Improved Flows
Ag/Urban/Environmental Cooperation for Improved Flows

- Habitat /Fishery/Aesthetic/Economic
- Water for flows through stream reach, with end use for irrigation
- Designated CWCB instream flow
  - must protect existing water rights and structure rights
- Cooperating entities
  - North Poudre Irrigation Company
  - New Cache Irrigating Company
  - City of Fort Collins Utilities
  - City of Fort Collins Natural Resources
- Water rights dedicated by lease or acquisition
- Storage high and low within the stream reach maximizes efficiency
- Issues:
  - Exchanges
  - Yearly availability
  - Bypassing existing structures

Basin cooperation developed thru the years can assist in this venture
Smoothing the Flows

Lincoln Ave. Gage Flow

Discharge (cfs)

June 5-July 5, 2012 - 15 minute data
Commit to eliminating dry up points. Determine, design, and develop financing for operational, infrastructure, and market mechanisms to keep water flowing at all points of the river.
FLOWS
Stage 2—Minimum Flows

Agree upon ecologically-relevant minimum flows at all points on the Poudre. Determine how, when, and where these can possibly be met through operations, infrastructure, and water acquisition/leasing.
FLOWS
Stage 3—Peak Flows

Agree upon a goal to maintain peak flows that maintain and create habitat for fish and invertebrates, etc. Use the ‘Healthy River’ definition as a starting point.
Bottom of the Bucket

- Storage near South Platte River
  - Could be used for water trades or banking
- Possibly combined with regional water treatment plant
  - May need salinity control or treatment (like in Brighton, Milliken, or Sterling)
- May appeal to Thornton and potentially other Denver metro municipalities
Adjudicated Instream Flow Rights

Establish an adjudicated instream flow right for the Poudre, both North Fork and mainstem.
Agricultural Cooperation Ideas
Poudre Ag/Urban Water Sharing Task Force

Establish an Ag–water sharing task force to determine how land–preservation and long–term water agreements can be used to meet future municipal water needs in the watershed while providing security to irrigators.
A way to inform the public of water users operations
There is currently communication between operations staff and the river commissioner.
This call would give those parties who have a personal vested interest in the river a better understanding of who is doing what/for what purpose.
This could raise the bar on the Poudre in terms of awareness and transparency.
Establish a water bank that would give Poudre River irrigators an alternative to participating in buy-and-dry strategies that could result in the export of more Poudre River, including creating additional flexibility for leasing water between consumptive users, and creating mechanism(s) to allow environmental interests to lease at market rates for instream flows.
Irrigation Efficiency Ranking System

Develop working relationships between municipalities, water rights owners and ag producers to develop water rental criteria to maximize water use efficiency and motivate producers to adopt new practices to become more efficient.
Restoration/Structural Improvements Ideas
Water Diversions: Technology and Funding

• Technology and water diversion today
• Where is technology headed?
• Ag interests identify the opportunities
• Others help fund it
Create plan to evaluate and reconstruct as needed all diversions so that they are easily manageable for minimum instream flows, passable by fish, and safe for boaters.
Remove or retrofit channel spanning structures for fish passage, sediment movement, and boaters.
Conservation Banking Along the Poudre

A Win/Win for Water Development and Stream Health?
River Safe Zones

Setback or remove artificial lateral constraints on channel migration in prioritized safe zones – for the riparian forest
Active River Zones

To accompany Master Plan for bike path along the river, identify ‘active river’ zones where the river is allowed to erode and aggrade over time in an unconstrained but prudent manner. In these zones, plan to remove bank armoring where present, and build future infrastructure to accommodate the resulting ‘active river.’
Assist City of Fort Collins Natural Resources with its Lower Poudre FLEX Project

- Area around Environmental Learning Center, Horsetooth, I–25
- Cooperative project with Ducks Unlimited, City of Fort Collins Water Utilities, private landowners, CWCB, and South Platte Basin Roundtable
- Instream Flows, agricultural water sharing, land and habitat conservation, recreation, augmentation, beautification
Healthy River Improvements
Smorgasbord

• Bank sloping, bioengineering with plants for reinforcement
• Maintain flood conveyance by managing vegetation encroachment
• Manage invasive species
• Reduce nutrient loading
• Reduce fine sediment delivery
Policy, Planning, Funding & Data Ideas
Join the Coalition for the Poudre Watershed

• Non-profit recently established for mitigation related to the Hewlett Gulch and High Park Wildfires

• What can we do to enhance the river while we mitigate?
The Greenway Foundation in Denver has reconciled environmental, recreational, and urban needs on Cherry Creek.

- Can this foundation serve as a model for effective inter-jurisdictional collaboration along the full reach of the Poudre River?

- Could we engage with the Poudre River Trust or Poudre Heritage Alliance going forward?
Working River/Healthy River Poudre Fund

Create a fund like the GOCO fund or the open space fund dedicated to these cooperative actions to promote a healthy working river
Collaborate with Thornton

Work with Thornton to develop win–win strategies that would encourage them to keep their water in the river as long as possible, drawing it as near the bottom of the river as possible.
Collaboration on Tools for Data Transparency

Collaborative, transparent access to water data for education, policy analysis, monitoring, and operations
Encourage, or lead charge for comprehensive evaluation of entire river system.
Let’s plan for what we want.

Can we create a sustainable urban/riparian environment, not love our rivers to death, and honor all the water users—critters, kids, and farmers?
Define a Healthy/Working River

Starting with the draft definition of a Healthy River that previously has been provided to the Working Group, agree upon qualitative and/or quantitative goals for water quality, fish populations, channel condition, and riparian condition. This could be made somewhat easier by defining desired conditions rather than streamflow rates.
Lobby for Increased Water Use Flexibility

- Convene a stakeholder group of water rights owners to determine how to best maximize:
  - Retention of existing water rights
  - Flexibility in the legitimate use or non-use of water rights
  - Economic value and benefits of rights owned
  - Beneficial uses not currently recognized by water law

- Support stakeholder group by:
  - Facilitating
  - Providing non-stakeholder scientific, recreational and ecological input from other groups
  - Building grassroots lobbying support
  - Funding legal and professional lobbying services
Fundraise for flows?

The Great Rubber Ducky River Race Party
February 1, 2011 • 5:30 pm
at the Karl Reef

Tickets are $20.00 each
with that you get a FREE DUCK
entered in the race on February 1, 2011

1st Place Winner – $1,000
2nd Place Winner – $500
3rd Place Winner – $250

Need Not Be Present To Win!

The ducks will be gently released into the Cotee River on January 20, 2011.
The first three ducks to reach the bridge will be collected (in the correct order), bagged (without looking at the numbers), and brought to the Karl Reef. The winners will be revealed during the party that follows.

Ducks you want to be standing outside, be among the first 200 people to show up.
There will be lots of fun, food, entertainment and auctions that you won't want to miss out on!
Home Remodel Regulations to Encourage Conservation

Develop rules and regulations that address home remodels to be more efficient in terms of water use.
Working/Healthy River Management Strategies

Identify and encourage management strategies that improve river health while still satisfying current demands and rights of a working river.
Recreation Ideas
Put People in the Water
Poudre River Canoe Trail
Education Ideas
Poudre River Forum

- Annual congregation of Poudre River enthusiasts, water buffalos, advocates, municipalities, universities, researchers, utilities
- Forum for presentations, networking, collaboration, reporting out

It’s Better to *Jaw Jaw* than to *War War*
Gauge the River: CFS Signage
Treetop Perspective

Educate public about ecosystem interactions

Provide aerial riverine viewpoint
Poudre River Newspaper with PSD

Newsletter on actions related to the river and its use by season sponsored by the Poudre School District.
Help Further Development of & Promote Poudre River Wiki

Poudre River Wiki
(http://poudre.library.colostate.edu)

Desired result: Collaborative, transparent access to water data for education, policy analysis, monitoring, and operations
Underwater Education

In concert with diversion retrofit? Maybe we would see a mink instead!
Celebrate the River

River Cleanup
Speaker’s Bureau

- Speakers bureau—an outreach channel to educate the public about river topics.
- Steps:
  - identify the target audiences,
  - identify topics for each target audience,
  - identify potential speakers
  - develop skeleton story lines
  - set up a booking office (maybe through CWI?) for presentations
Smorgasbord of Education Ideas

• Photos / videos of the river at different flows along entire corridor in Google Earth
• Educational signage on balancing river health and human demands
• Produce educational video for Discovery Museum
• Develop an inexpensive mechanism, like a pedometer, to help people track their daily water use