

## **Healthy Headwaters Initiative Proposal Draft Concept Paper November 17, 2009**

Climate change poses unprecedented challenges to the conservation of water resources in the West. Rising water temperatures threaten to degrade fish habitat and make cold-water fisheries more vulnerable to extinction. Less snow and more rain during the winter and spring will reduce the snowpack and make less water available for downstream uses during the summer and fall. Municipal water supplies, agricultural irrigation, and other consumptive uses -- as well as non-consumptive uses such as downstream fisheries -- will be adversely affected.

A healthy network of headwater streams is essential to maintain water supplies and defend against the harmful impacts of climate change. The majority of the surface water flows in the West originate as rain or snowfall in National Forest lands. Sixty-six million people in 3,400 communities nationwide receive most of their water supply from National Forests. In many areas, the natural capacity of these headwater forests to store and distribute cold, clear water has been impaired by a variety of historical activities, such as road construction, logging, mining, water diversions, and overgrazing in riparian areas.

Significant opportunities exist to restore healthy headwaters and help them adapt to the inevitable effects of climate change. For example, old logging roads can be closed and obliterated, riparian areas can be fenced and revegetated, and beavers can be introduced to re-establish wetlands and improve headwaters storage capacity. The U.S. Forest Service can undertake much of this restoration on its own or in collaboration with a variety of public and private partners in a watershed.

The potential cost of restoring healthy headwaters vastly exceeds the Forest Service's current financial capacity. For instance, the Forest Service has an estimated \$8 billion backlog of road maintenance and repair work, but was only able to spend about \$50 million on urgently needed road remediation last year -- less than one percent of the needed funding.

Some downstream water users, recognizing the importance of healthy headwaters, have begun to provide financial assistance for upstream watershed restoration work. A few municipalities have instituted a voluntary contribution program that allows customers to pay an extra amount in their monthly water bills that is earmarked for watershed restoration work on national forest lands. Facilitated by the National Forest Foundation, the program has been highly successful, with up to 30 percent customer participation. Other cities are considering adopting such a program.

Clearly, there is tremendous need and opportunity for the Forest Service (and possibly other headwaters land owners) to form partnerships with downstream water users to increase the financial resources available to accomplish watershed restoration work in the headwaters.

One way to jump-start such a partnership would be for Congress to establish a collaborative Healthy Headwaters Restoration Program. Potentially modeled after the recently-adopted Forest Landscape Restoration Act (FLRA), the Healthy Headwaters Restoration Program would create a special fund in the Forest Service (or possibly EPA) budget dedicated to collaborative

restoration projects with downstream water users. In order to qualify for funding, the downstream water users would be required to contribute at least 50 percent of the total cost of the restoration projects. Potentially, other headwaters land owners and watershed stakeholders could participate in the program, either as recipients or contributors of funding.

Like the FLRA, funds would be awarded on a competitive basis to the most meritorious restoration proposals. Proposals would be evaluated according to their environmental benefits (including potential to improve resiliency to climate change), economic benefits (including increased natural storage capacity to help offset climate change impacts on water supply), and degree of involvement and support from key stakeholders in the watershed.

The Healthy Headwaters Restoration Program would provide a powerful incentive for downstream water users to engage in upper watershed restoration. For example, municipal water supply agencies would be more likely to institute voluntary contribution programs if they (and their customers) knew that their contributions would double in value.

Public opinion polls have consistently found that people consider water to be the single most important and valuable resource provided by the national forests. Many Americans are also very concerned about the potential impacts of climate change on the environment, globally and locally. The Healthy Headwaters Restoration Program would create an effective and widely supported mechanism to safeguard water supplies for millions of Americans and help our environment and society prepare for climate change.