

Forests, Water & People Assessment

USDA Forest Service

Northeastern Area

State and Private Forestry



Forest to Faucet: Forests and Drinking Water Supplies in the Northeastern Area

Description: Using maps produced in a geographic information system (GIS), this project describes, evaluates, and ranks the connections between and the importance of forests to surface drinking water quality protection. The importance of forests as a crucial first barrier to source water protection and the primary focus of managing forests for water is becoming increasingly important as the population increases and as water demand in the Northeastern Area (NA) rises. In the Northeastern Area (NA), approximately 50 to 75 percent of the population relies on surface water as their municipal drinking water source. There are approximately 1,600 community water systems that supply clean surface water to more than 50 million people! This assessment uses maps to illustrate the “forest to faucet” connection.

Key Issues

- Watershed forests that protect drinking water supplies for millions of Americans are threatened by land use conversion. (NA Strategic Plan, Obj. 1.A.)
- More than three-quarters (78%) of all forests in NA are privately owned and subject to development pressure. (NA Strategic Plan, Obj. 1.A.)
- Forests are the best land cover for protecting soil and sustaining good water quality. (NA Strategic Plan, Obj. 1.D.)
- Forested watersheds also provide recreational opportunities, fish and wildlife habitat, and other benefits such as increasing property values. (NA Strategic Plan, Obj. 2.D.)



Accomplishments

- Compiled a draft report containing data, methods, results and conclusions. Report displays maps for 540 8-digit HUC watersheds in NA using a four-step process to describe current and future conditions.
- Created an “ability to produce clean water” index for each watershed to show water quality and watershed integrity.
- Determined total water consumers served by surface water intakes to prioritize watersheds that supply surface water to the greatest number of people.
- Highlighted areas critical for surface water drinking supply and containing unprotected private forest lands.
- Highlighted areas with the greatest development pressure and also containing private forests in surface drinking water supply areas.
- Greater recognition of this “forest to faucet” connection will enable the Forest Service to maximize the protection and enhancement of forests, drinking water supplies, public health, and aquatic ecosystems.

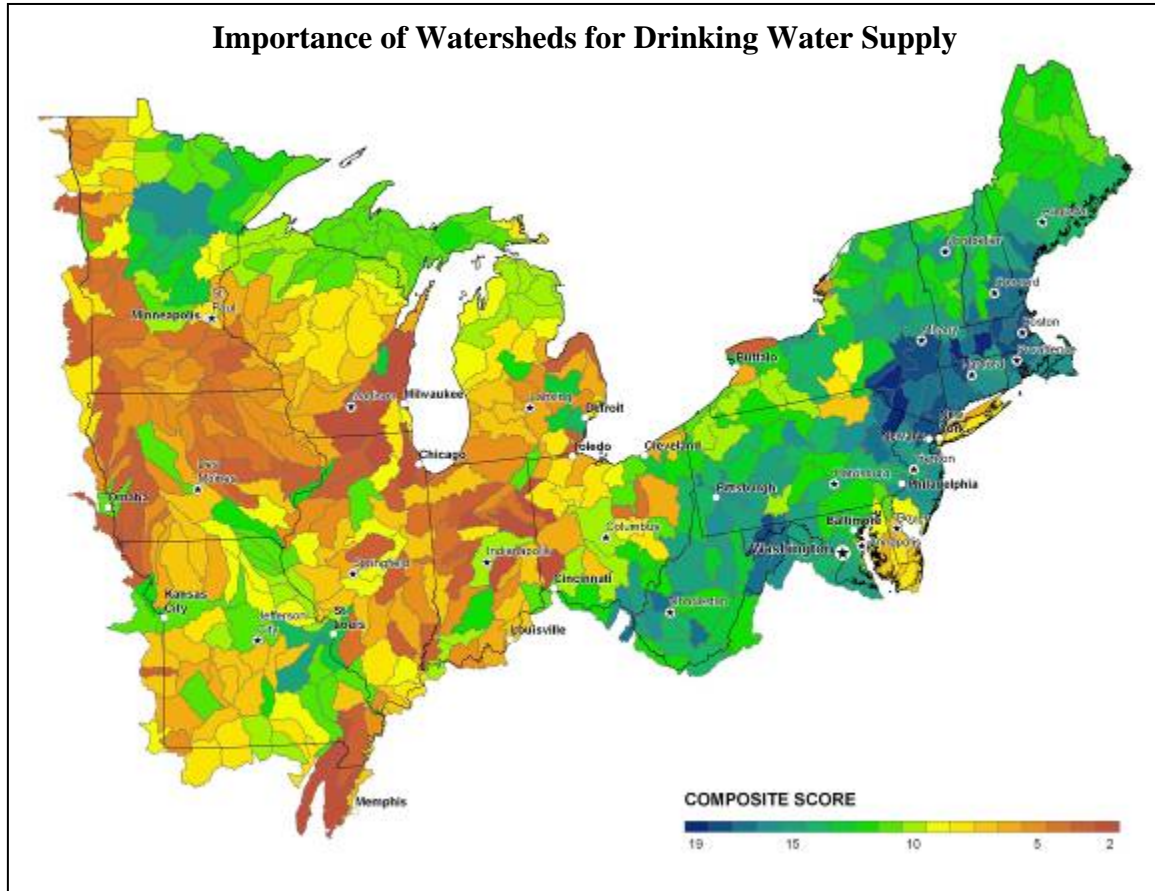


Budget History

This project is accomplished through an ongoing partnership with the University of Massachusetts Watershed Exchange Technology (WET) Partnership and the internal support of NA staff.

Future Direction

- Final report and maps will be ready for web posting by March 2008.
- Companion state map sets for each NA-served state containing all of the maps available for the regional assessment as well as the data supporting the maps will be available online in spring 2008.



- Maine's Presumpscot (Lake Sebago) watershed was identified for a watershed-scale pilot project – Portland Water District is using a software program developed by the WET Partnership to develop the core components of a watershed forest management system.
- Release of technical data and journal article in spring 2008.
- Results to be applied in Forest Legacy, Forest Stewardship, and other conservation and on-the-ground stewardship programs.
- Key assessment facts to be communicated to the general public.
- Ability to produce clean water index may be used as a surrogate for water quality in regional and national Forest Service applications.
- Results may be used by states in their State Forest Resource Assessments and in other planning efforts such as the Criteria and Indicators-Sustainability assessments.
- Data to be updated once 2001 National Land Cover Dataset is available.

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