Denver Water Post Fire Lessons Learned

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South Platte Watershed Fires
Buffalo Creek Fire: May 18, 1996
Water quality impacts

Turbidity, TOC, chromium, copper and lead
Hayman Fire Severity
Watershed Management

• Immediate sediment response
• Mid-range sediment response
• Long-range watershed strategies
Immediate Post Fire Sediment
Straw Sediment Traps
Log Sediment Traps – Small Drainages
Mid-range sediment management
Long-Term Sediment Strategies

• Hiring Watershed Scientists and establishing a Watershed Planning Program.

• Proactive investments in forest health and partnerships.
  – DW only owns 2% of the 2.5 M acre watershed. Need to collaborate.

• Inventory, Assessment, and Prioritization (IAP) for investments
  – Strontia Sediment Task Force

• Frequent and consistent internal communication
  – Watershed Steering Committee

• Don’t put all your eggs in one basket.
  – Wildfire Readiness and Recovery Framework
Denver Water Watershed Values

Drinking Water Treatability

Provide high quality water at an affordable rate

Infrastructure Protection

Protect collection system, watershed assets, and access to assets

Community & Environmental Stewardship

Foster partnerships to sustain healthy and resilient watersheds
From Forests to Faucets

- $66 million investment 2010-2021 - Denver Water committed $33M.
- Partners include DW, CSFS, NRCS, USFS and USPP.
- Proactively improve the health and resiliency of forests and watersheds.
- Focus in areas critical for providing and delivering water to Denver Water customers.

Photo credit: denver.com
Partnerships with CUSP
Horse Creek Stream Restoration

Alluvial fan along Horse Creek
Horse Creek water quality
Horse Creek confluence with South Platte

Elevated levels of Mn, SS, P, TOC, NH3
Adaptive Management Framework

**Phase 1**

**INVENTORY**
Identify risks and threats, actions implemented and planned, and compile monitoring data (water quality, biologic indicators, etc.).

**ASSESS**
Use inventory to assess state of the watershed and progress or impact made. Frequency and level of detail based on audience and needs.

**PRIORITIZE**
Identify geographic areas and categories of threats to focus implementation efforts.

**PLAN**
Use IRP Watershed Toolbox and other existing and new actions that will target prioritized areas and threats. Identify partners and stakeholders for watershed actions.

**EVALUATE**
Determine the ROI on the actions and the impacts to the prioritized areas and threats. Estimate future budget needs. Adapt action planning as needed.

**ONGOING**
Monitoring Implementation

**Phase 2**