

Waterlines

Spring 1996

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Great Ponds



There are over 5,800 lakes and ponds in Maine of which about 3,500 are larger than 10 acres in size and are known as Great Ponds. Great Ponds fall under the jurisdiction of the State of Maine. Great Ponds cover about 1,000,000 acres or about 5% of the State of Maine; a size comparable to the entire state of Rhode Island. These ponds provide outstanding opportunities for recreation, fishing, seasonal and year round homes. The

natural resources of Maine's Great Ponds provide the basis for the economies of many of Maine's inland communities.

The Great Ponds are public waters of the State of Maine, and belong to the people of Maine. The State of Maine has delegated much responsibility for comprehensive planning and shoreland zoning to the town level. There is little Federal involvement in the control of Maine's Great Ponds or shoreline.

While there are many positive attributes of Maine's Great Ponds, there are also a number of environmental and social problems that need attention. The public is demanding solutions and/or action on the following public policy issues.

- Degraded water quality.
- Great Ponds that are sensitive to water pollution.
- Lack of public access for fishing, swimming, recreation and boating.
- Lack of public shorelands, especially near population centers.
- Out-dated boating regulations for Maine's inland waters.
- The need for more navigational aids.
- The need for enhanced enforcement of Maine's boating and shoreland environmental laws.
- The need for enhanced cooperation and coordination between State and local governments.
- The need for a permanent citizens committee focused on Great Pond issues.

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Water Quality & Property Values

Good water quality means money in the bank for lakeshore property owners, according to a recent study by Holly L. James, a UMaine graduate student. James earned a master's degree in resource economics and policy by studying the relationship between water quality and property values around 22 lakes near Auburn, Augusta and Waterville and in northern Aroostook County. Funding for this project was sponsored by a grant from the USGS through the UMaine WRI.

"Water quality can be considered to be an attribute of property around lakes - we wanted to determine how much people are willing to pay for good water quality," says James, who worked with Kevin Boyle, UMaine Associate Professor of Resource Economics and Policy, and Roy Bouchard, a staff scientist with the Maine Department of Environmental Protection.

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Testing the Waters

The 2nd annual Testing the Waters program took place on Earth Day, April 22 with over 24 school districts participating in a event designed to encourage stewardship of the Penobscot River watershed. Over 500 school children accompanied by their teachers and concerned citizens participated in collecting water samples along the Penobscot River watershed. The water samples were returned to the UMaine Water Research Institute for analysis. The resulting data generated from this "snapshot" will be distributed to participating teachers for their use in expanding curriculum topics.

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Water Quality & Property Values

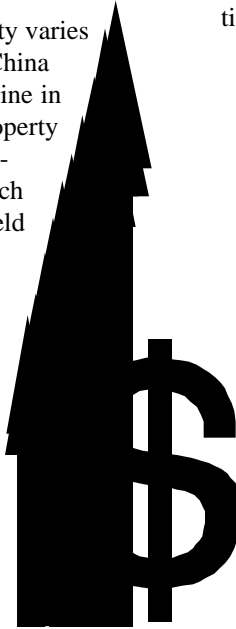
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As an estimate of water quality, the research team used water clarity. A mathematical relationship between clarity and property values was determined for each set of lakes. James used that formula to determine how values would rise or fall in response to changing water clarity conditions.

The study found that, while the effect of water quality varies from lake to lake, it is dramatic in some lakes. In China Lake near Waterville, for example, a one-meter decline in water clarity would reduce cumulative lakeshore property values by \$16 million. By contrast, a one-meter improvement would increase values by \$9 million. Each change in value assumes that all other factors are held constant. China Lake has had several algae blooms in the past decade. Its average clarity is below the state average.

On a regional basis, the analysis suggests that the greatest benefit of water quality improvements would occur in northern Maine where the average individual lakeshore property value would increase by \$8,700 if there were a one-meter increase in water clarity. The average benefit in the Waterville area would amount to \$6,700; with the Auburn area increasing by \$5,400 and the Augusta area increasing by \$2,200.

Contributor: Nick Houtman, University of Maine



Testing the Waters

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One of the many highlights of Testing the Waters - 1996 included a visit by U.S. Rep. John Baldacci to the Hermon Middle School; accompanying Shawn Kimball's classes to local sites for water sampling and collection as part of their Earth Day activities. For additional information regarding the Testing the Waters program and sponsorship opportunities, contact UMaine WRI.

Participating Schools:

G. Herbert Jewett School, Bucksport
 Walter H. Gardner Middle School, Bucksport
 Castine Cons. Comm. /Bagaduce Water Watch, Castine
 Rockport Elementary School, Rockport
 Garland Street Middle School, Bangor
 Maine Council for Atlantic Salmon, Bangor
 Brewer Middle School, Brewer
 Opal Myrick Elementary School, East Millinocket
 Schenck High School, East Millinocket
 Eddington Elementary School, East Eddington
 Hermon Middle School, Bangor
 Penobscot Valley High School, Howland
 Indian Island School, Old Town
 Mattanawcook Academy, Lincoln
 Dr. Carl E. Troutt School, Mattawamkeag
 Medway Middle School, Medway
 Dr. Lewis S. Libby School, Milford
 Leonard Middle School, Old Town
 Greenville High School, Greenville
 Piscataquis Community High School, Guilford
 Penquis High School, Milo
 Samuel L. Wagner Middle School, Winterport
 Stillwater Montessori School, Old Town

Great Ponds (cont. from Page 1)

To address these issues, the Great Pond Task Force was established in July 1995 to: 1) develop a Strategic Management Plan, 2) identify new public policy issues, 3) develop guidelines for surface-use, 4) develop a classification system, 5) develop a strategy for public access and land acquisition, 6) develop a plan for strengthening enforcement of land and surface-use laws, 7) recommend a mechanism for multi-agency coordination, and 8) determine the economic benefit of Great Ponds to Maine's inland economy.

The Great Pond Task Force has formed three working groups: 1) surface-use, 2) water quality, and 3) education. The Task Force has met monthly and is developing a list of draft recommendations that will be released for public comment in August and September. Several of the major public policy issues facing the Task Force are boating issues including the use of "jet-skis," public access to Great Ponds, and declining water quality of a number of ponds and lakes.

This fall the Task Force will finalize its recommendations and *Strategic Management Plan* that will be submitted to the Governor and Legislature in January 1997. For additional information about the Great Pond Task Force, or to become involved in the review of the Task Force's draft recommendations, please contact:



Hank Tyler - *Great Pond Task Force*
 Maine State Planning Office, State House Station #38
 Augusta, ME 04333 Tele: 207/287-1489





From Congressman Baldacci

From Congressman Longley

With the annual commemoration of Earth Day, it is important that we give extra thought this time of year to the importance of preserving the quality of our water resources. In doing so, we should recognize and honor the work being conducted through The Water Research Institute at the University of Maine.

This year, as a tribute to Senator Ed Muskie, we should also rededicate ourselves to the vital task of protecting our environment from preventable and unnecessary degradation. Senator Muskie's service to the nation has touched many lives; his influence is felt in numerous public policy areas. His most enduring legacy, however, will be in the area of environmental protection. The Senator's tireless work on the Clean Air and Water Acts in particular will be remembered and appreciated by generations to come.

As a new member of the House of Representatives, I have had an opportunity to learn more about the federal government's role in protecting our land, air and water. I have been concerned by some of the legislative proposals pertaining to the environment which have been offered in this Congress. In my view, we must never roll back environmental standards or turn the hands of time back to an era of neglect. I remain confident that our national sense of duty toward maintaining unpolluted land, clean air and pure water will endure.

Among the many legislative actions that concern me, is the ongoing effort to consolidate the grant-making authority for the water research institutes funded through the U.S. Geological Service. With Congress attempting to return responsibility for various programs to the states and municipalities, this move to take away local decision-making authority is both unwise and out of character. I believe the authority should remain at the state level, where scientists and students know best what research initiatives meet the needs and address the problems of Maine's water resources.

The Water Resources Research Act provided seed money to state programs, like the one in Orono. Nationally, it distributed \$4.5 million, which generated nearly \$50 million in research. By any measure, this was a wise use of federal dollars, and one which should continue.

As I continue to learn more about the crucial role our federal government plays in maintaining a healthy environment and in fostering stewardship of our water resources, please feel free to share your thoughts and advice with either myself or my staff. I'm proud of the legacy left by Ed Muskie and cognizant of the Maine tradition of sending men and women to Washington who will look out for our environment. With your ideas and suggestions, I hope to be able to maintain that tradition.

The 104th Congress is in the midst of defining the next generation of water protection laws. The regulations of the last two decades made enormous progress in cleaning up our nations lakes, rivers, and coast lines. As these laws are evolved to the next step, we have several important guidelines. First and foremost, we must continue protection of our environment for future generations. It is also important to prioritize limited funds to address the most needed concerns first. Further, it is vital that we provide accountability to our citizens and a right to know that those entrusted with protecting the nation's water are doing so in a manner that is cost effective and results in clean, safe water. These principles are seen in the Clean Water Amendments of 1995 (H.R.961), which passed the House last year, and in the current debate of the Safe Drinking Water Act reform.

The Clean Water Amendments of 1995 will continue Congress's commitment to environmental protection of our water. It does so by empowering those closest to the environment problems – local officials – and ensuring that the most cost effective approaches are utilized to solve those problems. H.R.961 will ensure that limited resources are dedicated to the most pressing environmental needs and will stop the federal government from piling unfunded mandates and huge costs on Maine taxpayers without valid, scientifically based reasons.

Legislation to reform the Safe Drinking Water Act passed the Senate 99-0 last session, with strong support of both Republicans and Democrats, as well as the Environmental Protection Agency. This legislation grants more flexibility to states, overhauling the current standard-setting process and establishes a drinking water state revolving fund, for states to build or update treatment plants, develop alternative water supplies, consolidate small systems or replace unhealthful private water supplies. The House Commerce Committee is currently working on similar legislation. We expect that the House will vote on the Safe Drinking Water Act reform shortly after the Commerce Committee finishes negotiations on this bi-partisan legislation.

As our nation moves away from a centralized, one size fits all approach to environmental regulations, there is a dire need to provide the local and state officials who are best suited to protect the environmental they live in, with the knowledge they need to make informed decisions. The need for water research and sound science in Maine will be even more applicable as Congress reforms our nation's water protection laws to become more responsive to each state's and municipalities individual needs and priorities.





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Maine Rivers Digest

Maine Rivers and Streams is available to the public as the newest addition to the Maine Geographical Digest series. The 16-page digest focuses on human use of the state's 31,670 miles of rivers, streams and brooks with special concern for pollution, dams and recreation.

The publication was written by Sherman Hasbrouck, adjunct natural resources specialist with the UMaine WRI, with assistance from river experts around the state. It is highlighted by photographs and maps showing major watersheds and coastal rivers. A special section describes the causes and impacts of the 1987 floods on the Androscoggin, Kennebec, Penobscot, St. John and Saco rivers.

Other titles in the Maine Geographical Digest series include Maine Lakes, the Maine Seacoast and Access to Inland Waters. The series is available by annual subscription for \$25 (includes a three-ring binder, an introduction, and an index) or by individual digest for \$2.00 each. Orders must be prepaid and made in writing to the UMaine WRI.

NEW WEBSITE: <http://WWW.ume.maine.edu/~wri>



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