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THE EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS

100 Cambridge St. Boston, MA 02202

(617)727-9800 FAX (617)727-2754

GOOD TO HEAR FROM YOU! SORRY I HAD
NOTHING FOR YOU TODAY. HOWEVER,
CAN HE BE OUR KEYNOTE SPEAKER
FOR THE CONFERENCE ??? M

ENVIRONMENTAL DIVERSITY FORUM

BOARD OF DIRECTORS

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 Roxbury Multi-Service Center
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 DEP

May 7, 1993

Dear Friend of the Environment:

On **Saturday, June 26, 1993**, the Environmental Diversity Forum will hold its second annual conference: **"The Challenge of Environmental Justice & Diversity"** at Roxbury Community College in Boston. We need your knowledge and expertise to make the event a success. Please save this date so that you can participate in this exciting conference.

This multi-cultural environmental conference will bring together community groups, business interests, environmental organizations, and government agencies to address issues of concern. The conference seeks to:

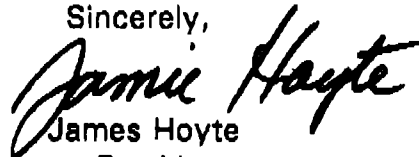
- ▶ establish and solidify partnerships between community groups and environmental organizations;
- ▶ create a means for ongoing dialogue; and
- ▶ incorporate the goals of the Environmental Diversity Forum in that dialogue.

In addition to a series of workshops on topics such as Lead and Health, Garbage, Sustainable Development, Community Investment, and Jobs and the Environment, the Conference features a **community walk** which allows participants to observe the varied environments of the city.

The Environmental Diversity Forum, which began in 1991, protects the environment by advocating racial, cultural and economic diversity at all organizational levels and in all policies and programs of the environmental movement. I have enclosed a copy of our brochure for your reference.

A representative from the Forum will contact you to confirm your participation. Please contact Mercedes Evans at (617) 627-3298 if you have any questions.

Sincerely,


 James Hoyte
 President

UMASS BOSTON, SCIENCE BUILDING, ROOM 56, BOSTON, MA 02125
 TELEPHONE: (617) 287-7439 FAX: (617) 265-7173

The Forum has set dues at \$5 for individuals and \$25 for organizations. Make checks payable to the Environmental Diversity Forum. Membership year begins in September.

Mail to:

Name: _____

Environmental Diversity Forum
UMass Boston

Address: _____

Science Bldg. Room 56
100 Morrissey Blvd.
Boston, MA 02125

City: _____

State: _____

Zip: _____

Tel #: _____

Contact Name: _____

**The Environmental Diversity Forum
Steering Committee:**

Jamie Hoyte, Chair
Sol Rodriguez, Vice Chair
Marilyn Hilliard, Secretary
Mark Primack, Treasurer
Louis Elisea
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S. Kay Gibbs
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Rob Hollister
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Sha-King Allston
Rebecca Goldberg
Vivien Li
Gary Rickson
Arnold Saperter

Administrative Assistant:
Simone Sullivan

**Environmental Diversity Forum
Science Building, Room 56
UMass Boston
100 Morrissey Blvd.
Dorchester, MA 02125**

(617) 287-7439

Environmental Diversity Forum



***Working together to improve
our world***

Pr o i e s

Creating Connections

A people have a shared interest in improving the environment. The Environmental Diversity Forum brings together neighborhood leaders, community groups, environmental activists and foundation professionals to exchange ideas develop solutions to common problems.

Celebrating Diversity

People of color have always played a positive role in maintaining and protecting the earth. The Forum's mission is to develop ways to incorporate diverse groups into the environmental movement.

Improving Lives

The need to restore and preserve the environment transcends all geographic, racial, cultural, social and economic groups. The desire to make the world a better place for our children is shared by all people.

Increasing Communication

The Forum sponsors meetings and seminars on critical environmental issues. It provides opportunities for diverse groups to come together and build coalitions. A special priority is to increase the access of youth of color to environmental careers.

Env'ro imental Diversity Forum

Programs

Among the issues the forum has or is planning to address are:

- Lead and lead paint hazards.
- Boston State Hospital Site proposed redevelopment.
- Youth environmental internship promotion and recruitment.
- Diversity in environmental organization employment and boards of directors.
- Job Data Bank for people of color environmental professionals.
- Hazardous waste sites in urban communities.
- Annual Environmental Diversity Conference.

Get Involved!

Join us.

The Forum's membership is open to all individuals and organizations who are concerned about the quality of our environment and are committed to increasing the diversity of the environmental movement. Fill out the attached form and send it in!

Help us.

If you know of other groups or people who could benefit from the Forum's work or could make a contribution toward meeting our goals, pass along this brochure. By working together, we can begin to develop solutions to our common concerns.

Talk to us.

The strength of the Forum is its ability to bring together diverse peoples to begin a dialogue. If you have a concern or environmental issues that needs attention, let us know. Our number is on the back of this brochure.

WELCOME 9:00-9:30

Hoyte

CONFERENCE PLANNING SCHEMATIC: "THE CHALLENGE OF ENVIRONMENTAL JUSTICE & DIVERSITY" - COORDINATOR MERCEDES EVANS 627-3298

KEYNOTE 9:30-10:00

Rev. Chavis? Pat Bryant? Carl Anthony?

LUNCH SPEAKER 1:15-1:45

INTRO-?

Trudy Cook

PLenary 4:00-6:00

Byron Rushing-DSNI, Franklin Park Coalition, Cree Indian Cause

FORMAT

Moderator:
Coordinator:
Recorder:

Panelists:

MODERATED PANEL

10:15-11:30
Rob Hollister
Marilyn Hilliard
Mercedes Evans

Sha-King Alston
Janet Phoenix
Thomas Battiste
Vivian Li

EDUCATION: ARE YOU IN THE KNOW?

2:30-4:00
Kathy Abbott
Claire Taylor
Dale Bryan

David White
Tubal Padilla Galiano
Charles Syrkette
Emocio Hill

COMMUNITY INVESTMENT

11:30-1:00
John Francis
Marilyn Carrington
Nicole Salk

Evelyn Friedman Vargas
Nichan Allen
Dianne Wilkerson
Greg Watson

YOUTH: OUR PLACE IN THE ENVIRONMENT

2:30-4:00
Sha-King Alston
Sha-King Alston
?

Anthony Francis
Najma Naz'at
Sondra Marcellino
Kevin Ladaris
Youth Budd

ENVIRONMENTAL JOBS & DIVERSITY

11:30-1:00
Arnold Sepenter
Marilyn Hilliard
Evelyn Palmer

John Reed
Maria Roloff
Jackie Galb
Mariella Puerto

WASTE: FRIEND & FOE

2:30-4:00
?
Nicole Salk
?

Rick Innis
Jesse Jeter
Boston Building Materials
Stop & Shop
Russell Peters

LEAD & HEALTH

11:30-1:00
?
Ilene Hauck
?

Rodney Taylor
Ann Carroll
Farouk Martins
Jae Kim
Snelson Gibbets

KNOW YOUR ENVIRONMENTAL RIGHTS

11:30-1:00
Charles Walker
Carter Lowe
?

Karen McGuire
Anne Kelly
Dick Clapp
Wayne Budd
Herman Hemingway
Donald Cooper

YES: WHO PAYS/WHO DECIDES

11:30-1:00
Charles Yancey
Claudia Smith
Alice Ledogar

Doug MacDonald
Reggie Whittington
Stephen Berren
Doug Foy

CONSERVATION, PRESERVATION, & ECONOMIC DEVELOPMENT

2:30-4:00
Greg Watson
Marilyn Hilliard
Russ Lopez

Aldo Ghirin
Vesper Gibbs Barnes
Lillian Willmore
Brian Shanahan

WALKING THE COMMUNITY

11:30-1:00, 2:30-4:00
Valerie Burns

EXHIBITS

Eco-Boston
Nature Conservancy
Ben Davis, MWRA
Becky Basch, BRC
Jim Younger, EPA

DSNI

Sierra Club

DEP

Mareba Jos, Earth Day
Native Lands Project
Fenna Haines, Bay State Skills

COORDINATORS ARE RESPONSIBLE FOR INVITING AND CONFIRMING FACILITATORS AND PRESENTERS
FORUM MEMBERS WILL SERVE AS WORKSHOP RECORDERS AND PARTNERS TO FACILITATORS
CONTACTS SHOULD BE ASKED TO SET UP EXHIBITS
A CHILDCARE PROVIDER IS DESPERATELY NEEDED

Boston Harbor (etc) / LA

8 + # LD

9 + # Local

202 456-2710 Fax

Faneuil Hall - Town Hall meeting

CLF 2000 800-1100

High Side not highest

w/ median income moderate rate

DW F. plant OK

lot of flexibility to meet secondary treatment

Overall is best of bad alternatives
not an endangered species problem

Sen Kerry's ^{OFFICE} closure

NMPS but more

no consultation, no notification

low income relief / poverty rate support

Copy Kathy → Katie
Pres. Council on Sustainable Dev't
8:00 Rose Garden Monday

Forestry H's 25-30% off

NAS - pesticides report
Children + exposure

Reinventing Government -
X-cutting environmental Group
7:00-9:00 pm. briefing on Friday

5/14

State id'ed 531 haz waste sites
cleaned up one

5349 total

MISSPILG - inadequate. \$H

(5/15)

Paul Keough acting RA

willing to cut 830 million in

harbor meets water quality standards

MWRRA looking for more \$H

(5/15)

Major price increases

(4/15)

Sewage Tunnel

Peter Shelley CLF most Cape Cod bays
1.2 billion gallons of effluent daily

(4/15)

Wild energy package

fresh water ...

massing skeptical

(4/15)

Dump in Douglas Mt Den-or

456-6224

Robin Pfeiffer
Jean Zillman
EOEA -
MWRA -

Pat Austin - MDC

Mike Connors 4720 Q MWRA
242-6000

Sharon Dean

Asst to New Secretary EOEA
727-9800

Brian Donahoe Dir W/P Controll (DEP,
556-1191

Mike Connors - MWRA 242-6000
State of the Harbor Rept

Outfall issue

Fax

→ D. Dir. Elisa Speranza
coming

Sharon Dean FOEA

Dear Mr. [illegible]
[illegible]
[illegible]
[illegible]

[illegible]
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Brian Donahue

292-5635

rate issues

Boston Globe - no other committee

Glocester N Shore Scituate

(EPA needs support on issue)

U.S. EPA

Alice Kustman

WM ~~292-5500~~

565-3400

On the way

Guerr Rota - Com Dir. ~~292~~ 617 565-3417

~~Heather Hilliard~~ EOEA

CLF- 617 350-0980

Peter Shelley

V. mail (865)

Sarah Crowley

241-6132



U.S. Environmental Protection Agency
John F. Kennedy Federal Building
Boston, Massachusetts 02203
Office of the Regional Administrator
Region I

Please deliver to: Bate Powell

Office: Office of Environmental Policy

Phone: (202) 456-6224 Fax #: (202) 456-2710

From: Gwen Ruta

Office: U.S. EPA - Region I

Phone: (617) 565-3417 Fax #: (617) 565-3415

Number of pages to follow: 7

Date: 6/7/93

Verification: (617) 565-3400

Fax #: (617) 565-3415

Any additional comments:

Attached is info on Boston Harbor project, and a
few recent press stories. Call if you have questions.
Gwen

**Boston Harbor Project
Boston, MA**

June 7, 1993

EPA Role: EPA issues Environmental Impact Statements (EISs) on siting treatment facilities, permits wastewater discharges, gives grants and is the lead plaintiff in a Federal court case.

Background: Boston Harbor receives 450 million gallons/day of poorly treated wastewater from the Boston metropolitan area. Also, raw sewage from almost 100 Combined Sewer Overflows (CSOs) flows directly to the Harbor during rainstorms, and until December, 1991 wastewater sludge was discharged directly offshore.

The Massachusetts Water Resources Authority (MWRA), which operates the water and sewer system, is under a federal court order to upgrade the system. After 20 years of infighting, the court order has finally brought progress, including cessation of sludge and scum discharges. Under a state and federally approved plan, MWRA is building a new secondary wastewater treatment plant on Deer Island in Winthrop, new sludge treatment and disposal facilities in Quincy (completed and operational) and Walpole, a new outfall for discharging treated wastewater into Massachusetts Bay and new CSO storage and treatment facilities. Under the Safe Drinking Water Act, MWRA must also provide for drinking water treatment facilities.

Current issues:

- MWRA plans to beneficially reuse its sludge in fertilizer and land conditioning products, but as a back-up they had proposed and received state and federal approval for a landfill in the suburb of Walpole, MA. Residents oppose it, charging that it would threaten water supplies. EPA's analyses (which found no such threat) have been upheld in U.S. District Court and the U.S. Court of Appeals. The opposition (including Gov. Weld, Rep. Frank and Rep. Moakley) has called for abandonment of the landfill in favor of out-of-state alternatives. MWRA is examining alternatives, and has not moved forward with construction of the landfill. We expect the Massachusetts Department of Environmental Protection to issue a permit for construction within 2 weeks.

- Residents of Cape Cod have opposed construction of a new 9½ mile outfall (which will discharge treated water) in Massachusetts Bay, citing concerns about endangered species and charging that EPA is trying to clean up the Harbor at the expense of the Bay. We believe that the project will benefit both the Harbor and the Bay. In April, EPA issued an

assessment of potential endangered species impacts from the new outfall, finding none. The National Marine Fisheries Service is currently reviewing the assessment.

- The project is funded mostly from rate increases, resulting in rates among the highest in the nation and expected to climb further. (Actual future rate levels are highly debated, with estimates ranging from \$800/yr to over \$2000/yr). The Bush Administration contributed \$100 Million in both 1991 and 1992 (project cost = \$3.8 Billion). The State has contributed some low interest loans (under EPA's State Revolving Loan program). Ratepayers are in revolt, withholding payments and staging demonstrations. They are calling for increased federal and state assistance and for the scope of the project to be scaled back. Governor Weld recently proposed downsizing the treatment plant and CSO facilities, and proposals for state assistance are pending before the legislature. EPA would endorse changes to the project ONLY AS LONG AS the Clean Water Act requirements are met (the Governor's proposal would not meet the goals of the Act).**

- MWRA must meet new federal drinking water standards under the Safe Drinking Water Act by either building filtration facilities at its reservoir or by controlling development and pollution sources near the reservoir. MWRA and state officials recently agreed to pursue the latter route, avoiding a \$400 million tab for filtration. This will provide little rate relief, though, because the \$400 million was not part of the original cleanup project cost and the bill would not hit ratepayers until 2000. EPA has not opposed the agreement, but will take action to require filtration if progress is not made by August, 1998.**



We're Number One

...in the morning

Office of External Programs
Region I News Clips

Rethinking value of a sparkling harbor

By Scott Allen
GLOBE STAFF

John Silber was greeted with indignant gasps during the 1990 gubernatorial campaign when he suggested scrapping parts of the multi-billion dollar Boston Harbor cleanup to save money.

"It is not necessary ... for us to have the cleanest harbor in the industrial world," Silber said, drawing charges that he was anti-environment.

How times have changed. Today, faced with a rising wave of public discontent at the staggering

cost of carrying out the court-ordered job, some of the same people who once savaged Silber are looking again at the question he raised: How clean do Boston Harbor and surrounding Massachusetts Bay need to be?

The embattled Massachusetts Water Resources Authority is studying two proposals that, if approved by a judge, could save their customers \$1 billion - but at an environmental cost.

Places like the Charles River and the Fort Point Channel near the Children's Museum would still flow with untreated sewage, oil and other urban runoff after some heavy storms, while the

area at the end of a 9.5-mile-long outfall tunnel would absorb an extra 20 tons of solid pollutants daily.

Advocates for MWRA customers believe such an increase in water pollution is a small price to avoid sewer and water bills that some predict could exceed \$2,000 a year by the year 2005 largely because of the cleanup. With a major influx of state or federal aid to pay for the cleanup politically uncertain, they say, the MWRA has to be realistic.

"Until recently, they haven't looked at the economic impact as

they devised their environmental goals," said Joseph Favaloro, director of the MWRA advisory board.

The board is urging the MWRA to consider major cutbacks in the second stage of sewage treatment - called secondary treatment - which removes most of the organic material and some toxic chemicals, and cuts in storm runoff control. The first stage, called primary treatment, relies on settling tanks to remove some toxics and solids from the waste.

Six years into the cleanup, the MWRA has already seen its single biggest environmental improvement to date.

Globe
5/2/93

more...

Environmentalist 5/2/93

In 1991, the agency stopped its historic practice of dumping up to 150 tons of sludge, the solid matter in sewage, into the harbor every day. Already, harbor beaches are safe enough for swimming on most days, and harbor fish show fewer signs of disease.

When a new \$2.4 billion sewage treatment plant on Deer Island opens next year, Greater Boston's sewage will be within striking range of federal water standards for solids and dissolved oxygen.

There is some scientific evidence that the MWRA could fully comply with the Clean Water Act even if the full \$1 billion in proposed harbor project cuts are adopted. The amount of sewage and storm runoff generated by the 48 communities in the MWRA service area turns out to be far less than once believed.

But given Boston's history of trying to cut corners in cleaning up what was once known as America's filthiest harbor, talk like Favaloro's is sure to open old wounds. Cape Cod activists have long suspected that the MWRA was building an outfall tunnel into Massachusetts Bay so they could reduce the amount of treatment the sewage gets before it is discharged.

"The outfall was always intended as the way around full secondary treatment and I'm very angry about that," said Mary Loebig of Cape Cod-based Stop the Outfall Pipe (STOP). The group opposes the tunnel, seeing it as a threat to endangered species that live at nearby Stellwagen Bank.

Peter Shelley of the Conservation Law Foundation points out that that the Clean Water Act standards, dating to 1972, are not the last word in "clean." A National Academy of Sciences report released this month suggests the MWRA may need more sewage treatment to remove nitrogen from the discharge, which some believe can contribute to toxic red tide.

Still, the fact that the MWRA and some of the key players in the cleanup are considering reducing the scale of the cleanup for economic reasons is a major change. For years, suggestions that the cleanup could be curtailed to save money was treated as environmental heresy.

Environmentalists in 1989 accused a Massachusetts Institute of Technology professor of "fomenting public dissatisfaction" by proposing a chemical treatment for sewage instead of secondary treatment.

Environmentalists, rather than MWRA customers, had the politicians' attention at the time. In 1991, then-MWRA director Paul Levy nearly negotiated a deal with the Environmental Protection Agency and Conservation Law, the groups that forced the cleanup, that would have saved up to \$370 million by indefinitely delaying the construction of half of secondary treatment.

But Gov. Weld vetoed the deal when protesters from Cape Cod brought him petitions with 31,000 signatures opposing a reduction in treatment.

"My sense is the state was so keen on pleasing Cape Cod interests that they forgot about the people in the [MWRA] district," said Levy.

The political tide turned strongly in the past year as MWRA rates reached an average of \$545 a year, rivaling property taxes for some property owners, and surveys showed MWRA rates were the highest among the nation's major cities.

Even before last week's announcement by the state inspector general that rates could reach \$2,000 a year, members of Congress and state politicians said MWRA rates were their constituents' No. 1 concern.

MWRA director Douglas MacDonald has made federal and state subsidies for the cleanup his top priority, but initial hopes that the Clinton administration would come through with \$1 billion or more have dimmed. Weld administration officials have said the state doesn't have the money to help out the MWRA.

That leaves budget-cutting. Under the proposal offered by the MWRA advisory board, the MWRA could save \$370 million by cutting secondary treatment in half, just as Levy recommended in 1991.

Peter Shelley of the Conservation Law Foundation, one of the staunchest defenders of full secondary sewage treatment, said he is somewhat convinced that at least part of the secondary could be eliminated with no harm to the environment.

The MWRA's current estimates show that cutting secondary treatment in half would increase the amount of solids discharged into Massachusetts Bay from about 30 tons a day to about 50 tons. MWRA officials say they are unsure whether they could meet Clean Water Act limits for solid content.

The advisory board wants the MWRA to save an additional \$645 million by sharply trimming spending on control of "combined sewer overflows," storm drains that carry a mixture of runoff and poorly treated sewage into the inner harbor on stormy days.

The current \$1.38 billion plan calls for a grand system of tunnels under the harbor that would trap the runoff and sewage until it could be treated.

But MWRA officials are unsure what the environmental price would be. The current plan could trap the runoff from all but the four biggest storms of the year.

The smaller system they are now studying might release pollution into the inner harbor on roughly 10 to 15 occasions annually. It is open to question whether that would violate the state requirement that the inner harbor be safe for fishing and swimming.

Technically, even if the proposed cuts resulted in continued MWRA violation of the Clean Water Act, they could still be approved by Judge A. David Mazzone if the authority could prove the price "would cause wide social and economic harm," according to EPA attorney Ken Moraff.

Despite the admittedly high MWRA rates, he said, that would be a hard case to prove since Greater Boston is so large and affluent. "Based on all the numbers we've seen, the project is affordable," Moraff said.

note

Section Copy



We're Number One

...in the morning

Thursday, June 3, 1993

Office of External Programs
Region I News Clips

MWRA set to delay water plant

Boston Globe
6/3/93

Reduction seen in rate hikes

By Scott Allen
GLOBE STAFF

State regulators and the Massachusetts Water Resources Authority reached an agreement that could allow the cancellation of a \$400 million water filtration plant in central Massachusetts, which would benefit MWRA customers with savings in their highest-in-the-nation water bills.

Under the agreement, which comes before the state Metropolitan District Commission for approval today, MWRA officials would continue to consider a filtration plant for the Wachusett Reservoir, but they would attempt to meet new federal drinking water standards by controlling development near the reservoir and driving away gulls that defecate into it.

"We are working very hard to find all the ways that we can improve the environment and save money. Our estimate is that this

ing of \$300 million to \$400 million. That's a pretty good start at ratepayer relief," said Trudy Cox, the state's Environmental Affairs secretary and chairwoman of the MWRA Board of Directors.

The agreement would give the MWRA time to see if the MDC could meet federal water quality standards in part by driving away gulls, which spend the night on Wachusett by the thousands, by using loud noises and perhaps even guns.

The decree comes at a time when MWRA customers already pay the highest water and sewer bills among major US cities - on average, \$545 a year - largely because of the court-ordered Boston Harbor cleanup and other major construction projects such as the filtration plant. Inspector General Robert Cerasoli has predicted that the cost of MWRA sewer and water service could top \$2,000 per household by 2005 (using figures adjusted for inflation).

Exactly what the savings from

scrapping filtration at the Wachusett would be is unclear, because MWRA officials have not set a date for construction. Technically, federal law required the plant to be built by the end of this month, but authority officials had hoped to delay construction until at least the year 2000. MWRA estimates of the impact of similar cost reductions, however, suggest customers would save at least \$30 to \$40 a year if the plant were not built.

The Wachusett Reservoir, which supplies about 85 percent of Greater Boston's drinking water, does not currently meet federal Safe Drinking Water Act standards for fecal coliforms, a bacteria associated with sewage and animal feces. As a remedy, the law requires the MWRA to build a filtration plant to remove the impurities.

But environmentalists and ratepayer advocates have opposed filtration for Wachusett water, saying that preventing water pollution would be less expensive and more effective.

"To me, it's absurd to put all this money into a big technological fix when the biggest thing we can do is protect the watershed," said Debbie Cary, chairwoman of the Wachusett-Sudbury Watershed System Advisory Committee, which voted last year to oppose filtration.

Cary said filtration is not only expensive - it's no guarantee of water

Continued

purity. At least 183,000 people were sickened by a parasite in Milwaukee's drinking water earlier this year even though the city has a filtration plant, she pointed out.

US Environmental Protection Agency officials, who leave it to Massachusetts regulators to enforce the Safe Drinking Water Act, have indicated they will not oppose efforts to avoid building the plant as long as drinking water standards are met.

Already, the MDC, the state agency responsible for watershed protection around the Wachusett, has begun buying land around the reservoir, spending an expected \$7 million this fiscal year alone. And MDC officials are working closely with the towns surrounding the reservoir to limit development along the rivers that feed the Wachusett. Water quality analysts say runoff from individual septic tanks accounts for some of the fecal coliforms in the water.

"My view has all along been that we should continue to provide the maximum watershed protection possible. A direct benefit of that could be that we avoid filtration," said MDC Commissioner Iyas Bhatti, who supports the agreement to find alternatives to the plant.

But MDC officials say the major immediate threat to water quality in the Wachusett may be the gulls that spend nights there during warm weather. Officials believe the gulls fly in after feeding at landfills over eastern Massachusetts.

"To your average Massachusetts seagull, we're the Riviera. They want long views and a source of clean water. We've got both," said Michael Misslin, MDC superintendent of the Wachusett and Sudbury reservoirs.

To counter the gull threat, the MDC has launched what Misslin believes is the biggest "seagull harassment" program in the country. By patrolling the water in boats, playing sirens and other loud noises and - if approved - occasionally shooting the birds, MDC officials hope to make the reservoir an inhospitable place for gulls to spend the night.

The consent decree, which must be approved by the MDC and the MWRA board, gives the two agencies time to prove the combination of development limits and seagull harassment works. Under the deal, they must produce a detailed alternative to filtration for the state by September 1 of this year and carry it out by July 1, 1998.

MWRA director Douglas MacDonald cautioned that the filtration plant might still be needed, but, by delaying construction, the agreement improves the odds that the federal government will begin paying for major water and sewer projects again as it did until the mid-1980s. Because so many cities and towns face huge bills to meet federal standards, MacDonald said, "We think the prospect for a federal funding mechanism is good."

Weld to ask court for rate relief

Responding to the uproar over Greater Boston's rising water and sewer bills, Gov. Weld plans to appeal for rate relief directly to the judge overseeing the court-ordered Boston Harbor cleanup, asking him to toss out perhaps \$1 billion in construction requirements.

Although the contents of the letter to Judge A. David Mazzone have not been finalized, Weld is expected to request that the Massachusetts Water Resources Authority be allowed to build a 50 percent smaller secondary sewage treatment

plant, which uses sludge-eating bacteria to clean sewage before it is discharged to the ocean. In addition, Weld is expected to ask that the MWRA's storm runoff controls be drastically scaled back.

The MWRA is already studying both proposals based on new scientific evidence that Boston Harbor could meet federal water quality standards without them. But authority officials do not expect to make a decision on whether to seek the

Other government groups, including the MWRA Advisory Board and the House Post Audit and Oversight Committee, have already endorsed major cutbacks in the Boston Harbor cleanup to save money. But Weld, a former federal prosecutor who originally brought the lawsuit that forced the cleanup, has not weighed in. As a candidate for governor in 1990, Weld raised the possibility of scaling back secondary treatment, but he dropped the proposal after sharp criticism from the influential Conservation Law Foundation as well as the US Environmental Protection Agency.

Reducing secondary sewage treatment on Deer Island could reduce the \$4.3 billion cleanup tab by

\$850 million, but the issue is likely to be controversial. Cape Cod activists fear that reduced treatment could lead to more polluted wastewater being discharged into the bay from the MWRA's planned 9.5-mile-long outfall tunnel.

Cutting the scale of the stormwater collection system - which has not yet been added to the cleanup schedule - may be less politicized. The MWRA in the 1980s designed a \$1.3 billion system to trap urban runoff before it reaches the harbor, but new research shows the system is needlessly large. The MWRA Advisory Board contends that an adequate "combined sewer overflow" system could cost less than \$600 million.

But neither cutback would give MWRA customers immediate benefits since those parts of the cleanup project were not scheduled to be built for several years.

Murphy said the exact proposals in Weld's letter to Mazzone are being developed by an internal working group led by Lt. Gov. Paul Cellucci. She said no timetable had been established for completing the work.

MDC commissioners endorsed a consent decree that would give them and the MWRA until at least 1998 to prove that the Wachusett Reservoir,

which provides a third of MWRA water, could meet federal drinking water standards without a \$400 million filtration plant. The MDC plans to buy up to 15 percent of the land around the water to limit development, and step up efforts to drive away thousands of gulls who sometimes spend the night on the reservoir, defecating into the water.

But Rep. William Constantino (R-Clinton) said efforts to keep the reservoir clean have already taken a step backward: Today, State Police are scheduled to close the station that houses officers responsible for preventing waste dumping and other environmental crimes on the land around the reservoir.

"If protecting the watershed is so important, why are they shutting it down?" asked Constantino, pointing out that 4,000 acres of undeveloped Wachusett shoreline is only a few minutes' drive from the city of Worcester.

State Police, who are closing the Clinton station as part of the consolidation of Metro Police into their force, say they can provide the same level of patrolling in the watershed from a station in Holden about 10 miles away.

cutbacks until next year, and Weld does not want to wait.

"We are preparing to file something with the federal court which will advocate cost-saving measures that are consistent with the state's obligation to comply with the federal Clean Water Act," said Ann Murphy, a Weld spokeswoman.

Meanwhile, the Metropolitan District Commission endorsed a plan yesterday that could help MWRA customers avoid \$400 million in construction costs unrelated to the cleanup. The MDC voted to aggressively pursue watershed protection for the Wachusett Reservoir in hopes that the wa-

ter will not require a costly filtration plant.

Weld's appeal to Mazzone comes in the midst of a what is being called a ratepayer revolt in Greater Boston, where MWRA sewer and water bills have already reached \$545 a year for the average family. They are expected to reach \$1,200 by 1999. At least seven grass-roots groups have sprung up in response to the rates, already the highest among the nation's major cities.

Globe 6/4/93

Quincy City Councilor
Peter Kolson

Boston Tea Party

Past Newer next week

Donald Jordan - Chelres
Stop This Outrageous Project

\$18 mil aid passed
for MWRP

\$100 mil more
for MA Delegation -

minimal impact on
rates (22% of cleanup)

emergency order to
shut down fishing
in Gloucester Bay
Fishermen block Coast Guard
Richard Roe - Nat'l MFS

Thursday 2 days into season

Had closed to allow fish
to spawn (groundfish -
halibut + cod)

NE Fish's Mst Council
CLF
added in Feb
removed in May 25
Shelley

**MASSACHUSETTS WATER RESOURCES AUTHORITY**

Charlestown Navy Yard
100 First Avenue
Boston, Massachusetts 02129

Telephone: (617)242-6000

Facsimile: (617)241-6025

Building 36

3rd Floor

FACSIMILE TRANSMISSION

Date: 7-Jun-93

To: Vate Powell

Company: Vice President Gore's Office

FAX No.: 202-456-2710

FROM:

Name: Sarah Crowley

Div./Dept.: OED

Extension: direct dial (617)241-6132

Number of pages (including cover sheet): 15**Comments:**

*I'm sending a lot of information
for your review. Please call
if I can be of further assistance.*

Sarah



Update: The Boston Harbor Project May 1993

Work valued at more than \$2 billion is underway on the Boston Harbor Project -- an 11-year, multibillion dollar effort to control the pollution of Boston Harbor with new wastewater treatment facilities. Construction is proceeding on all major elements of the project: new primary and secondary wastewater treatment plants; a 9.5-mile tunnel that will take treated effluent to the sea; a 5-mile tunnel that will convey raw sewage to the new treatment plant; and digesters that will process sludge from the new treatment plants. A significant milestone was met on December 24, 1991 with the opening of a pelletizing plant that turns sludge into fertilizer, ending the dumping of sludge into Boston Harbor. Another important milestone was met in January 1993 when the MWRA began construction on the first major contract of the secondary treatment plant.

Two billion dollars in construction, engineering and related contracts awarded to date has provided work for 520 companies, most of them from Massachusetts, making the Boston Harbor Project a major employer in local construction and engineering industries. The project, which currently employs 1,800 men and women, will provide jobs through the 1990s.

The Boston Harbor Project is both on schedule and under budget as it moves into peak construction years. The project has met or bettered 12 major deadlines. Six of those deadlines were set by U.S. District Court Judge A. David Mazzone in a long-term scheduling order issued by the federal court in 1986, and six are interim deadlines established by the MWRA. All major elements of the project are presently under construction.

Primary plant

In March 1992 the MWRA awarded an \$83 million contract for the wastewater treatment plant's second set of primary clarifiers (batteries C and D). Clarifiers are large concrete tanks used to settle solids from sewage during treatment. Completion of a \$97 million contract for the first two batteries of primary clarifiers (A and B) will allow the MWRA to begin operating the new primary treatment plant in July 1994, meeting another court-ordered deadline.

Construction is underway on four other contracts in connection with the primary treatment plant: the north main pump station/Winthrop terminal, the north system headworks, the south system pump station and the disinfection facility. The work, including the north system tunnels completed in July 1992, totals more than \$250 mil-

lion. Primary treatment removes 60 percent of the solids and 40 percent of the toxins and reduces the biochemical oxygen demand (BOD) in wastewater by 35 percent.

Secondary treatment plant

The first major contract for the construction of the secondary plant was awarded in November 1992. Construction on the \$110 million contract began in January. The secondary plant will be completed in stages, under three major contracts, between October 1996 and December 1999. Secondary treatment removes 85 percent of solids, 50 to 85 percent of toxins and reduces BOD by 85 percent.

Digesters

In August 1991, the MWRA began construction of eight (of 16 planned) sludge digesters on Deer Island. The \$188 million construction contract, the Boston Harbor Project's second largest, is scheduled for completion in 1994. Two 700-ton storage tanks were lifted into ring foundations in March, and the first pair of digesters is scheduled to arrive on Deer Island in mid-May. The eight digesters will process sludge from the new primary wastewater treatment plant. The eight remaining digesters will be constructed between 1993 and 1999 under two separate contracts. Digesters cut the volume of sludge and reduce odor- and disease-causing bacteria.

Nut Island headworks

A \$63 million contract to construct a new headworks on Nut Island in Quincy was awarded in July. The headworks will remove large objects, sand and gravel from wastewater generated by 22 South Shore communi-

ties before the wastewater is conveyed via a 5-mile tunnel to the new treatment plant on Deer Island. When the headworks and inter-island tunnel are completed, the existing Nut Island primary treatment plant will be demolished and a park created on the 17-acre peninsula. Headworks completion is scheduled for July 1996.

Sludge processing

On December 24, 1991 the MWRA closed and locked the valve that controlled the passage of sludge from the Deer Island treatment plant to Boston Harbor. The 400,000 gallons of liquid sludge that had been released daily in 30 feet of water less than a mile from shore are now being converted into fertilizer pellets at the new \$87 million processing plant at the Fore River Staging Area (former General Dynamics Shipyard) in Quincy. The plant converts 50 tons of sludge daily into pellets that are sold as commercial fertilizer and soil conditioner by the New England Fertilizer Co. The pellets are being used to fertilize citrus crops in Florida and land reclamation projects in the Midwest. Other potential markets for the pellets include sod farms, golf courses, forestation projects and nurseries.

Tunnels

Construction is proceeding on more than 15 miles of tunnel on the Boston Harbor Project, including a 9.5-mile ocean outfall tunnel (\$203 million) and a 5-mile cross-harbor tunnel (\$76 million).

A 700-ton tunnel boring machine (TBM) began excavating the effluent outfall tunnel from a 420-foot shaft on Deer Island in June 1992. At 26 1/2 feet in diameter and 40 feet in length, the TBM is one of the largest of its kind ever to operate in New England. The TBM will produce 2.5 million tons of rock; half of the rock will be used on Deer Island as structural landfill. By mid-May, the TBM had bored 6,573 feet of the tunnel.

In July 1992 crews working from a 3,100-ton jack-up barge in Massachusetts Bay placed the last of 55 riser pipes that will eventually connect to the last section of the outfall tunnel. The 55 pipes will disperse twice-treated effluent from the tunnel to the deep waters of Massachusetts Bay. The \$77 million contract was completed nearly a year ahead of schedule.

Court-ordered and interim milestones successfully met to date

December 1988 — The Authority stops dumping scum (floating pollution, including plastics and grease) from the existing Deer Island plant into the harbor. Scum is now mixed with sludge for further processing. This step makes area harbor waters and beaches noticeably cleaner.

February 1990 — Construction begins on the sludge processing plant at the Fore River Staging Area (former General Dynamics shipyard) in Quincy.

May 1990 — Electrical power is provided to Deer Island, five months ahead of the October 1990 milestone. A cable capable of providing 70 megawatts of electricity is laid under the harbor floor from South Boston to Deer Island. (*Court-ordered*)

June 1990 — The MWRA begins operating the project's water transportation system. Barges now make twice-daily trips from the Fore River Staging Area. Ferries bring construction workers to Deer Island from Squantum Point and Rowes Wharf.

August 1990 — Construction begins on the effluent outfall tunnel. (*Court-ordered*)

September 1990 — The MWRA completes a facilities plan on the region's combined sewer overflows and submits it to the judge overseeing the harbor project.

December 1990 — The MWRA awards a contract to construct the north system tunnels, the first component of the primary treatment plant. (*Court-ordered*)

April 1991 — Construction begins on the 5-mile tunnel that will convey untreated wastewater from the South Shore to the new plant at Deer Island. (*Court-ordered*)

August 1991 — The Authority begins construction of eight egg-shaped sludge digesters that will process sludge from the new primary plant. (*Court-ordered*)

December 1991 — The sludge plant at the Fore River Staging Area begins operating, ending the daily discharge of 50 tons of sludge to Boston Harbor.

November 1992 — The MWRA awards the first of several contracts for the construction of the secondary wastewater treatment plant, and

January 1993 — Secondary treatment plant construction begins. (*Court-ordered*)

Cross-harbor tunnel boring began in December 1992 from a 295-foot shaft on Deer Island. The tunnel, which will carry wastewater from Nut Island to the new plant at Deer Island, will be completed in December 1994.

Two half-mile-long tunnels that are part of the primary treatment plant were completed on Deer Island in October 1991 and February 1992.

Water quality monitoring

Effluent from the new outfall tunnel must meet state and federal water quality standards. The Authority began an aggressive monitoring program in 1992 to establish baseline information on Massachusetts and Cape Cod Bay conditions. After the outfall begins operating, scientists from marine consulting firms and academic institutions will collect information and compare it to baseline data to evaluate any effects of the effluent on surrounding water.

As a part of the process for issuing a discharge permit for the outfall, the EPA and the National Marine Fisheries Service agreed to study any possible effects the outfall might have on endangered species in the area, including the Northern Right Whale.

In April, the EPA released an assessment of potential impact of the outfall on endangered species. The EPA concluded that the outfall will not cause significant changes in nutrient concentrations in Massachusetts Bay or alter the food web for endangered species. The EPA also determined that nutrients from the new outfall are not likely to increase the incidence of red tides, and toxic chemicals will not be discharged in amounts that would pose a threat to endangered species.

The National Marine Fisheries Service is expected to provide comments on the study this summer. In addition, the National Oceanographic and Atmospheric Administration is funding studies of nutrients and red tide blooms in the bays. The U.S. Geological Survey is studying where sediments accumulate in Massachusetts Bay and the Massachusetts Executive Office of Environmental Affairs is developing a state-wide marine monitoring program.

Other construction progress

Earthwork: Major earthwork on Deer Island was completed in 1991. The MWRA moved two million cubic yards of earth from the center of the island to the island's northern and southern edges in order to create a level platform for construction of the new plant. The new northern landform, landscaped with 6,000 shrubs and trees, shields the residents of the neighboring community

of Winthrop from the construction and future operation of a wastewater treatment plant. In addition, more than a million cubic yards of excess till have been removed from Deer Island by barge.

Prison: The demolition of the 87-year-old Suffolk County House of Correction was completed in May 1992 to make room for the construction of the secondary wastewater treatment plant. Prisoners were relocated to a new prison in the South Cove section of Boston in December 1991.

Pilot plant: Construction of a pilot wastewater treatment plant on Deer Island began in January 1992. The small-scale primary and secondary wastewater treatment facility is capable of processing two million gallons of wastewater per day. The plant, scheduled for completion in July 1993, will serve as a model for the new 1.3-billion-gallon treatment plant now under construction on Deer Island.

New buildings: Work has begun on the complex of buildings that will house maintenance, repair, administrative and other support functions for the new plant. The \$45 million contract also includes the renovation of a turn-of-the-century steam pump station. The exterior of the 98-year-old structure is being restored to its original state and the interior is being completely renovated to provide a visitor reception and display area, administrative offices, conference rooms and a training center. The work will be completed in April 1994.

Upcoming project milestones

July 1994 – First phase of primary treatment plant completed. Operation begins.

December 1994 – Inter-island tunnel completed.

July 1995 – Primary treatment plant completed.

July 1995 – Effluent outfall tunnel completed. Operation begins.

October 1996 – First phase of secondary plant completed. Operation begins.

June 1998 – Second phase of secondary treatment plant completed.

December 1999 – Secondary treatment plant completed.

Power for construction and plant operation: Construction has begun on a 70-megawatt power plant that will provide heat for the treatment plant. The plant will also serve as a backup for a 5-mile-long, 70-megawatt undersea cable that currently carries electrical power to Deer Island.

Construction supplies and services: A concrete batch plant, built and operated by Boston Sand & Gravel Co., supplies contractors with all of the concrete necessary for Deer Island construction. A seawall on the island's western edge has been repaired and existing tunnels and underground utilities have been reinforced or replaced in anticipation of the movement of heavy equipment. Construction roads are in place and permanent utilities are being installed. A contract has been awarded for a plant process information and control computer system.

Water transportation system: Piers have been built at Deer Island, Squantum Point and the Fore River Staging Area as part of the project's water transportation system.

Workers travel to Deer Island by ferry from Rowes Wharf in downtown Boston and Squantum Point in Quincy. During the project's peak construction years, half of the workforce will travel to the island on ferries. The remaining workers travel to Deer Island by bus from Suffolk Downs. The Fore River Staging Area in Quincy serves the Deer Island construction site as a cargo terminal. Construction materials, supplies, equipment and vehicles are barged daily between Fore River and Deer Island. A new pier at Nut Island will allow bulk materials to be transported to the construction site by barge.

Walpole landfill: The MWRA has designed a landfill for debris screened from sewage and for back-up sludge disposal. The landfill is scheduled to open in April 1994. The Authority is simultaneously evaluating proposals from commercial operations to provide disposal services.

Boston Harbor continues to improve

As construction of the Boston Harbor Project nears the half-way mark, water quality in what was once the nation's most polluted waterway has already begun to show signs of improvement.

- People who spend time around the harbor have observed that the water is cleaner than it used to be.

- Scum removal has decreased the amount of floating pollution such as trash and grease, greatly improving the visual appeal of the water and beaches.

- Boston Harbor beaches were closed only eight times in 1992, compared to 27 times in 1991, 36 times in 1990 and 44 in 1989.

- Scientists have found that tumors in winter flounder have been reduced by 50 percent.

Early steps in the Boston Harbor Project and other infrastructure upgrades can be credited with these improvements.

- Upgraded or replaced pumps at existing facilities have increased plant capacity. Overhauled headworks have improved screening operations.

- Since the construction of three new CSO facilities, about half of all combined wastewater and stormwater flows to the harbor have been screened and chlorinated.

- An aggressive toxic reduction program has decreased toxic contamination of the sewerage system.

- Public outreach campaigns encourage people to use environmentally safe products and to take precautions when disposing of hazardous materials such as pesticides and motor oil.

Next year, the MWRA will begin to phase the new treatment plant into operation, bringing about even greater water-quality improvements.

THE STATE OF BOSTON HARBOR 1992

by
Merryl Alber
John Hallam
Michael S. Connor

March 1993

Technical Report No. 93-6
Environmental Quality Department
Massachusetts Water Resources Authority
100 First Avenue
Charlestown Navy Yard
Boston, MA 02129

(617) 242-6000

EXECUTIVE SUMMARY

Each year, the MWRA produces a State of Boston Harbor Report that describes the environmental health of Boston Harbor. As we are now nearing the half-way point in the multi-billion dollar Boston Harbor Project to upgrade the region's sewerage system, this year's report examines the Harbor's health in the context of that project. The 1992 State of Boston Harbor Report therefore covers four main areas:

- 1) the relationships between the region's sewerage system and the pollution problems in Boston Harbor and its tributaries;
- 2) recent improvements in the existing sewerage system;
- 3) the effects of those improvements on Harbor water quality; and
- 4) the progress made on new treatment facilities and what can be expected in the way of further improvements in environmental quality as the Boston Harbor Project continues.

Three themes emerge from the data discussed in the report:

First, the sewerage collection system now has more capacity and is more efficient.

Pipes are being systematically inspected.

- Over the last four years, 116 miles of the MWRA's 230 miles of interceptor pipes have been internally inspected with closed-circuit TV.

Pumping facilities have been upgraded or replaced.

- The new \$35.7 million Charlestown Pump Station is the most visible example of necessary reinvestment in pumping system infrastructure.

Headworks have been overhauled.

- A \$25.2 million overhaul has led to an increase in the amount of grit and screenings taken out of the sewage flow from 104,000 cubic feet in 1987 to 165,000 cubic feet in 1992.

The Deer Island Power and Pump Station has been upgraded.

- A \$33.2 million upgrade has led to an average of 7 pumps being operational at any one time in 1992, versus 5 in 1988.

Increased capacity has resulted in improved system performance.

Headworks now need to hold back (or "choke") less flow, i.e. the collection system is better able to transport, store, and regulate the flow.

- Choking time decreased from 5,395 hours in 1987 to 584 in 1992.

Combined sewer overflows (CSOs), which occur when the system's capacity is exceeded, have decreased.

- There were no dry weather overflows in 1992.
- Wet weather CSO flow in 1992 was approximately 45% less than that measured in 1990.

Second, the treatment system is also much improved, with measurable effects on environmental quality.

The sewage flow now contains less of the substances that are particularly difficult to treat. This is in large part the result of an aggressive toxic reduction program, which helps industries and homes minimize the amount of toxic contaminants in their discharges into the sewerage system.

- Zinc and copper loadings to the treatment plants have decreased by at least 75% since the early 1980s, which is reflected in decreased concentrations measured in the Harbor.
- Discharges of EPA-designated "priority pollutants" have decreased by about 33% since 1990.
- Pesticides measured in mussels at Deer Island in 1992 were only 25% to 50% of what they were in 1987.
- Instances of liver diseases in winter flounder caught off Deer Island have decreased dramatically since the early 1980s.

While still severely undersized, the treatment plants themselves are more effective following more than \$100 million of improvements affecting every part of the treatment process.

The most dramatic advances involve the way in which the plants deal with scum and sludge.

New scum removal systems now skim grease and floatable trash off the top of the sedimentation tanks. This material used to be discharged into the Harbor and float back onto area beaches.

The new way in which the MWRA deals with sludge, the solid material that settles out from the liquid effluent, represents a major environmental advance. Until December 1991, sludge was discharged into the Harbor. Since that time, sludge has been shipped to the MWRA's new sludge-to-fertilizer plant.

- Dry-weather fecal coliform counts at the Nut Island sludge dumping site decreased from 2,364 per 100 ml in 1990 while sludge was still being discharged, to 4 in 1992.

Treatment plant performance has consequently improved.

- The number of Deer Island NPDES violations in Fiscal Year 1992 was 7, as compared to 35 in Fiscal Year 1987. The number at Nut Island was 0 in 1992, 1 in 1987.

More CSO flow is now treated.

Improved CSO treatment has also improved the quality of the flow that still gets diverted away from the treatment plants due to temporary system overload. Since 1987, MWRA has built three new CSO treatment facilities at a combined cost of approximately \$13 million. About half of the total CSO flow is now chlorinated and screened.

- Fecal coliform counts in the waters close to new CSO treatment facilities at Fox Point have decreased from 749 per 100 ml to 79, and at Commercial Point from 175 to 49. (State swimming standard is 200 per 100 ml.)
- Water samples at Malibu and Tenean beaches, close to new CSO facilities, always met swimming standards in 1992. In contrast, these beaches did not meet standards 15% and 17% of the time in 1987.

Third, there is nevertheless a limit to how much more environmental improvement can be made before completion of new court-ordered secondary treatment facilities and the associated effluent outfall tunnel.

The requirements of the Clean Water Act are not going to be met, however, by massaging the current treatment system. Primary treatment does not remove enough solids (TSS) and organic material (BOD), and the Harbor is too small a body of water to absorb the amount of oxygen-consuming material that is currently being discharged into it.

- In 1992, 22% of dissolved oxygen measurements taken in bottom waters at dawn were below water quality standards.

Consequently, MWRA is engaged in a multi-billion dollar construction project. New facilities will come on-line in stages. More sophisticated primary treatment will begin operation in 1994, and partial secondary in 1996.

- By the end of the century, when the secondary facilities will be fully operational, BOD and TSS loading are predicted to decrease by 90% from 1990 levels.

The 1992 State of Boston Harbor Report therefore conveys a dual message. On the one hand, rehabilitation of the sewerage system has already made a measurable difference to the state of the Harbor. On the other hand, the limited nature of the environmental benefit that can be gained from this rehabilitation underlines the need to press on with new secondary facilities and a new effluent outfall tunnel into Massachusetts Bay.

RATE RELIEF

A periodic report from the Massachusetts Water Resources Authority

WELCOME TO RATE RELIEF

The Massachusetts Water Resources Authority (MWRA) is a public utility that provides water and sewer services to over 2.5 million people in the Greater Boston area. The MWRA was created in 1972 to manage the state's water and sewer resources. It is responsible for the construction and operation of the state's water and sewer infrastructure, including the Central Artery/Tunnel Project and the Boston Harbor Project. The MWRA's primary goal is to provide clean, safe water and sewer services to its customers while maintaining the integrity of the state's water and sewer resources. The MWRA's rates are set to cover the cost of these services, but they have increased significantly over the years due to inflation and the need for capital investment in the infrastructure. The MWRA is currently seeking rate relief to help customers pay for these services more affordably. The MWRA's Executive Director, Robert A. MacDonnell, is leading the effort to secure rate relief from the state and federal governments. The MWRA is also working with the state and federal governments to secure additional funding for the Central Artery/Tunnel Project and the Boston Harbor Project. The MWRA is committed to providing clean, safe water and sewer services to its customers and to maintaining the integrity of the state's water and sewer resources.

WHY THE HIGH COST?

In this first issue, *Rate Relief* explains the basis for MWRA water and sewer charges, and the reasons for the increases.

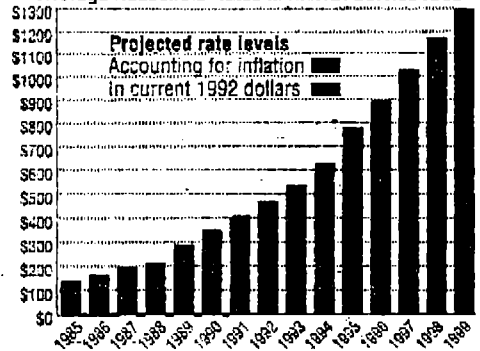
Ratepayers in the MWRA communities paid artificially low fees for water and sewer services for many years because the pipes, pumping stations and treatment plants were not being sufficiently maintained and upgraded. For 20 years before the MWRA was founded, the MDC spent an average of only \$11 million a year on capital investment in the basic water and wastewater infrastructure for its service area. By contrast in 1993, the MWRA will spend \$781 million on rebuilding its service delivery system. Rates that were among the nation's lowest in 1986 (\$140 per year for the average household) have now risen to among the highest (\$535 per year). Without rate relief, rates are projected to climb to \$864 in today's dollars or \$1,296 by 1999 when the effect of inflation decreases the purchasing power of the dollar.

The MWRA raises money to fund capital projects by issuing bonds (\$1.9 billion

to date) to institutional and individual lenders.

Debt service on the bonds (recurring payments of interest and principal to pay off the bonds) to finance MWRA projects has become the biggest single item in the budget. New debt service will be added because, altogether between 1993 and 1999, the MWRA plans to spend \$3.2 billion on the Boston Harbor Project and other wastewater improvements and \$1.2 billion on waterworks. Debt service will grow from \$174 million in 1993 to \$573 million in 1999.

Average Household Rates in MWRA Service Area



Federal and State 8%



Local 92%



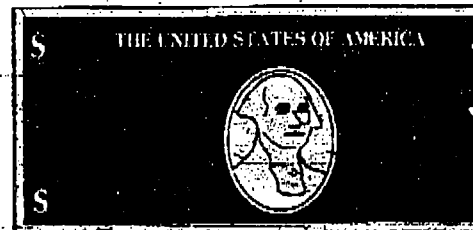
Boston Harbor Project

Because the court ordered Boston Harbor Project began after federal funding for Clean Water Act projects expired, an estimated 92% of the project will be paid for by ratepayers unless more sources of funding become available. This figure contrasts sharply with the Central Artery/Third Harbor Tunnel Project. An estimated 87% of the cost of artery construction will come from federal funding and only 13% from state taxes.

State 13%



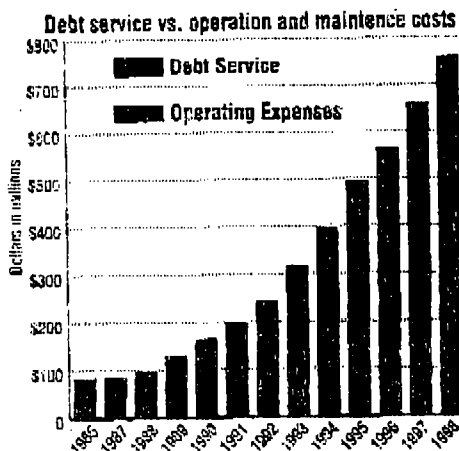
Central Artery Project



Federal 87%

WHAT WE'RE DOING

Rate affordability is the Authority's most pressing priority. The MWRA is working with the state's Washington delegation and with state lawmakers to pass rate relief legislation, and has joined coalitions of other communities with the same goal. We are asking members of the business community, environmental organizations and other constituent groups to support our efforts to control the growth of rates. We support the MWRA Advisory Board's aggressive efforts to educate our elected officials about the importance of rate relief, including formation of an MWRA caucus at the State House. We are also communicating with the Clinton/Gore transition team to make sure water projects are included in any plans to jump-start the economy.

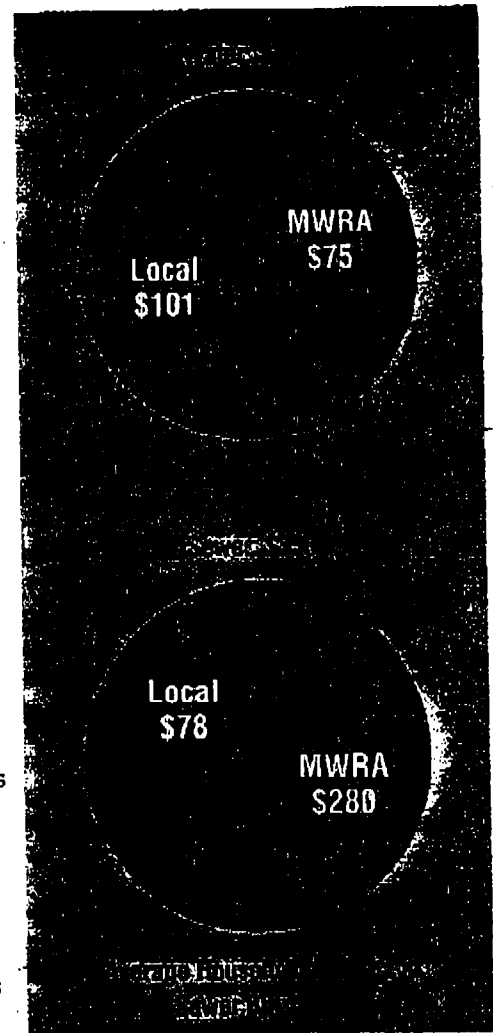


FIGURING YOUR BILL

The MWRA provides wholesale water and sewer services to 61 cities and towns. The communities, in turn, distribute water from MWRA regional supplies to homes and businesses and then pipe sewage and street runoff to MWRA interceptors to be taken to sewage treatment plants.

The MWRA's water bill to your community is based on the metered amount of water supplied to the town. The sewer charges are calculated on the population of a community plus the "population equivalents" of industry—a method used to estimate how much sewage or wastewater comes from large users such as office buildings, industries, hospitals and universities. A committee of the MWRA Advisory Board is studying whether changes ought to be considered for the Authority's sewer rate methodology.

The bill you get from your community includes costs of both the MWRA regional system and the expenses for the operations, maintenance and rehabilitation services provided by your city or town. Rates and billing frequency vary from community to community. Some offer discount rates to the elderly. Most communities base both the water and sewer portion of the retail bill on the amount of water they supply to a home or business. Call the number on your bill if you have questions about your bill or specific local services.



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FEDERAL FUNDS FOCUS

One of the four aspects of the MWRA's rate relief strategy is to increase federal funding for Clean Water Act and Safe Drinking Water Act mandates. Jobs and the national economic agenda provide additional impetus for infusion of federal dollars into reauthorization legislation.

President Clinton's economic stimulus plan calls out the need to create jobs to jump start an economic recovery. Construction of wastewater and water facilities are among the highest generators of jobs and other economic benefits of all infrastructure construction projects.

By investing in our water and sewer systems not only are we creating much needed jobs and insuring regional economic stability and competitiveness, but we are also delivering critical public health and environmental benefits.

STATE ASSISTANCE FOCUS

The 2.5 million people and 5,500 businesses served by MWRA area communities represent and support a hefty part of the Massachusetts economy. Providing reliable and safe water and sewer services is essential to not only our customers' health and quality of life but also to the economic well-being of the entire Commonwealth. Residents and industries of various types and sizes throughout the Commonwealth are dependent, directly or indirectly, on the economic strength and stability of the area served by the MWRA. State assistance is essential not only to aid MWRA ratepayers but as an investment in the economic future of the state.

A thriving economy attracts both new businesses and residents. Recent hard times have taken a toll on economic conditions in many ways. Continuing to ignore the needs of our water and sewer infrastructure, however,

would have a negative impact on stability and competitiveness. The Commonwealth's

commitment to rate assistance

will be a strong symbol of dedication to the economy and environment of the state, as well as providing immediate rate relief.

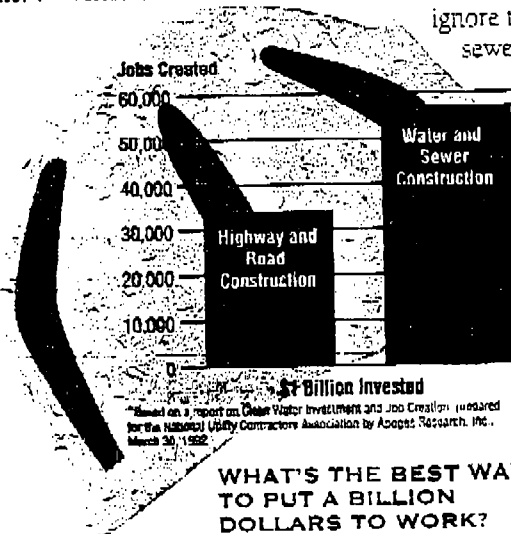
NEW BOTTOM LINE FOR MWRA SPENDING

The MWRA capital investment program for new and rehabilitated wastewater and water supply facilities to meet public health and environmental protection goals is estimated at over \$5.7 billion through this decade—\$1.3 billion less than previous estimates.

The wastewater portion of that total is now estimated at \$4.8 billion, mostly for new sewage treatment facilities to achieve compliance with the Clean Water Act. The waterworks portion, which includes facilities for compliance with the Safe Drinking Water Act, is projected to be over \$800 million.

These costs are mostly financed by MWRA's bond borrowing. For every \$100 million to be financed from MWRA's bonds, ratepayers over the next 30 years will spend \$266 million to repay the debt with interest.

Additional expenses falling directly on MWRA communities will also be required to bring local water and sewer systems up to today's standards and to operate facilities throughout the MWRA and community systems. While approximately 80% of project costs are mandated by federal law, non-mandated projects are far from expendable—cutting or deferring these projects would risk disastrous consequences for our water and sewer systems.



WHAT'S THE BEST WAY
TO PUT A BILLION
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Address
Correction
Requested

RATE RELIEF

A periodic report from the Massachusetts Water Resources Authority

#3

DIRECTOR'S MESSAGE

I am happy to report that financial assistance for MWRA ratepayers is being proposed both on Beacon Hill and in Washington. At the time this issue of "Rate Relief" went to print, the proposed House budget had included approximately \$20 million for FY94. With Senate support and Governor Weld's approval this will enable us to hold wholesale rate increases below double digit percentages.

In the nation's capital, President Clinton's announcement that his budget submission includes a proposed \$100 million appropriation for the Boston Harbor Project is welcome news. That's \$100 million we won't have to borrow and pay back over the next 30 years.

Recently, I joined Senator Kennedy in testifying before a Senate Committee in support of the \$100 million appropriation.

This year both the Clean Water Act and the Safe Drinking Water Act are up for reauthorization in Congress. We will be working with the Massachusetts delegation to ensure that MWRA projects and interests are represented in these important environmental laws.

Elected officials continue to need input and encouragement from ratepayers. We thank you for your continued interest.

Douglas B. MacDonald

Douglas B. MacDonald
Executive Director

POSITIVE RECOGNITION

The ever-increasing public concern over water and sewer rates has been noted in many newspapers.

Two recent editorials in the Quincy *Patriot Ledger* supported efforts by the Authority to control rate increases. Those editorials stated, in part:

**"THE
MWRA IS
UNDER-
TAKING
THIS HUGE
PROJECT -
WITH MOST
WORK ON TIME AND
UNDER BUDGET - FOR
A VERY SIMPLE REA-
SON: FEDERAL LAW
REQUIRES IT, AND A
FEDERAL JUDGE HAS
ORDERED IT."**

-MAY 7, 1993

.....

**"WHAT'S IMPORTANT
IS THAT THE AUTHORITY
IS AGGRESSIVELY
SEEKING WAYS TO
TRIM THE COST OF
THE CLEANUP."**

-MAY 15 - 16, 1993

RATE PROJECTION REVISIONS REFLECT ACTIVE MANAGEMENT

Developing rate projections for future years involves making many assumptions. In discussing projected rates with our ratepayers and elected officials we are con-

servative regarding potential costs of meeting obligations and optimistic about potential reductions in those costs based on what the Authority considers as reasonable rate relief opportunities.

The MWRA produces five-year projections for several reasons: providing disclosure to potential bond investors; planning with user communities and other interested parties; and developing internal financial management strategies for financing capital expenditures.

Revisions to the projections are usually made public twice each year. The revisions normally show changes in the projections because of the dynamic nature of the underlying variables, including, for example, estimates of future interest rates and inflation rates.

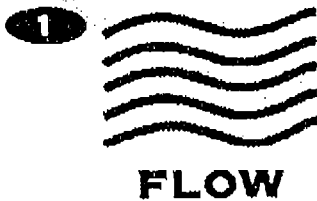
Even short-term projections are subject to significant adjustment. For example, the average annual household charge for FY93 is \$545 — well below the projection for FY93 made in 1991 (\$590). Similarly, the current projection of \$623 for FY94 is already lower than the projection of \$684 made only a year ago. For long-term projections, fluctuations can be more substantial as actual events unfold. Recent adjustments are attributed to lower actual inflation and interest rates than those previously assumed by the MWRA, savings from aggressive construction bids, and the MWRA's own cuts in operating and capital costs.

Partly due to its approach to rate projections, the MWRA has consistently demonstrated its credibility with financial markets and the rating agencies. This has helped the MWRA lower its costs of borrowing, probably the single most significant step in restraining long-term costs to ratepayers.

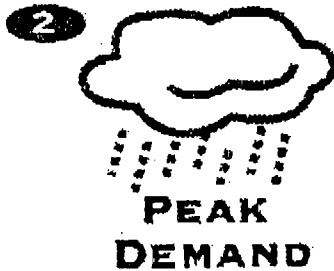


WHOLESALE SEWER RATE METHODOLOGY

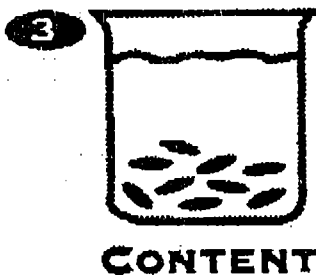
Allocating the cost of wastewater treatment is not a simple process. Major components to consider include:



THE AVERAGE DAILY VOLUME OF WASTE-WATER.



THE SURGES OF WASTEWATER VOLUME THAT ARE RELATED TO WET WEATHER AND THAT OFTEN PUSH THE SEWERAGE SYSTEM BEYOND FUNCTIONAL CAPACITY.



THE AMOUNT OF SOLIDS THAT HAVE TO BE REMOVED FROM WASTEWATER, PROCESSED, AND DISPOSED OF.

Currently, the MWRA's wholesale charges for sewer service are based on each municipality's proportionate share of use as measured by population and population equivalents (P&PE). The P&PE methodology breaks the sewer system costs into two different customer classes, considers two different sources of volume, allocates costs to three different components of wastewater treatment, and incorporates data on domestic and industrial contributions of volume and total suspended solids (TSS).

ADVISORY BOARD COMMITTEE WORKING ON SEWER RATE METHODOLOGY

As a result of concerns raised by MWRA sewer communities regarding the equity of the Population and Population Equivalent (P&PE) formula, the Advisory Board has established the Sewer Rate Methodology Committee. The committee was formed in September 1992 and includes representatives from eleven communities (Boston, Cambridge, Canton, Newton, Frammingham, Norwood, Quincy, Somerville, Stoughton, Wellesley, Weymouth, Winchester, and Wiltmington). Committee Chair Phillip Farrington of Stoughton presented an interim report on the Committee's efforts to the MWRA Board of Directors on May 26th.

Focusing on variables which affect cost, the Sewer Rate Methodology Committee's mission has been to establish the relative importance of criteria making up a sewer rate structure. The Committee identified two primary criteria for any formula used to determine charges for the operations and maintenance costs of sewage treatment: quantity of wastewater and its quality (or strength). The group also favors incentives to achieve fairness and conservation goals which include the elimination of inflow/infiltration from local systems and sewer separation.

The Committee will continue to examine the issue of costs associated with the sewage system and the equity in distributing costs among user communities. As positions are endorsed by the Advisory Board, the Committee will submit further recommendations to the Board of Directors for consideration in the MWRA's rate formulas.

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