The drought that afflicted New England and the Mid-Atlantic states earlier this year strained water supplies and sparked a flurry of legislative initiatives geared toward conservation. The dry spell, which came on the heels of several years of intermittent drought, also made clear to lawmakers an uncomfortable reality: Regional water supplies are buckling under a host of strains that, if left unchecked, could threaten their sustainability even in times of abundant precipitation.

The pressures are not unlike those that western states have been experiencing for decades. Population growth and its associated urban and suburban expansion are intensifying conflicts among competing domestic, industrial, commercial and agricultural water users. New development boosts demand for drinking water supplies, further stressing the system by generating fresh sources of sewage and stormwater runoff.

Despite these strains, many states in the region do not have comprehensive systems in place to track or forecast water use. "In the Northeast in general, there have not been mitigation plans," said Mark Svoboda, a climatologist at the National Drought Mitigation Center in Lincoln, Neb. "There have been response plans, but they’re really not looking at risk assessment. The next major paradigm shift would be to (start) handling these issues in years when there isn’t a drought. We’re taking water for granted."

**Proactive Emphasis**

A lot is riding on future decisions made at the state level to preserve this fundamental resource. The federal government lacks a national policy to address water use, and among the mix of federal agencies that deal with water issues, none have direct responsibility for drought planning. Congress is currently debating the National Drought Policy Act of 2002, which seeks to establish a comprehensive federal approach. But for now, most authority for allocating water resources lies in the hands of state governments, which have taken the lead in drought preparedness strategies. The challenge for states is to turn historically reactive approaches into proactive ones that address a mix of conflicting economic, social and environmental factors.

Eastern states generally follow the common-law doctrine of “riparian rights,” which consider surface water to be the shared property of all citizens who own land.

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Drought (Continued from page 1)

adjacent to a stream. This classification stresses that water should be used efficiently. However, it also subjects the water supply to a situation economists refer to as “the tragedy of the commons:” as demand for a public good rises, so do the incentives to use more of it rather than conserve. This tendency can lead water users to attempt to withdraw more water from a stream than it holds.

Barriers to effective management of water resources include many states’ failure to link groundwater and surface water withdrawals, absence of data on potential conflict areas, insufficient coordination between local, county and state agencies, and disregard of the link between development decision-making and availability of water resources.

Integrated Approaches

A recent report on urban sprawl by the General Accounting Office observes that state and local water quality officials often fail to assess the impact of land-use strategies on water supplies because they lack direct authority over development decisions. Pressure to create jobs can also prompt officials to favor economic development over clean water, the report claims.

“Lacking resources and support, many localities are limited in the approaches they take to protect water quality,” says the report, entitled Federal Incentives Could Help Promote Land Use that Protects Air and Water Quality.

Land-use projects place demands on the water supply in a variety of ways. Industrial, commercial and farming activities augment water use, while physical alteration of the land, through construction of paved roadways and parking lots, hardens surfaces and impedes precipitation from sinking into the ground and replenishing aquifers. As a result, the water table is lowered. Pollution rises when water from rain or snow picks up contaminants from paved surfaces and releases them into watersheds. This phenomenon is called nonpoint source pollution.

To address these issues, some experts in the Northeast advocate combining supply and demand management strategies to incorporate economic, social, environmental and political factors that impact a watershed and its ecosystem. This approach, known as integrated water resource management (IWRM), seeks to improve efficiency and conserve long-term supply by mediating conflicts among competing users and including them in water use decision-making efforts.

Around the region, there have been efforts to adopt an IWRM approach. Pennsylvania’s Growing Greener, Growing Smarter program invests in new and upgraded drinking water and sewer systems, and links those activities to land-use assessments. In Massachusetts, environmental officials increasingly focus on land-use concerns, there has been a movement toward tackling both water and wastewater issues together.

“It’s a development issue. As things grow, you’re changing the natural water cycle and we think there are things going on and technology available to mitigate that,” said Mark Smith, director of water policy at the Massachusetts Executive Office of Environmental Affairs. “Now we’re dealing with overuse of water and flow risk. The next set of issues are not just nonpoint source issues but flow issues too,” he said.

State Initiatives

The lack of sustainable water use policies has prompted state environmental agencies in the Northeast to better gauge the needs of industrial, commercial and residential water users. In a series of public forums held last year, Pennsylvania state officials learned that they still lack crucial information.

“We heard how we don’t know which areas of the Commonwealth are putting stress on their groundwater and surface water supplies through overuse,” Pennsylvania Environmental Protection Secretary David Hess told the Senate Environmental Resources and Energy Committee in March.

State agency officials in Pennsylvania and New Jersey are supporting legislation to update their state water plans.

Not all states in the region have established centralized programs to measure water consumption. In Maine and New Hampshire, where a high percentage of consumers draw their water from private wells, task forces have recently been formed to assess the best way for officials

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Clean Power Act (Continued from page 3)

oxide emissions from current levels, slashing total emissions 90 percent from 1990 levels by 2006
-A three percent reduction of carbon dioxide effluence from current levels, lowering total annual emissions to 1990 levels by 2010.
-A requirement to test and gauge mercury emissions from the state’s coal-burning power plants to assess whether to call for greater reductions than those mandated by EPA starting in 2003.

The measure also promotes conservation and programs to manage demand and encourage energy efficiency.

The new law requires state environmental officials to conduct a year-long evaluation of the mercury content of coal burned in the state, and recommend an appropriate emissions cap to the legislature by March 31, 2004.

Consensus Was Key

Pollution (Continued from page 3)

are high. Winds carry pollution from midwestern coal-burning plants and deposit it over the Northeast’s lakes and forests in the form of acid rain, which contaminates plant and animal life. The E.P.A. estimates that sulfur dioxide and nitrogen oxide alone contribute to the premature deaths of 10,800 people annually.

In January, the attorneys general of nine New England and Mid-Atlantic States urged the Bush administration not to weaken clean air rules for midwestern polluters. “The agreement made in the 1970’s promised to reduce acid fallout on New Hampshire. The public interest, as opposed to energy industry interests, requires that this Administration keep the federal government’s promise to the people,” said New Hampshire Attorney General Philip T. McLoughlin in a statement.

Some observers contend that power plants in the Northeast that have already made mandated pollution-control upgrades will be at a competitive disadvantage if midwestern facilities no longer must comply with those regulations. Eastern states face federal deadlines to reduce ozone and smog. Some officials warn that the proposed changes would limit their ability to force states west of them to cut down on the pollution that makes its way eastward.

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to monitor water withdrawals and enforce conservation.

Demand-side approaches – such as conservation through use of more efficient appliances – can dramatically reduce waste while lowering energy use. For example, new washing machines can slash water use by 36 percent and energy consumption by 60 percent, according to a report released by two New Hampshire state agencies last August. The study found that 83 percent of water supply systems and 70 percent of businesses in the state use no or very limited water conservation measures.

Little relief in sight

The recent drought underscored the reality that until now, few tools have been available to curb demand, enforce conservation or tap emergency supplies on short notice. States need to assess where their water supplies are at risk during plentiful times, so they can better deal with shortages when they strike.

“These are issues I’m seeing more and more on the East Coast from states all the way from Georgia to Maine,” said Svoboda. “We need to take steps to address these issues because they’re not going to go away.”

More Available Online...

For a state-by-state analysis of water-related legislation in the Northeast, check the ERC Web site.

There you will find host of other environment policy information, as well as details about ERC’s other programs.

Log on at WWW.CSGEAST.ORG

State officials attributed the bill’s passage to the successful effort to form consensus among the various stakeholders.

“I think that, by and large, policymakers in the state understand that a lot of our pollution is blown upwind from the Midwest,” said Kenneth A. Colburn, who was the director of New Hampshire’s Air Resources Division at the time of the bill’s passage. “You can complain, or you can lead by example. Officials here chose to lead by example.”

Four-pollutant legislation has also been introduced in Illinois, Michigan, Minnesota and Wisconsin. In Massachusetts, the Department of Environmental Protection is currently implementing a four-pollutant regulation.

At the national level, the U.S. Senate Environment and Public Works Committee voted 10-9 to approve a four-pollutant bill sponsored by U.S. Senator James Jeffords of