

Beaver Creek Watershed Assessment

North Fork Coeur d'Alene River WAG Meeting
October 28, 2010

Overview

- Assessment
- Watershed
- Needs
- Goals/Objectives
- Methodologies
- Future plans

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Funding

- Resource Advisory Committee (RAC) Grant
 - Idaho Panhandle National Forest
- Requested by:
 - North Fork Coeur d'Alene River Watershed Advisory Group (WAG)
- Supported by:
 - Shoshone County

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Partners

- Idaho Panhandle National Forest
 - Aaron Prussian—Fisheries Biologist
 - Chris James—Aquatics Program Manager
- Idaho Department of Environmental Quality
 - Kajsja Stromberg—Watershed Coordinator
- University of Idaho Extension
 - Ashley McFarland—Extension Educator



University of Idaho
Extension

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Mission

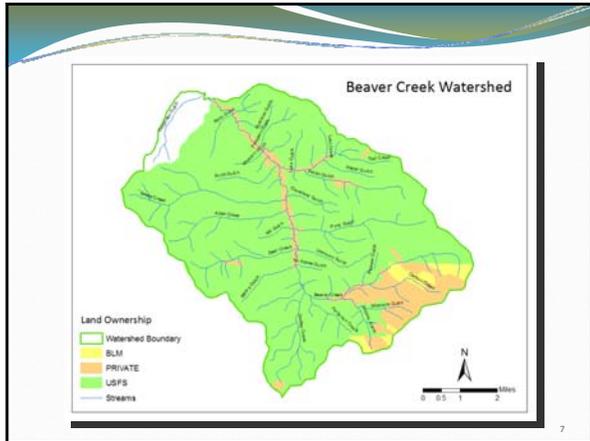
*...conduct a watershed assessment to provide a foundation
and framework for improving conditions in the
Beaver Creek Watershed.*

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Beaver Creek Watershed

- 42 square miles—26,800 acres
- Over 100 miles of stream channel
- Main channel (4th order) nearly 8.5 miles
- Mixed landuse/ownership—dominated by forestry
- Nearly 250 miles of road—nearly 6 miles of road for every 1 square mile of land

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Potential affects to water quality

- Transportation network
- Mining
- Timber
- Residences
- Utilities
- Recreation
- Agriculture

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Resulting water quality

- Sediment
- Temperature
- Cadmium, lead and zinc
- *Not supporting beneficial uses*

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Project Goals

- Build capacity
- Identify issues and conduct outreach
- Collect watershed data
- Analyze watershed data
- Develop recommendations
- Report findings—*final report due February 2011*

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GRAIP

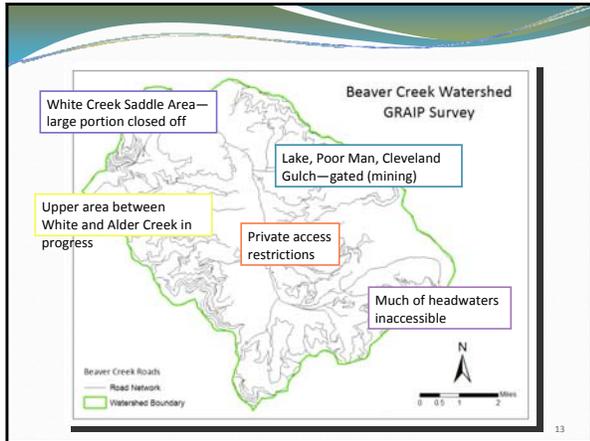
- Geomorphic Road Analysis and Inventory Package
- Goal—Inventory entire network of roads
 - Document sources of sediment
 - How does sediment interact with road?
 - How does sediment find its way to the stream?
- Utilizes GPS technology

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GRAIP

- Three components analyzed
 1. Road prism and ditches
 2. Points where flow is diverted off road
 3. Road surface and flow path
- Quantify rate of surface erosion related to overland flow
- Inventory road assets (culverts, fish passage, closures, etc.)

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RASCAL

- Rapid Assessment of Stream Conditions Along Length
- Goal—Inventory priority stream networks
- Utilizes GPS technology
- Produce maps to assist in decision making

Beaver Creek Watershed RASCAL Survey

Management Check
Management Progress

0 0.5 1 2 Miles

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RASCAL

- Components analyzed
 1. Flow characteristics
 2. Substrate
 3. Stream habitat
 4. Streambanks
 5. Riparian communities—cover and use
 6. Canopy cover

Stream Assessment Form

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Stream Assessment

Flow Estimate: Normal

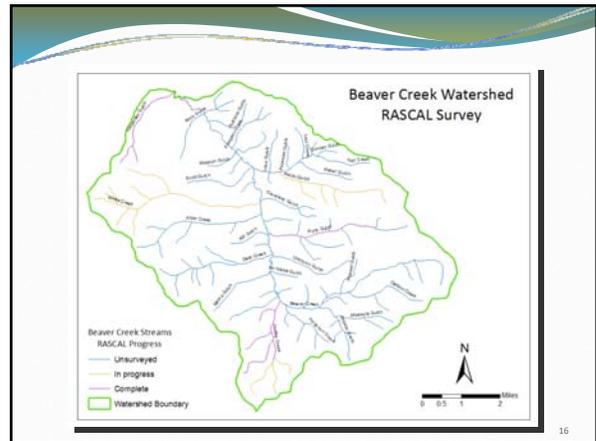
Hydrologic Variability: Somewhat Variable

Dominant Substrate: Gravel

Channel Condition: Natural Channel

Pool Frequency: None

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BURP Sampling

- Beneficial Use Reconnaissance Program
- Determine if beneficial uses are supported
- Combines biological monitoring and habitat assessment
 - Stream Habitat Index Score
 - Macroinvertebrate Index Score
 - Stream Fish Index Score

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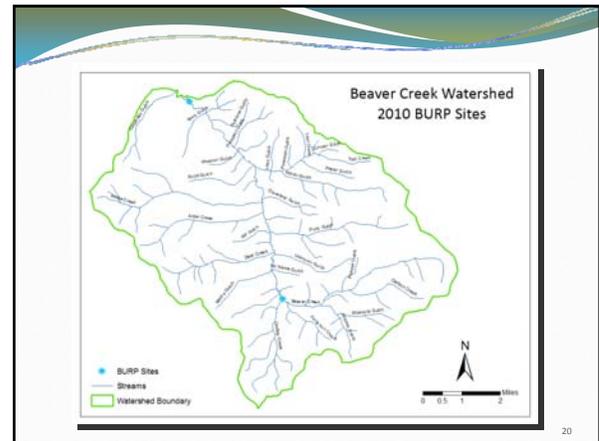
BURP

- Two sites “burped” in September with *E. coli* sampling
- Upper Beaver Creek (2010SCDAB001)
 - SHI = 54, less than 10% reference condition = 1 (poor)

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BURP

- Lower Beaver Creek (2010SCDAB002)
 - SHI = 55, less than 10% reference condition = 1 (poor)



Solar Pathfinder

- Collected at BURP sites



Other data collection

- Fish Xing
- Grazing
- Historical data and photos
- Historic and current distribution of fisheries
- Stream flow
- Stream temperature



1933—University of Idaho Library—Digital Collections

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Status and Plans

- Field work wrapping up
- Time to analyze data
- Develop recommendations
- Submit final report
- *Still hoping to deploy temperature loggers*



Photo from USFS Rocky Mountain Research Station

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Questions?

- Become involved
- Contact partners with any questions

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