

Indicator 4.17.

Area and Percent of Forest Whose Designation or Land Management Focus Is the Protection of Soil and Water Resources

What is the indicator and why is it important?

This indicator provides a measure of the extent to which soil and water resources in forested areas are protected by legislative or administrative designation or where their protection is the primary management focus. Such designations or management protections guard against degradation of soil resources, maintain soil quality, and prevent impairment of water supplies intended for public consumption.

Indicator 4.17 is also related to Indicators 18 and 20, which report on the overall use of forestry best management practices to protect soil and water resources. Forestry best management practices include a set of preventative measures designed to control or reduce movement of sediment, nutrients, pesticides, or other pollutants from soils to receiving water bodies.

What does the indicator show?

Every 2 years, States submit water quality reports to EPA under Section 305(b) of the Clean Water Act. The National Assessment Database summarizes the data submitted by the States (<http://www.epa.gov/waters/305b/index.html>). States designate water uses and assess water quality attainment in the National Assessment Database. Waters designated by the States as public water supplies are protected waters and are managed to protect soil and water resources in their watersheds. The total size of the watersheds containing assessed waters designated as public water supplies is unknown but will be directly proportional to the reported miles of rivers and streams and acres of lakes, ponds, and reservoirs.

In the United States, 3,589,765 miles of rivers and streams were reported by the States in the 2006 National Assessment Database (table 17-1). American Samoa, Northern Mariana Islands, Pacific Trust Territories, and the U.S. Virgin Islands provided no data. Of these, 822,340 miles have been assessed (22.9 percent of total). A total of 187,424 miles (5.2 percent of total) have been designated by the States as public water supplies and, thus, meet Indicator 17-protection criterion. Thirteen States and territories without an explicit public water supply or overall use designation include Florida, Hawaii, Maryland, Minnesota, Mississippi, Ohio, South Carolina, Wisconsin, District of Columbia, American Samoa, Northern Mariana Islands, Pacific Trust Territories, and the U.S. Virgin Islands. Thus, waters in those areas are not included in the protected total.

In the United States, 42,003,669 acres of lakes, ponds, and reservoirs were reported by the States in the 2006 National Assessment Database (table 17-1). Hawaii, American Samoa, Northern Mariana Islands, Pacific Trust Territories, and the U.S. Virgin Islands provided no data. Of the reported acres, 16,610,248 acres have been assessed (39.5 percent of total). A total of 7,801,087 acres of lakes, ponds, and reservoirs (18.6 percent of total) have been designated as public water supplies. Eight States and territories did not assess any lakes, ponds, or reservoirs (Arkansas, Hawaii, Ohio, Pennsylvania, American Samoa, Northern Mariana Islands, Pacific Trust Territories, and the U.S. Virgin Islands). These States and territories plus 10 additional States (Florida, Maryland, Michigan, Minnesota, Mississippi, New Jersey, Oregon, South Carolina, Wisconsin,

Table 17-1. Total estimated waters reported by States, total assessed waters, and condition of U.S. rivers/streams and lakes/ponds/reservoirs designated as public water supply use (U.S. Environmental Protection Agency 2006 National Assessment Database. <http://www.epa.gov/waters/305b/index.html>).

Type of Water Body	Estimated Total Waters in United States	Total Waters Assessed	Percent of Total Waters Assessed	Assessed Waters Designated as Public Water Supply	Percent of Total Waters Designated as Public Water Supply	Good (percent)	Threatened (percent)	Impaired (percent)
Rivers/streams (miles)	3,589,765	822,340	22.9	187,424	5.2	79.6	1.1	19.3
Lakes/ponds/reservoirs (acres)	42,003,669	16,610,248	39.5	7,801,087	18.6	78.6	1.9	19.5

and Wyoming), and the District of Columbia do not have separate public water supply use or overall use designations, and did not contribute to the total acreage.

Approximately 79.6 percent of the rivers and streams and 78.6 percent of the lakes, ponds, and reservoirs designated as public water supplies have attained good water quality status (table 17-1).

In addition to the specific protections associated with watershed management for public water supply, it should be noted that forest management regulations and practice involve soil and watershed protection measures. These involve a variety of Federal, State, and local regulations and voluntary stewardship practices, and they apply to varying degrees across different locations and across different forest ownerships.

What has changed since 2003?

No data were reported for this indicator in the previous report.

Are there important regional differences?

Because many key States did not report any data and many States do not have a separate use designation for public water

supplies, it is not possible to determine whether regional differences exist in designation of protected water resources. Also, most water sources in each State have yet to be assessed.

Why can't the entire indicator be reported at this time?

This indicator implies that data will be reported in terms of forested land areas. The public database that most directly addresses this indicator, however, collects and reports data in terms of miles of streams and rivers and acres of lakes, ponds, and reservoirs. Although watershed land area is directly proportional to the size of the water bodies within the watershed, the forested portions of watersheds containing waters designated as public water supplies are unknown. Nevertheless, because these are waters designated as public water supplies, they are inherently protected through forest management and forest land will be the major land use classification in those watersheds. The forested parts of hydrologic unit codes are known, but the necessary overlay of water use designation from the EPA database and the forest land use database for each watershed was not available for this report.