

**Greater Yellowstone Hydrologist's  
Winter Coordination Meeting  
Gardiner, Montana  
April 27<sup>th</sup> and 28<sup>th</sup>, 2009**

**GYCC Update, Virginia Kelly, GYCC Coordinator**

Watershed restoration is no longer on the GYCC project funding priority list but the GYCC recognizes that watershed rehabilitation still important.

Aquatic Invasive Species is a new GYCC sub-committee actively working on issues. The GYA Fisheries biologists have formed a fisheries sub-committee.

Climate change is a major priority. A "Science Workshop" will be held in November in Bozeman to pull together GYA related research and identify high priority science needs. Resistance, reliance, and response may be the strategy for addressing climate change.

**GYH Roundtable, All**

Gallatin - Tom Keck is the new Gallatin NF Soil Scientist. Fuel reduction, burn area monitoring, watershed restoration projects, stimulus projects, TMDLs, travel planning. Gill Grenon and Mark Story have recently completed an air quality statistical analysis for R1, which includes water quality, NADP, and IMPROVE data. The report has recently been accepted for publication by the RMRS as an online GTR – likely available in early summer 2009.

Caribou-Targhee – Stimulus projects, watershed restoration projects, mining (including CERCLA (selenium concerns), TMDLs, fuels reduction.

Custer – Travel planning nearing completion, Cascade fire BAER implementation.

Beaverhead-Deerlodge – Forest plan revision is signed and contains much about aquatic and watershed protection, partnership timber sale in planning stage.

Montana State University – Duncan Patten, LRES discussed his research program. Victoria Bunn, river restoration graduate student work explained her interest in evaluating river rehabilitation projects in the GYA area.

Bridger-Teton – Trail work with Boy Scouts, Rainbow family gathering, Wild and Scenic designations, aquatic nuisance species, plan revision continues, Rescission Bill with stream bank alteration guideline, travel management, BMP monitoring, Spread Creek dam removal, water uses and rights.

Yellowstone Park – program focused on geo-thermal and ground water resources, stimulus projects, heat flow studies using chloride concentration now and possibly

conductivity in the future, the Soda Butte USGS gage may be discontinued due to lack of funding.

Shoshone – see handout that was provided.

### **Principles of Successful Stream Channel Restoration Planning, Peter Skidmore, Skidmore Restoration Consulting, LLC**

Peter Skidmore of Skidmore Restoration Consulting LLC, [restoringrivers@yahoo.com](mailto:restoringrivers@yahoo.com) shared a recently developed approach to how stream restoration projects should be planned and reviewed, suggesting more emphasis on the problem identification, project context, defined goals and objectives, and consideration of alternatives. He shared RiverRAT, a tool he and others are developing (via a contract with NOAA Fisheries and USFWS). RiverRAT is a step-wise review process to ensure planning, design, and implementation monitoring are factored into the project. He also shared the draft of an upcoming publication (Science Based Tools for Evaluating Stream Engineering, Management, and Restoration Proposals) that he is co-authoring that discusses project planning, design, and implementation. The publication will be available on line about June 1.

### **Deep Creek Stream Restoration Project, Louis Wasniewski, Caribou-Targhee NF**

Louis shared a large stream restoration project implemented on private land downstream of the Forest to reconnect aquatic passage to the Forest and rehabilitate an incised stream channel and restore channel/floodplain function.

### **Gunbarrel Fire Flood Risk Reduction BAER Project, Greg Bevenger, Shoshone NF**

Greg presented the burned area assessment and flood risk reduction efforts that were implemented to protect special use permit lodge facilities.

### **Cascade Fire BAER Alluvial Fan Implementation Challenges, Mark Nienow, Custer NF**

Mark Nienow discussed the many challenges of mitigating fire effects where the West Fork of Rock Creek (major recreation access road near Redlodge) crosses numerous alluvial fans. The concern relates to not knowing with any level of confidence what part of the alluvial fans will channel future water flows, meaning considerable money could be spent upsizing culverts that end up being high and dry. Mark is concerned that the funding window of BAER (1 year) is not of sufficient duration to treat burned watershed-alluvial fan response.

### **Fisher Creek Channel Stream Stabilization and Re-Routing, Mark Story, Gallatin NF**

Mark summarized the Fisher Creek channel stabilization project implemented as part of the New World Mine reclamation project north of Cooke City.

### **Watershed Rehabilitation Projects Update, Louis Wasniewski, Caribou-Targhee NF**

Louis highlighted the watershed improvement program and key projects across seven ranger districts recently accomplished.

### **Monitoring Hydrothermal Resources in Yellowstone NP, Henry Heasler, YNP**

Henry discussed how he and his staff are monitoring hydrothermal resources to provide information to management and law enforcement for protection purposes. YNP has an aggressive monitoring and research program to determine groundwater connectivity to existing and potential wells outside the YNP boundary. Henry indicated that within 5 years the science of groundwater flow paths in YNP should be much better defined.

### **McLaren Tailings Update: Montana DEQ proposal and YNP Water Quality Monitoring of Soda Butte Creek, Mary Hektner, YNP**

Mary briefly summarized the history of the McLaren tailings and discussed a proposal to clean up the tailings area to improve water quality. There are concerns with the proposal due to the location and environment. Montana DEQ would like to start the work in 2009 and finish in 2013, but considerable design and logistical details are not yet complete.

### **CBM Development in Montana: Ashland Ranger District, Powder River, Mark Nienow, Custer NF**

Mark discussed CBM development in southeast Montana. Details are in a handout he shared.

### **Restoration Opportunities on the Henry's Fork, Brad Higginson, Caribou-Targhee NF**

Brad presented information on the Henry's Fork Foundation Caldera Project, which is in the proposal stage. The Foundation plans to improve habitat that has been degraded from a sediment flush that happened in 1992 during drawdown of Island Lake Reservoir. Brad has assessed aerial photography to make pre- and post-sediment flush comparisons on the Henry's Fork. Brad also made aerial photo comparisons in areas of the Forest that are believed important for maintaining habitat conditions, such as over-wintering fish.

### **Jack Creek Tails, David Salo, Beaverhead-Deerlodge NF**

David shared a project where he was able to reconnect westslope cutthroat trout streams in an area that has considerable water pollution from past mining activity. He routed polluted water through a ditch to bypass streams containing trout. He also worked with the CERCLA project to improve habitat conditions in the mainstem creek.

**Forward Looking Infrared (FLIR) Imagery to Remotely Access Stream Temperature, Ronna Simon, Bridger-Teton NF**

Ronna presented a yet-to-be-funded to use FLIR on a pilot basis to determine if it has utility for assessing stream temperature on a large scale.

**Fall 2009 Field Trip and Winter 2010 Meeting**

Fall - Caribou-Targhee Forest watershed improvement projects October 13<sup>th</sup> and 14<sup>th</sup>.

Winter – Shoshone Forest, Cody, April 26<sup>th</sup> and 27<sup>th</sup>.