



**Symposium on Riparian Restoration in a Contaminated Environment:
Lessons Learned and Challenges in Moving Forward Part II
April 2015**

Wednesday, April 15th : Check-in Begins at 9:00 a.m.

9:00 – 10:00 Check In

10:00 – 10:15 Welcome and Introductions

10:15- Noon **Challenges to Restore Baseline**

Restoration by Stealth: Addressing the “W’s” in Watershed Management (Traci Sylte P.E., Hydrologist and Soil, Water, and Fisheries Program Manager, Lolo National Forest) “Our success depends on a holistic watershed approach and integrating environmental need, socio-economics, and climate forecasting to strategically address the Why, Where, What, and When of every singular project. Using a cautious and cunning approach, we can avoid the cliché of “random acts of restoration” and assure that the nugget of every intention is truly golden, and our hard work will result in lasting, positive effects in our streams and watersheds.”

Threat of the Lesser Known Invasive Plant Species on Establishing Desired Riparian and Floodplain Vegetation (Amy Sacry Restoration Ecologist, Geum Environmental Consulting) “Invasive plant species are a common management challenge in restored floodplains and riparian areas. Weed management is typically focused on state-listed noxious species, but lesser known invasive species can also pose a serious ecological and environmental threat to establishing desired vegetation in these areas and achieving project goals.”

Noon - 1:00 Lunch

1:00 – 2:40

Floodplain Connectivity in Restoration Design (Karin Boyd, PG) The connectivity between a stream and its floodplain is becoming increasingly recognized as a critical aspect of long-term ecological function in river systems. The reconnection of a stream to its floodplain provides an opportunity to recover lost riverine functional attributes such as floodwater storage, riparian and wetland habitats, fisheries refugia, and nutrient cycling. However, floodplain reconnection has associated risk due to the increased frequency and duration of overbank flooding, which can

drive channel change through floodplain scour and channel avulsion. This is especially true if the reconnection results in the creation of an unvegetated floodplain surface early in the project.”

The evolution of channel and floodplain restoration design approaches based on lessons learned over the past few decades (John Muhlfeld, Hydrologist, River Design Group, Inc.)
“Approaches to the design and engineering of channel and floodplain restoration projects have advanced significantly over the past 40 years based on monitoring of project successes and failures. This discussion will focus on the developments that have occurred over the last 10 to 15 years from a practitioner’s viewpoint based on monitoring of project successes and failures. The discussion will end with how project goals have adapted to reflect realistic expectations of desired outcomes for channel and floodplain restoration projects.”

3:00 – 5:00 **Flow**

Restoration Plan Intro – Flow Project Summary

Navigating the DNRC Process For Instream Flow: Thoughts on Strategy, Things to Do, Things to Avoid, Some Cautionary Tales (Stan Bradshaw Staff Attorney, Montana Trout Unlimited, Montana Water Project) There are right ways and wrongs to approach a change of appropriation application before DNRC. Over the past eighteen years the presenter has done some of both, and, occasionally, has learned some things along the way. This discussion will focus less on the minutiae of compiling a application and more on some basic strategies to help increase your chances for taking an application to approval. Finally, in the realm of instream flow enhancement, a look at different ways of skinning that cat.

Ingredients for Success: Making Instream Flow Work in Western Montana (Andy Fischer, Project Manager for the Clark Fork Coalition) Why does an instream flow project succeed or fail? Through an in-depth look at a number of examples of effective instream flow projects, Andy will provide a perspective on why certain projects have succeeded. Among these varied examples, there are common ingredients that contributed towards these successful outcomes. The purpose of the talk will be to highlight how these principles can be applied to similar projects in the Upper Clark Fork in order to overcome social, legal and financial obstacles to success.

5:30 -7:30 No Host Bar / Appetizers

Thursday, April 16th AM session

7:00 – 7:45 Buffet Breakfast

8:00 – 10:00 **Terrestrial – 2012 Restoration Plan**

Habitat Restoration Efforts and Riparian Management on Working Lands – Some Successes and Failures along the Milk River (Kelvin Johnson, Montana Fish, Wildlife and Parks, Region 6 Wildlife Habitat Biologist) Kelvin will discuss a few instances of success and failure in management/design of riparian habitat projects including grazing practices and how we can learn to conduct this as a management tool better in the future.

The significance of land acquisition in the management of wildlife in Montana (Mike Thompson, FWP, Region 2 Wildlife Manager) An overview of the improvements to FWP wildlife management in Montana from the various wildlife acquisitions through the last half century. FWP's WMA's have provided the citizens of Montana significant opportunities for outdoor recreation and high quality habitat for wildlife conservation.

10:10 – 11:00 **Clark Fork River**

Working With People – (Tom Mostad, Montana NRDP staff) A short video on some of the point of views of landowner in the Upper Clark Fork Basin on the cleanup activities.

Clark Fork River Cleanup Update and Introduction to the Tour (Brian Bartkowiak, Project Manager, Montana DEQ) Brian will give an update of remediation and restoration activities that have occurred over the past few years and the future plans on the Upper Clark Fork River site. The cleanup involves 47 river miles of the Upper Clark River from Warms Springs to just below Garrison, MT. A short tour of this area will occur in the afternoon. (Katie Garcin, Environmental Science Specialist, Montana, DEQ) Katie will be speaking at Phase 1 of the Clark Fork Tour.

11:00 – 11:45 **Groundwater Replacement / Introduction for Tour**

11:45-1:00 Buffet Lunch (Buses will begin leaving for tour at approximately 12:30 and leave every 15 minutes)

1:00 – 5:00 Tour Butte/ CFR –Phase 1, 2 / 5&6

Dinner and Keynote Speech (6:00 – 9:00pm)

6:00 Social

6:30: Pre-Dinner Welcome TBD

Dinner and no host bar

7:30 Keynote Speaker: Mike Gurnett (retired FWP filmmaker documents his experience with restoration) Program Title: “**Telling the Good Truth**” The visual story telling of Why Your Work Matters.

Friday, April 17th, AM Session (8:30am –12:30 pm)

7:00 – 8:00: Breakfast

8:00 – 11:00 **Monitoring**

Opportunities and challenges in monitoring fishery restoration in the Upper Clark Fork

(Pat Saffel, FWP Region 2 Fishery Manager) Monitoring the response of the trout fishery to the cleanup and restoration of the Upper Clark Fork presents an extraordinary opportunity. The physical and financial scale of the work is enormous, and the biological response may be on the same scale. In addition, monitoring of fishery restoration projects is limited nationwide, so results of this effort could be useful elsewhere.

Prescient Revegetation: Factors Influencing Riparian Plant Establishment Period

(Tom Parker, Principal Ecologist, Geum Environmental Consulting, Inc.) Revegetation along rivers in western Montana does not happen in isolation. In fact, most restoration and remediation projects with a riparian revegetation component are happening on or near working lands, or along rivers with high value recreational fisheries. Because of these competing land uses, there is often incentive to determine how long it will take for plants to establish sufficiently so other land uses, such as livestock grazing, fly fishing, or other recreational uses, can resume.

Knowledge is Power: Developing Monitoring Programs that Increase Understanding of Restoration Outcomes

(Cara R. Nelson, Associate Professor of Restoration Ecology and the Director of the Ecological Restoration Program at University of Montana’s College of Forestry and Conservation) The future of ecological restoration hinges on our ability to understand the efficacy of past restoration practices, as well as any unintended consequences associated with management interventions. This presentation will explore best practices for developing an effective monitoring program, including strategically utilizing end-point and effect size designs and maximize potential for adaptive management while minimizing costs, using the Clark Fork basin as an example.

11:00 – 12:00 **Monitoring**

Upper Clark Fork River Bird Monitoring – Erick Greene, University of Montana

12:00-12:30 Wrap Up