UPDATE - RIPARIAN WORKSHOP with Michael Keefer

By Jim Duncan (Executive Director Mainstreams)

Saturday, April 16th the day of Mainstreams' Riparian Workshop began as a cold and rainy morning. As Laura and I set out from Kimberley to Jaffray, we were pleased that the workshop had access to the Jaffray Community Hall for the day, if needed.

Twenty-three people registered for the workshop from Lethbridge, Whitefish and Eureka Montana, Elko, Fernie, Cranbrook, Kimberley and Jaffray. Most of the people were ranchers from both sides of the border, but government agents from British Columbia and Montana, Montana water conservation district folk and various consultants also attended. With presenters and organizers, the workshop would sit 31 people for lunch.

The weather turned out to be a normal 2011 spring day, with rain, wind, hail, snow and a generous smattering of sun mixed in. The temperatures stayed warm enough to keep us from retreating to the hall, except for lunch. We did welcome Perry's bonfire for the introduction and morning break however.

Mainstreams Board appreciates the generous funding from the Columbia Basin Fish & Wildlife Compensation program, which underwrote the costs of the workshop as well as the planting stock, the irrigation system and the off-site water system. Kootenai River Network (Montana) funded the fencing materials and the Royal Bank Blue Water Project funded the prescription. The Environmental Farm Plan funded construction and installation of the fencing, the off-site watering system and the solar-powered irrigation system.

Mike Malmberg (President of Mainstreams) welcomes Riparian Workshop participants around a cheery bonfire that was laid by Perry Rammeloo (resident landowner)

The workshop began with a focus on slant electric fencing. Fencing is an essential part of any riparian restoration project, because riparian vegetation must be protected from deer, elk and cattle browzing. Because cattle tend to drink at the same place this can cause compaction which retards natural regeneration of native trees and shrubs.

Discussion of slant-electric fencing, which was installed by Perry Rammeloo

Perry Rammeloo demonstrating his adjustable fence, which can be raised during Sand Creek freshet, then lowered during lower creek flows

Next, Mike Keefer led a riparian prescription walk to demonstrate how to assess and record the condition of the riparian vegetation and options for improvement.

The workshop then split into 2 groups, one with Julie O'Shannassy P.Eng and the other with Mike Keefer.

Julie discussed stream dynamics and showed people how to calculate velocity and flow and the impacts of increased flow during freshet. She also talked about water chemistry and demonstrated how to measure pH, Conductivity and Turbidity.

Mike Keefer led a session on harvesting Cottonwood stakes.

Sorting Cottonwood from Alder, which look the same (Alder does not work)

Lunch included a detailed presentation by Mike Keefer about the principles of riparian restoration. The talk included many real-life illustrations of riparian work Mike has carried out throughout the Columbia Basin.

Mike Keefer on the principles of riparian restoration


Marty Hafke (Coordinator, EK Invasive Plant Council) gave a talk on invasive plants

After lunch, which was catered by the Jaffray Inn and was scrumptious, we headed back to the field to construct brush layers and a wattle fence.

Constructing brush layers

The brush layers are constructed with Cottonwood stakes, which will take root to stabilize the creek bank

Constructing a wattle fence, which are also built with Cottonwood stakes

Next, we practiced planting Cottonwood stakes.

The prescription, which needs to be approved by provincial and federal agencies, directs where to plant Cottonwood stakes in the stream channel

When planting in the stream channel, the Cottonwood stake is slanted to the downstream side, so that it will not be pulled out during freshet.

A power-packed riparian workshop ended with Mike Malmberg talking about drip irrigation systems.

All participants enthusiastically agreed to come back for a community barbecue in the summer, which will allow us to monitor the results of our labors during the riparian workshop.