



Rocky Mountain Region

WATER

Rocky Mountain Region – Water Emphasis

A principal purpose for which the Forest Reserves, which subsequently became part of the National Forest System, were established was to “secure favorable conditions of water flows” (the Organic Administration Act, 1897). With a growing population and a finite freshwater resource, that purpose is more critical to the social and economic well-being of the United States today than it was in 1897.

Most of the water in the Inland West falls as precipitation on National Forests, and most of that in the form of mountain snows that supply 75 percent of that area’s water. About 40 percent of the water in the West falls as precipitation on 20 percent of the acres of land that are highest in elevation, and a significant percentage of those acres are National Forests. The 11 National Forest units that comprise the Rocky Mountain Region of the Forest Service supply over half of Wyoming’s water yield, more than two-thirds of Colorado’s water yield, and over 70 percent of the public surface water supply systems in Colorado.

A significant portion of the western United States, home to an estimated population of more than 100 million people, benefit from and depends on the major river systems that originate on National Forests in the Rocky Mountain Region. It includes states with some of the fastest growing populations in the country. As just one example, the population of Colorado is expected to increase from five million currently to more than eight million by the year 2050.

Healthy forests, including the streams, wetlands, meadows, and riparian areas within them, function as natural sponges that absorb, store, filter and then slowly release precipitation. The integrity of terrestrial and aquatic ecosystems is dependent on forested watersheds functioning in this way. Many of the West’s recreation opportunities, such as hiking, rafting, boating, skiing, and fishing, are examples of socially and economically important non-consumptive benefits of the water resource. Consumptive water uses that meet the agricultural, municipal, and industrial needs of western populations are highly dependent on both natural forms of storage and transport (primarily in the form of high elevation snow packs, healthy forests serving as sponges, and rivers and streams), and on man-made storage and transport facilities, many of which have been constructed on National Forest System lands.

Climate models suggest that:

- Warming trends that have been occurring over the past several decades will continue throughout this century;
- There will likely be significant decreases in annual total snowfall, with more precipitation falling as rain rather than snow;
- Warming temperatures will cause smaller snow packs to melt earlier in the spring than what occurred in the previous century;
- Western summers are becoming longer and drier than historic norms, with one direct effect being a steady increase in the number and severity of wildfires.

The cumulative effects of these changes will be significant to growing populations in the West whose economies and lifestyles have become dependent on sustained flows of water during typically dry summers, as fed in large part by the natural storage of water in deep, high elevation snow packs. Strains on water supplies and storage are already occurring throughout the West. Large, severe wildfires often have significant impacts on the very forested ecosystems that are critical elements to maintaining sustainable supplies of clean water. These dynamic climatic changes make it more important than ever that forests be managed in a manner that makes them more resilient to wildfire, to provide for greater assurance of maintaining their watershed function and to provide for favorable conditions of water flows. Concurrently, populations dependent upon those flows must wisely use and conserve this finite resource to assure its availability and sustainability for present and future generations.

Long Term Management Goals and Objectives

Water is an integral part of forest and grassland health. The Rocky Mountain Region of the Forest Service will follow these guidelines in the management of water resources:

- 1) Protect the resource. Maintain and, where opportunities exist, restore watershed and forest health to ensure full watershed function exhibiting high geomorphic, hydrologic, and biotic integrity. Ensure that forest management activities occur in a manner that will adequately protect the integrity of watersheds.
- 2) Lead the way in promoting water conservation. The Forest Service will be a leader in promoting and demonstrating practices that conserve and protect water resources and in partnering with others to seek the acceptance and use of such practices by the public.
- 3) Increase public awareness. The Forest Service will be proactive in partnering with others to increase public awareness of how forest health and watershed stewardship practices contribute to the social and economic well-being of people in the West in the form of sustainable sources of clean water. A common theme in environmental education opportunities will focus on the fact that water resource management is a critical Forest Service land and resource management objective.
- 4) Acquire, protect, and maintain water rights. New water rights will be acquired as needed to facilitate other land and resource management objectives. Strategies to inventory and account for existing water rights will be improved and implemented consistently. Existing rights will be exercised as necessary to protect and maintain valuable property interests of the United States, pursuant to applicable State law. New water rights applications for third party water uses on NFS lands will be evaluated to ensure protection of federal water rights and water dependent resources.

Means of Meeting Management Goals and Objectives

Following are examples that may be implemented within the Rocky Mountain Region as means of meeting the above goals and objectives:

- Work cooperatively and collaboratively with stakeholders and suppliers. The Forest Service will give priority to actively seeking opportunities to partner with water users, suppliers, recreation providers, and local and State governments in identifying means to meet water resource management goals and objectives. Partnerships will be forged and nurtured that will increase advocacy for and contributions towards watershed management activities that further these goals and objectives.
- Recognize opportunities where National Forest lands can be part of the solution. The management, protection and use of the National Forests can play an increasingly important and, where consistent with law and regulation, expanded role in assuring sustainable supplies of quality water to benefit and meet the needs of both ecosystems and growing populations in the face of climate change.

- Environmental awareness and conservation education. Explore and better utilize electronic communications, the media, and educational opportunities to build public awareness of the connectivity between people and the consumptive and non-consumptive values of water derived from active watershed stewardship practices on National Forest lands.
- Annual contributions to meeting goals and objectives. Forests and Ranger Districts will periodically demonstrate the manner in which programs of work, the setting of priorities, the alignment of skills and expertise, etc. are contributing towards meeting water resource management goals and objectives.
- Aligning budget formulation and allocations. The development of budgets will demonstrate deference and priority to funding activities consistent with furthering water resource management goals and objectives. Likewise, the allocation of appropriated funds will consider opportunities and unit capabilities in furthering water resource management goals and objectives.