therefore, work is not taking place only in the red watersheds. Work is taking place where the issues can most effectively be addressed.

Paul Dremann (Trout Unlimited) and Paul Birdsey (Utah Division of Wildlife Resources)- Drought Mitigation

- Water management has become a very big issue when it comes to the management of fisheries in Utah.
- Conservation pools are established in many lakes and reservoirs in Utah that require a certain amount of water be left in a given waterbody to allow the fisheries to survive critical seasons. These conservation pools are based on the elevation of the water not the quantity.

- Federal funding is available to purchase water for conservation purposes
- Instream projects can allow DWR, State Parks and some nonprofit organizations to acquire instream flows to help preserve Cutthroat trout habitat.
- Recently some flows have been donated to the Division of Wildlife Resources from Pacificorp on Huntington Creek and the San Rafael.
- Jordanelle and Deer Creek are examples of places where conservation pools have been put in place.
- If there is a dry year, and the irrigators have their water allocations diminished by 50%, then the water allocated for the fishery will receive the same reduction to its allocation for the season.
- The Weber Basin is the only watershed that doesn't have a joint cooperative agreement between impoundments.
- In the future we are going to have to go beyond the concept of hoping for more snow to preserve our fisheries.
- On the San Rafael River, a 138 cfs flow was donated by Pacificorp. There are guidelines put in place stating how much water and when the water can be released.
- Minersville also has a conservation pool, but had to drain below the pool to do some work on the dam. Maintenance of the dams usually takes priority over the conservation pools. However, in this instance, due to the value of the fishery, scuba divers were used to fix the problem albeit at a higher cost.
- The division will move into a wholestream ecosystem approach instead of just looking at aquatic organisms when managing waterbodies.
- The DWR needs to work more closely with the watershed coordinators to better understand what management strategies are most beneficial for all partners.
- When determining how much water is needed for a given waterbody you need to look at extremes, you can't just look at averages.
- The quality of the reservoirs in Utah are declining, and becoming more eutrophic. We need to take a closer look at this and determine what is causing this.
- There are several management actions that can be taken if water levels become too low. The director of the DNR can change bag limits of fish if needed. Often times, fish are moved from one waterbody to another. However, this is harder than it sounds due to strict disease management regulations.

- The Regional Biologist should be contacted before any project planning takes place to determine if any other agencies have interest in the project.

Nancy Mesner (Utah State University)- Utah Information and Education Strategy

- A subcommittee of the Water Quality Task Force met to discuss the statewide I&E approach for the Statewide NPS program.
- This group decided that they need to develop a clear and consistent message.
- We need to better share our successes.
- Some of the issues that the committee felt needed to be addressed included:
 - E.coli issues
 - Growth and Development
 - Education of local governments
 - Education of developers
 - Nutrient issues
 - Riparian habitat degradation
 - The ACES program
 - Telling our story better
- There is currently a small amount of money in an account set aside for the State NPS Conference. The group would like to take that money and use it to implement the I&E strategy.
- How these funds are spent will be determined by the subcommittee.
- Social Media may be a good use of these funds.
- USU could be the ones put in charge of developing various instructional / promotional videos.
- The subcommittee needs to identify the audience before any money is spent.
- The subcommittee will develop a plan of work then come back to the Task Force to ask for approval of using these funds.
- There is also a need to improve the NPS website.
- USU will develop a generic NPS website, with links to all of the other relevant websites, and NPS information from around the state. The exact format of this website is not yet known, but we will see where it goes.

Carl Adams Utah Division of Water Quality)- New NPS Project Ranking Criteria

- Carl referred to R 317-100-4 of State Code to add additional items to the current ranking criteria.

- Some of the changes include:
 - More points if a 9 element watershed plan is in place
 - More points for projects that have public health benefits
 - Points for projects that protect threatened waterbodies

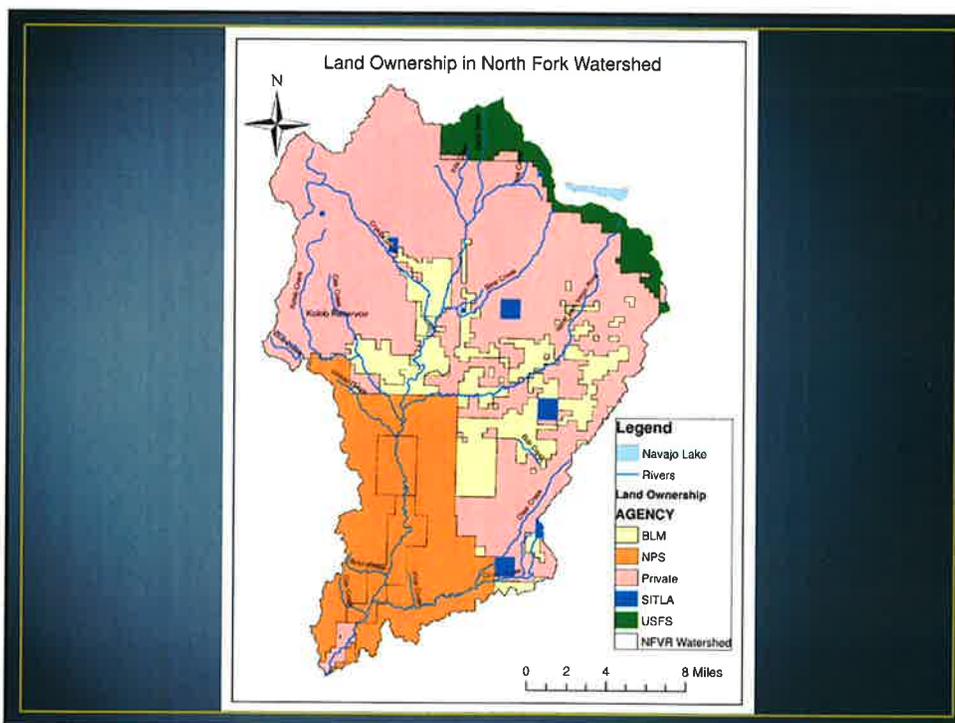
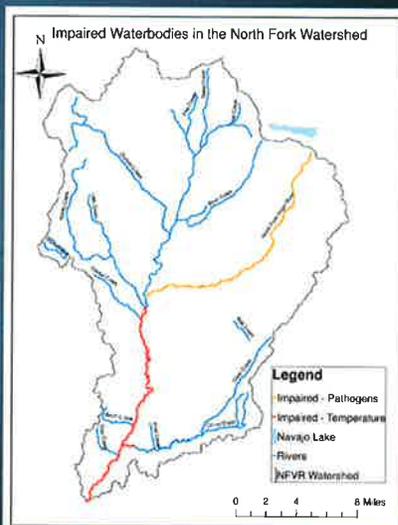
Presentations were given by all of the local watershed coordinators highlighting projects that they have implemented, and that they are currently working on. (See the presentations below)

Meeting was adjourned

Presentation of Accomplishments of Utah's Local Watershed Coordinators

North Fork Virgin River Watershed

- North section impaired due to pathogens
- South section impaired due to high temperature
- Held stakeholder meeting
- Draft should be available December



Water Contamination

The water in the North Fork of the Virgin River between the Chamberlain's Ranch Trailhead and Deep Creek is unsafe for human ingestion.

Drinking water, filtering water, and swimming are unsafe.

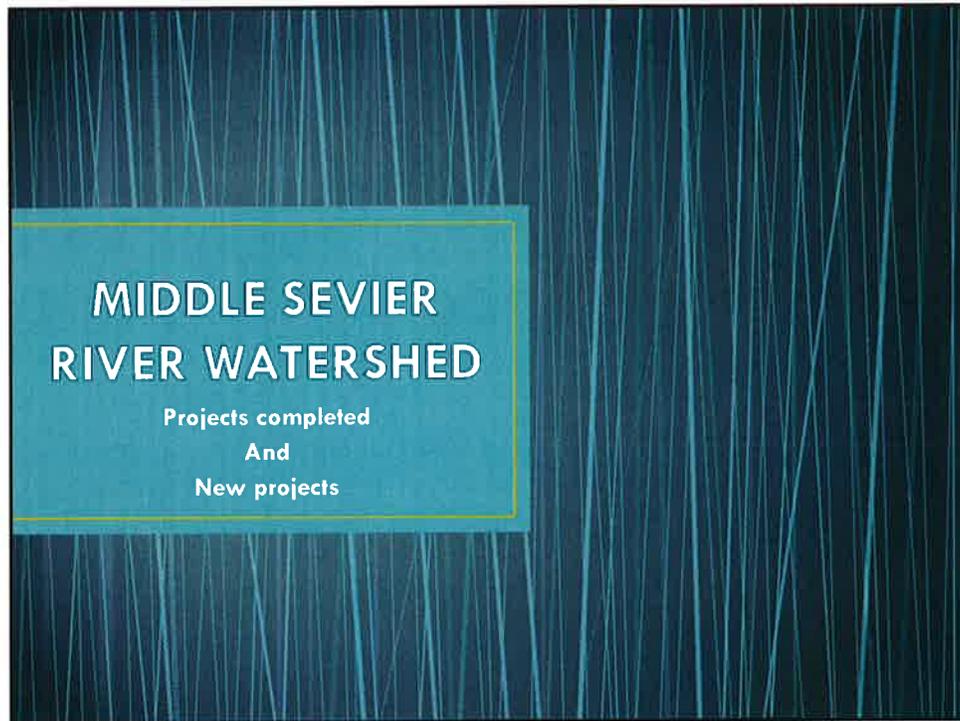
Please contact the Zion NP Backcountry Desk if you have question. 435-772-0170.



\$100 citation and/or mandatory court appearance for violation, 36 CFR 1.5(f)







During Construction



Completed Project #1



Project #2 Before Construction

Looking NE from Diversion



Looking upstream of Diversion



Project #2 Before

Existing pipeline



Beginning of pipeline



Project #2 Before

Harvesting rock for riprap



Rock for riprap



Project #2 After

Fence installed



Fence installed



Project #2 After

Face of Main Diversion



Looking upstream from Diversion



Project #2 After

New inlet to pipeline



Location of Irrigation pipeline



Project #3 Before

Left side of River



Left side of River



Project #3 Before

Fill used to slope banks



Rock Used for Barbs



Project #3

Gravel fill for banks



Pit used for bank fill



Project #3 Near completion

River banks complete



River banks complete



Project #3 Near completion

Fence along West side of river Fence along West side of river



Project #3 After

Willows- Rock- Banks

Willows-Rock-Banks



New Project in planning

Slope banks & Riprap



Slope banks & Riprap



New Project in planning

Slope banks & Riprap



Slope banks & Riprap



New Project in planning

Slope banks & Riprap & fence



Slope banks & Riprap



Uintah Basin
Watershed
2013

Pot Creek 319 Project

- \$250,000 Spent
- Work completed 2013
- Concern - TP
- 2 Acres Reseeded
- 900 ft. Bank Stabilized
- 1 Road Crossing Replaced
- 1 Parking lot Repaired, Cattle guard installed



Upper Strawberry Watershed

- Over \$1.4 Million Spent
- 12.2 miles stream restored
- Concern- TP, TDS
- Stream Bank Restoration
- 4500 ft Rangeland Fencing



Duchesne Watershed

- Planning Stage
- Concern- TDS
- Stream Bank Repair
- Over \$500,000 Planned



Parriette Watershed

- Planning Stage
- Concern- Se, B, TDS
- USU Se Mapping
- USU Se Biotic Uptake
- USGS Nonpoint Source Pathways
- Over \$400,000 Planned for pollutant studies



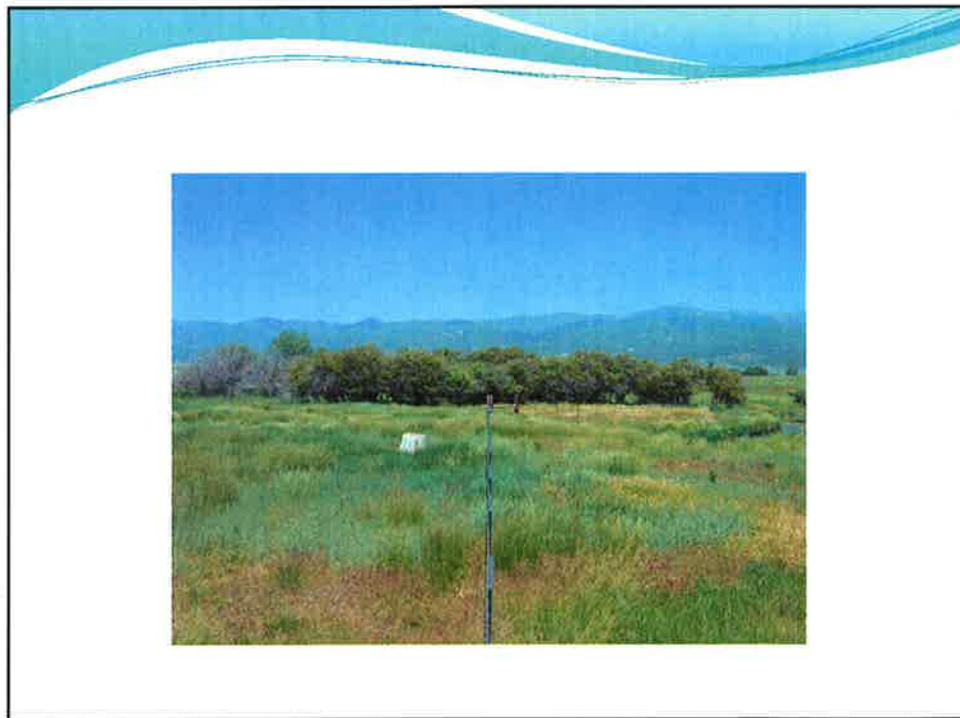
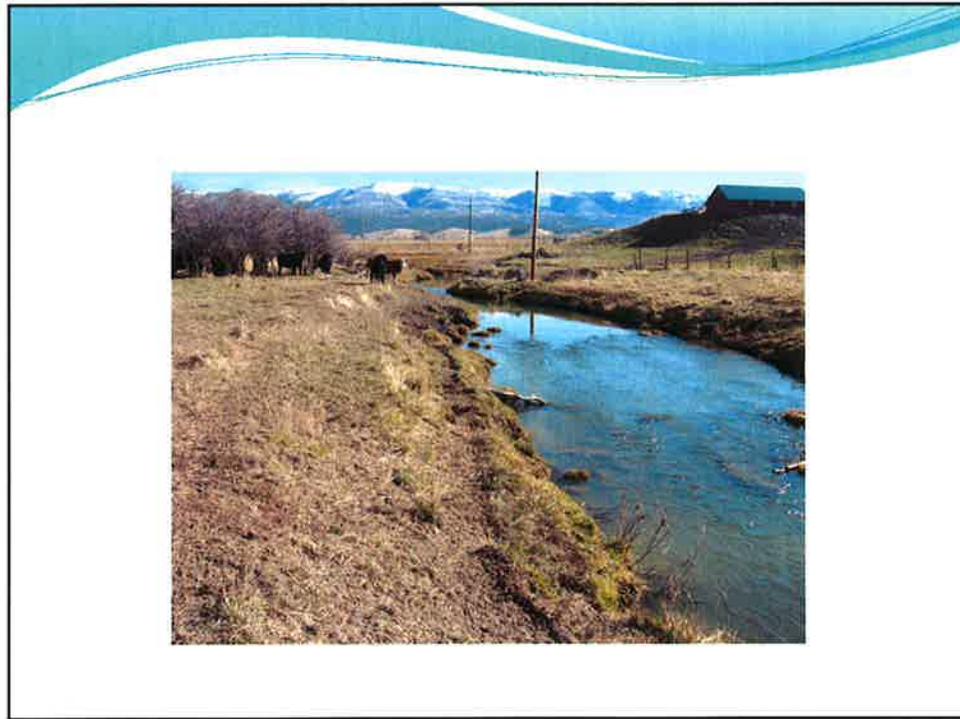
Cart Creek

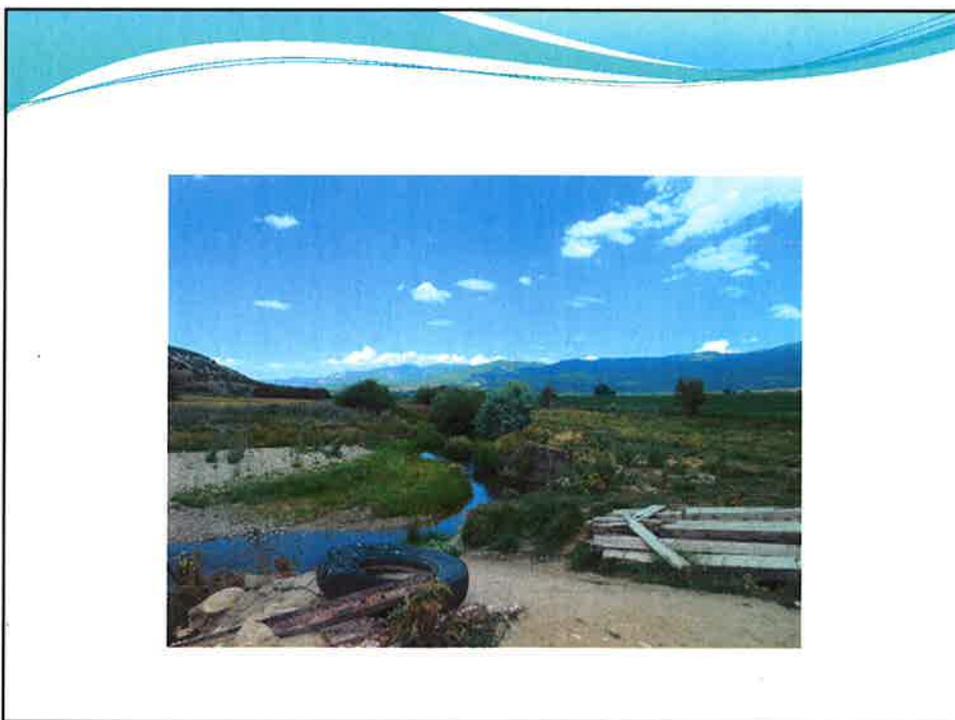
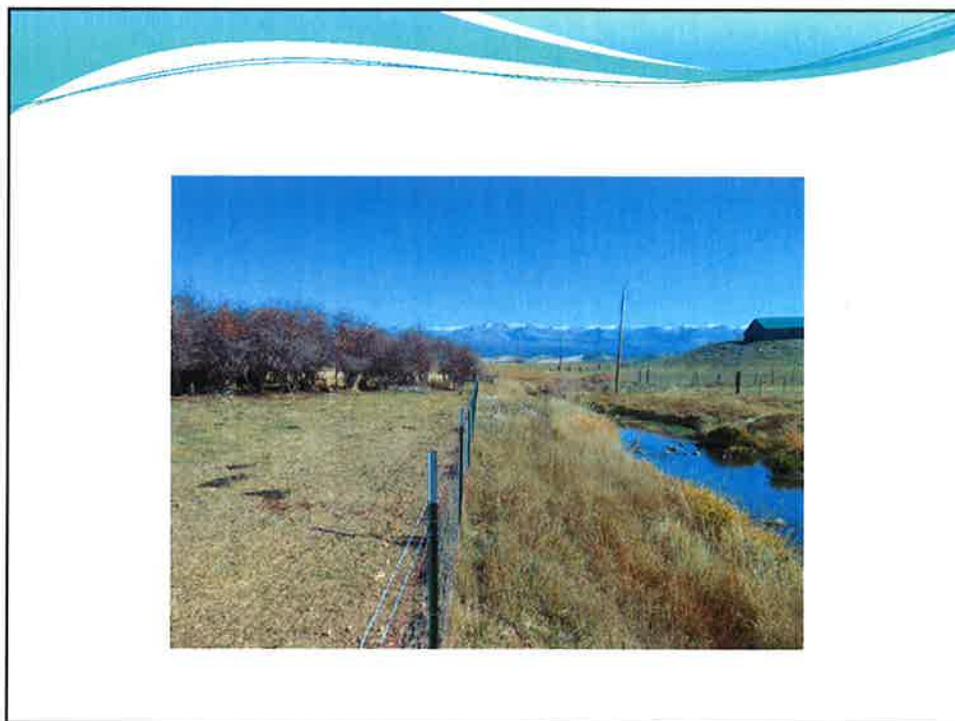
- Over \$250,000 spent
- Concern- Maintenance
- Road Hardening
- Road Closures
- Sediment Traps
- Culvert Replacement
- Fencing

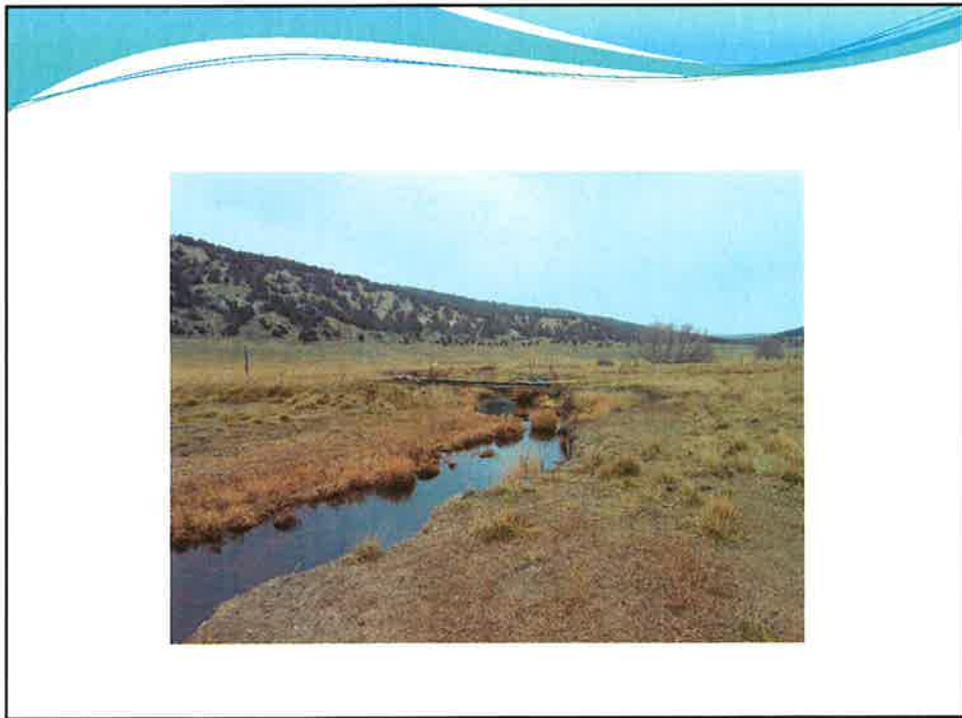
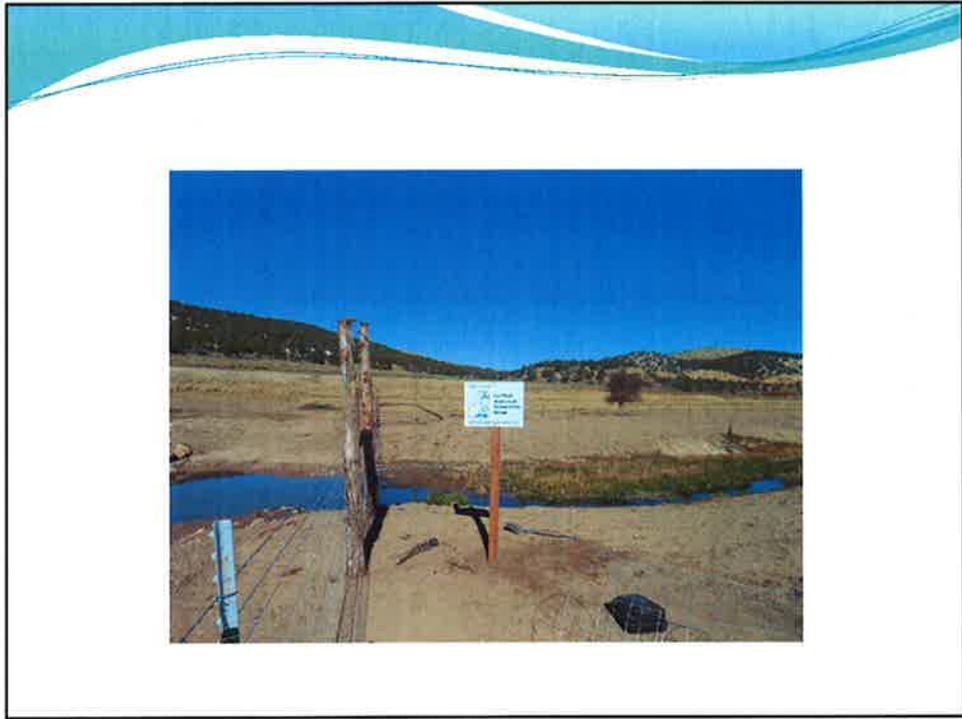


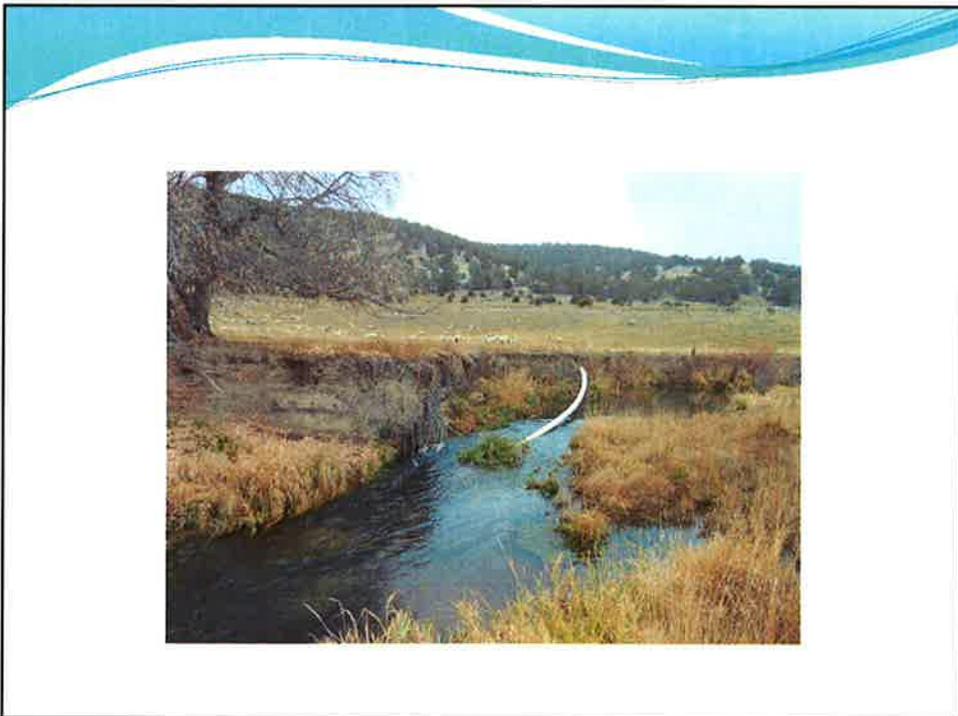
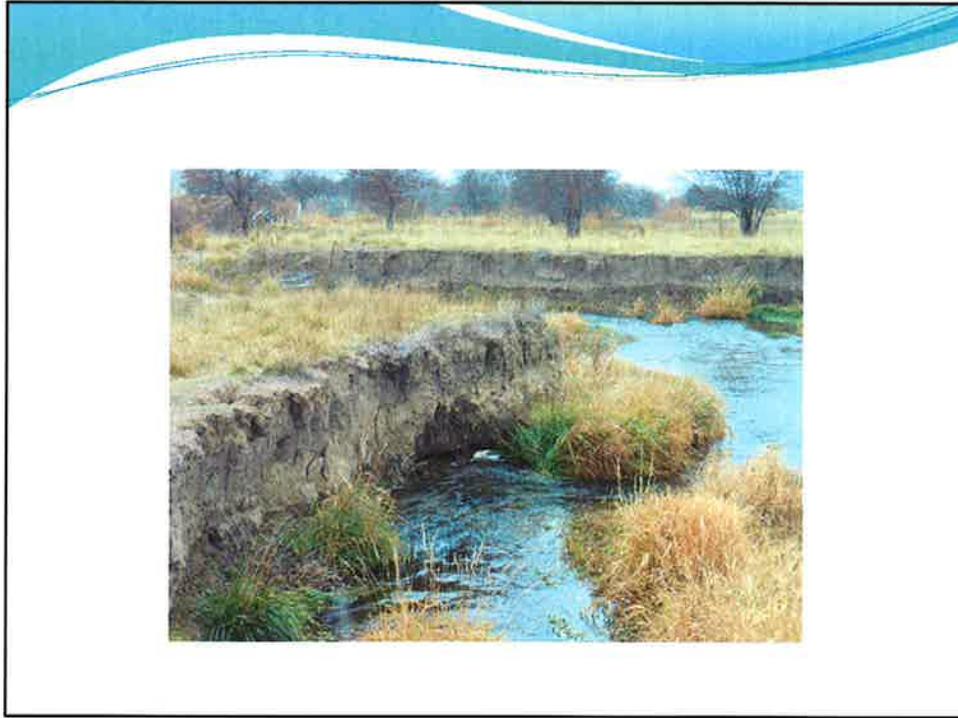
San Pitch River Watershed

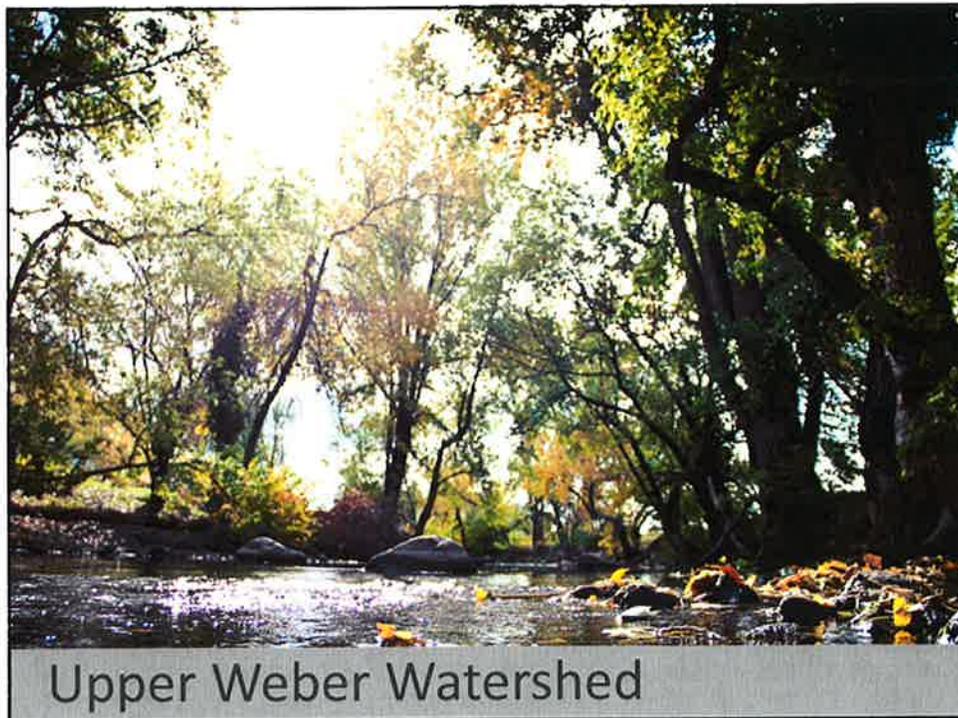
Projects
Past, Current, and Future











Upper Weber Watershed



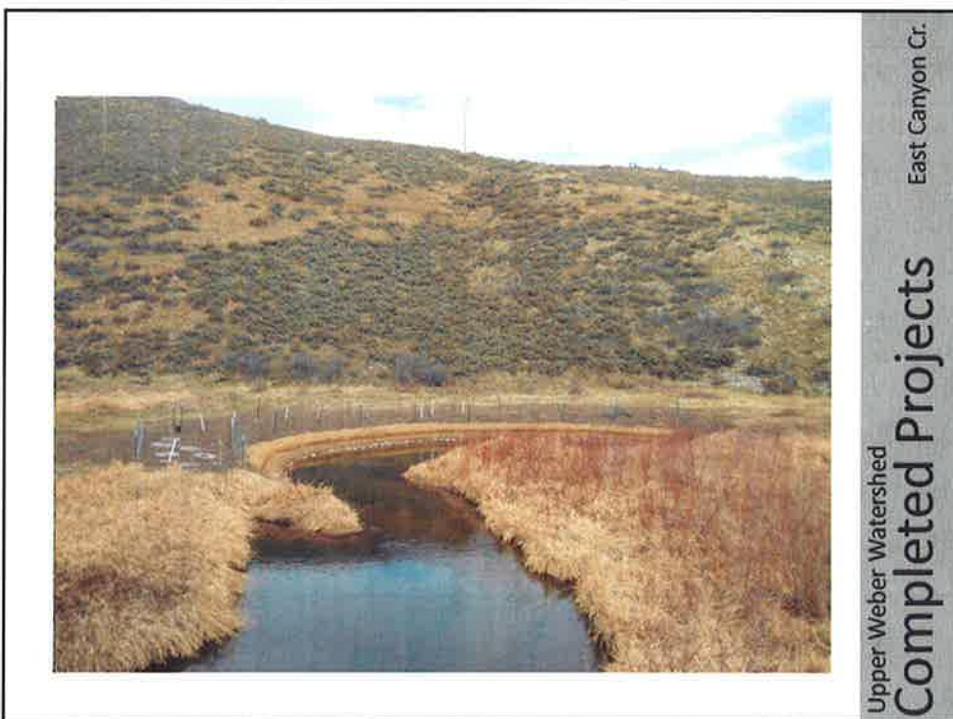
Upper Weber Watershed
Completed Projects
Huff Creek



Upper Weber Watershed
Completed Projects
Kamas Valley

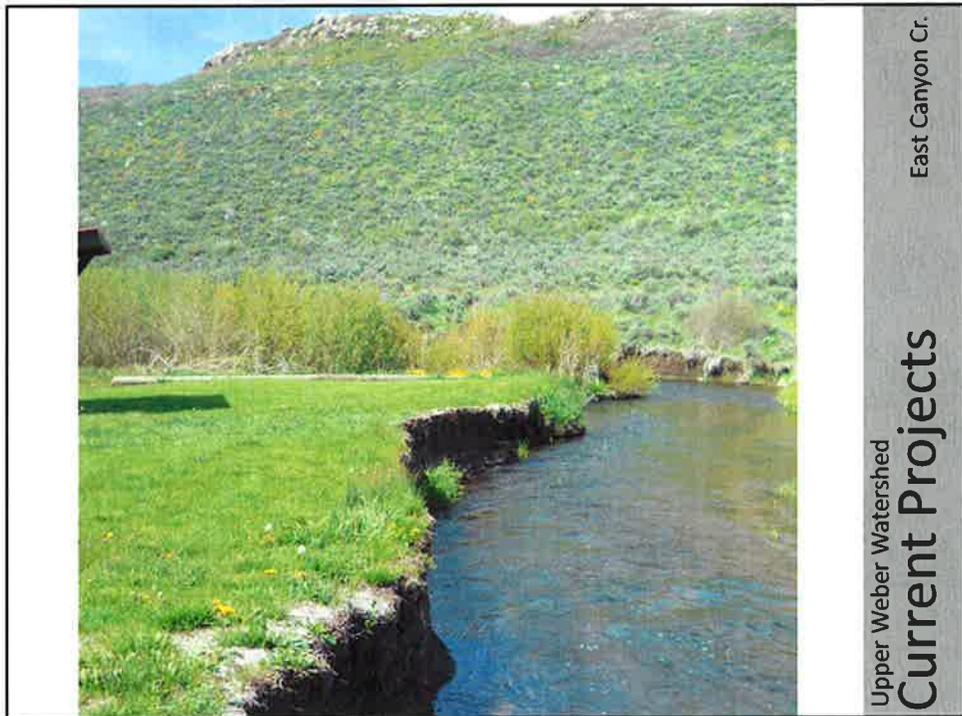
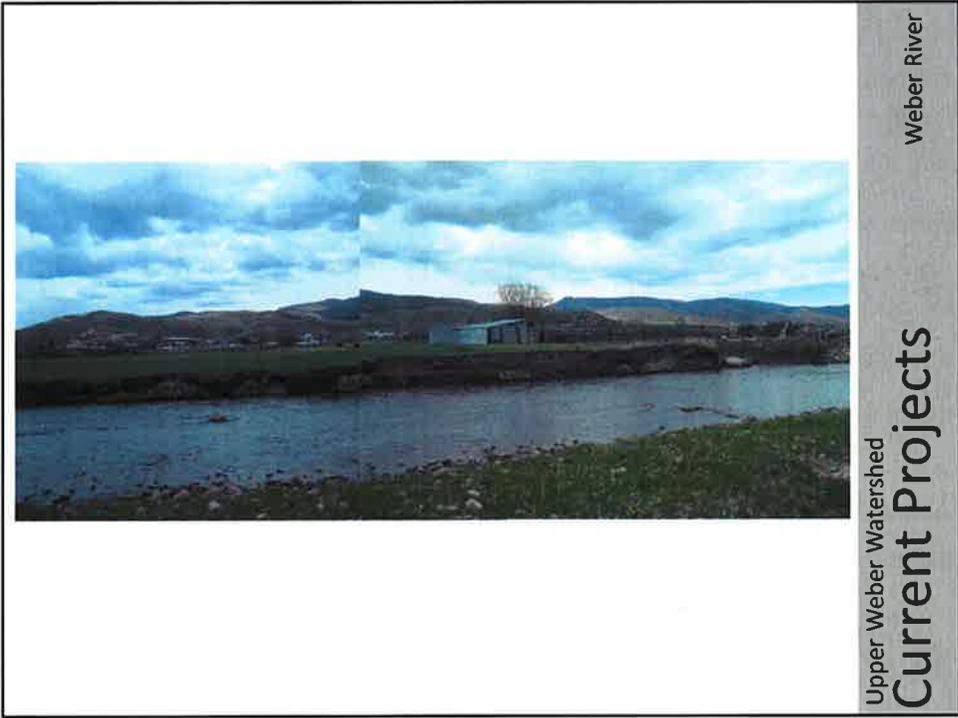


Upper Weber Watershed
Completed Projects
Echo Day



Upper Weber Watershed
Completed Projects
East Canyon Cr.







- Weber Watershed Plan
- Watershed Committees
- Echo/Rockport TMDL
- UCASE Monitoring
- Watershed Festivals
- South Fork CRMP
- Stormwater Training

Upper Weber Watershed
Current Projects

The Bear River Watershed



November 19, 2013
Justin Elsner
Middle/Lower Bear River Watershed Coordinator
USU Extension



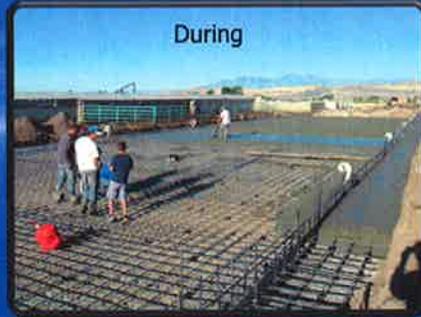
Shoreline Protection



Animal Feeding Operations (AFO's)

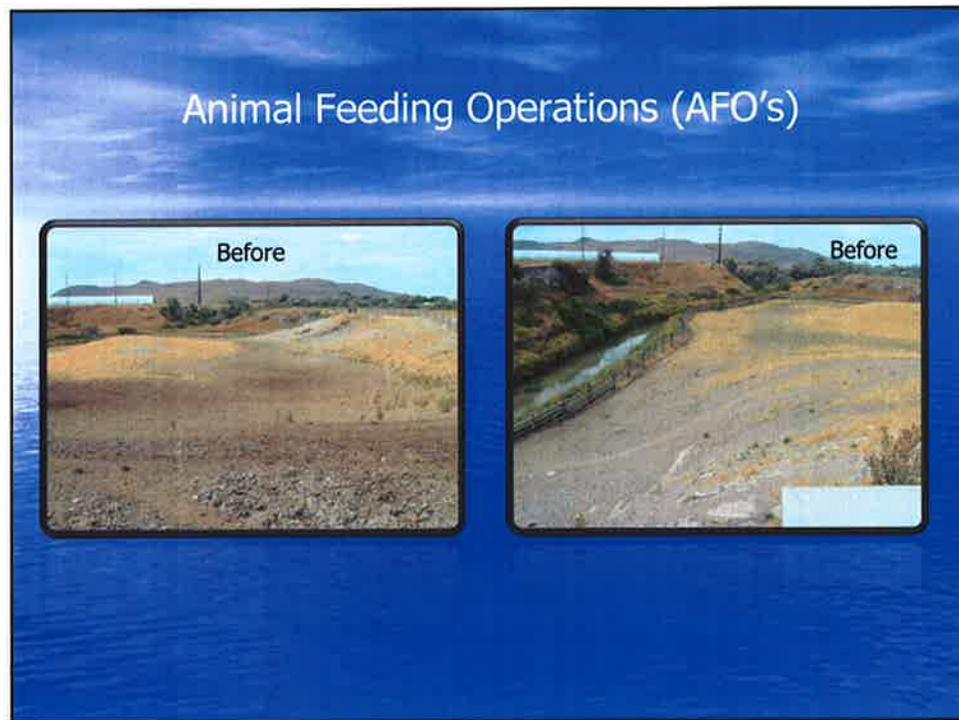


Animal Feeding Operations (AFO's)



Animal Feeding Operations (AFO's)

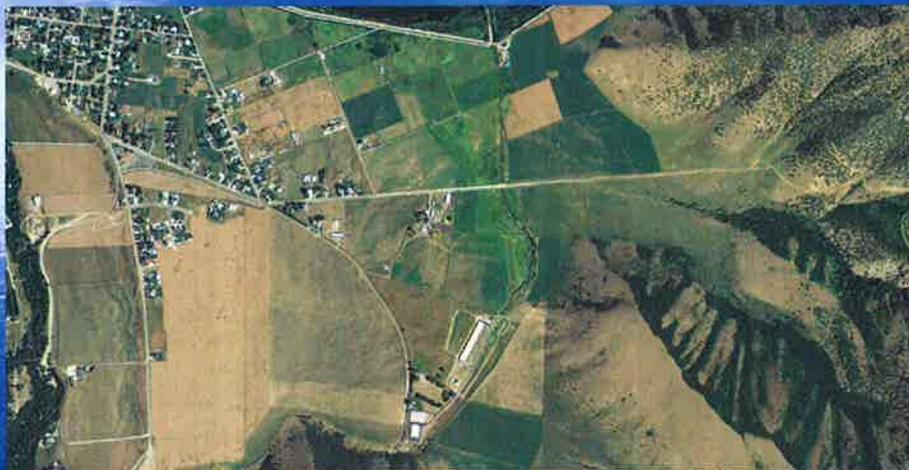




Maple Creek on Mantua Reservoir



Maple Creek on Mantua Reservoir



Maple Creek on Mantua Reservoir



Information and Education



- Bear River Celebration
- Cache Stormwater Fair
- Natural Resources Days
- Farm Field Days
- Preston Aquatic Ecology Class
- Preston Water Fair
- Prescription Drug Task Force

Where Can I Properly Dispose of My Medications?

The Bear River Health Department, in conjunction with local law enforcement, has installed secured steel collection bins at permanent drop-off locations throughout Cache and Box Elder Counties. Any unused prescription and over-the-counter medications can be dropped off at the following locations:

<p>LOGAN Logan City Police Department 230 North 122 West, Logan (435) 716-9600 Monday-Friday, 8am-5pm</p>	<p>HYRUM Hyrum City Office 85 West Main, Hyrum (435) 245-8083 Monday-Friday, 8am-5pm</p>
<p>NORTH LOGAN North Park Police Department North Logan Substation 2206 North 1200 East, North Logan (866) 759-7600 Monday-Friday, 8am-5pm</p>	<p>BRIGHAM CITY Brigham City Police Department 20 North Main, Brigham City (435) 734-8660 Monday-Friday, 8am-5pm</p>
<p>HYDEPARK North Park Police Department Hyde Park Substation 113 East Center, Hyde Park (435) 753-7700 Monday-Friday, 8am-4:30pm</p>	<p>TRIMONTON Trimonton Police Department 325 South 100 West, Trimonton (435) 757-9555 Monday-Friday, 8am-5pm</p>

UTAH STATE UNIVERSITY
USU Police Station
72401 South 800 East, Logan
(435) 797-1239
Open 24 hours

CACHE COUNTY
Cache County Sheriff's Office
200 North 1225 West, Logan
(435) 755-1000
Monday-Friday, 8am-5pm

PPCP's And Their Effects on The Environment

In arid regions such as Utah, treated sewer is released into waterways that supply groundwater recharge and irrigation needs.

PPCP's tend to stay in the environment for a long period of time and have a very high potential to slowly build to toxic levels.

Currently there are no drinking water standards for PPCP's in place to protect public health.

PPCP's contain endocrine disrupting chemicals that interfere with hormones responsible for growth and development.

Potential impacts on aquatic life include:

- Embryo mortality
- Sexual differentiation in fish and frogs
- Structural and neurological damage
- Impaired reproductive and immune systems

For more information on PPCP's and their effects on the environment please visit:

- www.epa.gov/ppcp/
- extension.usu.edu/waterquality

And for more information on safe use, storage, and disposal of prescription medications please visit:

- www.usonlyasdirected.org
- www.brhd.org (Bear River Health Department)

Prescription Drug Abuse Crisis Line
Cache County: 435-861-0138
Box Elder County: 435-710-2793

Is Your Drinking Water Prescription Strength?






Did You Know..... ?

- Up to 90% of most antibiotics are not absorbed by our bodies.
- Many Pharmaceuticals and Personal Care Product chemicals (PPCP's) are not removed by Wastewater Treatment Plants or septic systems
- These chemicals can end up "medicating" our rivers, streams, and lakes.
- Effects on aquatic wildlife and on downstream water users are not fully understood.



What Are PPCP's?

Pharmaceutical and Personal Care Products (PPCP's) include:

- Prescription and over-the-counter drugs
- Nutritional supplements
- Lotions, sunscreen, insect repellants, cosmetics, and fragrances
- Veterinary drugs
- Residues from drug manufacturing

What Can I Do?

Never dispose by flushing down the toilet or drain.

To properly dispose of unwanted PPCP's:

- Utilize designated drop off boxes for disposal of prescription drugs (see reverse for drop off locations)
- Seal unwanted lotions, sunscreen, insect repellent, cosmetics, and fragrances and place in the trash for proper disposal at a landfill.
- Buy only what you will use or need.
- Support community take back events targeted on safe and responsible disposal.



Local Contact Information:
 Utah State University Water Quality Extension
 Phone: (435) 797-2580
<http://extension.usu.edu/waterquality/>
 Justin Elmer
 Bear River Watershed Coordinator
 Phone: 435-753-5616 ext. 130
 Email: justin.elmer@usu.edu

PPCP's Facts

A 2011 study reported that 48% of the U.S. population take at least one prescription drug. Last year, 320 billion dollars were spent on prescription drugs in the United States.

In a recent USGS study, 80% of waterways tested showed traces of common medications such as acetaminophen, hormones, blood pressure medicine, codeine, and antibiotics.



How To Dispose at Home

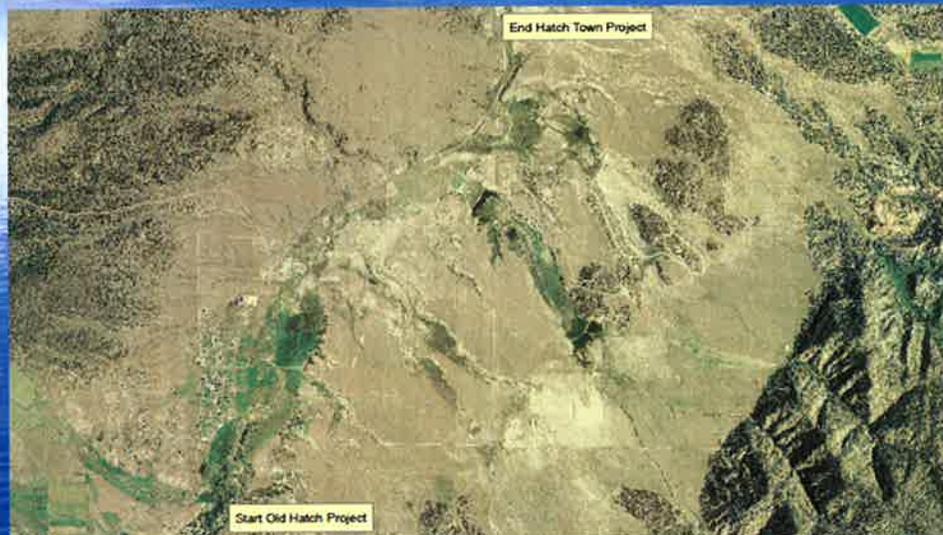
When disposal of PPCP's from home is the only option, take these steps to protect our waters from potentially negative effects:

- Pour medication into a sealable plastic bag
- If medication is a solid, crush or add water to dissolve.
- Add kitty litter, sawdust, or coffee grounds to the plastic bag. This will make the medication less appealing.
- Seal the plastic bag and put in it in the trash.
- Remove and destroy all identifying personal information from medication container before recycling or throwing away.

Upper Sevier River Watershed Restoration



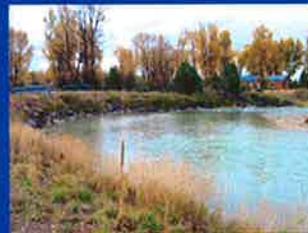
Sevier River from Old Hatch town to just below frog pond bend



Main Stem Sevier River from Roller Mill Hill to just past airport road



Old Hatch Town Project

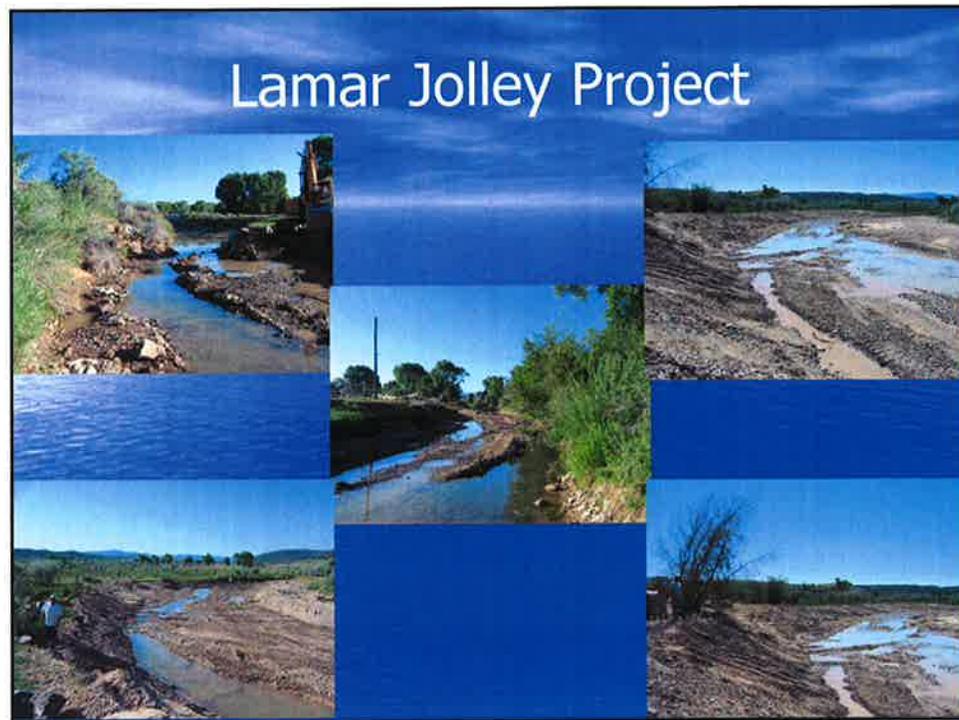


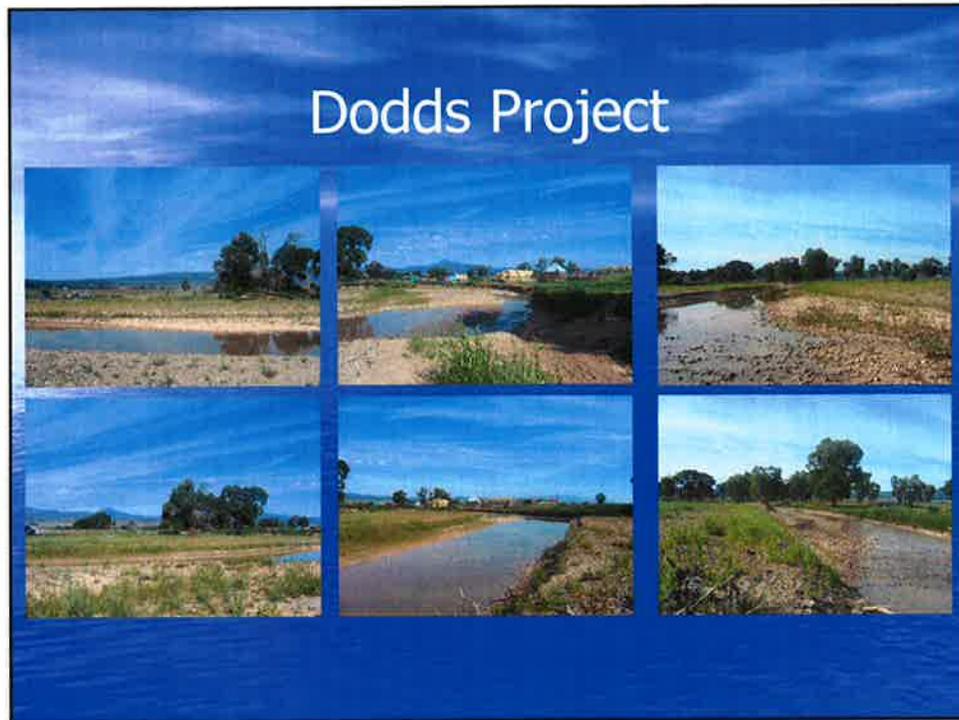
Old Hatch Town Project



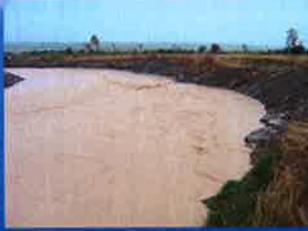
Stabilize Eroding Banks







Greg Excell & Jeff Owens Project



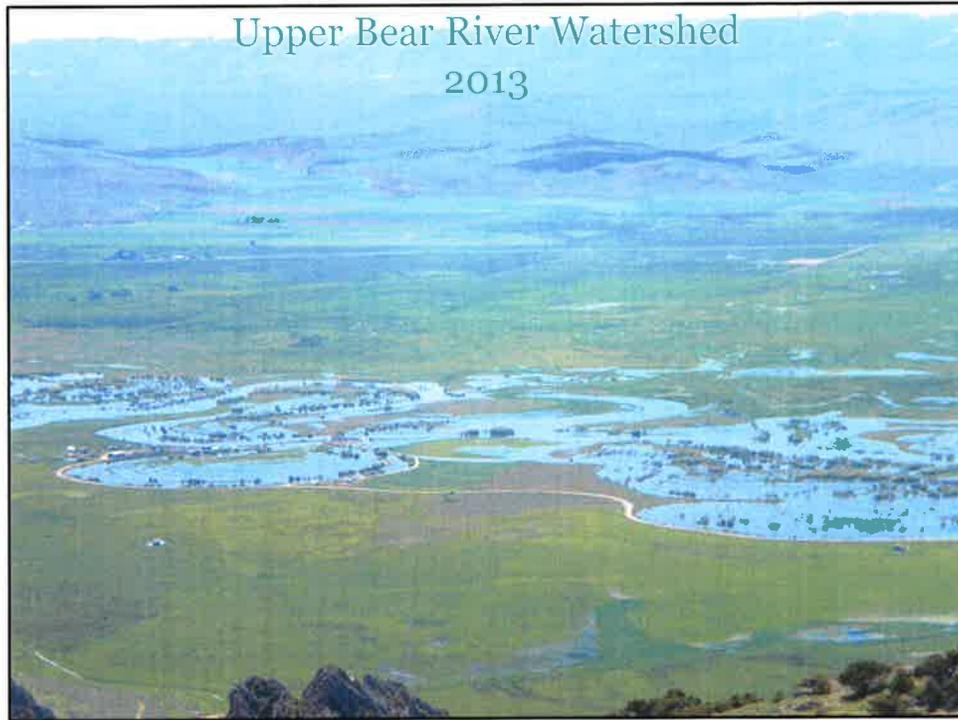


Left:
Before
Right:
After

Kyle & Cindy Stewart Project



- Left: Before
- Right: After



Completed Projects
2013

- Wine Cup Cattle Co Inc
- Crawford Mountain Angus
- Producer Dinner I&E Outreach
- Krista Klein/Justin Gurr NPS GRANT

A light blue rectangular box with a thin black border. At the top, the text "Completed Projects" is centered, with "2013" below it. A small circular graphic is positioned between the year and the list. Below the year, there is a bulleted list of four items. The background of the box is a light blue gradient.

Wine Cup Cattle



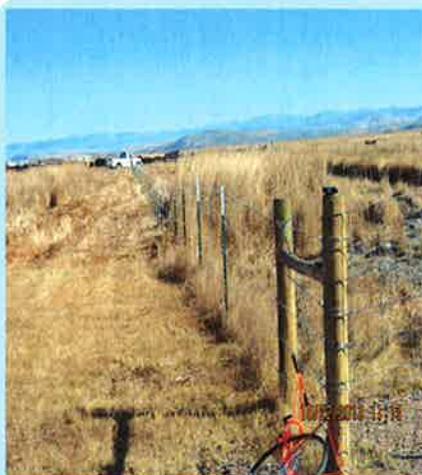
- Project objective is to improve water quality by fencing cattle off of Otter Creek and implementing a grazing management plan
- Project will consist of 5,050 ft of 5 strand barbed wire fence
- One hardened access point for livestock watering approximately 850 square ft.
- **Project Completed 11/2013**

Wine Cup Cattle

- **Installed Hardened Access**



Wine Cup Cattle



Crawford Mountain Angus



- Project objective is to improve water quality through range improvement practices
- Project consists of a grazing management plan on 2145 acres, 1307ft of fence, 6.6 acres of riparian protection, 28012ft of water pipeline, 7 watering facilities, 239 acres brush management, 490 acres pest management.

Crawford Mountain Angus

Twenty Acres of Juniper Removal



Sixty Acres Brush Management and Seeding



Crawford Mountain Angus



Riparian Exclosure Fence



Pasture Division Fence



Crawford Mountain Angus



Producer Dinner

Held a producer appreciation dinner and a range tour. A local producer was awarded for his conservation efforts and implementation of best management practices.

The dinner and tour were well attended and a great opportunity to showcase success stories and promote conservation in the district.

Grand and San Juan Counties
Watershed Coordinator Fall 2013 Update

- Moab Area Watershed Partnership Coordination and Watershed Management Plan
- Coordination with UDWQ on intensive sampling in the Counties
- 2013 NPS funded USFS Spring Development Projects

Moab Area Watershed Partnership
AKA "MAWP"



**Moab Area
Watershed
Partnership**



2013 Spring Development Project Status

- Oowah Bench Spring



2013 Spring Development Project Status

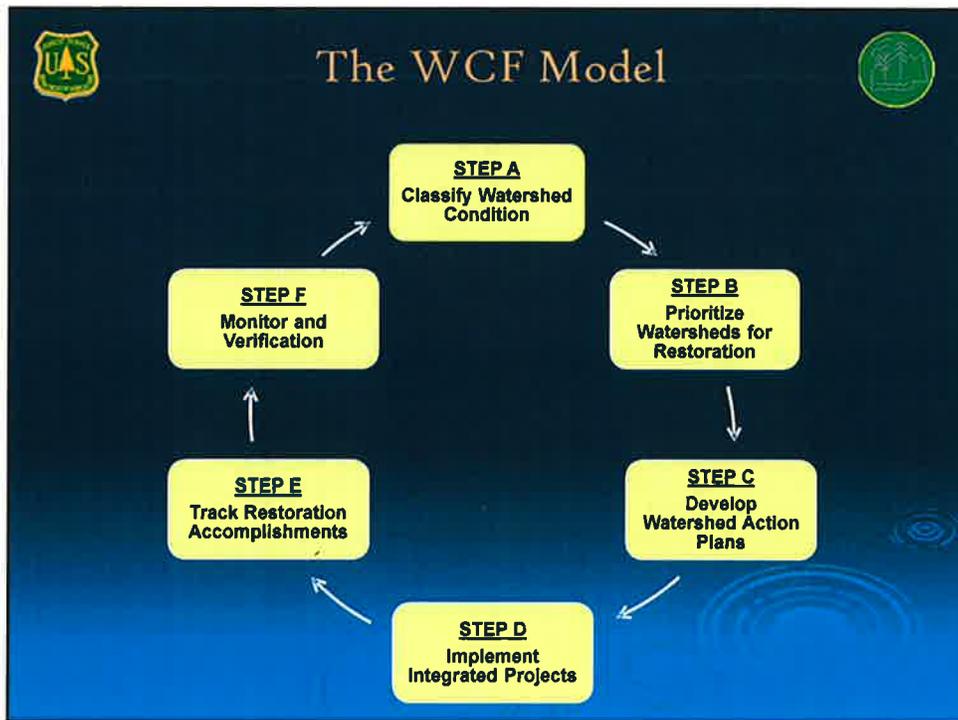
- South Mesa Spring-Seep



2013 Spring Development Project Status

- Webb Hollow







What It Is



- A comprehensive approach for proactively implementing watershed restoration
 - ❖ fosters integrated assessments
 - ❖ targets programs of work
 - ❖ enhances communication and coordination
 - ❖ provides outcome-based performance

3



What It Is Not



- A one time process
 - ❖ it is iterative and demonstrates accomplishment over time
- A short term fix
 - ❖ improvements to watershed condition will take several to tens of years to fully achieve
- Complete ecological restoration
 - ❖ emphasis is on aquatic and terrestrial processes and conditions

4



Website

- <http://www.fs.fed.us/publications/watershed/>



Step A – Classify Watershed Condition

- Initial classification establishes baseline for the future
- Can be updated for changed conditions
 - ❖ high severity wildfire
 - ❖ epidemic insect and disease

6



Condition Variables



WATERSHED CONDITION INDICATORS
 (12 Indicator Model)

AQUATIC PHYSICAL (Weight = 30%)	AQUATIC BIOLOGICAL (Weight = 30%)	TERRESTRIAL PHYSICAL (Weight = 30%)	TERRESTRIAL BIOLOGICAL (Weight = 10%)
1. WATER QUALITY 1. Impaired Waters (OSD Listed) 2. Water Quality Problems (Not Listed)	4. AQUATIC BIOTA 1. Life Form Presence 2. Native Species 3. Exotic and/or Invasive Species	6. ROADS & TRAILS 1. Open Road Density 2. Road Maintenance 3. Proximity to Water 4. Mass Wasting	8. FIRE REGIME or WILDFIRE 1. Fire Condition Class OR 2. Wildfire Effects
2. WATER QUANTITY 1. Flow Characteristics	5. RIPARIAN/WETLAND VEGETATION 1. Vegetation Condition	7. SOILS 1. Soil Productivity 2. Soil Erosion 3. Soil Contamination	9. FOREST COVER 1. Loss of Forest Cover
3. AQUATIC HABITAT 1. Habitat Fragmentation 2. Large Woody Debris 3. Channel Shape and Function			10. RANGELAND VEGETATION 1. Vegetation Condition
			11. TERRESTRIAL INVASIVE SPECIES 1. Extent & Rate of Spread
			12. FOREST HEALTH 1. Insects and Disease 2. Ozone

1. Water Quality
2. Water Quantity
3. Aquatic Habitat
4. Aquatic Biota
5. Riparian/Wetland Vegetation
6. Roads and Trails
7. Soils
8. Fire Regime or Wildfire
9. Forest Cover
10. Rangeland Vegetation
11. Terrestrial Invasive Species
12. Forest Health



Condition Outcomes



- **Class 1 = Functioning Properly**
 - 1.0 - 1.6
- **Class 2 = Functioning at Risk**
 - 1.7 - 2.2
- **Class 3 = Impaired Function**
 - 2.3 - 3.0

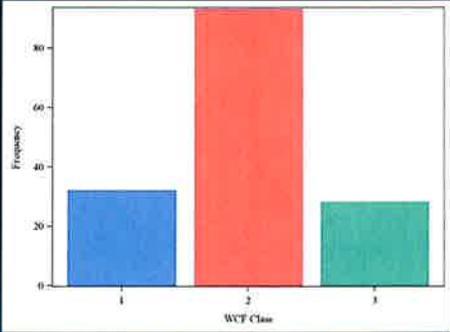


Website

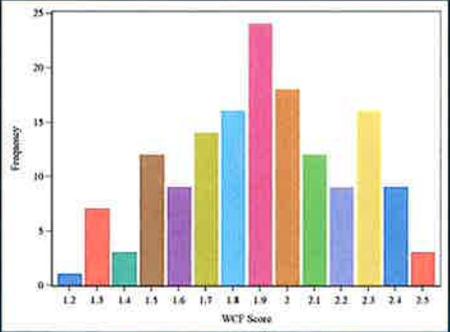
<http://www.fs.fed.us/publications/watershed/>



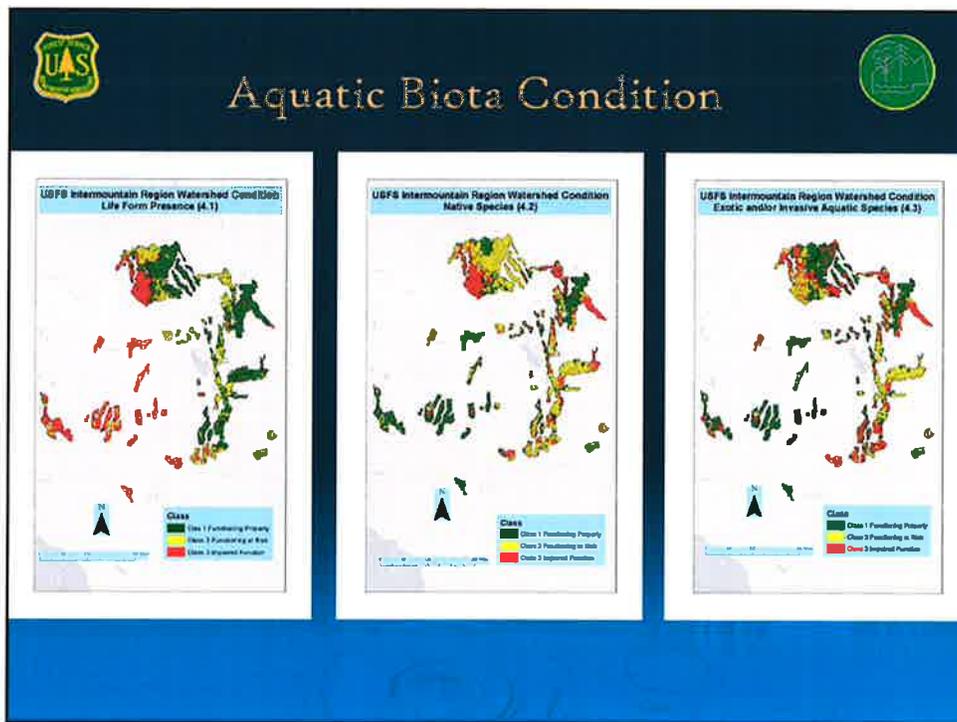
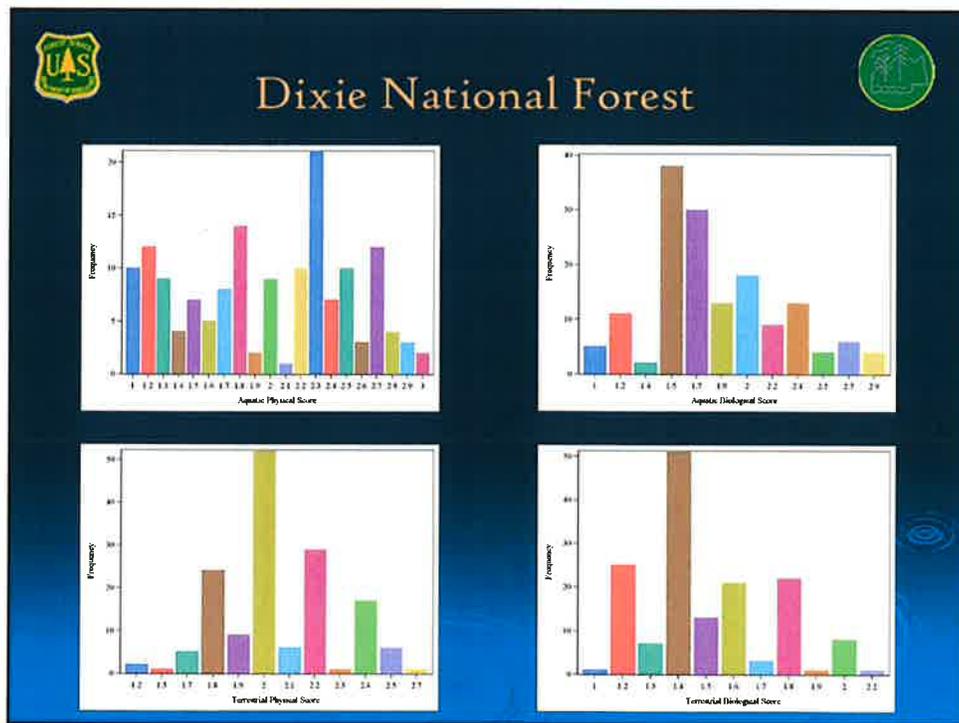
Dixie National Forest



WCF Class	Frequency
1	32
2	95
3	28



WCF Score	Frequency
1.2	1
1.3	7
1.4	3
1.5	12
1.6	9
1.7	14
1.8	16
1.9	24
2.0	18
2.1	12
2.2	9
2.3	16
2.4	9
2.5	3





Step B: Prioritize Watersheds for Restoration



- Identify a small set of priority watersheds (6th-level HUC)
 - ❖ equivalent to a 5-year program of work
- Add new priority watersheds as others are improved

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Step C: Develop Watershed Restoration Action Plans



- Watershed characteristics and conditions
- Restoration goals, objectives, and opportunities
 - ❖ essential projects
 - ❖ costs
 - ❖ timelines
 - ❖ partners
- Monitoring and evaluation needs

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Step D: Implement Integrated Projects

Step E: Track Restoration Accomplishments

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Step F: Verify and Monitor Watershed Condition Class

- Verify accomplishment of project activities
 - did we do what we said we were going to do
- Monitor improvements to watershed condition
 - did our work produce the results we predicted

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QUESTIONS?

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Information and Interactive Map
<http://www.fs.fed.us/publications/watershed/>