



**Department of Conservation and Recreation  
Division of Water Supply Protection  
Office of Watershed Management  
Land Management Planning  
Science & Technical Advisory Committee (STAC)  
August 2010**

Energy and Environmental Affairs Secretary Ian Bowles, when announcing the Forest Heritage Plan in April 2010, called for DCR's Division of Water Supply Protection (DWSP) to reconvene an existing team of science and technical advisors to review the principles of the Office of Watershed Management's forestry program as outlined in approved management plans for the four watersheds that comprise the sources of the DCR/MWRA drinking water supply system. This group of experts will review possible changes to the program, and DWSP will subsequently seek community input through public meetings with its legislatively mandated watershed advisory committees next fall. Sixteen scientists representing a wide range of specialties are included in the panel.

The 2010 Forest Heritage Plan specifically states:

Before new FY2011 timber sales on DCR Water Supply Protection forests are finalized, DWSP will have the existing Science and Technical Advisory Committee (STAC) conduct a review of the scientific principles that guide existing Land Management Plan objectives. The STAC will also analyze DWSP proposed changes to implementation on issues such as opening sizes and retention standards. Resulting recommendations will be reviewed by the existing public Advisory Committees and appropriate changes or clarifications to Land Management Plans and future watershed forestry projects implemented. DCR will defer any new timber sales for FY11 until this review is concluded. Habitat management practices will be reviewed in coordination with the Division of Fish and Wildlife (DFW) as part of a broader statewide effort.

### **STAC Background**

The first meeting of the Quabbin Science and Technical Advisory Committee was assembled in the fall of 1996. This committee included professional forest, wildlife, and natural resource researchers and managers from several University of Massachusetts departments, Harvard Forest, the USDA Forest Service, Mount Holyoke College, Amherst College, the Institute of Ecosystem Studies, US Geological Survey, Massachusetts Audubon Society, the New England Small Farms Institute, the MA Natural Heritage and Endangered Species Program, Hampshire College, and several state agencies. Other scientists were added over time.

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The committee was formed to convene, as needed, to address major natural resources and watershed management issues, changes in the Quabbin Reservoir Land Management Plan, and to advise the agency in the development and implementation of scientific research at Quabbin Reservoir. The committee was intended to function as the “bridge” between professional research and management. The committee met annually from 1996 through 2000, and sub-groups have been called upon occasionally to address current issues. In addition to general advice, the committee assisted in:

- Setting research priorities
- Developing standards for research quality assurance and control
- Subwatershed modeling
- Determining appropriate sizes for regeneration openings
- Designing lands reserved from management
- Developing management considerations for the Pottapaug Natural Area
- Developing a policy for the treatment of watershed areas affected by the hemlock woolly adelgid.

The re-convened STAC for 2010 is chaired by Dr. Paul Barten, Professor of Forest Resources at UMass Amherst. Dr. Barten’s background is in hydrology and forest management; he has chaired the STAC meetings in the past and is intimately familiar with DCR and other watersheds and their management. In addition to STAC, he has served on National Research Council (NRC) committees assessing the New York City water supply and Atlantic salmon in Maine, and recently chaired the NRC committee assessing hydrologic effects of a changing forest landscape.

### **Watershed Advisory Committees**

There are two current public advisory committees created by the legislature to closely monitor and review DWSP watershed issues. Both the Quabbin Watershed Advisory Committee and the Ware River Watershed Advisory Committee, designed by the legislature to include a broad range of watershed stakeholders, have been extremely involved in forestry and land management plan development over the past few decades. They conduct public meetings that are posted on the DCR website. Both committees will review STAC’s recommendations and work with DCR to determine if changes are needed to the approved land management plans.

### **Links**

Quabbin Watershed Advisory Committee: [www.mass.gov/legis/laws/mgl/92a.5-13.htm](http://www.mass.gov/legis/laws/mgl/92a.5-13.htm)

Ware River Watershed Advisory Committee: [www.mass.gov/legis/laws/mgl/92a.5-14.htm](http://www.mass.gov/legis/laws/mgl/92a.5-14.htm)

DCR Division of Water Supply Protection Forestry Program: [www.mass.gov/dcr/watersupply/watershed/forestry.htm](http://www.mass.gov/dcr/watersupply/watershed/forestry.htm)

**2010 DCR Division of Water Supply Protection Science and Technical Advisory Committee**

<b>Name</b>	<b>Expertise</b>	<b>Association</b>
Mark Ashton	Silviculture, forest ecology, forest regeneration, adaptability of forests to changes in climate	Yale University Professor and Director of Forests
Paul Barten (Chair)	Forestry, hydrology, watershed management	University of Massachusetts, Amherst Dept of Natural Resources Conservation
Jim Boyce	Environmental economics	University of Massachusetts, Amherst Dept of Economics
Robert Brooks	Wildlife research biology, ecology, hydrology, and effects of harvesting on ephemeral and riparian habitats	USDA Forest Service Northern Research Station Amherst, MA
Jill Bubier	Wetland ecology, biogeochemistry, plant ecology, feedbacks to climate change	Mount Holyoke College Program in Environmental Studies
John Buonaccorsi	Biometrics; previous work with DWSP on deer population and tree regeneration sampling	University of Massachusetts, Amherst Dept of Math and Statistics
John Campbell	Biogeochemical cycling in northeastern forested watersheds	USDA Forest Service, Northern Research Station, Hubbard Brook LTER
Stephen DeStefano	Population ecology and habitat relationships of terrestrial and semi-aquatic water life (moose, beaver, gulls, loons)	United States Geological Survey MA Cooperative Fish and Wildlife Research Unit
Martha Hoopes	Invasion ecology (invasive plants and animals), conservation biology, plant/herbivore interactions, role of spatial configuration	Mount Holyoke College Biological Sciences Program in the Environment
Scott Jackson	Conservation biology, vernal pools, amphibians, biological conservation, impacts of roads	University of Massachusetts, Amherst Dept of Natural Resources Conservation
Matt Kelty	Silviculture, forest ecology, stand dynamics, managed vs. unmanaged forests, regeneration	University of Massachusetts, Amherst Dept of Natural Resources Conservation
David King	Forest wildlife habitat management, neotropical migrant birds, effects of silviculture and roads	USDA Forest Service Northern Research Station Amherst, MA
Tom Lautzenheiser	Community ecology, field naturalist, plants, reptiles, amphibians, butterflies, landscape interpretation	Mass Audubon Regional Scientist Sanctuary Management Planning

**2010 DCR Division of Water Supply Protection Science and Technical Advisory Committee**

<b>Name</b>	<b>Expertise</b>	<b>Association</b>
Chi Ho Sham	Source water protection, hydrology, geomorphology, water quality	American Water Works Association Chair Source Water Protection Committee
John Tobiason	Civil and environmental engineering, transport and transformation of pollutants in natural and engineered drinking water systems	University of Massachusetts, Amherst Environmental and Water Resources Engineering
Mary Tyrrell	Sustainable forestry policy	Global Institute of Sustainable Forestry Executive Director

Support staff from the Executive Office of Energy and Environmental Affairs and MWRA:

- Robert O'Connor, Director, Forest and Land Policy, EOEEA
- Jonathan Yeo, Director, DCR Division of Water Supply Protection
- Dan Clark, Director, DWSP Natural Resources Section
- Thom Kyker-Snowman, Environmental Analyst, DWSP-Natural Resources Section
- John Gregoire, Program Manager - Reservoir Operations, MWRA