New watershed map first step in improving conditions -- USFS

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Five years after an independent review found the Forest Service lacked a consistent policy for restoring vital watersheds, the agency has unveiled a new strategy that will provide the basis for an ambitious nationwide restoration program.

The agency's Watershed Condition Framework and associated national map of watershed health, delineates conditions in more than 15,000 watersheds and will be used to decide which watersheds should be restored first, agency officials said.

"Watershed restoration is not new to the Forest Service, but we now have new capabilities to assess and prioritize where resources are most needed," Forest Service Chief Tom Tidwell said in a statement. "For the first time, we are laying out a process to allow data from local assessments to be collected, analyzed and evaluated to better understand existing conditions and the specific needs for restoration and maintenance at the national level."

The agency classified all national forest watersheds into one of three categories based on current conditions: "functioning properly," "functioning at risk" and "impaired function."

According to the map, almost every state with national forest lands within its borders has federal watersheds classified as "functioning at risk." Many of the most impaired watersheds, marked red, are in the West, including several in Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico and Oregon. Some of the healthiest watersheds are in northern California, western Colorado, northern Idaho and western Wyoming, according to the agency.

Taking a more comprehensive, watershed-level approach, rather than focusing on individual stream segments, as forest managers have done in the past, should be both more efficient and more effective, states the 31-page framework document.

"Working with entire watersheds makes it possible to reestablish the structure and function of an ecosystem to a close approximation of its condition before human disturbance," according to the document. "The process is more strategic, better integrated, and more likely to contribute to long-term change in watershed conditions than current project-level improvement activities that may not be coordinated at the [individual] forest level."

The need for such a strategy has taken on a new urgency as climate change, population growth and development further stress water supplies and threaten water quality throughout the country, officials noted.

"Clean, healthy forests are vital to our efforts to protect America's fresh water supply," said Agriculture Secretary Tom Vilsack, announcing the new framework and map last Friday in Washington, D.C. "Our nation's economic health, and the health of our citizens, depends on abundant, clean and reliable sources of fresh water."

Healthy watersheds are also essential for sustaining ecosystems and for the production of renewable natural resources, and the new initiative "will help provide economic and environmental benefits to farmers, ranchers and residents of rural communities," he added.

First step

The mapping project is the first step in implementing the framework. Using the map and other data sources, forest managers will be able to identify which watersheds should receive top priority for restoration treatments.

The main emphasis will be on aquatic and terrestrial processes and conditions that management decisions can influence, according to the framework. Restoration projects could include soil and water improvements, vegetation management, reforestation, road closures, range management, and wildlife and fishery improvements, among other activities.

"All management activities that influence watershed condition have a role to play in this context," the framework document states.

The remaining steps laid out in the framework include identifying a subset of prioritized watersheds to target for improvement over a 5-year period, developing watershed restoration action plans, implementing "suites of projects" within priority watersheds, tracking restoration improvements, and finally, verifying that the projects have achieved desired goals.

The new strategy has been in the works for several years, and was spurred by a pointed 2006 review by the Office of Management and Budget, which concluded that the Forest Service should overhaul its approach to restoring watersheds and monitoring condition.

As part of his vision for the Forest Service, Vilsack has said that restoring watershed and forest health are among the agency's primary objectives. He convened a national watershed condition team, which developed the Watershed Condition Framework and map to create a consistent, science-based approach to classifying watershed conditions and prioritizing restoration treatments.

The goal, Vilsack said, is to protect water resources while making federal forests more resilient to climate change.