

Stream Restoration: Synergy with ISF Appropriations and Acquisitions



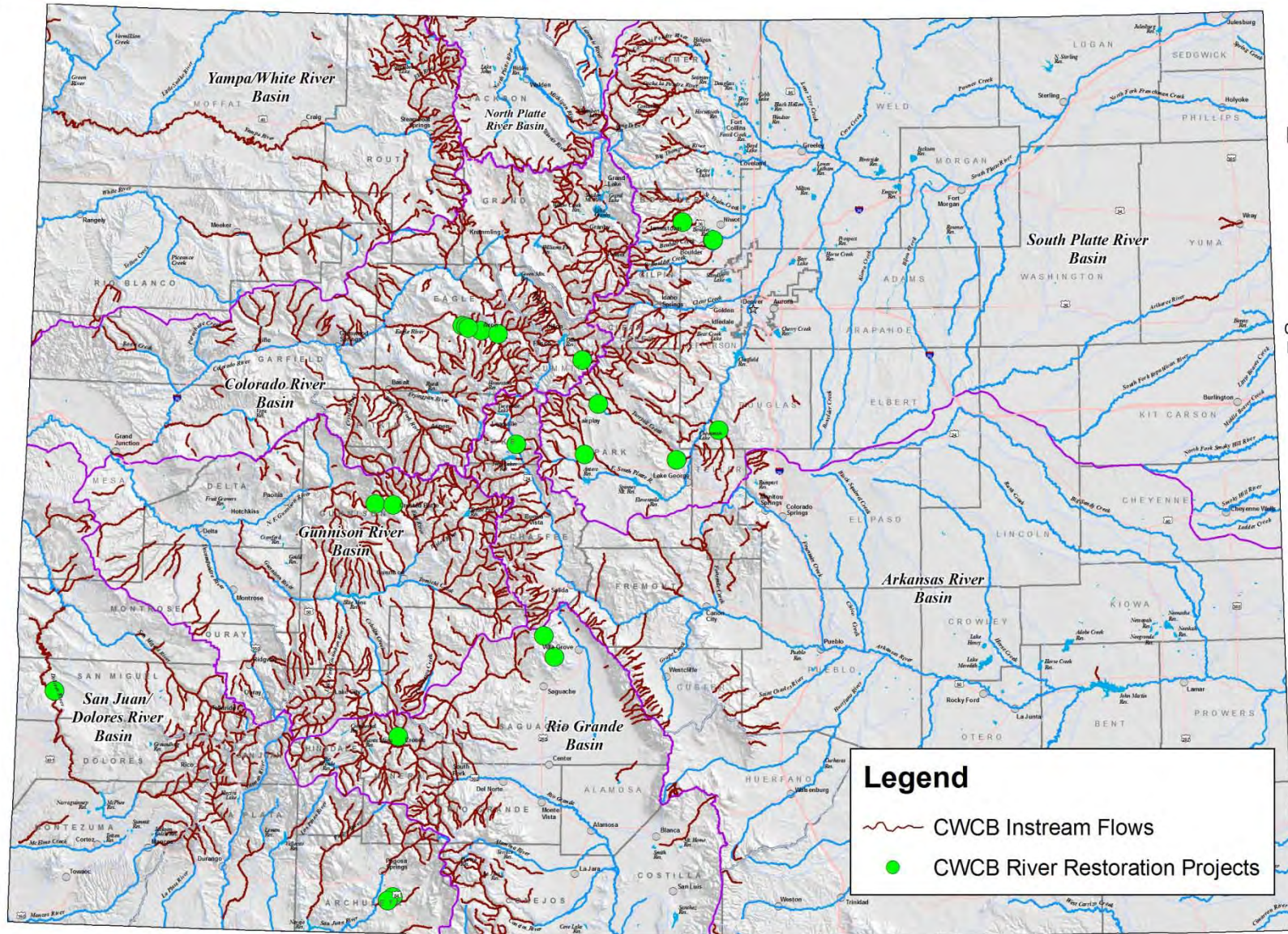
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Discussion Items:

- ✓ **Fluvial Geomorphology 101**
- ✓ **Project Types**
- ✓ **CWCB Watershed Protection Grant Programs**



CWCB Instream Flows & River Restoration Projects



0 10 20 40 Miles

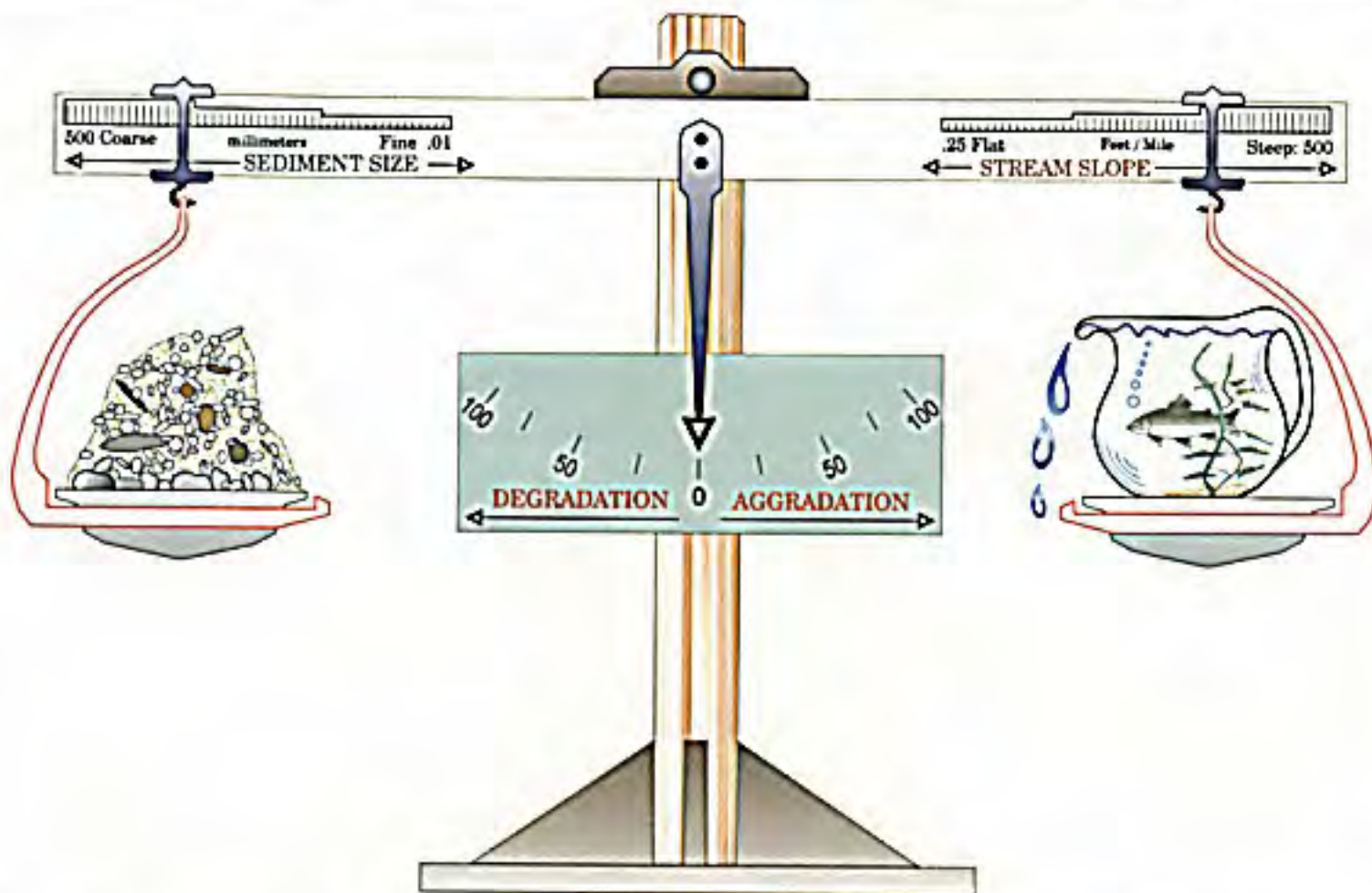


**Watershed
Protection
& Flood
Mitigation
Section**

Legend

-  CWC Instream Flows
-  CWC River Restoration Projects

Lane's Balance



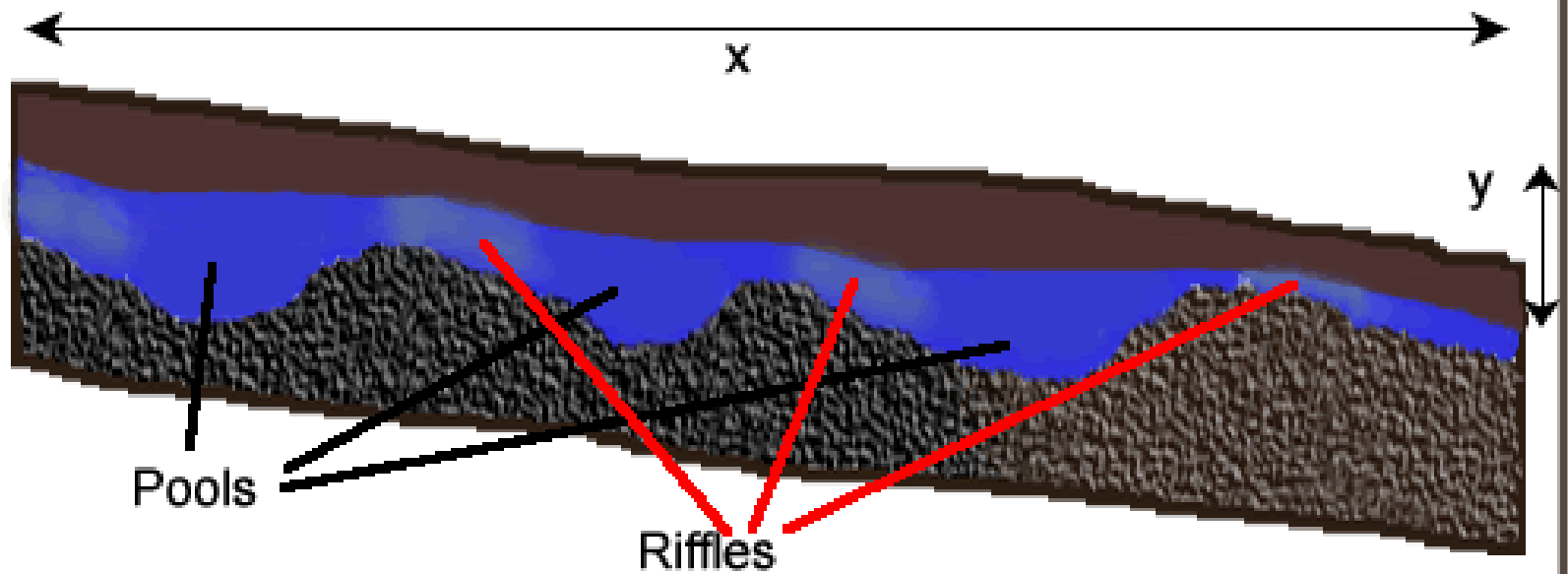
$$(\text{Sediment LOAD}) \times (\text{Sediment SIZE}) \propto (\text{Stream SLOPE}) \times (\text{Stream DISCHARGE})$$

Planimetric view of Tarryall Creek

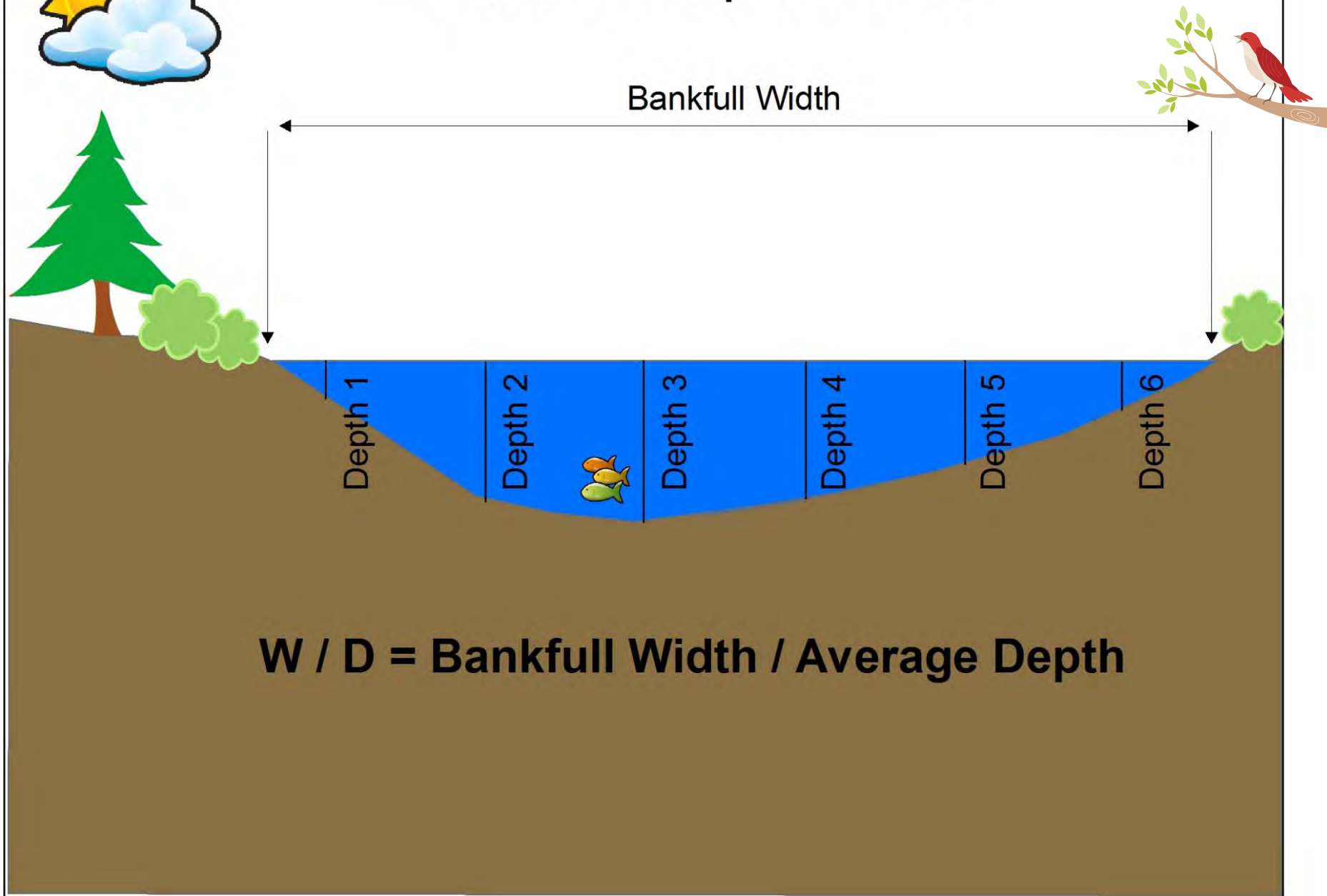


Longitudinal Profile

Water Surface Slope = $\Delta y / \Delta x$ (Measured at water Surface)



Width to Depth Ratio



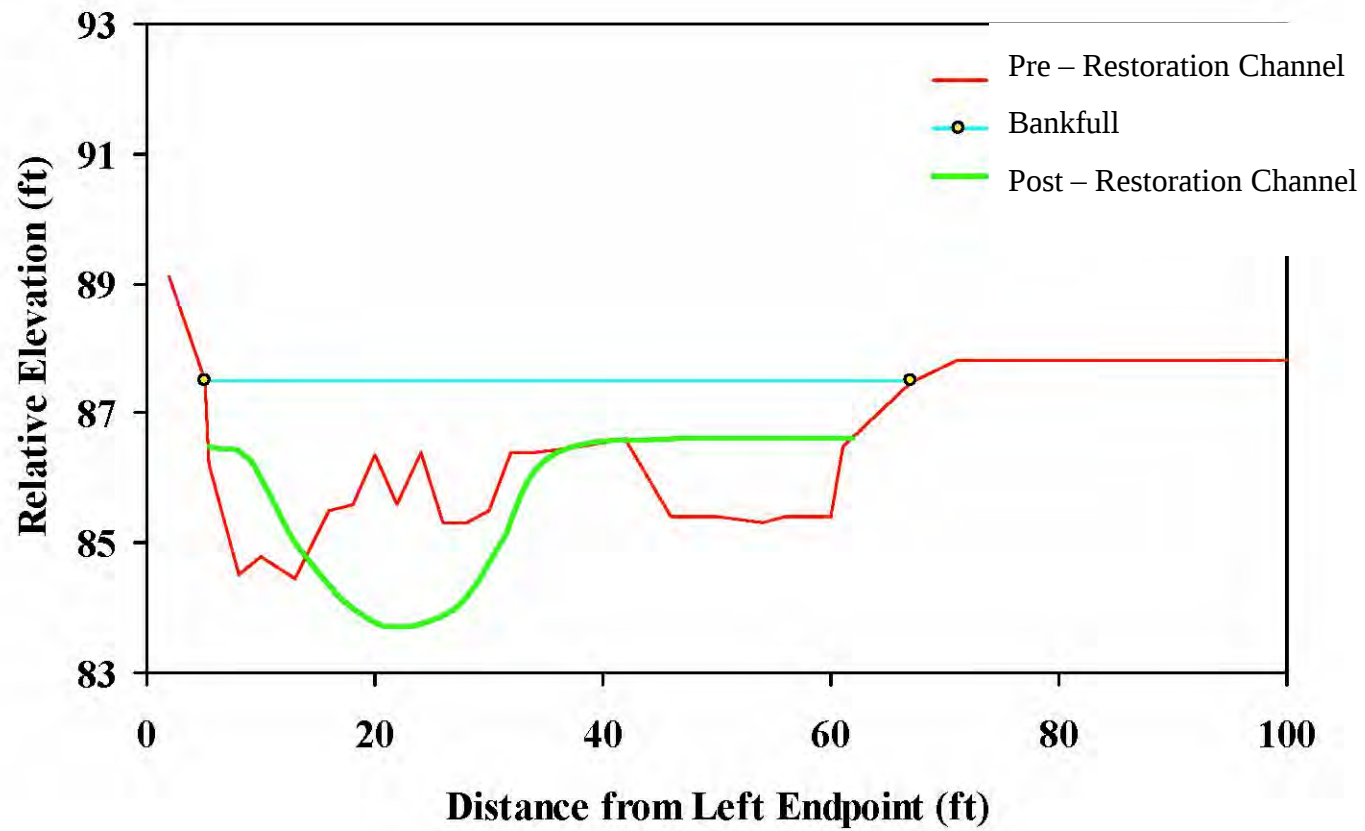


**Before: Over wide, braided into
3 channels**

**AFTER: Single channel with rock
bank protection and habitat rock**



Channel Cross Section





Beaver Ditch Diversion Reconstruction



Hartland Diversion Dam Reconstruction









Figure 5: Before and after photos of the treatments on XS 365 (described in the phase 1 report as "bench 02

Figure 7: Before and after photos of the treatments on XS 485 (described in the phase 1 report as "bench 0340").

Swan River Restoration Site





CWCB Non-Consumptive Grant Programs

cwcb.state.co.us

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Loans & Grants

The CWCB offers numerous loans and grants to water providers and other entities statewide for a variety of water-related projects, studies, planning documents, awareness campaigns and other activities. Click on any of the links below to find out more about the CWCB's funding programs.



- Water Project Loan Program:**
 - Water Projects Study Expenses
 - Loan-Collateral
- Water Efficiency Grants:**
 - Water Conservation Planning Grants
 - Water Conservation Implementation Grants
 - Drought Mitigation Planning Grants
 - Water Resource Conservation Public Education and Outreach Grants
- Water Supply Reserve Account Grants:**
 - Basin Water Supply Reserve Account Grants
 - Colorado Water Supply Reserve Account Grants
- Colorado Healthy Rivers Fund Grants:**
 - Seawater Desalination Project Investment Grants

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Colorado Water Conservation Board

Continuing "71 Years"

Home | Environment | Watershed Protection & Restoration

Watershed Protection and Restoration

The CWCB supports watershed planning as well as projects designed to restore and protect watersheds.

The CWCB partners with numerous organizations to plan and undertake multi-objective projects designed to reduce flood hazards, stabilize and restore stream channels, provide habitat, reduce erosion and increase the capacity to utilize water. Water and other agency coordination, communication and participation are essential components of the CWCB's efforts.

Specifically, the CWCB supports watershed protection and restoration efforts through the administration of:

- The Colorado Watershed Restoration Program, which provides grants for watershed stream restoration and flood mitigation projects throughout the state.
- The Colorado Healthy Rivers Fund, which helps support local watershed organizations in their efforts to provide clean water, protect habitat and improve recreation and accessibility; and
- The Fish and Wildlife Resources Fund, which provides grant money to mitigate the impacts of existing water supply facilities and help preserve a balance between development of the state's resources and the



Additional Information

- Colorado Watershed Restoration Program
- Colorado Healthy Rivers Fund
- Fish and Wildlife Resources Fund
- Basin Roundtables

Questions?

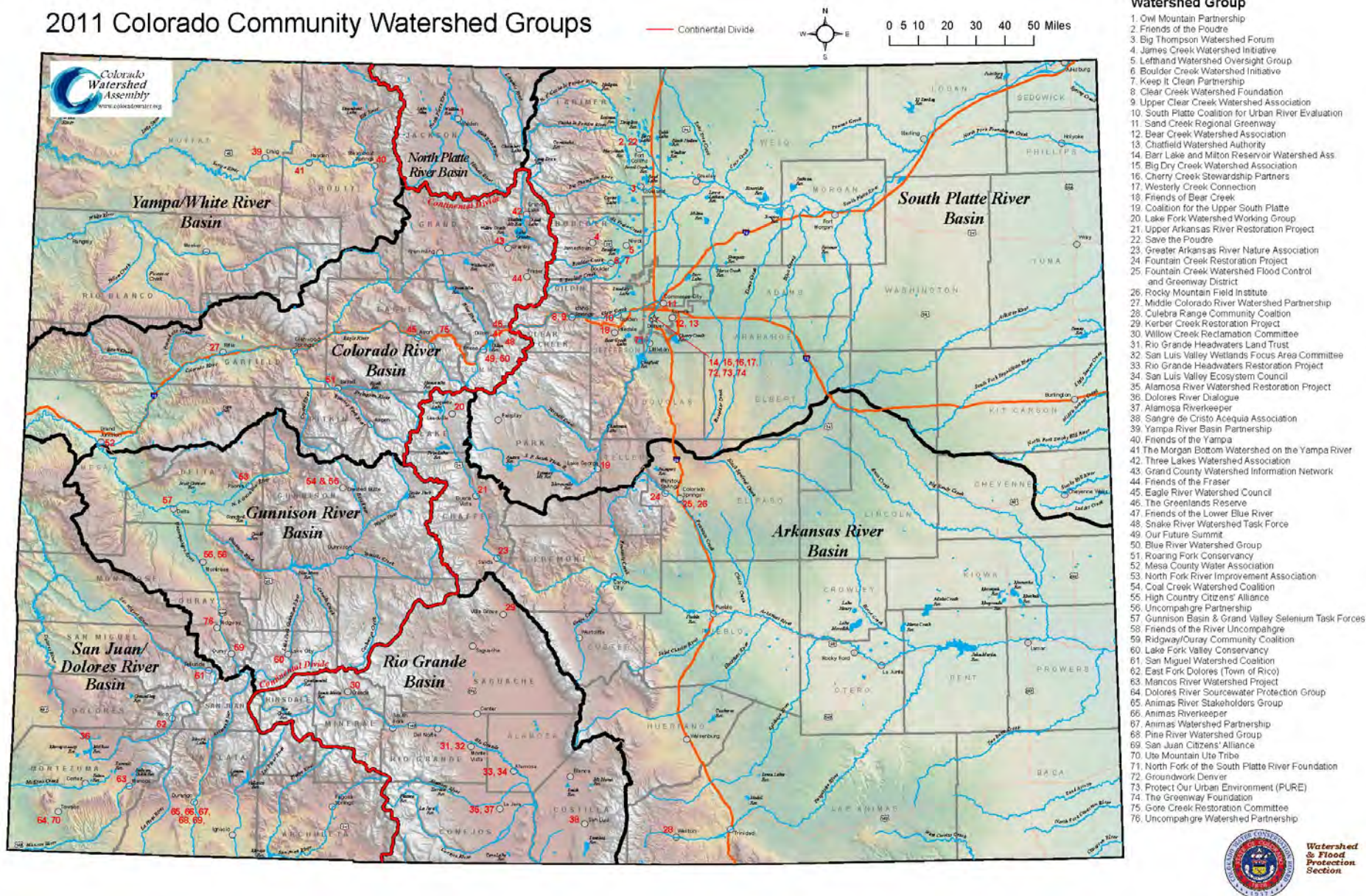
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Jacqui Bernheim

Stakeholders



76 Watershed Groups in Colorado

2011 Colorado Community Watershed Groups





Support The Colorado Healthy Rivers Fund



ON YOUR STATE INCOME TAX RETURN
WWW.COLORADOWATER.ORG



Support The Colorado Healthy Rivers Fund On Your Next State Income Tax Return!

Your donation helps support:

- ✓ Cleaner Water
- ✓ Healthier Wildlife & Restored Habitat
- ✓ Improved Recreation & Accessibility

Photo courtesy of John Felder

To learn more visit
www.coloradowater.org



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