



July 2012, ACWI – Subcommittee on Hydrology

Forest Service

Enhancing Water and Watershed Stewardship

Water Stewardship in the Forest Service

- Conservation and Restoration of 193 million acres of national forests and grasslands
- Outreach and technical support to landowners and communities
- Multidisciplinary, landscape scale science and decision support tools

Water from National Forests provides:

- Domestic water supplies
- Irrigation and industrial water supplies
- Hydropower
- Riparian communities that provide and protect habitat
- Refugia for aquatic and riparian species
- The most beautiful places in the country
- Forested watersheds provide water to 180 million Americans.
- 66 million people get their water from National Forests
- Refugia for more than 100 aquatic endangered species
- 75% of our nation's outdoor recreation is within 1/2 mile of water
- 50 million people fish in the United States each year

Water Stewardship Efforts

1987 Organic Act:

Protect and enhance water supplies, reduce flooding, and secure favorable conditions of flow

- Restoration
 - Fish passage
 - Riparian habitats
 - Invasive species
- Management
 - Instream flows
 - Best management practices
 - Addressing threats
- Science
 - Long-term research
 - Effects of forest management
- Often mitigation driven or small scale

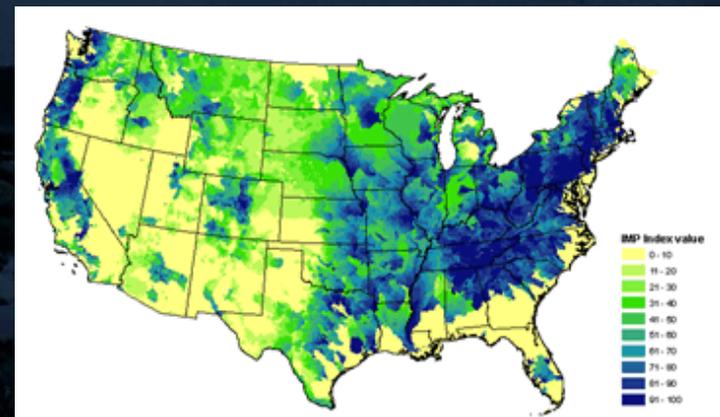
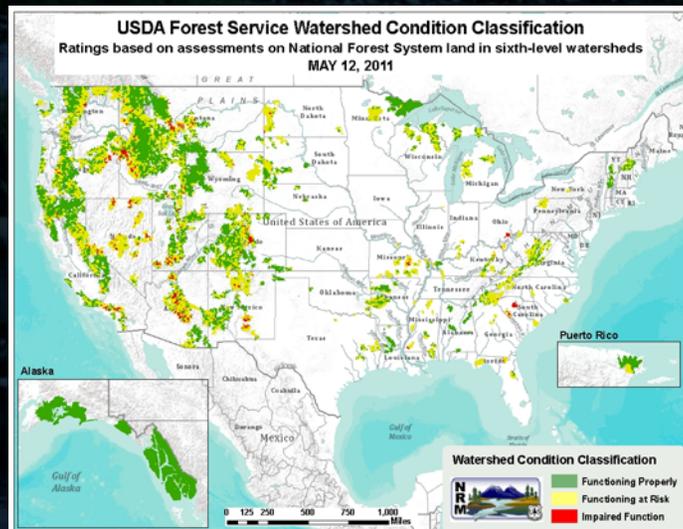
STEWARDSHIP ACROSS LANDSCAPES

Prioritization

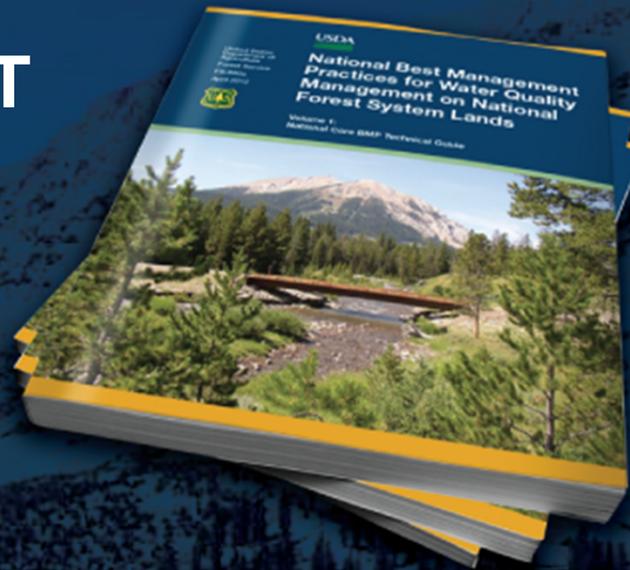
- Watershed Condition Assessment
- Forests to Faucets

Assessment

- Vulnerability Assessments
- Resource Planning Act



IMPROVING MANAGEMENT AND ACCELERATING RESTORATION



- New Planning Rule
- Climate Change Score Card
- Best Management Practices
- Watershed Condition Framework



Inventory Monitoring and Assessment Strategic Plan

- Water Resources Emphasis
- Include all lands and all partners
- Provide credible information
- Effectively respond and adapt

ADVANCING KNOWLEDGE

- Develop new knowledge and tools to address existing and emerging issues
- Continue long-term research studies and maintain experimental watersheds
- Increase science delivery, technology transfer, and adaptive management approaches.

Informing management:

- How does climate and land use change shift water distribution?
- What are the likely consequences of these changes to plants, animals, and rural and urban communities?
- What are the scenarios for future forest disturbance regimes and how will they affect water and aquatic ecosystems?
- What are the best metrics for measuring watershed condition?
- What are ecological and social thresholds related to watershed condition and resilience?

Enhancing Partnership and Collaboration

Partners may be unaware of restoration priorities.



Future Vision

Stakeholders are involved in restoration priority setting.

The Situation

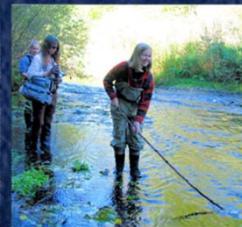
Project planning, implementation and monitoring occurs without stakeholder involvement.

Stakeholders are aware of and involved in all stages of the project (planning, implementation, and monitoring).



No youth involvement

Youth are involved.



Forest to Faucets Partnership

Denver, CO

- Denver Water spent \$40 million on dredging, water treatment, and other costs to restore watersheds after the Buffalo Creek and Hayman Fires
- **Forest to Faucets Partnership** between Denver Water and FS
 - MOU: The two partners will equally **share the cost** of \$32 million of on the ground treatment projects over five years
 - Aimed at reducing the risk and severity of wildfires on public/private lands to protect the South Platte Watershed



Water Stewardship Goals:

- Conserve, maintain, and restore watersheds, ecosystems and the services they provide to people,
- Secure water of sufficient quantity and quality to sustain aquatic life and support terrestrial habitats and domestic uses,
- Advance knowledge and share science central to managing forests, aquatic and water resources, and watersheds in the future, and
- Facilitate watershed-based partnerships that foster conservation and citizen stewardship.

Forest Service Water Strategy:

- Unifying existing programs
- Provide guidance and direction to meet future challenges

Links to water management websites

Watershed Condition Framework

<http://www.fs.fed.us/publications/watershed/>

Forest to Faucets

http://www.fs.fed.us/ecosystemservices/FS_Efforts/forests2faucets.shtml

Best Management Practices (link to FS publication)

http://www.fs.fed.us/biology/resources/pubs/watershed/FS_National_Core_BMPs_April2012.pdf

Forest Stewardship Program

<http://www.fs.fed.us/spf/coop/programs/loa/fsp.shtml/>