

CITY OF CAMBRIDGE

MASSACHUSETTS

WATER DEPARTMENT
250 FRESH POND PARKWAY
CAMBRIDGE, MASS. 02138

Michael A. Nicoloro
Managing Director

617-349-4770

To: Robert W. Healy, City Manager

From: Michael A. Nicoloro, Managing Director *Mi/6*

Date: July 21, 1998

Subject: "CITY TO TRANSITION TO MWRA WATER SUPPLY ON AUGUST 3, 1998"

Commencing on August 3, 1998, the City's water will be supplied by the Massachusetts Water Resources Authority (MWRA). The MWRA will serve the City during the construction phase for the new water purification plant which is estimated at 2 1/2 years. Also, the Water Department will be located at 100 Smith Place during this interim period - all phone numbers will remain the same. A newsletter (see attached) has been mailed to the citizenry providing more in-depth information concerning this very significant project. Periodic updates will be provided on cable T.V., in the local newspapers, on the Fresh Pond Reservation bulletin boards and on our web site at <http://www.ci.cambridge.ma.us/~Water/>.

Please advise if you require further information. Thank you.



DRINKING WATER ADVISORY

FOR IMMEDIATE RELEASE: July 20, 1998

CONTACT: Thomas Gawrys
Public Affairs
617-241-6057

MWRA WILL IMPROVE DRINKING WATER BY NEW pH SETTING

MWRA announced today that it will take another step to improve drinking water quality by a small and simple adjustment in water chemistry beginning July 27.

"The pristine waters from our Quabbin and Wachusett reservoirs have always presented one challenge," said MWRA Executive Director Douglas B. MacDonald. "The water has a low pH and a low alkalinity, which makes it a bit corrosive. As a result, lead can show up in tap water because of low-level leaching from lead present in customers own service lines and plumbing."

System-wide tests conducted in 1992 showed that MWRA water was too corrosive. In order to properly control the problem, in 1996 MWRA constructed the Interim Corrosion Control Facility in Marlborough. The pH and alkalinity of the water was then adjusted, pending further research on whether new pH levels might cause iron discoloration in the water.

"The results of the research study are in," MacDonald said, "and we are preparing to implement the recommendations at the ICC to achieve our goal of a pH of 9.0."

The two-year study conducted under the guidance of the American Water Works Association Research Foundation concluded the optimum chemistry of MWRA's drinking water is pH 9.0 and an alkalinity of 30 milligrams per liter.

"These are very familiar and comfortable values to waterworks operators across the country," MWRA Director of Waterworks William A. Brutsch. "Our research also concluded that the chances of interim iron discoloration were low. While minor water discoloration may be a temporary inconvenience to customers, it is important that we do this in order to achieve the long-term benefits of improved water chemistry."

The new operating parameters will make the water safer when used in old homes with lead in their plumbing fixtures. Lead levels at the tap, already improved by the changes made in 1996, should improve even further. In addition, chlorination improvements that MWRA has made in 1998 will be more effective and chlorine taste complaints should become less frequent.

"Our only concern," MacDonald said, "is that a few customer areas may experience short-term water discoloration from iron dissolving in the system during the adjustments. We want people to know that any changes they may see are related to our improvement program, just as local valve and hydrant maintenance sometimes causes unavoidable water color problems. Iron does not make the water unsafe to drink, but we encourage people not to do laundry if they notice yellow water at the tap."

Six thousand individual letters have been sent by MWRA to users with special water use needs, such as dialysis centers, to advise them of specific details of the water chemistry changes.

For further information about the pH change and other steps MWRA is taking to improve water quality, please call us at (617) 242-5323.

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CAMBRIDGE WATER DEPARTMENT'S NewsWAVE



Summer 1998

TTY/TDD 617-492-0235 • FAX 349-4796 • Voice 349-4770 • www.ci.cambridge.ma.us/~Water

Construction of New Water Plant to Begin in June '98

After several years of studies, planning, and public participation, the Cambridge Water Department (CWD) will begin construction of a new water treatment plant (WTP). The new WTP will be located on the same site—at the Fresh Pond Reservation—and will have the same capacity—24 million gallons per day (mgd)—as the existing plant. It will use state-of-the-art treatment pro-



Computer-generated architectural rendering of the proposed treatment facility

cesses, and will include improvements to other water facilities, such as the gatehouses, reservoirs, pipelines, as well as enhancements to the Reservation and Kingsley Park.

This is the first of several newsletters that will be distributed to residents, business owners, and industry during the 2½ year construction period, which will commence this June and will last through the year 2000. The focus of this first newsletter is to discuss the need for the project and to answer questions related to water quality, service, construction and cost impacts, and who to contact.

Subsequent newsletters will report on the status of the project and will highlight topics such as the history of the Cambridge water supply system, water quality issues, natural features of the Fresh Pond Reservation, and improvements that will be made to the Reservation, among others. To access information about the project on the Internet, see CWD's Web site at <http://www.ci.cambridge.ma.us/~Water>, or contact us by e-mail at water@ci.cambridge.ma.us.

The City of Cambridge recognizes the importance of communicating with the public during the project and plans to continue to hold periodic neighborhood meetings in order to listen and respond to your concerns. In the earlier planning stages, elements of the project were reviewed and discussed at several public meetings. During the siting study, the project was discussed at meetings of the City Council Environment Committee, Conservation Commission, and Community Development Department. The City also has organized a Fresh Pond Reservation Master Plan Advisory Committee to oversee the planning and implementation of Improvements at Fresh Pond. The goal of this committee is to create a master plan, which guarantees the preservation of this unique and natural resource for future generations.

The City of Cambridge Water Department (CWD) does not discriminate on the basis of disability. The CWD will provide auxiliary aids and services, written materials in alternative formats, and reasonable modifications in policies and procedures to persons with disabilities, upon request.

Project Background

Need for the Project

To continue to provide a safe drinking water supply to the City of Cambridge, CWD will replace the existing Water Treatment Plant (WTP) at the Fresh Pond Reservation. A new WTP is needed because the existing facility...

- ✓ will not be able to meet future Safe Drinking Water Act water quality standards.
- ✓ is over 70 years old and has limited potential to incorporate new treatment processes.
- ✓ has limited ability to monitor, control, and optimize all unit processes.
- ✓ has a high potential for operational interruptions.
- ✓ is increasingly labor intensive to operate and maintain.

Faced with these problems, CWD had three options:

1. Rehabilitate the existing WTP - The cost of this option was found to be prohibitive and the facilities would be limited in their adaptability to new technologies.
2. Seek an alternative water supply (i.e., MWRA) - This would result in higher water rates and loss of benefits from having water resources under City control.
3. Construct a new WTP - This is the most cost-effective option and the one that will provide Cambridge with a state-of-the art WTP.

Project Components

The WTP project involves the following major components:

- ✓ Transition to the MWRA's water supply for the duration of construction and start-up (the transition *is expected to occur* during the last week of July— please refer to your local newspapers and cable T.V. for the exact date).
- ✓ Demolish the existing WTP and associated buildings and construct a new 24-mgd WTP and associated facilities.
- ✓ Install a new raw water intake in Fresh Pond Reservoir.

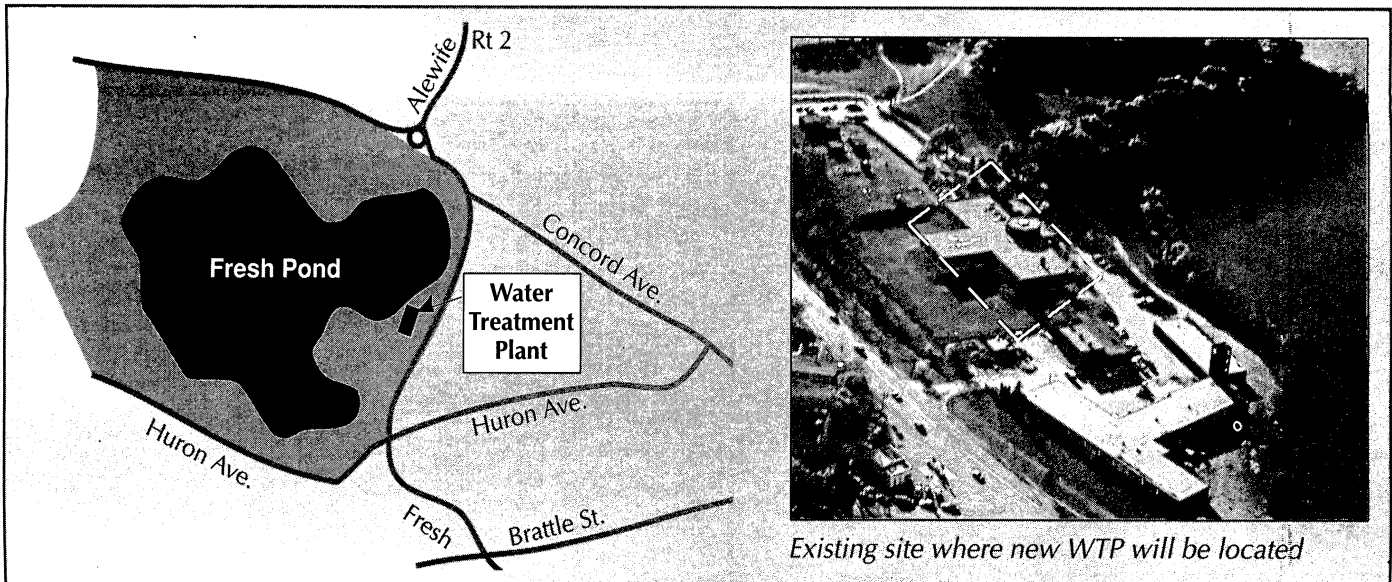
- ✓ Implement site access improvements on Fresh Pond Parkway.
- ✓ Perform maintenance and improvements to Fresh Pond Reservation.
- ✓ Inspect and repair related water supply system facilities (e.g., gatehouses, reservoirs, pipelines).
- ✓ Implement new WTP residuals handling practices.

The new WTP has been sited and designed within the context of a comprehensive, Fresh Pond Maintenance and Improvements Plan that has taken into account protection of the watershed and other natural resources of the Fresh Pond Reservation. This plan, presented in draft form at several public meetings, is currently under review by the Fresh Pond Reservation Master Plan Advisory Committee. Siting studies conducted by the CWD's consultant clearly show that developing the existing WTP site with complete demolition of the existing facilities and interim use of MWRA water will allow the best treatment facility possible with the least impact to the Reservation and the environment. This option is most attractive for City residents and officials, park users, regulatory agencies, and the CWD, and also has the lowest project costs and shortest project schedule.

Short-term impacts of site preparation, utility installation, and building construction are outweighed by the long-term benefits of improved water supply and the Fresh Pond Reservation site. The facility design recognizes the unique environmental, physical, and public use of Fresh Pond Reservation and its value to the community. The proposed siting concept makes the treatment facility part of the Reservation and appealing to the public, but also blends it with the natural setting as viewed from the publicly accessible Reservation pathway, which will be kept open during construction.



Water Treatment Plant as constructed in 1924



In Response to Your Questions About...

...water quality and service

Why does Cambridge need a new water treatment plant? I think the water is fine the way it is.

Yes it is, and we want it to stay that way. Even though our water is safe, several major components of the existing WTP do not meet DEP drinking water regulations or design requirements and entirely new treatment processes are required to meet future drinking water standards.

Why not just rehabilitate the existing WTP?

All things considered, this would be an expensive and less-than-satisfactory solution. Upgrading existing components and installing new technologies to meet drinking water regulations would essentially constitute constructing a new facility within an old facility. The existing plant has structural and space limitations that would prevent this from being either feasible or cost-effective. Utilizing the existing WTP would require several variances from current DEP requirements.

Why doesn't the City just buy water from MWRA?

Even with a proposed rate increase for Cambridge water users over the next five years, MWRA water rates are substantially higher and are projected to increase even more. Also, the City does not want to lose control of our water supply, nor do we want to abandon a precious water resource or the investments we have made in our watershed and reservoir facilities.

I'm a little skeptical about MWRA water because of what I've read about problems with bacteria. Why can't we use Cambridge water from the existing WTP during construction of the new one?

Because the preferred site is home to the existing WTP, it has to be demolished before the new one can be built. While bacterial problems can occur in any open water supply, incidents are rare. MWRA continually monitors the quality of its water supply and is addressing the bacteria issue by increasing the amount of chlorine when necessary. MWRA successfully serves 2.5 million people, or 43 percent of Massachusetts' population, with some of the highest quality water in the nation.

What changes will I notice in the quality of my water or my service after we switch to MWRA water?

Changes in quality or service should be minimal, if any. You may notice some changes in color when we first switch over because of flow reversals, but these will be very short-term. Sensitive users with health questions about the water change may call the Cambridge Health Department (498-1480). Customers wondering about lead levels at their taps may have their water tested for free by the Cambridge Water Department Laboratory (349-4780). Industrial users will find a slight difference in water chemistry. If you do experience any problems with quality or service, contact Tim MacDonald, CWD's Manager of Water Operations, at 349-4773, or you can access the CWD's web site for more information on the chemistry of MWRA water.

(Continued on next page)

...questions (continued from previous page)

...construction impacts

What kind of traffic, noise, and dust problems will be caused by construction?

While there will be an increase in traffic on Huron Avenue, Concord Avenue, and Fresh Pond Parkway during construction, traffic plans are being developed to limit impacts on residents and abutters to the extent possible. Impacts from construction noise will be minimal. The construction contractor will be required to make sure that dust generated by demolition and construction activities is kept under control.

Will I still be able to use the perimeter pathway, Reservation, and Kingsley Park? What about parking, security, and safety?

There may be brief periods when access to and use of the Reservation pathway and Kingsley Park is limited. Fencing will separate most construction activities from park users and pedestrian/bike paths will be rerouted. Because construction staging will limit vehicular access to Kingsley Park, alternative Reservation access and parking will be made available to park users. When construction is completed, access and parking will be improved and more space made available.

The contractor will provide security measures during off-hours. Kingsley Park and portions of the Reservation may be shut down on a temporary basis to maintain public safety.

Bulletin boards located throughout the Reservation will post information about the site showing routes, paths,

and off-limit areas. Notices will be placed in the *Tab* and *Chronicle* and on local cable t.v. about special constraints or limitations.

...financial impacts

How is this project being paid for?

General obligation bonds will be used to finance this project. While the City is responsible for the full costs of construction, we are pursuing financial assistance from the State Revolving Loan Fund.

Will my water bill increase?

Yes, but to minimize the impact on our rate payers, we have spread out the projected combined water/sewer annual rate increases over the next five years.

...who to contact for more information

There are a variety of ways to contact the CWD to ask questions or express your concerns. You can call Mike Nicoloro, CWD Managing Director, or Tim MacDonald, Manager of Water Operations, at 349-4773. You can request that CWD staff attend a neighborhood group meeting to provide updates about the project and answer questions. You can check the local newspapers and cable t.v. for news and more detailed information concerning the exact start of construction and transition to MWRA water. You can attend monthly Water Board meetings. You can get on-line and visit our Web site at <http://www.ci.cambridge.ma.us/~Water> or contact us by e-mail at water@ci.cambridge.ma.us. Whichever way you choose to ask questions or express your concerns, your input is important to us.

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EXECUTIVE DEPARTMENT
ROBERT W. HEALY
City Manager

RICHARD C. ROSSI
Deputy City Manager

July 27, 1998

To The Honorable, The City Council:

Please find attached for your information a communication from Managing Director of the Water Department Michael Nicoloro, relative to the City's transition to MWRA water supply on August 3, 1998.

Very truly yours,

Robert W. Healy
City Manager

RWH/mec
Attachments

Consent Agenda #34

5025

Relative to information on the
City's transition to MWRA water
supply on August 3, 1998.

In City Council July 27, 1998.

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