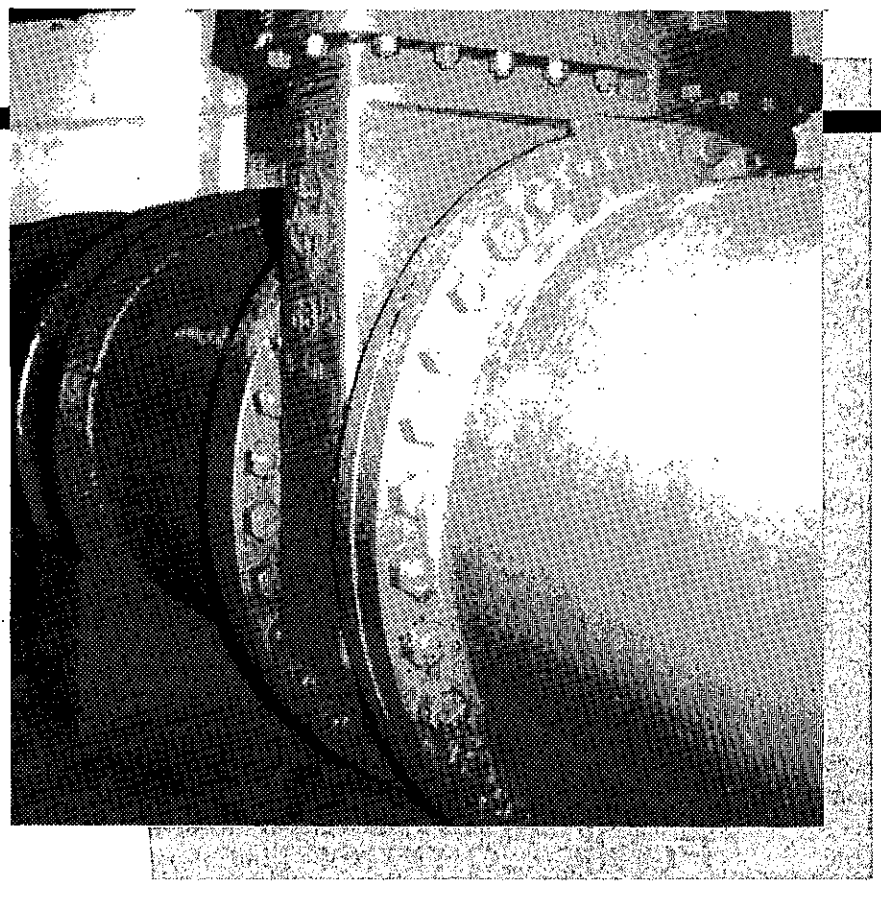
Volume 1, Number 1
Fall 1987



DEQE

Division of Water Supply

Department of Environmental Quality Engineering

Executive Office of Environmental Affairs

Commonwealth of Massachusetts

Perspective on the Safe Drinking Water Act Amendments

J. Kevin Reilly

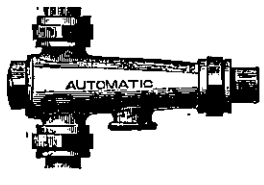
The Safe Drinking Water Act (SDWA) amendments have been passed and implementation has begun and will continue over the next two years. The public demand for sweeping changes was demonstrated in the overwhelming support the amendments received in Congress. As encompassing as the changes are, EPA recognizes and will continue to recognize the need to address each public water supply on a case-by-case basis when implementing the new standards, particularly such treatment rule requirements as filtration, disinfection, and corrosion control. The new public notice requirement clearly attempts to address this case-by-case need.

If the treatment rules are closely scrutinized, one sees that these rules are sound preventive measures to protect the entire water delivery system from the watershed through the treatment scheme, to maintain the integrity of the distribution system, monitor the water (source, treatment and consumer tap) and determine if staffing is adequate. If a water system, surface or ground water, has practiced sound preventive measures throughout the years and maintained them to present day, then the SDWA amendments should not impose any undue hardship on the community. If the community has failed in its obligation to protect and maintain its system, then the SDWA amendments will help protect the consumers from problems that may have occurred in the past from recurring, or from contaminants which may pose a future threat. The U.S. EPA is prepared to work with the states and individual water supplies to aid those supplies in protecting consumers.

If a public water supplier is unsure as to its status with respect to "good" operation and maintenance of that system, it may request from the states or U.S. EPA a sanitary survey. This basic but most necessary and important evaluation of a water system will be the single most important criterion in determining just what the status of the public water system is in the states' and U.S. EPA's judgement. The input from the water supplier is critical during the survey, as is the exchange between the public water supplier and the surveyor of what proper operation and the maintenance of the system should be. In this manner, a correct evaluation of the system can be made in relation to the SDWA amendment requirements. The U.S. EPA is looking forward to the new challenge and opportunities presented to us and the water suppliers in the new SDWA.

The proposed Surface Water Treatment Rule and Total Coliform MCL are open to public comment until the end of December. A copy of these proposed regulations may be obtained from Jerry Healy or J. Kevin Reilly by calling 617/565-3610. All water supplies, ground water and surface water, are affected by the rule. Your concerns and comments are needed to ascertain its real-life applicability to water supplies. ❑

J. Kevin Reilly is an operations specialist and microbiologist with the Water Supply Branch, USEPA, Region I.



Volume One, Number One

Welcome to the first issue of **In The Main**, a quarterly newsletter from the DEQE Division of Water Supply (DWS) specifically designed to keep you, water purveyors and certified water supply operators, up to date on developments that help you continue to deliver a high quality supply to your customers.

It was just about a year ago that I came on board to head the Division, at a time when issues of water resource management and water quality were really coming to the forefront. Today DWS is moving forward on a number of fronts, and much of this first issue of **In The Main** takes a look at that progress.

The Division's authority and responsibility is greatly expanded, for example, by enactment of the state Water Management Act in 1986. DEQE's year-old authority to impose administrative penalties means for us in DWS another way of keeping public water suppliers on their toes. We are also moving forward in streamlining the grants programs aimed at helping water systems do the job.

Congratulations are in order, too. Another purpose of this newsletter is to applaud the successes of water systems, and you'll find in this issue we take the time to salute groundbreakings, ribbon cuttings, and so on.

One other note, and an important one. We want **In The Main** to be a channel for two-way communications, giving you the chance to air your views as well. You won't find a letters-to-the-editor column in this issue, but we'd like to see one the next time around. So feel free to drop us a line. Space permitting, we'll be glad to consider printing it.

In the meantime, we hope you find **In The Main** a useful read. It's another way for all of us to know what's going on, and why we need to know it.

Patricia L. Deese, P.E., Director, Division of Water Supply

Ground-Breakings, Ribbon-Cuttings, Kudos

Yvette dePeiza

Pittsfield

Congratulations go to the City of Pittsfield, whose water treatment plants were officially dedicated July 17. This marks the completion of at least 15 years of engineering studies, design and construction. These plants utilize the uniqu Kroft design tratment process.

Whately

Whately deserves special recognition for its grantsmanship and tenacity. The town has pooled from several funding sources, including $1 million in a special legislative appropriation through DEQE, to plan, design and construct ar

Continued on page

In The Main.

The Brockton Water Bank Offers A Creative Avenue for Economic Development

Amy Keith

The Water Management Act, Chapter 21G, authorizes DEQE to develop a program for registering and permitting all water withdrawals in the state in excess of 100,000 gallons per day. Sections 15, 16 and 17 of the act grant DEQE greater authority to act in water supply emergencies. Specifically, water suppliers who petition for a state of water supply emergency are now required to take action to reduce the effects of, or eliminate the water shortage. DEQE may also impose on the petitioner additional measures deemed necessary in order to relieve the water emergency.

DEQE exercised this authority in December 1986 when the City of Brockton petitioned the agency for a water supply emergency. This was a particularly difficult case, since Brockton had a long history of complex water supply problems. The Brockton petition tested the new provisions of the Water Management Act, as well as set precedent for future water supply emergencies in other communities.

In its investigation of Brockton's situation, DEQE discovered that although the city had succeeded in reducing the deficit between safe yield and consumption, a serious deficit continued to exist. DEQE also found that the low per capita consumption of water within the area served by the Brockton water system indicated that any further reduction through additional conservation measures would be small.

At this point consideration was given to strictly prohibiting new connections to the existing system, but because this would have indefinitely delayed opportunities present for much-needed economic development, the plan was shaped to permit some development under specific conditions. What emerged is known as the Brockton water bank.

Under the water bank principle, Brockton is required to document all increases and decreases in the demand for water. A parity between increases and decreases must be maintained so that the demand for water from Silver Lake will slowly decrease. Decreases in consumption achieved through water conservation or other means is credited to the "water bank" at a two-to-one ratio: for every gallon of water saved, one half of that gallon can be credited to the water bank. Water credits can then be used to meet municipal water needs provided that consumption is below the baseline figure.

Initially, Brockton's water bank was credited with 56,500 gallons per day, based on a decrease in consumption during the last six months of 1986. By July of 1987, however, records showed that despite attempts to conserve water, daily consumption in the city was increasing. In response to this information, DEQE found it necessary to temporarily halt any new approved withdrawals from the water bank until the city has determined why consumption was up.

The baseline used for the bank can in the future be raised if Brockton develops additional sources of water; the city is now moving in that direction.

DEQE and Brockton agree that the water bank concept can work, despite this initial setback. DEQE believes that a successful experience in Brockton can lead to application of the concept in other communities. ❑

Amy Keith is an environmental planner for the Division of Water Supply.

In The Main

One Winter Street
Boston, MA 02108

The Commonwealth of Massachusetts
Michael S. Dukakis, Governor

Executive Office of Environmental Affairs
James S. Hoyte, Secretary

Department of Environmental Quality Engineering
S. Russell Sylva, Commissioner

Division of Water Supply
Patricia L. Deese, Director

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Public Comment Sought on Proposed EPA Rules

The proposed regulations will impact every public water supply.

It is critical that EPA receive comments from as many PWSs as possible. While the key issues are outlined below, PWS are urged to contact Kevin Reilly EPA Region I for copies of the proposed regulations.

The Division urges all PWSs to send their comments directly to EPA. In addition, the Division will be developing state comments and attending a public hearing in Washington, DC, on November 23-24, 1987. The Division would like to incorporate as many of your comments as possible. Please send copies to Yvette dePeiza.

Coliform MCL

- *Requires five check samples.*
- *Requires fecal coliform analysis of all positive original and check samples.*
- *Set MCLG at Zero.*
- ***Monthly MCL.** No more than one sample containing coliform for systems analyzing fewer than 40 samples per month. (serving under 40,000) or no more than 5% can contain coliforms if system analyzes at least 40 samples/month.*
- ***Long-term MCL.** No more than 5% of most recent 60 samples can contain coliforms if system analyzes fewer than 60 samples/year or no more than 5% of all samples taken in 12 months can contain coliforms if system takes at least 60 samples per year.*
- *Monitoring frequency varies according to the size of the system. Proposed regulations increase the number of samples required for some PWSs.*
- *EPA estimates the new monitoring requirement will increase monitoring costs resulting in increased monthly water bills of from $0.05 to $0.15 for large systems (>10,000) and from $0.20 to %3.00 for small systems (<500).*

Surface Water Rule

- *Require all surface water systems to disinfect.*
- *All surface water systems must filter unless they meet source water quality criteria and site specific conditions.*
- *Systems that do not filter must meet performance standards.*
- *Increased monitoring requirements for both unfiltered and filtered surface water systems. Turbidity must be measured every 4 hours or continuously and chlorine residual monitoring must be continuous.*
- *Some groundwater systems will fall under this rule. The regulations set up criteria for determining when a groundwater system is directly influenced by surface water.*
- *Systems must be operated by qualified operators.*
- *EPA estimates that installation of filtration will increase the monthly water bill for a large system (>10,000) by $4.00 and for small systems (<500) by $17.00 to $32.00.* ❑

From The Floor: A Legislative Report

John McNabb

There are a number of significant pieces of legislation pending this year that are of interest to local water department superintendents and municipal water purveyors.

The Special Legislative Commission on Water Supply has filed two major bills which would have a significant impact on local water departments. The Commission is chaired by Senator Carol C. Amick (D-Bedford) and Representative Jonathan A. Healy (R-Charlemont). DEQE strongly supports both these bills.

- H-5408 would provide additional funding to the existing water supply grant programs for Aquifer Land Acquisition ($25 million), Contamination Correction ($10 million), and Facility Construction ($30 million).

New grant programs would be provided in this bill to: fund local water distribution studies study "true cost" of local water delivery, deliniate Zone II areas, explore new source potential, develop and implement local water supply protection strategies, and fund road salt contamination cleanup studies.

This bill has been reported out favorably by the Natural Resources Committee (co-chaired b Rep. Steven Angelo (D-Saugus) and Sen. Amick), and is now in House Ways and Means.

- H-4449, also in House Ways and Means, would provide that two percent of funds authorized by bonds for existing DEQE water supply and pollution grant programs can be used to administer these programs. This bill is needed to provide resources to run our existing water supply grant programs and to get grant funds out to local water departments that need them. Other bills supported by DEQE that would provide additional water supply grant program funds are:
- H-2217 (Rep. Forman, R-Plymouth) would establish a $15 million grant program to replace vinyl-lined asbestos cement water pipes that leach TCE into water.
- S-1860, the environmental capital outlay bill, would provide $25 million for Aquifer Land Acquisition and $15 million for assessing the adequacy of local water supply systems.
- H-5876, the open space bond, includes an additional $15 million for the Aquifer Land Acquisition Program. This bill has passed the House and Senate.

An amendment to the Senate version of this bill would require DEQE to conduct a significantly expanded program for testing of local water supplies for the presence of toxic substances and to train local water supply operato to conduct such testing. This amendment is based on similar legislation filed by Senator Lo Pines (D-Brookline), Rep. Carmen D. Buell (D-Green-field), Rep. Geoffrey Beckwith (D-Reading), and Rep. Iris K. Holland (R-Longmeadow

Another bill, S-1674, filed by Sen. Robert Wetmore (D-Barre), would transfer the certification of water supply facility operators fromthe Division of Registration to DEQE. Thi bill, now in Senate Ways and Means, is supported by DEQE, the Division of Registration, and the Board of Certification of Drinking Wa Supply Facilities.

The underground storage tank bill (S-979), sponsored by Sen. Amick, would help protect the integrity of local ground water supplies by authorizing DEQE and the Department of Pub Safety to develop preventive regulations for underground tanks that contain hazardous material and oil. S-979 is now in Senate Ways and Means.

Questions about this legislation should be directed to Pat King or John McNabb at DEQE Legislative Liaison Office (617/292-5506). ❑

Update: Contamination Correction

Dr. Donovan Bowley

Last autumn, the program staff were contacted by two towns with contaminated wells and a prospective urgent need for water by midsummer. There clearly was not enough time for the customary "hydrogeological-study-followed-by-design-followed-by- construction" approach. In discussion with each town and review of existing samples, it was determined that though levels of contaminants were low, the supplies would definitely have to be either treated or shut down. In order to expedite the process, it was decided in one case to pursue design and construction of a treatment facility at the same time as a hydrogeological study (which could feed back information and refine treatment operation); and in the other, to advance design and construction of a treatment facility, incorporating in that phase a small number of monitoring wells sufficient to determine design criteria.

In the case of Marshfield, the department was advised of a problem in August, 1986. There were elevated levels of tetrachloroethylene in five of the town's wells. Dr. Denis D'Amore of the DWS worked with the town to establish a scope of services for hydrogeological work (for which it is division policy to require competitive selection). The town eventually requested and evaluated proposals, and the firm of GHR Engineering Associates was selected in January, 1987. Because of the town's pressing need for water by midsummer, Marshfield requested department approval to use the same firm as design and project engineer. Water projects in Massachusetts do not require competitive selection of design engineering services, and in view of the firm's qualifications and the time deadline, the division agreed. It was decided to treat at one of the wells, Furnace Brook #1. Specifications and scopes of service were established. The regional office, through Robert Fagan, approved an optimal schedule of design review and approval stages. Grant award for design, construction, and hydrogeological investigation was offered and accepted on March 8, 1987. Construction was initiated in May, and by July 4 the completed granular activated carbon (GAC) system stood, surrounded by a temporary fence, and ready to come on-line. Provision was made to site and hook up air stripping equipment, should that later become necessary.

The hydrogeological study began at the same time and is currently at the seismic evaluation stage. It is expected to be concluded by December, 1987, with the town submitting a draft report to the division. Further work, if any is indicated, will be determined subsequently. This facility is expected to have a three-to-five-year operation span.

In the case of Athol, the town's South Street well, supplying 41 percent of the system's supply, was discovered to be contaminated by low levels of benzene, xylene, and toluene, and was closed in December, 1986, by the town. Fortunately, Lake Ellis (an approved emergency water supply) was available and could be accessed. The town approached program staff for assistance December 15. Because of the time required for requesting and reviewing hydrogeological proposals, staff workload pressures, and because of Chapter 21E work underway in the area, it was decided to advance the design through the town's existing engineers, Tighe and Bond. After discussion and scoping, a grant for design and treatment was drawn up and was offered on May 8, 1987.

The engineer, justly cautious of the unknown concentrations upgradient of the well, prepared a conservative design scheme. After review, it was decided to request modification and to include provision for monitoring wells sufficient to provide design and operation information. As the engineer provided early construction schedules, it became clear that (due to lead time for supplying some components) construction could not be accomplished within this water season. The town took steps to retain use of Lake Ellis as a water supply through the summer months. Design was reduced from air stripping and GAC to GAC alone. Because of the relatively high levels of iron and manganese, it was determined that metals removal would be necessary. The engineer recommended the use of greensand filters to accomplish this, as opposed to chemical sequestration of iron and manganese.

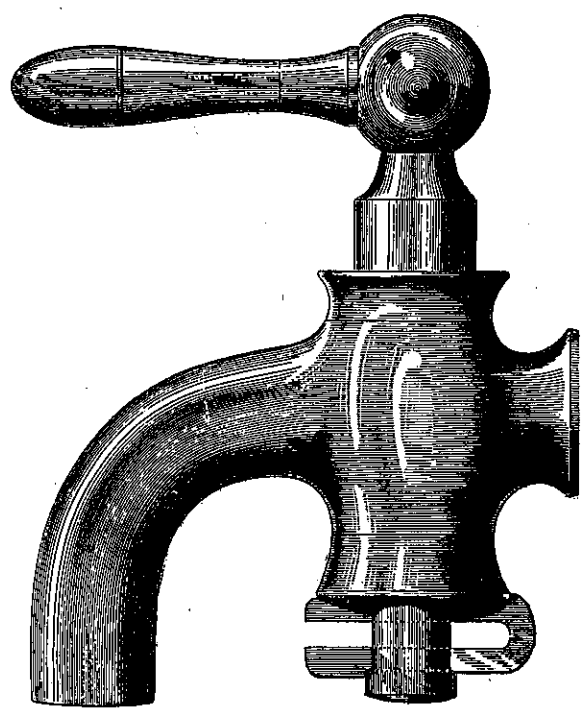
The current schedule calls for initiation of field work in October, and the plant to come on-line in the late spring or early summer of 1988.

Other projects currently funded are listed below. The Division of Water Supply plans to offer additional funding for projects on an as-needed basis.

Project Number Index

1. **Acton** 83-28 and 83-28A: Clap Well Hydrogeological Study and temporary (seasonal) treatment in place.
2. **Athol** South Street: 87-3 Temporary treatment plant design underway.
3. **Bedford** I 83-40 and 83-40A: Turnpike wells-evaluation of treatment technology for TCE with dioxane present.
4. **Bedford-Billerica**: 87-4 Augmentation of a water-short supply by evaluation of regionalized alternative.
5. **Burlington** 83-7 Hydrogeological investigation leading to 21E actions and longterm treatment under c.406.
6. **Connecticut V.** Int.: 85-1 Investigation and mapping of pesticide use and effects upon water supply in the Connecticut River Valley.
7. **Dartmouth** Chase Well Rd.: 83-30 Monitoring wells near a developed but not operating water supply well. Hazardous waste investigation adjacent.
8. **Falmouth** 83-3 Hydrogeologic study and investigation of shallow pumping at Assabet well led to identification of major organics plume.
9. **Groveland** 83-7 Wells 1 & 2. Cooperative studies together with U.S. EPA leading to restoration of the well #1 Superfund site.
10. **Hudson** 83-44 Hydrogeologic investigation at Kane and Chestnut St. wells.
11. **Marshfield** 87-1 Hydrogeolgic study of Furnace Brook Aquifer, treatment.
12. **Millis** 84-4 Hydrogeologic study-Wells 1 & 2.
13. **North Attleboro**: 83-15 Hydrogeologic study of Adamsdale well contamination.
14. **North Reading**: 83-39 Hydrogeologic study of Stickney well contamination.
15. **Norwood** Buch-master Pond: 83-33 Hydrogeological study.
16. **Palmer** 83-14 Hydrogeologic study of Galaxy 83-14A gravel packed well #2.
17. **Palmer** 83-14B Design of treatment system.
18. **Palmer** 87-2(II) Engineering oversight, construction of treatment facility, and laboratory analysis.
19. **Provincetown** 82-1 Site treatment facility at South Hollow wellfield area for remediation of a gasoline spill 600' from wells.
20. **Randolph/Holbrook**: 83-13 South St. wellfield. Awaiting outcome of U.S. EPA Superfund work.
21. **Rowley** 83-10 Investigation and pump modification at well #2.
22. **Scituate** 87-7 Hydrogeologic investigation - Well #19 aquifer.
23. **South 84**-2 Hydrogeologic investigation of Deerfield pesticide contamination.
24. **Tewksbury** 83-36 Hydrogeologic investigation of well numbers 8,9,10,11,12.
25. Tyngsboro 82-2 Augmentation of contaminated water supply.
26. **West Springfield**: 84-3 Hydrogeologic investigation of contamination of West Springfield's Southwick wells by pesticides. ❑

Dr. Donovan R Bowley, manager of the Contamination Correction Program in the DWS Boston office, has worked on various water-related projects for DEQE since 1978.



Grants Update: 406, Meters, System Rehab, Leak Detection

Connie Murphy

Drinking Water Filtration Facilities:

To date, under Chapter 406 of the Acts of 1978 as amended, the Division of Water Supply has awarded 61 communities a total of $100 million in state grants for the construction of water filtration plants.

To reflect U.S. EPA's more stringent regulations, the Chapter 406 grant program will be undergoing some changes. In addition to revising the regulations (310 CMR 25.00) which govern the program, the division will revise the application forms and the application procedures. Public entities will be notified of these changes as they are proposed.

Meter Modernization

Under Chapter 786 of the Acts of 1985, the Division of Water Supply is authorized to establish a 50 percent reimbursement Meter Grant Program. Of the $15 million available, $5 million has been set aside for the installation of new meters, $5 million for an accelerated meter rehabilitation or meter replacement program, and $5 million for the installation of multi-use meters shared by more than one utility.

The regulations governing the program are scheduled to be adopted in February 1988, following a November 17, 1987 public hearing.

In the spring of 1988, the division plans to open the first round of funding for the program. Public entities will receive appropriate application forms at that time.

System Rehabilitation and Water Audit/Leak Detection:

The Division in 1986 opened a fourth funding round for this program. Of the $10 million made available for system rehabilitation, the division has authorized to fund the 24 communities on the fundable portion of the priority list. Of the $1 million made available for water audit/leak detection, the division has authorized to fund the 32 communities on the fundable portion of the priority list. The list will be in effect until June 30, 1988.

The division will open round five of both programs this fall. Project Information Proposals for water system rehabilitation projects will be accepted from November 16 through December 15. Project Information Proposals for water audit/leak detection projects will be accepted from January 1 through January 30, 1988. ❑

Connie Murphy is a grants program planner with the Division of Water Supply.

Large Water Users Face Registration Deadline
January 4, 1988

Cynthia Dyballa

By January 4, 1987, anyone—municipalities, industry, agriculture—who withdraws an average of more than 100,000 gallons per day of water must register that withdrawal with DEQE. Registration applies to all such withdrawals in any one quarter from January 1981 through December 1985.

The program is one component of the state's Water Management Act, signed into law in 1985. The act is designed to foster management and planning of the Commonwealth's water resources by river basin. Behind the act is the principle that all surface and groundwaters comprise a single hydrologic system and should be managed to assure sound and equitable distribution of water statewide. Other components of the act establish a permit process for water withdrawals and provisions for declaring water emergencies.

Registering water withdrawals will provide protection for that water against competing uses. It also provides information on water withdrawals to help DEQE make sound permit decisions.

The person who must register is the one who withdraws the water; if you get all your water from another public water supply, such as the MWRA, the act does not apply to you. If part of your water supply was or is locally withdrawn, you should register that part.

Registration is a one-time action. You can obtain registration forms by writing or calling either Cynthia Dyballa (617/292-5654) or Steven Roy (617/292-5653). DEQE will soon hold workshops across the state to help you register (see below).

Next spring, DEQE will begin to issue permits, by river basin, for new water withdrawals after January 1, 1986, and for increases of 100,000 gallons per day or more over registered withdrawals. Regulations on this permit process will be presented at public hearings this fall.

Many public water suppliers are already withdrawing more than the amount that can be registered; these suppliers will need to apply for permits on the effective date of the permit program for their river basin. DEQE will also give priority to permit applications from suppliers with already-approved new sources.

A series of workshops designed specifically to help public water suppliers register was begun in early September; more are scheduled for later this year, as detailed below. The workshops are cosponsored by the New England Water Works Association. Consultants and other water withdrawers are also welcome. If you plan to attend, or for more information, contact this contributor at 617/292-5654. ❑

Cynthia Diballa is a program planner with the Division of Water Supply. We also wish to thank Program Director Steven Roy who has now accepted another position.

Registration Workshops for Public Water Suppliers

Date	Location	Time
Nov. 17, 1987	DEQE Western Regional Office State House West 436 Dwight St., Springfield	9:30-11:30
Nov. 17, 1987	Stoddard Reserve Center 25 N. Lake Ave., Worcester	1:30-3:30
Dec. 8, 1987	DEQE Southeast Regional Office Lakeville Hospital Auditorium Rte. 105, Lakeville	9:30-11:30
Dec. 8, 1987	Framingham State College College Center, 100 State St. Framingham	1:30-3:30

Water Management Act Public Hearings

November 10, 1987: 9:30-11:30 a.m.
Conference Room
436 Dwight St., Springfield, MA

November 10, 1987: 2:00-4:00 p.m.
Worcester Arsenal
25 N. Lake Ave., Worcester, MA

November 12, 1987: 9:30-11:30 a.m.
Lakeville Hospital Auditorium
Rt. 105, Lakeville, MA

November 12, 1987: 2:00-4:00 p.m.
DEQE Conference Room (10th floor)
1 Winter Street, Boston, MA

■

Small Systems Update

Yvette dePeiza

Small public water supply systems are those providing water to less than 3,301 consumers. The Division of Water Supply is proposing a program to address the unique problems of small systems and is coordinating with the Northeast Rural Water Association and the Rural Community Assistance Program to provide small systems with free technical assistance in such areas as: emergency response, determining water rates, underground storage tanks, how to cut laboratory costs, pesticide and water resource protection, and how to deal with the SDWA amendments.

All small systems will receive written notification of this new program. For more information on this program, call the Water Quality Assurance Section at 617/292-5719. ❑

Update: Cross Connections

Kevin Brander

DEQE on September 4, 1987, promulgated changes to the Drinking Water Regulations regarding cross connections, 310 CMR 22.22. These changes are intended to create more efficient cross connection control programs throughout the Commonwealth. The following are the major changes made.

1.Certification of Backflow Prevention Device Testers

The new regulations establish a program by which DEQE shall certify individuals to test backflow prevention devices. Beginning on January 1, 1988, all testing required by the Drinking Water Regulations must be conducted by a certified tester. This will mean that all water suppliers with cross connection installations on their systems must have an individual certified or contract a certified tester to perform their semi-annual tests. NEWWA backflow school graduates will be grandfathered.

2.Delegation of Plan Approval and Initial Testing

Under the new regulations, the tasks of plan approval and initial testing of reduced pressure backflow preventers and double check valve assemblies — which have been a responsibility of DEQE — *may* be delegated to those public water suppliers who have approved cross connection control programs. Before transfer of those tasks, however, the public water supplier must first *request* delegation of these responsibilities *in writing*.

The advantages of delegation are many. It allows the water supplier to coordinate efforts with local plumbing inspectors and, on the municipal level, establish a comprehensive cross connection control program which provides for expedient correction of dangerous cross connections.

The Division of Water Supply in November offered cross connection seminars to aid water suppliers in establishing cross connection control programs.

Any questions on the cross connection control program in Massachusetts can be directed to Kevin Brander of the DEQE Boston office at 292-5927, or to any of the regional cross connection engineers:

Northeast Region	*Kellie O'Keefe* (617) 935-2160
Southeast Region	*Richard Wiles* (617) 947-1231
Central Region	*Rosalie Spindler* (617) 792-7650
Western Region	*Bill Prendergast* (413) 785-5327

Kevin Brander is an environmental engineer with the Division of Water Supply and has field experience in cross connection control and backflow device testing.

Thanks!

We want to take a moment here to extend thanks to DEQE's *Corrosion Control Advisory Committee* for the members' efforts earlier this year.

Member	Affiliation
Kevin Reilly	*USEPA Region I*
Peter Karalekas	*USEPA Region I*
Elizabeth Konklin	*League of Women Voters*
Larry Gilmartin	*Whitman and Howard*
John Sullivan, Jr.	*Boston Water and Sewer Commission*
Brad Prenny	*Mass. Department of Public Health*
Bill Keene	*Burlington Dept. of Public Works*
Tom Knowlton	*Salem/Beverly Water Board*
Jack Thompson	*Camp, Dresser and McKee*

Again, thanks to all! ❑

Two Important Timeframes

Patricia L. Deese, Director Division of Water Supply

To follow the regulatory schedule for implementation of the federal Safe Drinking Water Act Amendments of 1986 is a confusing process at best. Add DEQE's adoption of EPA rules, as well as promulgation of regulations for state programs, and you have a real morass. Here DEQE provides two lists of dates that are critical for water suppliers. First are approximate timeframes for public comment on the proposed EPA regulations and, second, the DEQE Division of Water Supply agenda for adopting regulations over the next year. ❑

Approximate Timeframe for Public Comment on EPA Regulations Under the Safe Drinking Water Act Amendments of 1986

Regulation	Time Frame	Contact
Surface Water Rule & Coliform MCL	Nov.- Dec. 1987	J. Kevin Reilly, EPA Region I 617/565-3619
SOC & IOC	February - April 1988	J. Kevin Reilly, EPA Region I 617/565-3619

Massachusetts Division of Water Supply Regulatory Agenda 1987-1988

Regulation	Promulgation Date	DEQE Contact
Cross Connections	Sept. 1, 1987	Kevin Brander 617/292-5927
Meter Modernization Grants	Jan. 1988	Connie Murphy 617/292-5753
Water Management Permits	Jan. 1988	Cynthia Dyballa 617/292-5653
9 MCL, Public Notice, Lead Notice	Mar. 1988	Yvette dePeiza 617/292-5857
Surface Water Rule	Fall 1988	Yvette dePeiza 617/292-5857
Revision: 406 Filtration Grants	Fall 1988	Jack Hamm 617/292-5802

More Thanks

Special thanks go here to the members of DEQE's Water Resources Management Advisory Committee, whose work is invaluable in guiding the Division of Water Supply in the course of program development.

Member	Representing
Michael Williamson	*Associated Industries of Mass.*
Edward Spencer	*Watershed Associations*
Thomas Knowlton	*Waterworks Industry*
Charles Laughton	*Agricultural Associations*
Elizabeth Conklin	*Consumer organizations*
Jack Maher Water	*Well Drillers*
Armando Carbonell	*Regional Planning Agencies*
Jacque L. Emel	*Public*
Richard Noss	*Public*
Jon Beekman	*Public*
Larry Feldman	*Public*
Walter Amory	*Public*

And we welcome two new members:

Ed Himlan (replacing Spenser as representative of *watershed associations*); and Norman Thedemann, representing the *Mass. Municipal Association.* ❑

Aquifer Land Acquisition: An Overview

Michael Stroman

The Aquifer Land Acquisition (ALA) Program represents Massachusetts' commitment to the comprehensive and long-term protection of public drinking water supplies. To date, the Massachusetts Legislature has allocated $14.25 million to the Department of Environmental Quality Engineering to:

".....establish a program to assist the cities, towns, and districts of the Commonwealth to acquire by purchase, gift, lease, eminent domain, or otherwise, lands and waters and easements therein to protect and conserve groundwater aquifers and recharge areas (for) municipal or regional water supplies...." (C. 286, Acts of 1982).

The ALA Program was designed to encourage local land-use strategies which provide comprehensive protection to public water supplies. The program provides financial assistance to communities to purchase land or easements to protect the recharge areas of water supply wells from future development. The concept of the ALA Program evolved in response to the increasing developmental pressures in Massachusetts which were increasingly threatening public drinking water supplies. In an attempt to minimize such impacts, the ALA Program was developed to:

1) define Zone II, the primary recharge areas, to public water supply wells;

2) work with local officials to properly address land uses within the recharge area of these wells; and

3) reimburse eligible applicants for land acquired in the recharge area for water supply protection purposes.

During the first two rounds of the program, a total of 111 applications were received from cities, towns and water districts. Due to the limited funding and the competitive nature of the program, however, funding was available to only 36 applicants. For those applicants selected for funding, maximum grants of $500,000 are awarded. Of the total grant award, $50,000 may be used for additional studies; following the study phase, the remainder of the grant award may be committed to land acquisitions in the well recharge area. The studies associated with this program are conducted in order to 1) more accurately define the primary recharge area to the well (Zone II); 2) provide more detailed information about existing land-use activities, and/or; 3) investigate the impact of existing land-use activities on ground water resources.

Upon completion of any required studies, the remaining grant award is release for the land acquisition phase of the program. Acquisition funds may be used to acquire land in fee, by outright purchase, or to acquire future development right of land through the use of conservation restrictions. The acquistion of land in fee is the most common method used to date. By acquiring total ownership in undeveloped land, the parcel is preserved in its natural condition and will continue to provide a buffer between the water supply and surrounding developed land. Land acquired in this way is conveyed to, and is managed by, the local water department or district.

As a result of the ALA Program, Massachusetts has been allowed to effectively promote its water supply protection strategy. The cornerstone of this strategy is the control of land-use activities which may adversely affect groundwater quality in Zone II of public water supply wells. The ALA Program has provided the vehicle to achieve this strategy by: 1) defining the significant zone of contribution to water supplies; 2) acquiring water supply protection lands; and 3) encouraging the adoption and enforcement of model land-use controls. In addition to these tangible benefits, the program has increased public awareness of the role that land use and land-use controls must play in a comprehensive water supply protection strategy. The understanding of this concept, combined with a better understanding of local hydrogeologic conditions, allows local officials to make more informed decisions about future development in sensitive water supply recharge areas.

Although all available grants have been awarded, additional funding for the ALA Program has been proposed in three legislative bills. The Governor's Capital Outlay Budget (H-5876) and legislation proposed by both the Natural Resources Committee (S-1860) and the Special Legislative Commission on Water Supply (H-5408) contain provisions for reauthorizing funds for the ALA program.

The following communities have received ALA awards:

Fairhaven, Harwich, Belchertown/Amherst/Pelham, Littleton, Pepperell, Pocasset, Sunderland, Groton, Greenfield, Dennis, Nantucket, Osterville, Brewster, Wayland, Southampton, Edgarton, Walpole, Georgetown, Westborough, Easthampton/Southampton, Auburn, Wayland, Hadley, Middleborough, Scituate, Duxbury, Easton.

The following communities have received tentative awards:

Duxbury, Wareham, W. Boylston, Bondsville W.D., Sharon, Townsend, Williamsburg, Truro, Douglas, Swansea.

For further information on this program and the pending legislation, contact your state legislator, or Michael Stroman at 617-292-5526. ❑

Michael Stroman is the Aquifer Land Acquisition program manager.

Cross Connection Advisory Comittee

The Division of Water Supply would like to thank the members of our Cross Connection Advisory Committee for their time and efforts, as the many constructive comments enhanced the development of the regulations.

Kurt Gaffney	*Massachusetts Water Works Association*
Al Comproni	*Department of Public Health*
Dino Eliadi	*Worcester Water Department*
Raymond Raposa	*New England Water Works Association*
Louis Visco	*Board of State Examiners of Plumbers and Gas Fitters*
John Fandel	*Plumbers Union Local No. 12*
Walter Egger	*Highland Plumbing and Heating*
P. Joseph Foley	*Boston Water and Sewer Commission*
Paul Dadak	*Associated Industries of Massachusetts*
David Baire	*Massachusetts Municipal Association*
Howard Hendrickson	*Water Service Consultants*
David Worth	*Wonnacomet Water Department*

Water Quality Enforcement Actions

April - July 1987

Penalty Assessment Notices April-July
Brimfield Water Dept.
$8,450 for failure to submit plans and to comply with orders
Colrain Water Dept.
$250 for late reporting 4 months

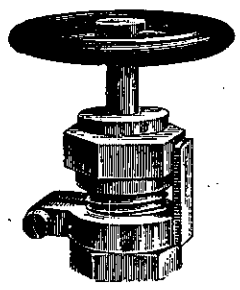
Notices Of Non-Compliance — April
Andover
Sodium PN 1986
Andover
Chlorine March '87 M/R
Bedford
X-conn
Billerica
Sodium PN 1986
Boston
X-conn
Braintree
Sodium M/R 1986
Burlington
Sodium M/R 1986
Cambridge
Sodium M/R 1986
Chelmsford Center.
Sodium PN 1986
Colrain Fire District
Chlorine M/R March '87
Dover
Sodium M/R 1986
Dover Waterworks
Bacti March 1987 M/R
East Chelmsford
Sodium PN '86
Haverhill
Sodium PN '86
Holbrook
Sodium M/R '86
Huntington
Chlorine M/R '87
J.T. Berry Rehab.
Bacti March 1987 M/R
Lawrence
X-conn
Lynn
Sodium PN 1986
Lynnfield Center
Sodium PN 1986
Manchester
Bacti Feb. 1987 M/R
McNamara Water Co.
Bacti March 1987 M/R
Meadowbrook Water Trust
Bacti March 1987 MCL-PN
Medfield
Sodium M/R 1986
Medford
Bacti Feb. 1987 M/R
Mill River Water Supply
Chlorine M/R March 1987
Mt. Carmel Christian Life Center
M/R Turbidity for March 1987
Natick
Sodium M/R 1986
Newburyport
Sodium PN 1986
North Chelmsford
Sodium PN 1986
North Reading
Sodium PN for 1986 - ok
Peabody
Sodium PN 1986
Randolph
Sodium M/R 1986
Reading
Sodium PN 1986
Rowley
Sodium PN 1986
Sandwich
X-conn
Sandwich
X-conn
Walpole
Sodium M/R 1986 - ok
Walpole
Chlorine M/R
Warwick MCI
M/R Bacti March '87
Wayland
X-conn Sandy Burr CC
Wayland
X-conn Dow Chemicals
Wellesley
Sodium M/R 1986
West Newbury
Sodium PN 1986
West Newbury
Bacti for Nov. 1986 M/R
West Springfield
Bacti March '87 M/R
Westhampton Water Co.
Chlorine March '87 M/R
Weymouth
Sodium M/R 1986
Williamsburg
Chlorine March 1987 M/R
Wilmington
Sodium PN 1986
Winchester
Chlorine for period prior to Feb.
Woburn
Sodium PN 1986 - ok

Notices Of Non-Compliance — May
Acton Water District
Sodium PN '86
Ashfield Water Dept.
Turb. mcl April PN
Auburn
Sodium PN
Ayer DPW
Sodium PN
Dover Water Dept.
Sodium '86 PN
Great Barrington Water
mcl/bacti April '87
Harvard Water Dept.
Sodium PN '86
Hopkington Water Dept.
Sodium PN '86
Housatonic Water Works
Chlorine M/R April '87
Huntington Water Dept.
Chlorine M/R April '87
Lynn Water and Sewer
THM/MCL PN '86
MA Waterworks
Sodium PN '86
Medfield Water Dept.
Sodium PN '86
Methuen Water Dept.
Sodium PN '86
Mill River Takers
Chlorine M/R April '87
Northampton Water Dist.
Bacti for April '87
Ring Island
Bacti March '87
Russel Water Dept.
Turb. for April
S. Grafton Water Dept.
Sodium PN '86
Shrewsbury Water Dept.
Sodium PN '86
Stoneham Water Dept.
X-conn
Tewksbury State Hospital
Sodium PN '86
West Warren Water Dist.
Sodium PN '86
Westboro Water Dist.
Sodium PN '86
Westhampton Water Co.
Turbidity M/R March 1987
Westwood Water Dept.
Sodium PN '86
Wilkensonville Water
Sodium PN '86
Worthington Fire Dist.
Chlorine M/R April '87

Notices Of Non-Compliance — June
Bondsville F & D Dist.
Bact. M/R May '87
Boyleston Water Dist.
X-conn
Brookfield Water Dept.
Bact./MCL PN April '87
Dalton Fire Dist.
Turb. M/R May '87
Dedham Westwood Water
Sodium M/R March '87
Eagle Hill School
Bacti/MCL Feb. '87
Eagle Hill School
Bacti/MCL April '87
East Brookfield Water
Bact./MCL March '87
East Longmeadow Water
Bact./MCL May '87
Fitchburg Water Dept.
Turbidity/MCL for May '87
Granville Center Water
Bact./MCL May '87
Hillcrest Water Dist.
Bact./MCL May '87
Hinsdale Water Dist.
Bact./MCL May '87
Holyoke Waterworks
Bact./MCL May '87
Norfolk Water Dept
Bacti/MCL May '87
North Andover Water Dept.
Turbidity M/R May, 1987
Northfield Water Dist.
Bact./MCL May , 1987
Peabody
Sodium M/R March '87
Reading Water Dept.
Sodium M/R March '87
Rowley Water Dept.
Sodium M/R March '87
South Royalston Improv.
Bact./MCL May '87
Turner's Falls Water Dist.
Bact. M/R May '87
Walpole Water Dept.
Sodium M/R March '87
Wayland Water Dept.
Bact./MCL April '87
West Stockbridge Water
Turb. M/R May '87
Westwood Water Dept.
Sodium M/R March '87
Winchendon Water Dept.
Bact./MCL April '87

Notices Of Non-Compliance —July
Ashfield
Chlorine M/R June '87
Belchertown State School
Bact. M/R June '87
Blanford
Turb. M/R June '87
Blanford
Chlorine M/R June '87
Codman Hill Apts.
STATS
Dartmouth
X-conn
Duck Farm Springs Water
STATS
Dunstable Water Dept.
STATS
East Longmeadow
Bact. M/R June '87
Fitchburg Water Dept.
Bacti/MCL for May
Gaston Roberts
STATS
Liberty Village Condo Trust
STATS
Lookpoint Point
STATS
Lowell Water Dept.
Turb. M/R May, June '87
Lowell Water Dept.
Bact M/R May, June '87
Lowell Water Dept.
STATS
Ludlow Reservoir
Chlorine M/R May '87
Needham Water Dist.
X-conn
Oarwood Park
STATS
Paxton Water Dept.
Bacti/MCL June '87
Pine Hill Apts.
STATS
Plymouth Water Dept.
STATS
Richmond House Apts.
STATS
Salisbury Water Supply Co.
Bact/MCL June '87
Somerville Water Dept.
Bact/MCL April
Wachussetts House Corp.
Bacti/MCL June '87
Webster Water Dept.
STATS
Whately Water Dist.
Bact. M/R June '87
Wheelwright Water Dist.
STATS
Winchendon Water Dist.
Bact/MCL June '87
Woodland Acres
STATS
Worcester Water Dept.
Turb/MCL April
Worthington
Bact/MCL June '87
Wylde Wood Waterworks
STATS

STATS — *Annual Statistics Report*
PN — *Public Notification Violation*
M/R — *Monitoring and Reporting Violation*
X-CONN — *Cross connection*



Ground-breakings, Ribbon-Cuttings, Kudos, continued from p. 1

entire new public water system that includes wells, storage and a lateral distribution system. The town has shown its great ability to deal with the contamination of its private drinking water wells and to respond to its citizens' needs for a public drinking water system.

Marshfield
A salute to the Town of Marshfield for expediting the installation of temporary treatment for tetrachloreth-ylene contamination. Marshfield effectively worked to install treatment within 11 months of discovering the contamination.

Dedham-Westwood Water District
Congratulations to the Dedham-Westwood Water District for installation of its new treatment plant for volatile organic contamination. The plant went on-line in the spring of 1987.

North Andover
Kudos to the town on the installation of ozonation treatment and the effective, efficient control of the microfilm within its distribution system.

Groveland
This system deserves special mention for completion of its granular activated carbon treatment system for trichloroethylene. The contaminated wells have been out of service since 1979.

West Brookfield
Congratulations on the new iron treatment plant, which went on-line in early summer.

And special thanks to all public water systems that are working diligently to supply their customers with the best potable supply possible. ❑

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