

**The Role of EPA and the Federal Court
in Sludge Management Planning for Greater Boston**

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ABSTRACT

Untreated wastewater and sludge from the greater Boston metropolitan area has been discharged to Boston Harbor in violation of federal law since 1972. After several cooperative efforts to plan for new treatment facilities failed, EPA took an enforcement action in Federal District Court against the local sewer authority. Concurrently, and in close cooperation with the local sewer authority, EPA initiated an environmental review and siting process for new facilities, including sludge management facilities. EPA's concurrent planning and enforcement efforts had positive results in that they encouraged early sharing of information between parties to the court case, motivated dispute resolution outside of court (because parties knew that unresolved disputes would be decided by the Court) and ensured that necessary work would be completed according to established schedules. These combined efforts also had negative repercussions, however, because EPA and the sewer authority were sometimes seen by the affected public as "co-conspirators" in

the siting process and because the often adversarial postures of the parties in the court case sometimes hindered the complete disclosure of information needed for the planning process.

KEYWORDS: Sludge; enforcement; environmental review; siting; Boston Harbor.

INTRODUCTION

The Environmental Protection Agency has been involved for many years in efforts to stop the pollution of Boston Harbor from sewage and sludge discharges. The process has been a long one, rife with technical complexities and political pitfalls, and many approaches to solving the problem have been tried. The most recent approach involves a cooperative environmental review and planning effort combined with an EPA enforcement effort in the Federal District Court. This paper presents a case study, and describes the positive and negative aspects of this approach as it has been used to determine appropriate sludge management sites and technologies for the Boston metropolitan area.

HISTORY OF THE PLANNING PROCESS

Boston's sewage has been collected and discharged into Boston Harbor since 1885, when individual discharges into shallow areas of the Harbor and its tributaries were discontinued because of severe public health problems. The sewer system constructed in 1885 brought

sewage and stormwater to holding tanks on Moon Island (see Figure 1), and discharged the untreated wastewater into the Harbor on the outgoing tide (this was considered a progressive means of waste management at the time). The sewer system was gradually expanded over time to provide service to what is now the Massachusetts Water Resources Authority (MWRA) service area, which includes 43 cities and towns in the metropolitan Boston area.

Untreated wastewater discharges continued until two new primary treatment facilities were constructed on Nut Island in Quincy and Deer Island in Winthrop in 1952 and 1968, respectively (see Figure 1). Today these two overloaded and trouble-plagued plants discharge an average of 450 million gallons of inadequately treated wastewater and 70 dry tons of digested sludge into Boston Harbor daily. In addition, an average of 7 million gallons of urban runoff and untreated sewage are discharged into the Harbor and its tributaries each day from over 100 combined sewer overflows (CSOs).

These discharges have resulted in Boston Harbor being rated "among the most contaminated" marine sites in America by the National Atmospheric and Oceanic Administration (1). Harbor sediments are highly polluted with lead, mercury and other metals, Polychlorinated Biphenols (PCBs), Polyaromatic Hydrocarbons (PAHs) and pesticides. Flounder and shellfish, Boston's top commercial fishing resources, also contain high levels of these contaminants. High coliform bacteria levels in the water have resulted in the permanent closing of over 2500 acres of shellfish beds (more than half the shellfish bed acreage in the Harbor), while shellfish harvest from the remaining beds must be depurated before sale or consumption. High

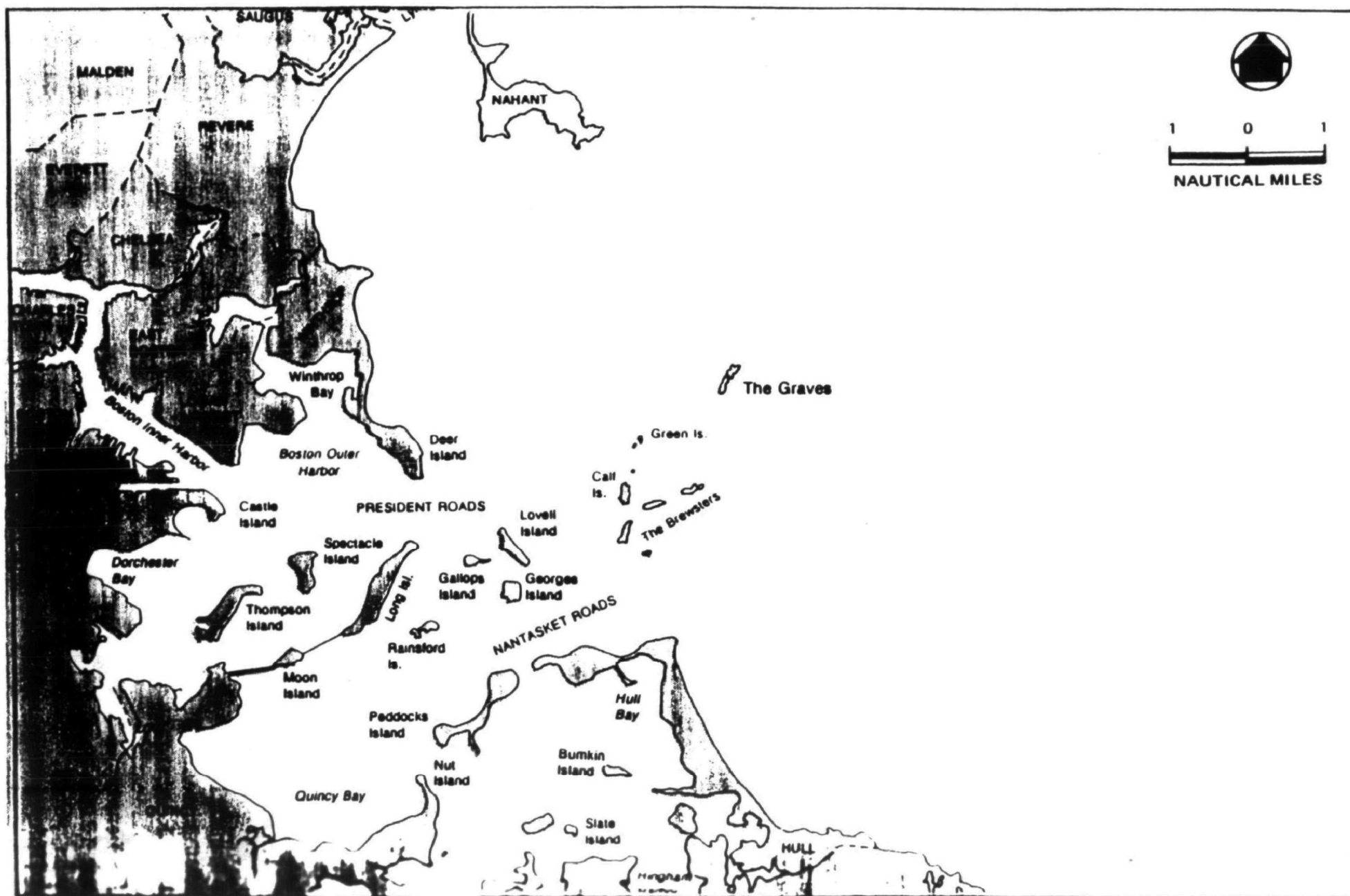


FIGURE 1

BOSTON HARBOR AND ENVIRONS

bacteria levels and washed up excrement and plastic floatables (such as tampon applicators and condoms) also account for frequent Harbor beach closings in the summer.

In 1972, Congress passed the Federal Clean Water Act, which mandated secondary treatment for municipal wastewater and banned the unpermitted ocean discharge of sewage sludge. Planning for upgraded treatment facilities for the Boston area began soon thereafter. In 1972, Massachusetts officials committed to EPA that by early 1973 they would complete an engineering evaluation to site sewage sludge disposal facilities, and that those facilities would be built by May of 1976. This timetable was not met, but in 1973 the Metropolitan District Commission (MDC), the state agency responsible for the metropolitan Boston sewer system at the time, commissioned the "Wastewater Engineering and Management Plan for Boston Harbor/Eastern Massachusetts Metropolitan Area"(2). This study comprised 17 volumes and took 3 years to complete. Its principle recommendations included upgrading the Nut and Deer Island treatment plants to secondary treatment, disposing of sludge by incineration, and eliminating CSOs. None of these recommendations were implemented by MDC.

In 1976, a new schedule was developed. EPA, MDC and the Massachusetts Division of Water Pollution Control entered into a scheduling agreement which called for construction of sludge management facilities to stop the primary sludge discharge by May of 1980, to be followed later by facilities to handle the secondary sludge. This schedule was also not met.

In 1978, EPA became more directly involved in the planning

process. Because federal funds would be spent for design and construction of any new treatment facilities, EPA was required by the National Environmental Policy Act (NEPA) to conduct an environmental review of the proposed facilities. A Draft Environmental Impact Statement (EIS) was issued which recommended constructing a new secondary plant on Deer Island, and disposing of sludge through a combination of incineration and landfilling. The recommendations of the Draft EIS caused controversy and negative public comment, especially from neighborhoods surrounding Deer Island.

Around the same time, changes to the Clean Water Act in 1977 allowed for a waiver of the secondary treatment requirement for municipalities that could show that their discharge would not interfere with protection of the marine environment. The controversy surrounding the Draft EIS and the changes to the Clean Water Act prompted EPA and MDC to reach an informal agreement that planning for new treatment facilities should proceed in a flexible, phased fashion, focused on accelerating immediate upgrades to existing facilities, while MDC pursued a secondary treatment waiver.

MDC filed an application for the secondary treatment waiver in 1979 and submitted additional application information in 1982. EPA tentatively denied the waiver in 1983. MDC filed an amended application in 1984, which was again denied by EPA in 1985. During this period MDC had continued with its planning process, producing a siting report in 1982 which found that primary treatment on Nut and Deer Islands would be an environmentally and economically sound option. This was obviously not consistent with EPA's waiver decision requiring secondary treatment.

In 1983, EPA and the Commonwealth of Massachusetts began working on a joint Supplemental Draft EIS to augment the siting studies presented in EPA's 1978 Draft EIS. This report considered 22 secondary treatment site alternatives and selected 7 for final evaluation. All of the 7 final siting alternatives involved Deer Island, Long Island (see Fig. 1) and Nut Island, either separately or in combination.

In 1985, the newly created Massachusetts Water Resources Authority (MWRA) recommended Deer Island as the site for its new secondary treatment plant. EPA endorsed this recommendation in its Final EIS, issued one month after the MWRA decision. In 1986, EPA issued its formal Record of Decision recommending Deer Island as the site for the new secondary treatment plant. The Record of Decision committed EPA to further environmental review for several matters (including sludge management) that had not been addressed in the Final EIS because they were not considered to be site determinative for the treatment plant and because they were not yet ripe for review.

HISTORY OF THE LITIGATION

The voluntary efforts of MDC and other agencies to end sludge discharges to Boston Harbor during the late 1970s and early 1980s failed, and did not even yield an accepted plan for ending these discharges. These failures set the stage for court action, as it became clear that the power of the judiciary would be needed to spur an end to the unlawful pollution of the Harbor. The first court case

was not, however, filed by EPA.

The City of Quincy, whose Nut Island was home to one of MDC's two treatment plants and whose Quincy Bay was the receiving water for the Nut Island plant outfall, filed the first case in late 1982 in the Massachusetts Superior Court. Part of the extensive lore of the Boston Harbor clean-up is that Quincy's case was instigated by William Golden, then the City's attorney and later one of its state legislators, after he was jogging on a Quincy beach which he found covered by a smelly muck. His initial disgust turned to outrage when he learned that the muck was actually sewage sludge and scum that had washed ashore from MDC's discharge. Quincy's case was filed against MDC and certain other state agencies. EPA participated in the case in an advisory capacity as a "friend of the Court."

In many ways this case and the later related cases discussed below present a classic example of what Professor Abram Chayes of the Harvard Law School has termed "public law litigation." In a 1976 article (3), Professor Chayes identified a trend in the federal courts in the growing number of cases characterized by a goal of effectuating statutory policies and programs, a complex party structure, the issuance of a decree to govern the parties' future actions, the continuing involvement of a judge as the administrator of the ongoing decree, and the importance of recurring cooperation and negotiation among the parties as performance of the decree unfolds. These characteristics sharply contrast with those of traditional private litigation involving two parties in a purely adversarial contest designed to resolve a dispute over a past interaction by producing a one-time court decision.

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their rightful duties.

Therefore, the Court appointed an independent Special Master to study the Boston Harbor situation and to recommend an approach to solving its problems. The Special Master concluded that because of MDC's lack of necessary budgetary independence from the Massachusetts Legislature and administrative and technical skills, it was simply not up to the massive public works project that was clearly required. The Special Master recommended the creation of a new entity whose sole mission would be to provide sewer and water services to metropolitan Boston.

Thus, the Court ordered the creation of MWRA. The Court determined that by creating MWRA it could ensure future compliance with the Clean Water Act without having to put the metropolitan Boston sewer system into receivership. Still, an act of the Massachusetts Legislature was required to create MWRA, and after the legislation was proposed, the Legislature dragged its feet on passing it.

Finally, in late 1984, the Court had to deploy one of its ultimate weapons -- it ordered a sewer ban in booming metropolitan Boston. The real estate business community was immediately up in arms and the matter was quickly appealed to the Massachusetts Supreme Judicial Court where the sewer ban was overturned for certain state law reasons. EPA, however, then announced that if the MWRA legislation was not soon passed, it would institute its own sewer ban under its powers granted by Section 402(h) of the Clean Water Act (4). With that, the Legislature passed the bill around the end of 1984 and MWRA was born.

Meanwhile, the Conservation Law Foundation of New England, Inc., had in 1983 filed a suit in the Federal District Court against MDC and EPA. The claim against MDC was for the illegal pollution of the Harbor, while the claim against EPA alleged the Agency's failure to properly enforce the Clean Water Act against MDC. The Federal Court stayed this case in March of 1984 because of the ongoing State Court case, but the latter case was clearly bogging down. Efforts in that case to reach voluntary agreements on complete long-range compliance schedules had failed, and agreed-to schedules for preliminary planning were not met. Moreover, as described above, just the creation of MWRA required a major battle.

Therefore, on January 31, 1985, shortly after the creation of MWRA, EPA filed a new Federal District Court action against MDC, the Commonwealth of Massachusetts, the Boston Water and Sewer Commission (the owner of certain combined sewer overflows and sewer lines in Boston), and MWRA. This case was filed because EPA believed that history had shown that voluntary efforts, even under the aegis of the state courts, could not be counted on to ensure an expeditious end to the pollution of Boston Harbor in violation of federal law; an enforceable federal court order was needed. EPA's action was also dictated by its 1984 policy (known as the "National Municipal Policy") to mount a major enforcement effort to bring municipal discharges into compliance with the secondary treatment requirements of the Clean Water Act.

Once EPA's case was filed, the focal point of the Boston Harbor litigation shifted to the Federal Court. The Federal Court lifted the stay of the Conservation Law Foundation case and consolidated it

with the EPA case. It also dismissed the Conservation Law Foundation's claim against EPA and allowed the motions of Quincy and the Town of Winthrop, whose Deer Island was the site of MDC's second treatment plant and the planned site of MWRA's new plant, to intervene as parties in the case. Finally, and most significantly, the Court granted motions by EPA and the Conservation Law Foundation that MDC, Massachusetts and MWRA, as MDC's successor, be held liable for the past and on-going violations of the Clean Water Act.

Once MWRA was found to be liable, it was obliged to remedy its violations of law. The questions then became how and when MWRA would accomplish this end. In effect, the decision on liability set the parties' basic roles in the litigation and planning for the years to come.

In its decision on liability, the Court described its and the parties' respective roles in the litigation and the purpose of the litigation as follows:

[t]he purpose of these proceedings is to ensure that the MWRA fulfills the mission entrusted to it by the state legislature. . . . If the MWRA acts expeditiously, it need not concern itself with interference from this Court. . . . At the same time, this Court was invited into this litigation only when voluntary efforts proved ineffective. The plaintiffs have now proven a violation of a federally protected right, and this Court must protect that right if the entity entrusted by the state to do so should falter in its task. This is not to say that this should solely be a state effort. Despite its present posture as a plaintiff, the EPA, as its name indicates, is an

environmental protection agency and its duty is to cooperate in and ensure the expeditious design, funding, and construction of the necessary facilities (5).

In other words, with respect to residuals management, MWRA is both the project proponent and the litigation defendant and, as such, is primarily responsible for developing and implementing plans for secondary wastewater treatment and sludge management according to the schedules ordered by the Court. EPA, for its part, has two separate, but complementary roles in the project. First, EPA is the federal administrative agency providing technical assistance to MWRA and performing an independent federal environmental review of MWRA's program. In this role, EPA is responsible for ensuring that a workable wastewater and sludge management plan is developed and that environmental review of that plan is conducted in compliance with NEPA. Second, EPA is the Federal enforcement agency and litigation plaintiff closely monitoring MWRA's efforts to ensure that compliance with the Clean Water Act is achieved. In this role EPA is responsible for ensuring, on behalf of the United States, that MWRA's program will achieve legal compliance as rapidly as possible and in accordance with the Court's scheduling orders.

In one sense, EPA's roles are separate. In its administrative role, EPA must perform an independent review and analysis of MWRA's program, and alternatives to it. This analysis must comply with the directives of NEPA. In its enforcement role, however, the EPA is only concerned with ensuring that the MWRA adopt one residuals management program that will achieve properly expeditious compliance

with the law. Even if there were no major federal actions significantly affecting the environment that required environmental review, EPA would still perform its enforcement role.

In another sense, however, the EPA's dual roles are complementary. The technical analyses prepared by EPA provide much of the basis for assessing for enforcement purposes whether MWRA's program will to achieve appropriately expeditious compliance with the law. Moreover, completion of the review process is a necessary precursor to certain Federal actions and permits that may be needed to enable MWRA to implement its program.

Meanwhile, the Court is the ultimate overseer of the entire project. The Court attempts to let the political and administrative entities do their jobs directing the program, but it has ultimate authority to set schedules, decide disputes between the parties and impose sanctions for unacceptable delays in achieving legal compliance.

"PIGGYBACK" APPROACH TO ENVIRONMENTAL REVIEW

In 1986, EPA began work on its Supplemental Environmental Impact Statement (SEIS) on residuals management for the Boston metropolitan area (addressing sludge, scum, grit and screenings from the new secondary treatment plant on Deer Island). The document was termed "supplemental" because it augmented EPA's earlier EIS on treatment plant siting.

The Council on Environmental Quality regulations for implementing NEPA call for federal agencies to "cooperate with Sta

and local agencies to the fullest extent possible to reduce duplication between NEPA and State and local requirements.(6)"

Because the MWRA was required to conduct a full environmental review under the Massachusetts Environmental Policy Act (MEPA), a counterpart to NEPA, EPA decided to use a "piggyback" approach for its Residuals SEIS. In this way, EPA hoped to use the technical and scientific studies conducted by the MWRA for its Environmental Impact Report (as required by MEPA) and Facilities Plan as the basis for the SEIS.

This "piggyback" approach required MWRA and EPA cooperation in two important ways. First, EPA and MWRA had to work together to develop scopes of work for the field and analytical studies on which their respective environmental impact analyses were to be based. Agreement had to be reached on the type and amount of data needed, the sampling and analytical methods to be used, and the methodologies for predicting impacts.

Second, because the EIR and the SEIS process were running concurrently, and because the issues to be discussed in both documents were the same, MWRA and EPA took part in a joint public participation effort. Both agencies utilized the same Citizen's Advisory Committee (a group which had been established through MEPA to provide balanced citizen input on issues related to the new treatment plan design and construction) and Regional Task Forces (also established through MEPA to provide local input from towns surrounding proposed residuals management sites). Several joint public meetings were held and a joint mailing list was developed for dissemination of information related to residuals management.

EPA of course was ultimately responsible for the SEIS being prepared in compliance with NEPA and EPA's requirements for environmental review. Therefore, although the intent of the "piggyback" process was to maximize the joint use of data and analyses, an integral part of EPA's role in the environmental review process was to independently review all work done by MWRA and to modify or supplement it when necessary.

The this "piggyback" approach held both advantages and disadvantages for EPA in the cost, technical adequacy and public participation aspects of the environmental review process. Most obviously, the "piggyback" approach resulted in a savings in the cost of the review because to a great extent both agencies were able to utilize the same database and much of the same analyses. MWRA, as the agency responsible for the construction and operation of the new sludge facilities, bore the major cost burden and took the lead in collecting data and developing impact analyses. EPA therefore needed only to review the data and analyses as they were developed and to supplement or modify them as it felt necessary for technical accuracy or to comply with NEPA requirements. Because MWRA was paying for most of the studies, however, and was more directly subject to MEPA than to NEPA, EPA's ability to influence the scope of those studies was sometimes hampered, as will be discussed further below.

The "piggyback" approach also provided a means for the agencies to agree in advance, to the extent possible, on which issues needed to be addressed during the review process and how best to address those issues. Project managers from both agencies met on a bi-weekly basis (along with representatives from the Massachusetts Department

of Environmental Quality Engineering) to discuss scopes of field studies and methodologies for impact analyses. In addition, subject experts from both agencies (and their technical consultants) met on an as-needed basis when major decisions were being made on methodology. For example, air dispersion modelers met to determine the appropriate computer model and modeling assumptions to be used for the air impacts analysis. By meeting often and sharing data on a continuous basis, both EPA and MWRA had the advantage of receiving ongoing peer review and ensuring that the residuals management plan recommended at the end of the review process would meet state and federal regulations. Another advantage of the frequent meetings among technical personnel was that serious technical differences were identified relatively early in each agency's review process, and where the problems were not resolved, the agencies at least understood their differences and could make provisions for conducting their own separate analyses.

Not surprisingly, however, there often were technical disagreements between the agencies which were tedious and time-consuming to resolve. For example, there are no generally accepted methodologies for evaluating many of the potential project impacts, such as impacts from wet and dry air pollutant deposition. This resulted in differences in the judgments of subject matter experts on how to conduct such evaluations. Since MWRA was funding the study and had its own budgetary constraints to consider, EPA's opinions did not always prevail. Thus, EPA's role as a reviewer in the early phases of the project put the agency at somewhat of a disadvantage, and resulted in some areas of disagreement between EPA and MWRA that

could not be resolved.

Another area where the "piggyback" approach had both positive and negative results was that of public participation and education. The scope of this project was very large (over 300 potential sites and 10 potential technologies were initially considered), and the timeframe for environmental review and planning was very long (over 3 years). In addition, the MWRA service area encompasses 43 towns and cities in the metropolitan Boston area, and includes over 2.5 million people, all of whom contribute to the ongoing pollution problem in Boston Harbor and all of whom will have a part in paying for new treatment facilities. The effort, then, involved in both informing and soliciting input from the public was enormous, and the joint public participation program allowed both agencies to share it. Also, the amount of information available to the public for review was copious, and had EPA conducted a completely independent environmental review process, the number of documents to be reviewed might have doubled, thereby decreasing the effectiveness of the program by overwhelming the public.

Another positive aspect of the joint public participation program was that EPA functioned as something of a "safety net" for the interested public in three ways. First, because EPA was critically reviewing all of MWRA's documents, some town representatives and environmental groups depended on EPA to provide technical review and comment on a level that they could not provide themselves. Second, citizens and town representatives were able to contact EPA when they felt that their concerns were falling on deaf ears at MWRA. This provided a second outlet for their fear and

and increased their involvement in the process. Lastly, cted as and was largely viewed as an objective player in making process, the Agency's ongoing review and close ith MWRA helped raise confidence in the integrity of the review process.

hough, this joint effort had negative repercussions. eraction between EPA and MWRA was interpreted by some as " between the agencies, and the joint public program served to enforce that view for them. Because were often physically on the same side of the room or at e at public meetings, they were seen by some as having - to find a site for sludge management facilities the environmental or public welfare consequences. The sponsibilities and guiding statutes of the two agencies as forgotten. Joint MWRA and EPA appearances at public put EPA in a delicate position when disagreements en the two agencies as to environmental review s, projected impacts or recommendations. EPA was faced olem of communicating its position to the public without mportance of the disagreement to be blown out of : the public to lose confidence in MWRA, which could have momentum of the siting process.

gyback" approach for environmental review had one other quence for EPA. During the course of the environmental ss, MWRA twice requested significant extensions to the compliance schedule established for that review. As a case, EPA was able to comment to the Federal Court judge

as to the appropriateness of the requested extensions. Because of their close working relationship with MWRA on the project, EPA technical staff were able to provide valuable input to Agency attorneys on whether the extensions were truly needed. Sometimes EPA and MWRA technical personnel agreed that changes in the scope of certain studies were necessary that compelled the schedule extensions; other times EPA technical staff did not agree that requested extensions were warranted. Together, EPA technical staff and attorneys were able to determine the most appropriate schedule for completion of environmental review, and either agree on that schedule with MWRA and other parties, or present the Agency's opposing views to the Federal Court. Again, though, the negative side to this aspect of the "piggyback" approach was that MWRA staff were sometimes less forthright with EPA technical staff than they otherwise might have been because of the adversarial nature of the Court case.

IMPACT OF THE FEDERAL COURT CASE

Behind the complex relationship of the various agencies, citizen's groups and municipalities involved in the environmental review, the Federal Court case drove the planning process. Although the filing of the case initially caused some bad feelings among the parties, the enforcement litigation ultimately had many positive effects on the planning process.

The most significant cause of these positive results was the Court's incorporation in its Orders of schedules for all the major

milestones in the environmental review process. These schedules provided a discipline to the planning process that was lacking in the past efforts to address the problem of sludge discharges. In other words, in the past it was always easier to do another study than to actually site facilities in a community and pay for their operation. The Court's Orders changed this, since failures to comply with these Orders could have constituted contempt of Court and subjected MWRA to huge fines.

The Court's schedules provided meaningful tools for both measuring and spurring MWRA's progress on the residuals management program. Yet, it was important that the schedules were not merely arbitrary creations of the Court. The parties' legal and technical representatives negotiated at length over the various residuals management timetables. Once agreed upon by the parties, they were adopted by the Court as enforceable orders. Thus, the expertise and interests of the various parties were reflected in each of the schedules so that the full time needed for completing studies would be accounted for. This helped to enhance the schedules' legitimacy and utility as measures of progress. The parties attempted to heighten the schedules' utility by making them detailed enough to provide a useful measure of progress on significant milestones, but not so detailed as to "micro-manage" MWRA in a way that would rob it of necessary flexibility in certain areas. Of course, the parties did not always agree on how best to balance these two goals.

Yet, even when the parties could not agree on schedules, the Court's presence ensured that the project would not bog down. Conflicting schedule proposals had to be submitted to the Court for

resolution. In such cases, the Court ultimately decided the controversies and imposed a clear schedule for all to follow. Furthermore, although the Court's scheduling Orders did place time pressure on the parties involved in the planning and review process, such pressure was clearly warranted given the extent and duration of the Clean Water Act violations which needed to be corrected.

The schedules' success as measures of progress was ensured by their requirement that MWRA report to the Court and parties on its progress on a monthly basis. Together with the high level of interaction among the agencies' technical staff, this enabled EPA, the Court and other parties to closely monitor MWRA's progress. Thus, EPA was able to act as a "watchdog" over MWRA compliance with the project schedules. When it believed MWRA was in danger of slipping behind schedule, EPA reported its concerns to the Court and often requested Court directives to address the problem. This kept the pressure on MWRA to address scheduling problems expeditiously.

The Court also provided a venue for resolving disputes arising out of instances in which MWRA did not meet the schedules. In some cases, MWRA, EPA and other parties simply agreed to schedule extensions in response to changed circumstances or new information, as discussed earlier. In other cases, MWRA completed steps after deadlines had passed and explained its reasons for delay to the Court and parties. In such cases, all parties had to react to delays in a reasonable manner because any disputes would ultimately be decided by the Court. If a problem could not be resolved, EPA had the opportunity to request action by the Court, and the Court had the ability, after hearing from the other parties, to penalize MWRA for

ays and to rearrange future schedules to make up the

3, the scheduling Orders served as both a sword at
a shield in its hand. They acted as a sword because
sanctioned for violating them. They acted as a shield
denied MWRA the option of unilaterally extending the
review timetables. Extension of the deadlines in the
could only be granted by the Court itself. This lack
helped MWRA resist political pressure by municipalities
entive to delay the process. Indeed, schedule
frequently suggested by the municipalities considered
sts for residuals management facilities. These
potentially had an interest both in delaying a final
gaining even more time to search for possible flaws
which resulted in their selection as potential host
f course, there were instances when MWRA and EPA
t least did not oppose, reasonably justified extension
erested municipalities. Thus, the Court-ordered
EPA in its role as "watchdog" over schedule
ng with MWRA's own will to complete the project, all
e residuals management program toward completion.

nation of an enforcement action with a "piggyback"
review was a productive and probably necessary approach
harbor residuals management problem. An enforcement

action was necessary to address the long-standing and ongoing illegal sludge discharges. It was especially necessary given the long history of ineffective corrective action. At the same time, the enforcement action was productive because the court-ordered schedules countered the many incentives in favor of delay and inaction, and because the Court provided a venue for resolving major disputes over the scheduling of the residuals management program.

The "piggyback" environmental review process was necessary to maximize the efficiency and cost-effectiveness of the federal and state environmental review efforts in the face of the project's extreme complexity and the need to complete it according to the court-ordered schedule. The "piggyback" process was productive because it allowed the agencies' staffs to share technical information and identify issues early in the process of preparing the various environmental impact reports, and to share the task of educating and responding to the interested public.

The main problems with the approach were (1) that the enforcement action at times raised the level of antagonism among the parties, which sometimes hindered fully open sharing of information; (2) that the desire to resolve disputes over difficult technical issues resulted in time-consuming discussions that did not always produce agreement in the end; and (3) that some (though not many) mistook the high level of EPA/MWRA interaction necessary to complete a piggy-back EIS for evidence of a conspiracy among the agencies to reach a particular decision together. We believe, however, that on balance the overall approach was sound and that these drawbacks, although troublesome, did not negate the usefulness of the approach.

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION I

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Chronology of the Boston Harbor Cleanup

- 1977 - Clean Water Act updated to allow for waiver of secondary treatment requirement (Section "301(h)" waiver)
- 1979 - Metropolitan District Commission (MDC) applies for 301(h) waiver
- 1983 - 301(h) waiver tentatively denied by EPA
- 1985 - 301(h) waiver denied after submittal of additional information

Massachusetts Water Resources Authority (MWRA) created by state legislation to take over water and sewer authorities of MDC

EPA motion filed in Federal Court

EPA issues Final EIS for siting of new secondary wastewater treatment facilities (at Deer Island); includes commitment to further environmental reviews for outfall and sludge management
- 2/86 - Record of Decision on siting issued by EPA
- 5/86 - Court issues long-term scheduling order with deadlines for new treatment and cessation of sludge discharges; later amended to include schedule for Combined Sewer Overflow (CSO) planning
- 2/87 - Amendment to Clean Water Act authorizes appropriation of \$100,000,000 for Boston Harbor Projects (Section 513)
- 4/88 - EPA and Commonwealth of Massachusetts agree on past penalty settlement, creating Mass Bay Trust Fund
- 8/88 - EPA issues Final Supplemental EIS on location of outfall
- 5/89 - Court schedule milestone for Draft Supplemental EIS on sludge management
- 1991 - MWRA to cease discharge of sludge to Boston Harbor
- 1999 - MWRA to complete construction of secondary treatment facilities

Corps of Engineers involvement: Department of Army permits authorized by Section 404 of the Clean Water Act, Section 103 of the Ocean Dumping Act, and Section 10 of the Rivers and Harbors Act. Some have already been issued, and more will likely be required.