

MWRA ADVISORY BOARD

WATER SUPPLY UPDATE

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A monthly report of news and information about the management and conservation of drinking water supplies in the MWRA area. Provided as a service to cities and towns by the Advisory Board.

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MWRA ADOPTS POLICIES ON CONTRACT COMMUNITIES

The MWRA Board of Directors last week adopted policies and procedures covering the continuation of water supply to communities receiving water under prior contractual arrangements. The new policies affirm the MWRA's obligation to "provide safe and sufficient water supplies to all MWRA user communities," while also stating the agency's intention "to establish enforceable standards" to encourage communities to aggressively protect and conserve water resources.

The policies, which were first proposed back in May of 1987, went through several extensive revisions based on comments and suggestions from communities, the Advisory Board, and other agencies. In particular, the MWRA has decided not to use permits, as previously proposed, and has chosen to stay with 5-year contractual agreements as the form for water supply continuation.

During the discussion prior to the vote, Charlie Lyons, Advisory Board appointee on the Board, spoke at length on the need for the Authority to remain sensitive and flexible in regards to the many local issues and factors which will likely emerge during the negotiation and implementation process. He also raised questions about the appropriateness of the 1990 termination date, given the communities' capacity to meet the requirements and the Authority's ability to process a large number of new contracts in a short time period. Mr. Lyons was assured by other Board members that all such concerns and issues will be given ample consideration in future meetings and review processes.

The Board's adoption of the policies marks the completion of one phase in the contract community criteria program. The next phase will be the development and promulgation of detailed regulations which will spell out standards for community leak detection and repair, metering, unaccounted-for water, full-cost user charges, protection of local water sources, local conservation programs, and economic feasibility for new local water sources.

At the request of the Advisory Board, Paul Levy recommended to the Board of Directors that a vote on extending the policies and procedures to all user communities be delayed. He made this recommendation because "member" communities didn't fully participate and provide input into the processes which led to the development of the policies and procedures. While the Board agreed to put off the vote for some time, Mr. Levy made clear his preference that, ultimately, "similar requirements be established for member communities and contract communities."

WATER RATE INCREASE MAY BE HIGHER THAN PREVIOUSLY ESTIMATED

While water rates for fiscal year 1989 will be rising sharply, the size of the increase is still uncertain. In December, local newspapers reported that the MWRA estimated the increase at around 30%. However, preliminary information from the MWRA's proposed operating budget for next year indicate that the Authority may want to increase water rates by approximately 40%. More detailed information will become available by the end of February when the MWRA submits its proposed budget and rate increases to the Advisory Board for review and comment.

NEW HARBOR EXPERT LOOKING FOR SOLUTIONS TO ALGAE PROBLEM

The MWRA's newly hired expert on ocean pollution has been given an unusual first assignment--find out why our drinking water tastes so bad and what can be done about it. Dr. Michael Connor, a nationally recognized authority on the effects of waste discharges in ocean waters, was selected in January to be the Director of Harbor Studies. In this position Dr. Connor will organize research and studies to monitor water quality changes in Boston Harbor.

But before Dr. Connor had a chance to get his feet wet in the harbor, he was asked by Paul Levy to spearhead the work of an emergency task force convened to look into the algae problem which has fouled the taste of MWRA drinking water for the past five months. The task force, a joint effort on the part of the MWRA and the MDC, was instructed to determine why copper sulfate has been ineffective this year and to develop a long-term strategy for controlling the problem.

According to Dr. Connor, the task force is approaching the problem from a variety of scientific viewpoints and is considering innovative alternatives to copper sulfate usage: "One of the things we're looking at is the possibility of using integrated biological management as a preventive approach to algal growths. For instance, the kinds of fish living in the Wachusett Reservoir may influence the population levels of particular species of algae." Within the next few weeks the task force will present its recommendations on what studies may be needed and what actions could be taken to better manage the problem.

How does Dr. Connor feel about shifting gears from studying sea water to studying fresh water? "In some ways this parallels the kind of work I'll be doing in the harbor, except now I'm looking at the water coming into the system instead of the water flowing out." He added that trying to come up with answers to such an elusive problem "has been a very exciting mystery."

MWRA SUBMITS CAPITAL IMPROVEMENTS PROGRAM TO ADVISORY BOARD

A three-year, \$661 million capital improvements program has been submitted to the Advisory Board for its sixty-day review. The program proposes nearly \$500 million for wastewater system improvements and over \$77 million for water system improvements during the next three years. A total of 41 projects are proposed to improve the operation, efficiency, and reliability of the water system. Some major new projects include:

- WESTON AQUEDUCT- relining with reinforced concrete for 13 miles.
- SUDBURY AQUEDUCT- new connecting tunnels and steel lining.
- WESTON RESERVOIR- new pump station to be used during emergencies.
- WACHUSETT RESERVOIR- study whether to build new by-pass tunnel.
- CONTAMINATION RISK- study to control pollution sources at reservoirs.
- WINSOR DAM HYDROPOWER- improve operations to increase revenues.
- PCB ABATEMENT- remove PCB's from transformers and electrical units.
- BUILDINGS AND FACILITIES- repair and renovate many old structures.

MWRA ASKS FOR LOW-FLOW TOILETS IN STATE PLUMBING CODE

The MWRA has proposed to the Board of State Examiners of Plumbers and Gas Fitters an amendment to the plumbing code which would require all new toilets sold in the state to use no more than 1.6 gallons per flush. The current state standard for toilet water consumption is 3.5 gallons per flush. In addition, the proposal asks that water consumption information be prominently marked on toilets and toilet packaging in the form of a "Water Use Guide," to help consumers make informed choices.

In a letter to the Examiners Board, Paul Levy stated: "Since toilet use represents no less than 35% of domestic use, we have estimated that installation of low consumption toilets could generate the most significant water savings achievable from any single water conservation technique."

The Examiners Board is expected to take the proposal under advisement at its February meeting and arrive at a decision within several months.

METER TESTS FIND MANY METERS NEEDING CORRECTION

The MWRA Waterworks Division is currently testing master meters for accuracy in towns throughout the service district. Initial reports of results indicate that out of 22 meters tested so far: 7 were accurate, 4 were over-registering, 8 were under-registering, and 3 showed no flows.

Communities that have received reports describing the test results include Winthrop, Revere, Arlington, Lexington, Wakefield, Quincy, and Saugus. In these reports, the MWRA lists which meters were tested, the time and date of the tests, and the measured quantity of flow as determined by the pitometer device. Also, meters needing repair and retesting are identified.

Because the MWRA has targeted its early testing work on high-priority meters which were suspected of being inaccurate, these initial tests will likely find more inaccurate meters than subsequent tests in future months.

For clarity of presentation, the results of individual meter tests are not given here. Rather the data have been organized to yield an overall picture of how much water passes through these meters on a daily basis, and how much water is measured by them. The discrepancy between actual flow and metered flow is the measure of accuracy. The table below shows that: the seven accurate meters did a good job at measuring more than 15 mgd; the eight under-registering meters were missing a total of 2.6 mgd; and the four instances of over-registration amounted to incorrect measurements of 1.7 mgd.

(Note: In rare instances it was found by the MWRA that non-functioning meters were being estimated incorrectly. Those instances are included in the categories of over and under-registration.)



Technician using Pitometer rod in Waltham Pump Station.

<u>Meters</u>	<u>Sum Total of Daily Metered Flow</u>	<u>Sum Total of Actual Pitometer Flow</u>	<u>Percent Error</u>
7 accurate	15,260,000 gal	15,440,000 gal	0%
8 under-reg	4,273,000 gal	6,912,000 gal	- 38%
4 over-reg	5,077,000 gal	3,390,000 gal	+ 49%

NEWS ON THE SAFE DRINKING WATER ACT

The MWRA and the DEQE are working out the details of a plan to help coordinate community compliance with EPA's lead notification requirement. The EPA rule compels all water supply operators to notify customers of potential sources and adverse health effects of lead in drinking water. This notification must be done by June 19, 1988.

Each community will have several compliance options: approved brochures mailed to all local customers, large-size advertisements in local newspapers, or combined advertising with neighboring communities.

Under the preliminary plan being discussed by the two agencies, the MWRA would fulfill compliance requirements for all its fully served communities by taking out advertisements in Boston's major newspapers. This widespread regional coverage would make it unnecessary for fully-served communities to perform any additional notifications.

However, communities using local sources of water, and communities outside of the Boston metropolitan area, may need to carry out local efforts at lead notification. It is expected that technical assistance and advice will be made available to all communities. Watch for more complete information from DEQE soon.

The public comment period on proposed new SDWA rules has been extended by the US EPA to allow utilities and water officials additional time to review and respond to the complex federal rules. Comments will now be accepted at least through the end of February. More information can be obtained by calling the EPA's toll-free Safe Drinking Water Act Hotline at (800) 426-4791.

COMMUNITY NEWS BRIEFS

Leak detection surveys will begin in Newton in February. Heath Consultants, Inc. will be doing the inspections on Newton's 299 miles of water mains. 100% funding will be provided by the MWRA under its current Community Leak Detection Program.

Woburn has allocated funds to complete its water meter installation program. Once the city is totally metered, it plans to move from a fixed water fee to a rate based on consumption.

Northborough has retained the consulting firm of Camp Dresser & McKee Inc., to prepare the town's water supply report for contract continuation.

Brookline plans to rehabilitate 18 miles of water main during the next three years. Nearly half of Brookline's system has been cleaned and cement-lined in recent years.

Medford has completed its \$1.2 million meter replacement program. Nearly 14,000 new Neptune meters with remote reading were installed. The city hopes to receive a reimbursement from DEQE's meter modernization grant program, which is starting up this spring.

Worcester's City Manager has proposed a water rate increase from \$0.85 per ccf to \$1.22 per ccf. William Mulford also proposed that the city establish an enterprise fund account for its water department, so that all revenues raised through water rates would be used to pay for all costs associated with the water system.

Stoneham disputes the MWRA's report which puts the town at the top of the list for unaccounted-for water. Superintendent Bill Reid is confident that the upcoming leak survey will prove him correct.