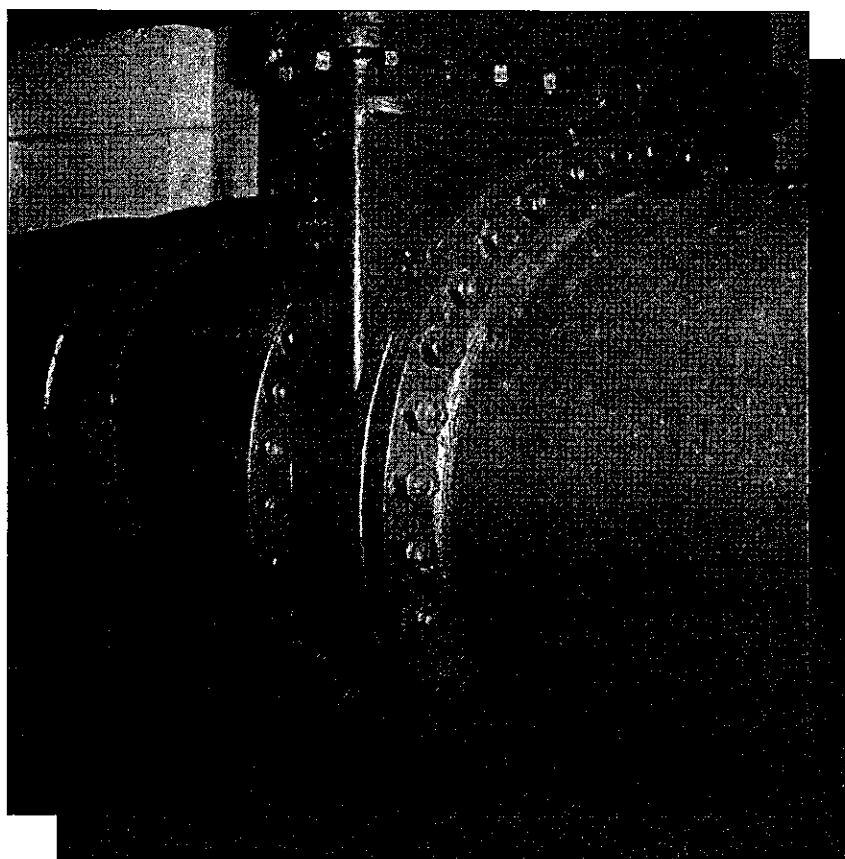




# In The Main.

The Technical Assistance Newsletter for Public Drinking Water Professionals

DEP Division of Water Supply  
In The Main  
One Winter Street  
Boston, MA 02108



Division of Water  
Supply

Department of  
Environmental  
Protection

Executive Office of  
Environmental Affairs

Commonwealth of  
Massachusetts

Volume 3, Number 3  
Summer 1990

## Funding for Small Systems:

- What's Available?
- Who to Contact?
- Who Can Apply?

Heidi Feusi

The U.S. Department of Agriculture, Farmers Home Administration (FHA), provides financial assistance in the form of grants and loans to public entities, such as municipalities, to improve, modify, or replace a water facility. FHA gives priority to public entities that serve a population of less than 5,500 persons.

During the 1989 Federal fiscal year, the FHA awarded approximately nine million dollars in water related loans and grants in Massachusetts. Funds for the 1990 fiscal year are still available and public entities can apply at any time. There is no application deadline.

To obtain an application, or for further information, contact:

Farmers Home Administration, State Director  
451 West Main Street  
Amherst, MA 01002  
(413) 253-3471

## Massachusetts Wellhead Protection Program Wins EPA Approval

Tony Abruzese

On May 7, 1990, the U.S. Environmental Protection Agency officially approved DEP's Massachusetts Wellhead Protection Program. The Program report was submitted to the EPA in June, 1989.

The Program is a multifaceted approach to protecting groundwater recharge areas that supply public water systems. By mapping recharge areas and adopting groundwater protection measures, communities can ensure safe water supplies for their residents.

Although nearly all of the groundwater protection measures had been implemented for several years before the EPA deadline, the approaches on the state and local level to protect these resources continue to be developed and

implemented by the Department, other state agencies, municipalities, and citizen volunteers who serve on committees working to protect water supplies.

Last year, when the federal government required all states to submit programs, Massachusetts was ahead of the game. And today, DEP's wellhead protection strategy is one of only a handful to have won formal EPA approval.

"With some two million residents of 275 Massachusetts communities still relying chiefly on groundwater sources, one of our top priorities has to be preventing the contamination of wells and their recharge areas," said Commissioner Daniel Greenbaum. "Having seen 65

*Continued on page 2*

## Establishing A Drinking Water Protection District

Sandy Mullaney

Cities and towns may want to take advantage of recently approved legislation, MGL Chapter 361 of the Acts of 1989, which is designed to foster and support multi-town approaches to protecting drinking water resources. While aquifers and watersheds are shared resources, the constraints of local government often limit multi-town management and planning of these shared resources.

Many municipalities are taking a leadership role in organizing and/or participating in regional protection approaches, but could use some assistance. In forming a District, municipalities are given an organizational framework and means to finance protection efforts. The Department encourages interested cities and towns to explore this option. DWS is anxious to assist interested communities and welcomes questions and comments on the topic.

### What is a Drinking Water Protection District (DWPD)?

Under Chapter 361 of the Acts of 1989, two or more municipalities with common drinking water resources may form a district for purposes of water conservation, resource management and protection, and resource planning of drinking water supplies, including shared public wells, reservoirs and aquifers.

### What must municipalities do to form a District?

Once municipalities have decided they want to form a district, each must obtain a majority vote of its annual town meeting or town council to accept the provision of the enabling legislation. A commission is then formed consisting of two volunteers from each member town, to serve for three years without compensation, and to be appointed by respective Mayors or Boards of Selectmen.

*Continued on page 3*

### Bulletin

The Source Approval section of the Drinking Water regulations has been amended. The amendments become effective July 6, 1990. They have been modified since the public review period to accommodate recommended changes.

The Drinking Water regulations 310 CMR 22.00 (Source Approval section 22.21) are available at the state bookstore, State House Room 116, Boston, MA 02133, phone: (617) 727-2834. □

■ EPA Approves MA Wellhead Protection Program, continued from page 1

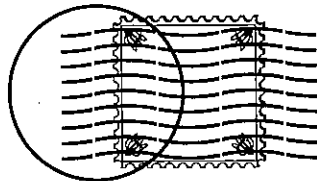
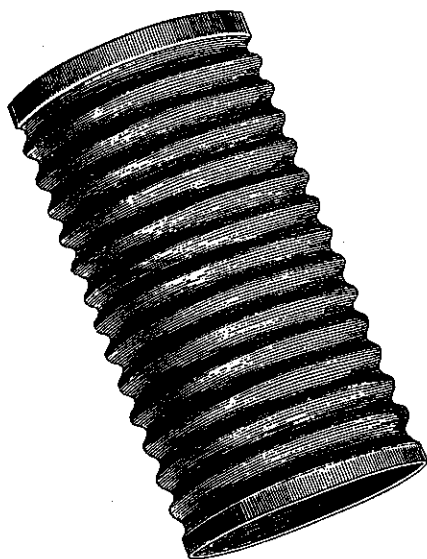
communities lose one or more of their wells to contamination, we began initiating a strong wellhead protection program nearly a decade ago."

EPA Region I Administrator Julie Belaga called the Commonwealth's progress on wellhead protection impressive, saying Massachusetts "has firmly established itself as a national leader in groundwater protection. Approval of this plan is a great credit to the Department of Environmental Protection and, in particular, to the staff of its Division of Water Supply."

While DEP and EPA do what they can to protect local water supplies through regulatory and technical assistance programs, it is municipalities that are primarily responsible for assessing and controlling land use activities that could have adverse impacts on groundwater quality.

"There are both public health and economic advantages to proactive groundwater protection efforts," said Assistant Commissioner Arleen O'Donnell, who directs DEP's Bureau of Resource Protection. "Preventing contamination is a bargain compared to the cost of cleaning up a tainted well."

DEP has a Community Technical Assistance Program which helps towns and cities balance economic development with environmental protection. The agency offers communities and citizens' groups guidance on how to protect local water supplies, identify land uses that threaten recharge areas and develop strategies for controlling contaminants. □



## Letters to the Editor

### Needham

Dear Editor:

DEP's Winter, 1990 issue of *In The Main* has an article titled "DEP Encourages Full Cost Pricing of Water" and says in part "Full cost pricing of water refers to charging water rates that reflect the 'full cost' of providing water." The DEP is following the often stated policy of the DEQE as well as every other authority on the subject.

Yet the State has given more than \$100 million to water utilities in Massachusetts and is attempting to give another \$100 million. These subsidies inevitably contradict the principle of full cost unless the money is not used on water-utility related expenses. Such subsidies make it impossible for a water user to make informed choices on how financial resources should be allocated.

Very truly yours,  
Bruce E. Nagler, Superintendent  
Needham Water Division

*The fact that the existence of some of the DEP grants programs may reduce the pressure on water utilities to go to full cost pricing is well taken and would certainly be true in an ideal world. However, many water systems in this state are aging and in need of repairs and improvements.*

*There is a pressing need for an immediate source of funding to correct aging infrastructures as soon as possible. The DEP Grants Programs fill this need and enable systems to maintain and improve operations on an interim basis.*

*However, DEP believes that the new requirements under the Federal Safe Drinking Water Act may prove expensive, and water departments are going to need a constant and reliable source of revenues. Charging consumers the "true cost" of supplying safe drinking water is in the best interest of any municipality because it allows systems to operate with a dedicated source of revenue independent of other municipal needs, encourages conservation, and enables systems to keep up with maintenance, monitoring requirements, and treatment needs. DWS plans to work closely with the New England Water Works Association and the Massachusetts Water Works Association to help make this possible.*

*Please note the following letters from municipalities who enjoy the benefits of full cost pricing. —ed.*

### Easton

Dear Editor:

I would like to commend the D.E.P. for their recommendation to communities to adopt full cost pricing for water.

The Town of Easton Water Department has been self-sufficient since the first Water District was formed in 1887. Due to this type of funding we have been able to keep up with the growth of the community by improving our system solely through water rates.

At the 1989 Annual Town Meeting, Chapter #40 Section 39K of the Massachusetts General Laws was approved, authorizing us to set up an Enterprise Fund for the Water Department. This type of accounting allows Water Works' to be operated like a business. Vehicles and equipment are depreciated making it mandatory to keep good records of all assets with annual inventory.

All Budgets must still be reviewed by the Finance Committee and Board of Selectmen and be voted on at Town Meeting. It has been much easier for the Water Department to get their budget approved than other Departments which are dependent on taxation, especially through this latest fiscal crisis.

I would urge all communities to set up an Enterprise Account for their Water Departments and charge the "true cost of water". It has worked well in the Town of Easton.

Sincerely,  
Wayne P. Southworth, Superintendent  
Easton DPW Water Division

### Stoughton

Dear Editor:

The articles in the winter edition of "In the Main" about full costs pricing of water, wellhead materials, lead testing, etc, were all excellent.

One topic that was missing is the importance of enterprise fund accounting for water and sewer departments. Enterprise fund accounting is an important tool to fully explain the costs of providing water and sewer services. This accounting process must include all costs associated with the water and sewer departments. With these explanations, rate setting authorities can better explain the need for rate increases. This is vital for full cost pricing.

There are two other very important reasons for enterprise accounting:

1. Enterprise accounting does not change Town Meeting's authority to vote the water or sewer budget (in those communities in which this presently is the process). The appropriating authority is not changed with enterprise accounting. These are not revolving accounts. Enterprise accounting is only an accounting process — not an appropriating authority.

2. All surplus funds, if any, remain in the enterprise fund and can only be used for water and sewer purposes. This is important because the funds were raised on water and sewer rates for water and sewer purposes. The rate payers have a right to expect that surpluses be used to keep further rate increases at a minimum.

In summary, enterprise accounting is a helpful tool for water and sewer departments to better explain their operations and the need for funding. As rate payers better understand what is involved in water and sewer operations, they will better accept the need for rate increases.

Sincerely,  
Philip J. Farrington  
Town Manager, Town of Stoughton

### Reminder: Special Public Notification for Sodium

Heidi Feusi

Some water suppliers are still notifying customers of sodium maximum contaminant level (MCL) exceedances the old way, via newspaper, mail or hand delivery.

The new Public notification requirements, which became effective in June of '89, require community\* water systems to report the sodium exceedance to their local board of health and the appropriate regional office of the DEP only. DEP then informs the Massachusetts Medical Association and the Department of Public Health where the information is made available to their listed doctors, nursing homes, and hospitals.

The new sodium notification requirements can save water departments thousands of dollars in mailing costs alone while conveying important information to the affected communities in an effective and efficient manner. □

\* Note: This applies only to community systems. Noncommunity systems are still required to conform to the requirements of 310 CMR 22.16(1)(a)(3).

## In The Main

One Winter Street  
Boston, MA 02108

The Commonwealth of Massachusetts  
Michael S. Dukakis, Governor

Executive Office of Environmental Affairs  
John P. DeVillars, Secretary

Department of Environmental Protection  
Daniel Greenbaum, Commissioner

Division of Water Supply  
David Y. Terry, Director  
Tony Abruzese, Editor

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## WMA Requirements for Adjoining Water Systems

Andrew Gottlieb

Public water suppliers serving adjoining systems on an interim basis should be aware of the potential need to obtain a declaration of water emergency if the transfers will result in withdrawals in excess of those authorized pursuant to the Water Management Act (WMA).

Withdrawals in excess of 100,000 gallons per day are regulated under the WMA. Registration statements and permits establish authorized annual average withdrawal rates which cannot be exceeded without specific authorization from the Department. In order to obtain such authorization, a public water supplier would have to petition the Department for a declaration of water emergency in which the authorization to exceed established withdrawal limitations could be included.

This situation has arisen recently where community A began providing water to community B through an existing interconnection while community B did some work on one of its own sources. In providing enough water to community B, community A is also exceeding its registered volume by more than 100,000 gallons per day. Without requesting and receiving a declaration of water emergency from the Department, which includes authorization to exceed its registered volume, community A could potentially be violating the WMA and be subject to penalties.

The Department encourages cooperative efforts among adjoining public water suppliers such as the one described above. It is important that all involved recognize that the WMA requires an additional step if interconnections are to be used to transfer volumes of water in excess of what is authorized under normal circumstances. Suppliers concerned about the applicability of this requirement to their circumstance should contact the DEP regional water supply office in their area. □

## EPA Cracks Down On Data Falsification

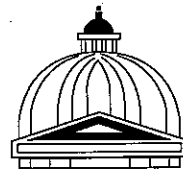
Tara Gallagher

EPA has begun criminal investigations of data falsification by public water suppliers in New England. EPA does not think the problem is extensive but has asked all states in New England to look at their monitoring data and investigate all suspicious results. Massachusetts is also very concerned about this and will be checking data during sanitary surveys, as well as making unannounced visits to check water supplier records.

In addition to focusing on public water suppliers, EPA has also been targeting labs. A major laboratory in the western part of the U.S. has admitted to data falsification; has been decertified; and is now facing criminal charges. Because data falsification is intentional, charges are criminal not civil and may result in loss of job, fines and possible imprisonment.

Most cases have come to EPA's attention by former employees blowing the whistle or through investigations of systems that always report the exact same values for turbidity, for example.

Although EPA does not believe it will uncover many cases of data falsification, it feels that ensuring good data is important, because so many program judgments are based on data, according to Jerry Healey, Head of EPA Region I's Water Supply Branch. □



## Legislative Update

Steve McCurdy

The State's budget crisis continues to be the lead story up on Beacon Hill. The FY 1991 Budget, tax packages to close the deficit, and the FY 1990 Supplemental Budget, have all been the subject of considerable discussion and analysis.

While activity on those topics has to a large degree precluded action on other areas, there has been action on legislation of importance to local water suppliers. Several local petitions to expand service areas from one town to areas of neighboring towns have been favorably received. This intertown cooperation may signal the beginning of a move toward "regionalizing," which will allow towns to share the financial burdens of implementation of the Federal Safe Drinking Water Act standards. Other bills include:

H-3776, sponsored by Rep. Robert Durand, provides municipalities with the authority to assess fines of up to five hundred dollars against those violating DEP imposed water emergencies. The bill was filed in response to concerns of water suppliers who, during last years emergencies, were unable to bring any leverage against the violators. Two consecutive wet springtimes may have reduced the likelihood of need for water restrictions for the immediate future, but DEP will push to have the bill passed regardless, as the need will arise sometime in the future. As of this writing, the bill has been enacted by the House

and now needs Senate approval.

H-1765, is a refiled version of the bill which DEP filed in past years to move the Board of Certification of Water Supply Operators under the auspices of DEP. Having convinced Rep. Steven Angelo, Chairman of the Committee on Natural Resources and Agriculture to file on our behalf, we are hopeful that the bill will be acted upon in this session.

H-5604 is a hybrid of two bills H-1380 (Rep. David Cohen) and H-3223 (Rep. Angelo Scaccia) the result is a comprehensive package designed to protect the Metropolitan Water Supply watershed areas. H-5604 has been passed by the House and as of this writing, is awaiting action by the Senate.

One final piece of legislation which affects Water Suppliers is H-5474 (Rep. Susan Tucker). DEP is opposed to this bill because it would impose a one year moratorium on the requirement of backflow prevention devices on sprinkler systems. Because of the potentially severe consequences to Public Health, DEP has offered to work with the supporters to come to a more palatable solution which addresses the concerns of both sides.

For further information on these, or other legislation that might be of interest, contact me at (617) 292-5770 or write c/o DEP-DWS, One Winter Street, 9th Floor, Boston, MA 02108. □

### ■ Drinking Water District, cont from page 1

#### Is there a funding mechanism to support the District and the Commission?

Yes! Member towns adopt a pricing system to charge *all* users of public and private water a fee not to exceed 10 percent of the town's metered or fixed rate. For privately owned community supplies or those not metered, the fee must not exceed 10 percent of the annualized residential or commercial metered use. In cities or towns without public supplies, town meeting or council is authorized to establish a flat fee. All fees are deposited in a drinking water protection fund.

#### What is the Commission authorized to do?

A Commission is authorized to: Administer the Drinking Water Protection Fund, apply for state grants available to cities and towns, accept contributions into the fund, issue bonds, borrow monies and develop rules and regulations to formalize Commission procedures. The Commission must keep accurate records, publish and present an annual report to member town meetings, and obtain a majority approval vote of its annual budget.

#### What assistance is available to member towns through the Commission and District?

The Commission may:

- provide assistance in identifying recharge areas, watershed boundaries and in locating new drinking water supplies;
- provide assistance with funding to acquire lands or easements for drinking water supply protection;
- provide assistance for long-term planning for regional land use;
- provide public education regarding water conservation, waste disposal, and land use in recharge areas and watersheds;
- supplement emergency response strategies;

■ provide coordination and public information on programs and monies available for drinking water resource projects;

■ review and comment on proposed land use activities likely to impact resources;

■ grant monies to private property owners for removal of underground storage tanks.

#### How are private well owners impacted in member towns?

They would be charged the same fees as public users, but District funds would be available for projects and initiatives to address some of their specific needs as well as those of public users.

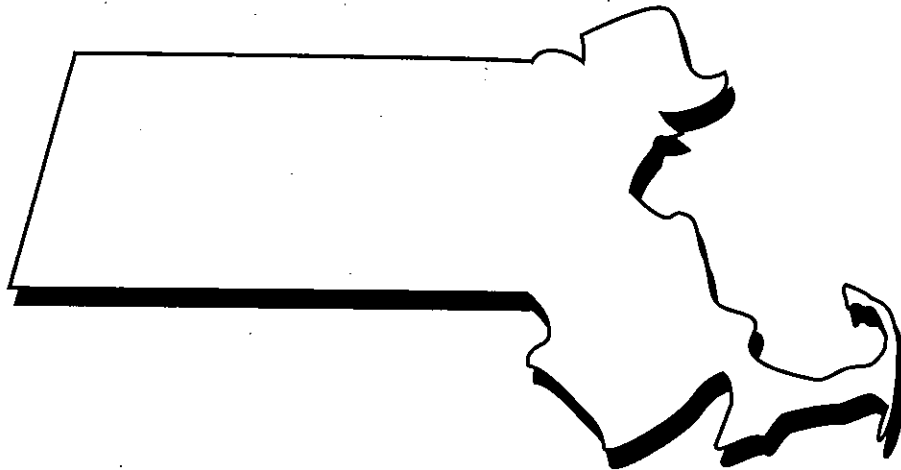
#### Can a member town withdraw from a District or can the District be dissolved?

Yes. As long as a town's bond obligation is met, a vote from town meeting or council may serve to terminate membership in a District. If all but one town withdraws, the District ceases to exist and, after fulfillment of all obligations, funds revert to towns for use on related resource protection projects.

If you would like more information you may contact DWS' Technical Services at (617) 292-5859. □

## Amherst Lab Closes July 1

As of July 1, 1990, the DEP lab in Amherst is closed. Water suppliers who have been taking their bacteria check samples there for quality control purposes should make arrangements to take their samples to the Lawrence Experiment Station (LES). Contact Brendan Cassidy at LES at (508) 682-5237 with questions. The Lakeville Laboratory will remain open and will continue to analyze bacteria check samples. □



# Salute to Communities

Jude Hutchinson

The Community Technical Assistance Program (TAP), designed to help communities prepare land use protection measures which protect water quality, salutes the following towns for their achievements.

## Williamstown

The voters of this community in western Massachusetts overwhelmingly supported a Toxic and Hazardous Materials Bylaw on May 22nd. **Barbara Bashevkin, Town Planner**, is to be congratulated for her excellent work in initiating and facilitating the project. Barbara worked with an ad hoc Drinking Water Protection Group and utilized the services of Williams College, DEP TAP, and a consultant firm. The bylaw was passed under the town's general regulatory authority, MGL, Chapter 40 and regulates the storage of hazardous materials and wastes. It piggy-backs on existing state storage and handling requirements, however, it adds substances which are non-flammable or explosive, and hazardous materials which are not wastes. The town also passed a zoning amendment which creates water resource districts for confined and unconfined aquifers.

## Marshfield

We salute Marshfield for appropriating monies for hydrogeological studies that meet DWS requirements for New Source Approvals, for appointing a permanent protection committee, and for adopting a comprehensive zoning bylaw which meets DEP proposed standards. **Len Ruszczyk, Chairman of the Groundwater Study Committee** is congratulated for his efforts in affecting a bylaw agreeable to all parties. Town Meeting approved the article on April 23rd.

## Stoughton

**Charles Starkowsky, Town Engineer, Gina McCarthy, Health Agent, and Betsy Lane, Town Counsel**, are to be congratulated for their professional expertise in developing a comprehensive regulation that addresses existing and future land uses. The **Hazardous Material Groundwater Protection Bylaw** requires that all handlers of toxic materials and waste register annually with the board of health. This bylaw is exemplary because it requires adequate employee training programs to ensure proper use, storage, transportation and handling of hazardous materials, has provisions for fees and penalties, and well defined management plan requirements.

Stoughton used the one half mile radius to define the protection zones of municipal wells because it has not completed hydrogeological studies of town aquifers. This designation is recommended by DEP. **Salute to Stoughton residents** for their majority vote on April 30th.

## Dedham

We salute **Nan Crossland, Executive Director of the Dedham-Westwood Water District** for her work in overseeing the passage of an

**Aquifer Protection District Bylaw.** The town voiced unanimous support of the zoning regulation which restricts new or expanding uses in the recharge areas of the Bridge Street Wellfield.

New land-use activities that have a high potential to degrade water quality will be prohibited.

The town is using DEP's Interim Wellhead Protection Area delineation of one-half mile until a hydrogeologic study of the aquifer is performed.

## Westwood

It is important to review and revise local regulations that prohibit, restrict and/or require performance standards in order to protect water supplies. When a bylaw has been in place for several years, it needs to be evaluated to ensure it is achieving its intended purpose. **Westwood** reviewed its **Water Resource Protection District** zoning bylaw and revised it to a overlay district with additional prohibitions on new land uses. Congratulations to all involved.

## Wilmington

A salute to **Wilmington** for its initiative to delineate the recharge areas to supply wells and for proposing a zoning bylaw which limits certain land uses in these sensitive areas. Town residents approved the **Groundwater Protection District** bylaw by a narrow margin. We encourage the Board of Water and Sewer Commissioners to work with the Planning Board, the Conservation Commission, elected officials, Chamber of Commerce, and representative citizen groups such as the League of Women Voters to implement and refine the provisions of the bylaw in accordance with DEP recommendations.

## Amherst

Amherst's most recent land use control is a health regulation for the testing and removal of residential underground storage tanks. A tall salute to **Betty Fredrick of the Health Department** for her efforts in educating the public about the risks from substandard tanks in recharge areas and for initiating the regulation. Amherst adds this measure to its compendium of resource protection strategies.

All of the communities saluted in this article utilized the services of the Community Technical Assistance Program which is part of the DWS Technical Services section in Boston. We invite you to visit our library or call us at 617/292-5534 for a water supply protection package.

## Requests To You:

1. If your community recently passed regulations or bylaws that related to protecting public water supplies, please send us a copy for our library. Include the date of Town Meeting vote and/or approval by the Attorney General's Office.

2. Please let us know if your municipality is using a non-regulatory measure for protecting water supplies. We are compiling case studies of successful, non-regulatory techniques such as

Easements/Restrictions, Critical Area Designation, Land Acquisition, limited development, public education and environmental monitoring. These will be incorporated into a local planning guidebook. □

## Holliston Approves Municipal Hook-Up For Families With Contaminated Private Wells

Tony Abruzese

Town meeting members in Holliston overwhelmingly voted last month to extend a municipal water line to 13 families whose private wells had been polluted.

Although the new hook-ups mean an annual \$46 increase in water bills, the residents of Holliston obviously feel it is worth it.

The problem was discovered in 1983 when DEP found that a 53 acre site near the 13 homes in Holliston's North End had been contaminated as a result of illegal dumping. DEP traced the sites' contamination back to the late owner, Charles Bird, who had accepted large amounts of toxic wastes.

DEP applauds the efforts of Philip Galiardi, his neighbors, and the residents of Holliston who gave their inspiring support to overcome the problem. The municipal hook-ups should be completed by next spring. □

## CCAMP Documents Availability

DEP is giving each municipality four publications prepared by the Cape Cod Aquifer Management Project (CCAMP). Although the agency announced the availability of these publications in several professional and municipal newsletters during late 1989, many towns have not contacted us for the materials.

Please contact the person listed below to determine if your town has received its set. Additional copies may be purchased at the State House Bookstore. The "Wellhead Guide To Contamination Sources" contains a compendium of best management practices for land use activities and sample bylaws. It is particularly useful in assessing potential threats to water quality in recharge areas of public water supplies. Thank you! □

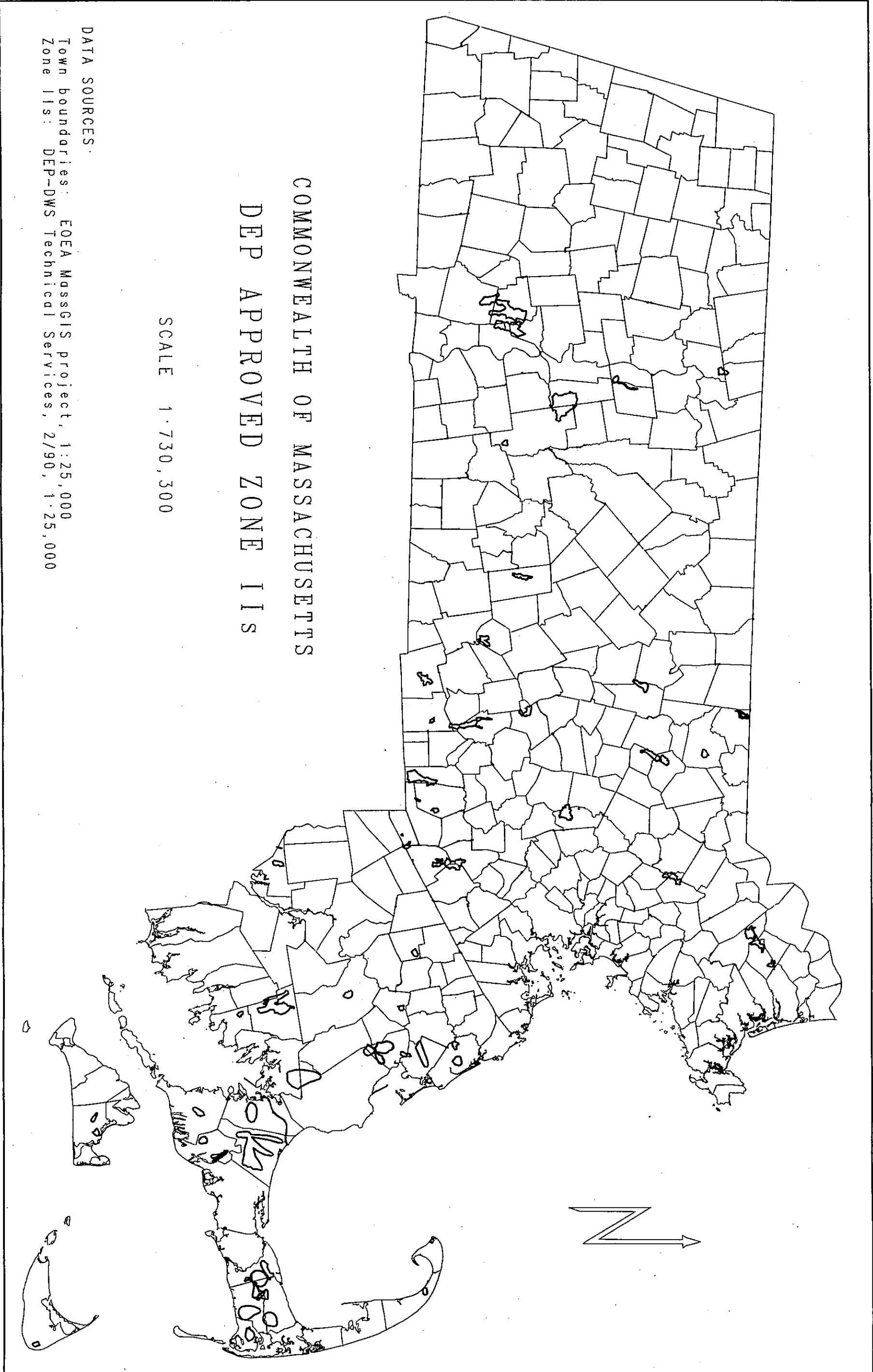
**Central:** Marsha Martin, Jim Fuller  
(508) 792-7650

**Northeast/Metro Boston:** Johanna Prindiville  
(617) 727-5194

**Southeast:** Rob Roy (508) 946-2714

**Western:** Peg Ford (413) 784-1100

**Boston:** George Zoto (617) 292-5966



COMMONWEALTH OF MASSACHUSETTS  
DEP APPROVED ZONE IIS

SCALE 1:730,300

DATA SOURCES:

Town boundaries: EOEA MassGIS project, 1:25,000  
Zone IIS: DEP-DWS Technical Services, 2/90, 1:25,000