

Markets, Drivers, Demands and Services

*Many believe you can never restore
what history has taken away...*

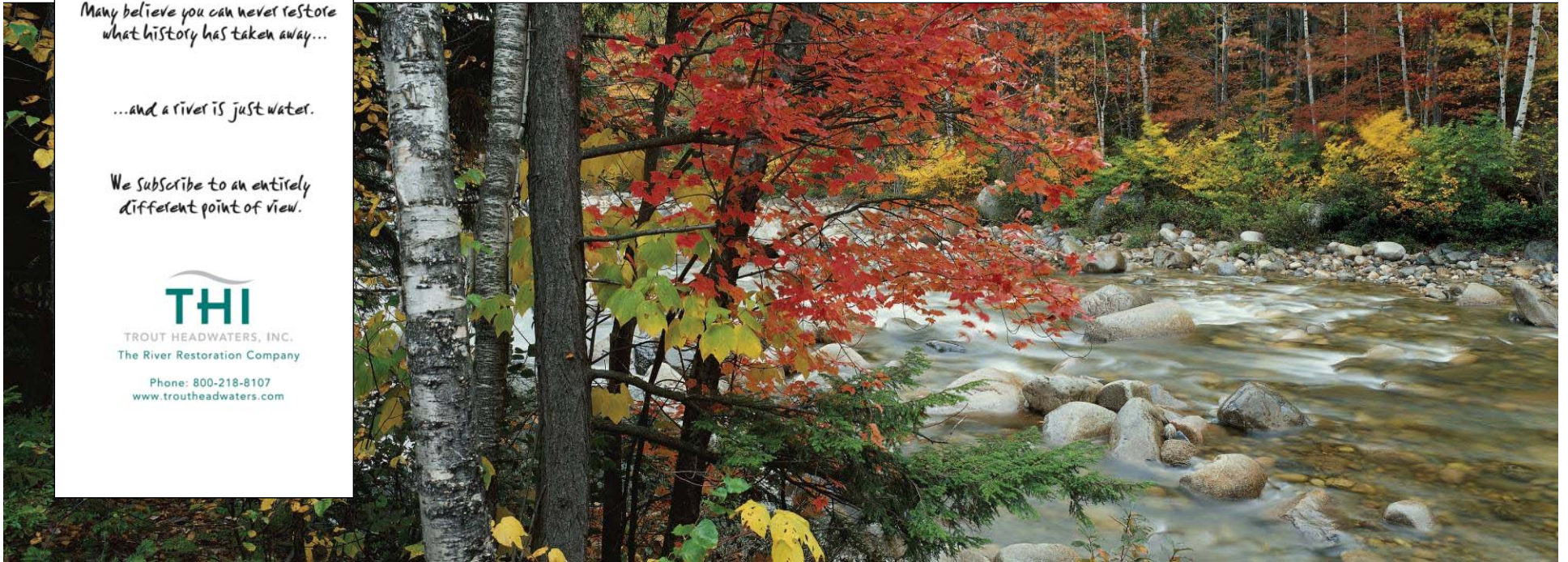
...and a river is just water.

*We subscribe to an entirely
different point of view.*



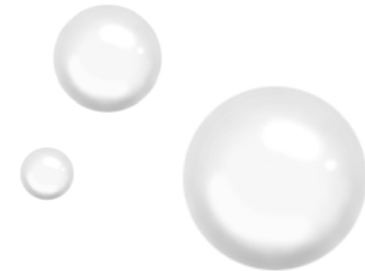
TROUT HEADWATERS, INC.
The River Restoration Company

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Meeting Multiple Ecosystem Functions & Markets on a Shrinking Landscape

- Recognize the Benefits and Values
- Manage Land and Water Holistically
- Focus on Biodiversity
- Credit Stacking
- Maximize Ecological Values and Benefits
- Enable Markets
- Reduce Investment Risk





Restoration Project - Dry Creek, MO



Ecological Impacts, Demands and Offsets

- Population growth, infrastructure, energy, and other interests are continuing to exert pressures and impacts on the U.S. landscape, increasingly reducing a broad host of ecological values and functions on public and private lands
- With this, the value of each and every project must consider how to maximize ecological values and benefits on each and every restoration project and for each stream, wetland, species, carbon, nutrient or biodiversity bank.



Conservation Banking Project - WY



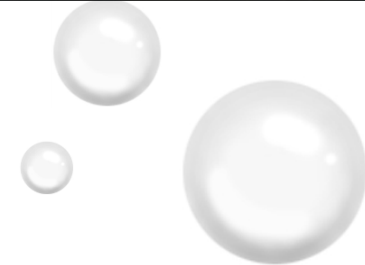
Economy v. Ecology

“For decades industry groups and many media outlets have propagated the notion that environmental protection is bad for business. However, missing from this public debate has been a detailed accounting of the U.S. economic output and employment that are created through conservation, restoration, and mitigation actions. These activities are part of what we call the “Restoration Economy.” Dr. Todd BenDor



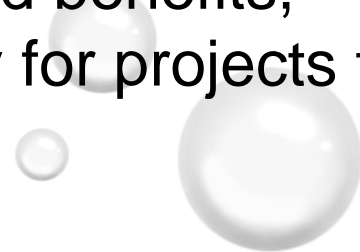


Restoration Project – Middle Fork South Platte , CO



Toward a Restoration Economy

- Mitigation banking (includes wetland, stream, and species banking) are the most developed of the biodiversity markets. Conservation banking payments total \$1.3- \$2.2 billion annually in US in 2010 (Madsen, et al. 2010)
- Literature shows that restoration investments lead to significant positive economic and employment impacts, and appear to have particularly localized benefits, which can be attributed to the tendency for projects to employ local labor and materials.





Restoration Project - UT



Landscape-level Restoration and Conservation

Utilizing landscape scale planning helps insure long-term sustainability by considering:

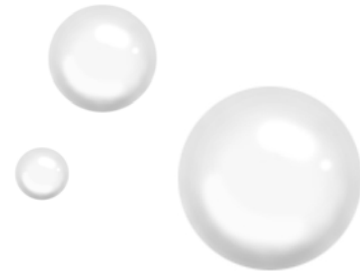
- The current and future landscape context which helps avoid future diminishment of sites; and
- The functional value of sites relative to the resource being impacted (e.g. the functions of riparian and headwater wetlands); and
- A landscape setting is important to the conservation of fish, wildlife, and their habitats (e.g. breeding site fidelity, genetic isolation, range contraction)



Restoration Project- MT

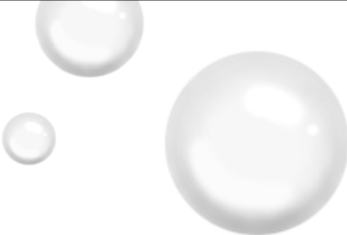
Mitigation and Conservation Banks

Definition: a site or suite of sites containing natural resource values that are conserved and managed in perpetuity for specified aquatic resources or endangered, threatened, or other at-risk species and which are used to offset impacts occurring elsewhere to the same type of resource (i.e., in-kind, off-site compensatory offsets).





Stream Restoration Project – Yellowstone River MT



Advantages of Mitigation and Conservation Banks

- Provide a means to effectively offset cumulative impacts of many small projects — combat “Death by 1000 Cuts”
- Streamline the permit processes for all
- Aid in recovery of listed species – contributing to recovery plan goals (being expanded to voluntary markets for species at risk)
- Reducing the unit cost of mitigation
- Reducing agency time spent tracking compliance and monitoring mitigation sites





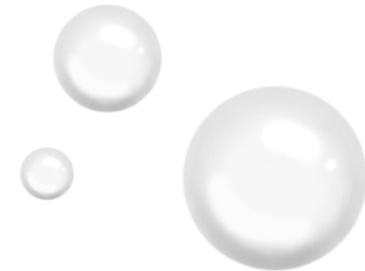
Wetland Mitigation Bank - MT

Stacking Ecological Functions and Business Benefits

Reducing risk and increasingly liquidity for banking projects means looking at the land and water resources for all the ecological functions and potential markets they may serve.

Three broad categories of ecosystem markets:

- Carbon
- Water
- Biodiversity



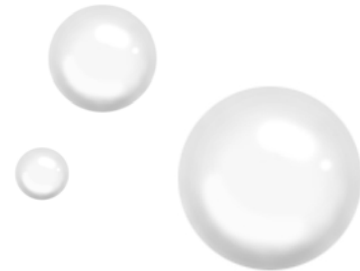


Mitigation Bank Project – North Prong Creek NC



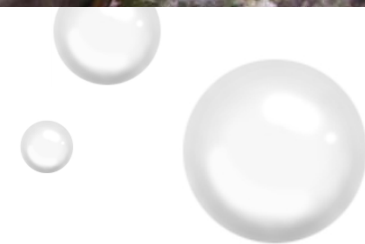
Enabling Markets

The single most important item here is consistent government regulation. While local discretion and flexibility are sometimes necessary in interpreting law, it is nonetheless essential that there be a high level of certainty, reliability, and predictability in the way law and policy are implemented if investors are to put their capital into long-term, large-scale ecological improvement projects.





Mitigation Bank Project – North Prong Creek NC



Enabling Markets

- Regulatory Clarity and Consistency
- Equivalency across all forms of Mitigation – A level playing field
- Increasing transparency over Ecosystem Service markets - Bringing Data to Markets (e.g. Mitigation Analyst and EcoBlu Analyst)

