
MWRA Advisory Board

SPECIAL REPORT

June 1987

Report from the Chairman

About two years ago, the Advisory Board of the Massachusetts Water Resources Authority hired its first Administrator and elected me Chairman. Since that time we have accomplished a great deal and laid the groundwork for even more involvement in the future.

A major focus of Advisory Board activities continues to be a careful examination of the Authority's annual operating budget and its capital program, which together determine water and sewer rates. In its thorough review of these documents, as well as in its comments to the Authority, the Advisory Board has pushed hard for development of specific budgeting procedures, both to allow for public scrutiny and to help assure that every dollar is spent effectively.

Beyond budgets and rates, the Advisory Board has proved capable of tackling broader issues. Starting with our in-depth assessment of the Long Range Water Supply Study, to our remarks on the MWRA's Environmental Impact Report for a new treatment plant, to our comments on the Authority's initial Residuals Management Study, the Advisory Board has shown that it can pull together community input into useful and supportive recommendations.

Among our other activities, we have circulated information and analyses of MWRA activities both to our members and to a wide audience of interested individuals, participated in forums about water and sewer issues, and in general, helped to broaden the constituency needed if the Authority is to accomplish its mission. Through resolutions approved at our meetings, we have given strong support to the Authority's actions on offshore sludge dumping and relocation of the Deer Island Prison. And we have made the Legislature aware of other concerns, such as the need for bolstering the State's current Aquifer Protection Program.

I am convinced that the Advisory Board has a voice that is heard. With your help, the Advisory Board can continue to play a significant role in keeping water and sewer rates reasonable while at the same time assure that the legacy we leave our children is one that we are all seeking—a clean harbor and the best possible water and sewer systems.

Norman P. Jacques

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Chairman of the Advisory Board

The Advisory Board Makes Things Happen

The setting of last year's wholesale rates evoked the Advisory Board's first public criticism of the Authority. The episode demonstrated the Advisory Board's effectiveness and showed that the Authority will respond to rational arguments and community concerns.

In February 1986 the Advisory Board was struggling to make a policy decision put before it by the Authority—whether MWRA rates for the upcoming year should recover the full cost of water and sewer operations or be set at a lesser “rate-stabilized” amount. Then, without warning, the Authority presented the Advisory Board with the possibility of a rate hike dramatically higher than the two under consideration. What had appeared at first to be the most costly option—full recovery of current costs—had become a minimum requirement. Of the several new options presented to the Advisory Board, the Authority came down hard for one that provided for recovery of the cost of older debt as well as the new “minimum” requirement.

The Advisory Board objected strenuously. It pointed out that the rate options lacked adequate documentation on which to base a decision. In addition, these new, higher

options were being considered at the time when many community budgets—based on earlier estimates—were in the final stages of preparation. More complete and earlier documentation, the Advisory Board said, would have ensured the proposed rate hikes a somewhat warmer reception.

An aggressive media campaign, coupled with pointed, rational arguments to the MWRA, brought the rate increase down from the projected 75 percent to 54. More important, the Advisory Board was able to convince the Authority that timely and accurate rate projections were not a “special service” to assist a community in its financial planning but an absolute necessity. The Advisory Board suggested that the Authority adopt a comprehensive multiyear approach to its budget and rate-setting procedures that would provide the Advisory Board with adequate time for review and comment.

As important as it was to bring the new rates down to a level more acceptable to the cities and towns, this was really a victory for process. By pressing its case, the Advisory Board showed the Authority that the ratepayers cannot be ignored, that they are in fact its most important constituency.

Penny-Wise, but Not Pound-Foolish

By John F. Piotti, Administrator

Why, a reporter recently asked me, should the average metropolitan resident be pressed to action over concerns about the MWRA? What could Joe Ratepayer possibly do? Aren't the costs of cleaning up the harbor pretty much set? When the Advisory Board talks about keeping costs down, isn't it talking about "nickels and dimes"?

Even to an active community leader, let alone an average citizen, the Authority may appear to be an unapproachable bureaucracy, and the harbor cleanup too enormous an undertaking for personal involvement to make a difference. To my mind, such notions overlook the crucial role that local officials and area residents can play. Direct community involvement not only can help save ratepayers millions of dollars, but its lack may carry an additional cost—a harbor that stays badly polluted and a sewerage system that does not work.

Fortunately, these needs are matched by real opportunity. The MWRA Advisory Board was established to bring together local input in a sophisticated and systematic way. When its professional staff brings the concerns of the cities and towns to the attention of the Authority's Board of Directors—the majority of whose members represent community interests—they are guaranteed a sympathetic hearing. But unless the public realizes what is at stake, the great potential of this unique opportunity will be lost.

Although current estimates of upgrading the Authority's sewerage system run to \$2.5 billion, these costs are not set in stone. When we consider, for example, that each mile of pipeline for discharging waste for the new plant will cost \$20 million, it becomes clear that the unresolved issue of where to locate the discharge outfall carries with it an enormous variation in costs: a nine-mile pipeline will cost \$100 million more than one that is four miles long. The Authority's CSO (combined sewer overflow) control program offers an even more dramatic example: costs could range from \$250 million to well over \$1 billion, depending on the approach chosen.

Obviously, environmental needs will play a role in making such decisions. But, without a strong constituency pushing for every reasonable cost-saving measure, other pressures may compel the Authority to choose options that carry a higher price tag, even if there are no additional environmental benefits. The Authority's decision to accept legal responsibility to alleviate the harmful discharge from CSOs again provides a good example. The Authority may choose to construct one massive deep-rock temporary storage tunnel under the harbor because smaller-scale, more cost-effective measures that could reduce its size (including stormwater detention on rooftops and in redesigned public parks and plazas) would necessarily involve municipal governments. Since such involvement might hamper the Authority's ability to plan and implement the CSO control program, it is a drawback that cannot be ignored. But overall costs are also a concern, perhaps an overriding one in this instance.

As noted elsewhere in this Special Report, the Advisory Board continues to push the Authority to develop its budget process to the point where ratepayers can be guaranteed that the Authority is choosing the right projects

at the right price. The potential costs of the Authority's programs are so great that every policy decision must be considered as part of a comprehensive planning and budgeting process. An isolated project review of the CSO program, for example, may indicate that the drawbacks of smaller-scale storage alternatives, such as rooftop detention, outweigh their cost-savings benefits; but a comprehensive review that considers *all* alternatives in the context of their cumulative impacts might reveal that, without the use of facilities to reduce its size substantially, a deep-rock tunnel will be prohibitively expensive.

Realistically, there is a limit to what can be spent on the cleanup. Unless the Authority can be compelled to take advantage of every reasonable cost-saving measure, it may find that ratepayers, pushed to their threshold, will force cuts through political action that, in terms of the environment, we cannot afford.

Strong citizen support for the actions the Advisory Board is taking today may help move the Authority toward a budget process that justifies the need for every penny spent while demonstrating the progress made with every expenditure. This may be our best insurance that the Authority will have the political and financial backing it needs to clean Boston Harbor. Yes, we can save more than simply "spare change." If we want the Authority to succeed, we must—contrary to the old adage—press it to be penny-wise. Otherwise, we may find ourselves pound-foolish.

Rabbitt, Advisory Board rip Wa

By DANKENNEDY

WOBURN — Mayor John Rabbitt and the executive secretary of the Massachusetts Water Resources Authority

Water rate proposal is assailed

By Peter D. Stepper

The advisory board of the Massachusetts Water Resources Authority has criticized a proposed sewer rates increase today by the directors.

"Consider that the ratepayer can afford to pay for the sewerage system," the MWRA Advisory Board cautioned the Massachusetts Water Resources Authority in its comments on the capital budget, which says the sewerage system will be replaced by the year 2000.

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Rabbitt, in a letter to John Piotti, executive secretary of the Advisory Board, said in part: "You can well imagine my surprise to hear from the local press that the city of Woburn was selected as one of 21 being evaluated for sludge disposal."

As a voting member of the source Authority Advisory Board, please note for the record, that in my opinion this method of soliciting the media prior to informing the local cities and towns on matters affecting them is totally unprofessional."

Piotti, in a written response to Rabbitt, stated, "I share your opinion that soliciting the media prior to informing the cities and towns on matters affecting them is totally unprofessional."

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professional. I have conveyed this message to the Authority staff."

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A sampling of news items about the Advisory Board (courtesy of the Boston Globe, Stoneham Independent, Winthrop Sun-Transcript, Waltham News-Tribune, and Patriot-Ledger).



Chairman Norman Jacques makes a point at the MWRA Water Forum. Jacques represented the Advisory Board on a panel that questioned MWRA Executive Director Michael Gritzuk. (l. to r. Senator William Golden; Jacques; Ned Sullivan, Bank of Boston; Martin Pillsbury, Metropolitan Area Planning Council)



At a recent meeting, Advisory Board intern Allen Adelman briefed members on the magnitude of the CSO problem and described some low-cost solutions.

Budget Review

Perhaps the Legislature's most important charge to the Advisory Board in the Enabling Act is to "review and comment on the Authority's proposed annual operating budget as well as its capital program." In its careful examination of the budget documents and in its comments and recommendations to the Authority, the Advisory Board is truly the watchdog of the MWRA.

Capital Budget

The Advisory Board staff gave close scrutiny to the one hundred separate projects in the Authority's most recent capital budget, projects whose total price tag will amount to nearly \$400 million over the next three years. With the intention of reducing costs or the time required for completion, it suggested modifications to several. And it found much to praise in the thoughtful planning process that went into this ambitious capital program.

But looking at the capital budget process, as it were, from the outside in, the Advisory Board also recognized the necessity for the Authority to develop a multiyear planning document that outlines the "big picture." Even if a succession of budgets are acceptable separately, the Advisory Board said, they may not prove satisfactory down the line when their cumulative impacts are felt. Furthermore, the Authority should work toward establishing a tradition of cost-effective management and a reputation for creative low-cost solutions. At the same time, the capital planning process must evolve to the point where it can guarantee that the Authority is choosing appropriate projects and paying reasonable costs.

And with its eye ever on costs, the Advisory Board urged the Authority continually to be conscious of how its expenditures appear to the public and to guard against programs that might seem to be unnecessary. Public trust and confidence are essential if the Authority is to fulfill its mission. To maintain the good will that greeted its creation, the Authority must be ever mindful of what ratepayers can afford. The financial resources available to the Authority are not unlimited; to achieve high-quality water and sewer operations does not always mean going "first class."

These general recommendations equal in importance the many pages of detailed comments offered to the Authority on specific projects. The Advisory Board is constantly pushing for improvements in the MWRA's capital budgeting process. While the Advisory Board recognizes the efforts made by the Authority thus far, it also knows

that much necessary and important work remains to be done.

Current Expense Budget

In its review of MWRA's proposed \$100 million operating budget (for the fiscal year beginning July 1, 1987), the Advisory Board found that the document failed to convey a clear sense of the Authority's rationale for spending. The Authority, it said, must work toward developing a broad, comprehensive picture of where it is going and why certain amounts have to be spent. These recommendations are similar to those made in previous years, but this time the Advisory Board was substantially more critical of what it sees as a lack of clear progress. As the Advisory Board cautioned before, the Authority must recognize that it will be judged by increasingly harsh standards. Thus it is in the Authority's best interests to make management's actions more open to public scrutiny each year.

The Advisory Board noted that the Authority could improve future budgets by submitting sufficient supporting material to help in the review process. To prove its worth to the ratepayers, the Authority will have to show the public, with quantifiable evidence, not only that it is capable of comprehensive planning, but by measuring its performance with appropriate indicators, that it can get the job done.

The Advisory Board also focused on more specific budget issues. On one point—the Authority's projected rate of hiring of new full-time personnel—the Advisory Board found striking similarities between this year's and last year's budgets. Last year's concern that the hiring rate was unrealistic proved justified. A variance report worked out in the Advisory Board's recent *Budget Analysis Report* showed that the Authority will fall far short of its hiring goals for June 30, 1987. Of the 367 new positions planned for that fiscal year, only one-quarter had been filled by the end of January. The substantial year-end savings projected by the Advisory Board, based in part on the lag in hiring, suggested modifications to this year's budget.

Analysis of this type is crucial to a thorough understanding of the Authority's activities, but its real value may lie in helping the Authority to view its expenditures from the perspective of the communities it serves. Although this year's review produced comments that are considerably more critical than those of previous years, their purpose is to help strengthen the Authority's budget process and build support for the difficult and expensive tasks that lie ahead.

Advice on Changing Rates

In the Enabling Act, the Legislature gave the Authority certain objectives to consider in shaping its water rate structure. Foremost among these was conservation. Soon after the Advisory Board set up shop, it issued its Water and Sewer Rate Primer. The Primer examined water conservation methods in detail and helped establish the Advisory Board as a serious and capable partner in thinking through these difficult issues. It was an important first step in proving the Advisory Board's credibility to the Authority.

Demand for water, which has always been cheap enough to seem "free," tends to be relatively stable. But demand can be reduced. One possible way is to use an ascending block-rate pricing structure at the wholesale level. Thinking that the Authority might choose to use such a methodology, the Advisory Board in its Primer applied this pricing structure to four hypothetical towns, with different past, present, and future water consumption habits. Based on its study, the Advisory Board concluded that it would be difficult at best to apply such a wholesale rate structure equitably.

In the sewer portion of the Primer, the study of four hypothetical communities showed how each would fare under the Authority's current rate methodology—which assigns some costs, but not all, based on population—and under a methodology where all costs are based on the actual flow of sewage.

Somewhat later, the MWRA Board of Directors began considering possible changes in its wholesale rate methodology: on the water side, to encourage conservation; on the sewer side, to reward communities that, by reducing I&I (infiltration and inflow) and separating combined sewers, had rehabilitated their systems. The Advisory Board responded by embarking on a major effort to educate its members and the Authority on the full range

of options for determining water and sewer rates. Out of this effort came the Advisory Board's Rates Policy.

In its Rates Policy, the Advisory Board recommended that, rather than establish a complex wholesale methodology, the Authority instead use its resources to encourage communities to adopt retail charge systems that would likely promote conservation while at the same time provide the capital needed to improve local systems. Although this retail focus promised "more bang for the buck," the Authority's eventual move toward a more elaborate wholesale water rate structure—such as described in the Primer—was not ruled out. On the sewer side, the Advisory Board recommended moving toward metering as quickly as possible so that the wholesale methodology could be changed to charge each community based on actual flows.

Other recommendations were to encourage communities to move toward full-cost recovery through user charges; to establish a conservation-minded water rate structure, such as the inverted block rate; to show clearly the link between water consumption and sewer charges on customer bills; and to develop local public education efforts aimed at saving water.

The Advisory Board's Rates Policy eventually became the cornerstone of the Authority's rates management plan. For its part, the Advisory Board intends to be involved in all future wholesale rates discussions, particularly on the sewer side, since rates will have to be negotiated once meters are in place. In addition, the question of who will pay for the CSO cleanup, which may exceed \$1 billion in capital expenditures alone, still lies ahead. The Advisory Board has asked the MWRA to provide full opportunity for public review, including public hearings, before it decides how to allocate the costs of CSOs. It also asked that it be allowed to consider all the facts and to offer the input of its members before the Authority makes any final decision.

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Administrator John Piotti (l.) studying the Advisory Board's Rates Policy with John Carroll, Vice-Chairman of the MWRA Board of Directors and one of the Advisory Board's appointees to it.



Anthony Fletcher, Advisory Board appointee to the MWRA Board of Directors, holding forth during a break at a recent meeting.



Charles Lyons, Advisory Board appointee to the MWRA Board of Directors and its Secretary.

Water Supply: An Expanding Role

To facilitate implementation of its Long Range Water Supply Program, the MWRA recently awarded a contract to the Advisory Board enabling it to hire a "water program liaison" to work with the communities on aspects of the program that affect them directly. Specifically, the liaison will track initiatives in the program, provide information on these to local officials, collect and summarize data to assist in the design and implementation of the program, help evaluate the success of these activities, and report to the Board of Directors on community involvement. Since the success of the Authority's program depends ultimately on the enthusiastic participation and cooperation of the user communities, the liaison has his work cut out for him.

The contract was the culmination of the Advisory Board's consistent efforts to analyze the complex public policy issues surrounding metropolitan water supply and to offer suggestions to the Authority that would benefit all user communities. It had its beginnings in the Advisory Board's decision in the fall of 1985 to educate its members on the issues raised in the Authority's Long Range Water Supply Study, so that their recommendations to the Board of Directors would be backed both by knowledge and understanding.

Out of this effort came the Advisory Board's comments and recommendations on the Water Supply Study. Other groups were also studying the problem, but the Advisory Board carved its own niche. It did this by focusing on aspects of the study that were of particular interest to user communities, commenting both on projections for water need and on opportunities for managing water demand and developing additional water supplies within the service

area. Overall, the Advisory Board recommended that the Authority concentrate in the near term on improving the efficiencies of water distribution and usage; taking measures to conserve water and to develop additional local supplies; building incentives into the rate structure to reward communities whose policies reduce demand; and strengthening the reliability of water needs forecasts. The Advisory Board urged the Authority to determine future water needs with the greatest accuracy possible before it selected any major augmentation alternative.

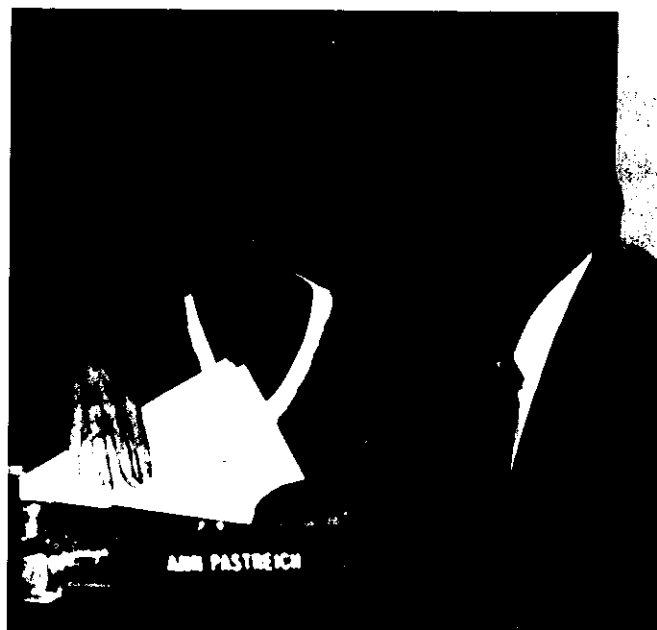
The Board of Directors incorporated many of these recommendations into their Water Supply Policy Statement issued in November 1986. Perhaps the most important aspect of the Board's decision was the emphasis on conservation and the decision not to seek other sources until all available water had been wrung out of existing ones.

Other suggestions to help the Authority achieve its conservation goals include consideration of how communication — in the form of education, information, and technical advice — could be used in implementing its policies; the use of enterprise fund accounting and full cost recovery to stimulate conservation efforts; helping communities develop their own water sources; and developing water conservation targets for each community, with "rewards" granted to those that come closest to their goals.

The Advisory Board's new water program liaison will help to see that these efforts are realized and that the program provides the Authority with the information it needs to develop an appropriate long-term strategy for managing our precious water resources.



Vice-Chairman for Finance Richard Innes, Chairman Norman Jacques, and Administrator John Piotti share a light moment at an Advisory Board meeting. (Also shown: Walter Woods)



Former staff member Ann Pastreich and Walter Woods, Vice-Chairman for Operations, going over the fine points of an Advisory Board report.

Advisory Board Representatives

Arlington	Nancy T. Galkowski
Ashland	Edward A. Maguire
Bedford	Richard Warrington
Belmont	Anne M. Paulsen
Boston	Richard Innes*
Braintree	Daniel Mahoney
Brookline	Andrew Pappastergion*
Burlington	John Leahy
Cambridge	John Cusack
Canton	Richard Staiti
Chelsea	Myles Johnson
Chicopee	Richard Lak
Clinton	John Bates
Dedham	Dominic DiVirgilio
Everett	Daniel Risteen
Framingham	Anthony Colonna
Hingham	John Brandt
Holbrook	Thomas Cummings
Leominster	Richard Girouard
Lexington	James Reilly
Lynn	R. Scott Poole
Lynnfield	John F. Donegan
Malden	John Kelly
Marblehead	William Conly
Marlborough	Paul Sharon
Medford	Robert O'Brien
Melrose	Robert E. Conway
Milton	Lawrence DeCelle
Nahant	Robert Steeves
Natick	Edwin Fannon
Needham	Norman P. Jacques*
Newton	Joseph Favaloro*
Northborough	Michael Ritchie
Norwood	Bernard Cooper
Peabody	Peter Smyrnios
Quincy	Leo Kelly
Randolph	John O'Riley
Reading	Anthony Fletcher**
Revere	Andrew DeSantis
Saugus	Joseph Attubato
Somerville	Joseph L. Nargi
South Hadley	Sidney A. Crossland
Southborough	Lorraine Keller
Stoneham	William Sequino, Jr.
Stoughton	Philip Farrington*
Swampscott	Robert Sotiros
Wakefield	Richard Boutiette*
Walpole	James Merriam
Waltham	Edward Delaney*
Watertown	Flora Epstein
Wellesley	Walter Woods*
Weston	Warren Vittum, Jr.
Westwood	Robert Uek
Weymouth	Frank Lagrotteria*
Wilbraham	Kenneth Nickolls
Wilmington	Harvey Adams
Winchester	Frank Sopper
Winthrop	Richard Lombardi

Woburn	Robert Simonds
Worcester	F. Worth Landers
Metropolitan Area Planning Council	William Sawyer

Gubernatorial Appointees

Ernest Gould
Lydia Goodhue
Henry Hipps
Arlene O'Donnell
Paul Schlaikjer

* Member of the Executive Committee
** Also on the MWRA Board of Directors

The membership of the Advisory Board to the Massachusetts Water Resources Authority consists of representatives from sixty communities that receive water and sewer services from the MWRA and seven additional representatives from across the state. The Advisory Board appoints three members of the Board of Directors; approves extension of service to additional communities; and makes recommendations on annual budgets and capital facilities programs, and on water and sewer rates. The Advisory Board holds public meetings on matters relating to the Authority and makes recommendations to the Governor and the Legislature. The Advisory Board meets regularly the third Thursday of every month, except July. For information about the Advisory Board, please call 742-7561 or write to Six Beacon Street, Suite 925, Boston, Massachusetts 02108.

Advisory Board Staff

John Piotti, *Administrator*

John Piotti brings to his position a diverse background that spans engineering, public policy, and management, as well as a longtime interest in harbor-related issues.

Marie Goldstein, *Administrative Assistant*

Marie Goldstein is a writer and editor and a political activist with a longstanding interest in public policy issues.

Cornelia Potter, *Research Associate*

Cornelia Potter, who focuses on budgetary and planning issues, draws upon ten years of relevant experience with the New England River Basins Commission.

Allen Adelman, *Water Program Liaison*

Allen Adelman, an Advisory Board intern since its inception, will assume a new role now that he has completed his Master's Degree in Planning at MIT.

During the past two years, the Advisory Board has employed the talents of the following interns: Robert Bensetler, Mark Curtiss, Cameron Davis, Richard Delaney, Susan Fine, Tracy Narel, Katey Pell, Elizabeth Rippy, Lawrence Stepenuck.