Remedial Adjudication in Environmental Institution Cases: Lessons From Boston Harbor

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Abstract

Little scholarly attention has been paid to cases of remedial adjudication involving public institutions that have violated environmental statutes. This analysis seeks to fill this void. It centers on judicial legitimacy, capacity, and effectiveness, issues which have been extensively studied in the context of remedial adjudication involving public institutions that have violated constitutional rights. Legitimacy focuses on what is the appropriate role of the courts in formulating and implementing remedies; capacity on whether the courts have the ability to formulate and implement remedies; and effectiveness on whether judicial remedies lead to the elimination of the legal violations within a reasonable amount of time and at a reasonable cost.

The analysis is based on a federal and a state court case, each of which concerns the enforcement of water pollution control laws and the cleanup of Boston Harbor. It concludes that the judge's actions have the greatest impact in determining the legitimacy, capacity, and effectiveness of court intervention. The most legitimate approach for a court to take in remedy formulation is to first defer that task to the relevant regulatory agency, the institution, and the other parties to the case. That way the policy decisions that attend remedy formulation are made by politically responsible parties. Such deference can also enhance the courts' capacity to formulate remedies since the parties are better equipped than the courts to decide which remedial path is most appropriate. Deference can also generate a working relationship among the parties which can improve the chances for successful remedy implementation. If the parties fail to generate an acceptable remedy the court must take over the task of remedy formulation. When this occurs, the analysis found, that despite the complexity of the issues involved, courts can have the capacity to make sound remedial decisions.

Legitimate remedies must strive to bring the institution into compliance with the law. While the court has discretion to determine the means of reaching compliance, it should not replace legislative goals with ones that are judicially crafted. One of the most important powers that a court possesses to ensure the implementation of its orders is its legitimacy. When the court acts legitimately it can enhance the prospects for implementation, when it does not those prospects are likely to be diminished. A courts' ability to ensure implementation also depends on the credibility of judicial threats to use sanctions and on whether those sanctions impose meaningful costs on those who obstruct implementation. If court sanctions do not have "teeth" they will likely be ineffective. Finally, the analysis found that court can be highly effective, especially when it encourages the parties to search for opportunities to save time and money and takes advantage of them when they arise.

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Chapter I

Remedial Adjudication in Environmental Institution Cases: Framing the Issues

While the debate over remedial adjudication has raged in the context of public institutions that have violated constitutional rights, little attention has been paid to cases involving public institutions that have violated environmental statutes (hereinafter referred to as environmental institutions), e.g., a municipal sewage treatment plant that is violating the effluent standards of the Federal Clean Water Act (CWA). What is available on this topic focuses primarily on the sanctions the courts use to enforce remedial orders and the effectiveness of such sanctions.[1] This dissertation seeks to fill this void in the literature by analyzing the legitimacy, capacity, and effectiveness of the courts in remedial adjudication involving environmental institutions.

In addition to adding to the literature on remedial adjudication, this analysis will provide insights into the dynamics of environmental institution cases that will be of practical value to those parties, especially the judge, who are involved in such cases. A deeper understanding of the dynamics of environmental institution cases will put the parties in a better position to structure the remedial process in a way that enhances the legitimacy, capacity, and effectiveness of judicial intervention.

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1 See, for example, Glenn E. Deegan, "Judicial Enforcement of State and Municipal Compliance with the Clean Water Act: Can the Courts Succeed?" Boston College Environmental Affairs Law Review 19 (1992): 765-803; Marcia R. Gelpe, "Pollution Control Laws Against Public Facilities," Harvard Environmental Law Review 13, no. 1 (1989): 69-146; and Note, "Regulation of Noncompliant Publicly Owned Treatment Works Under the Clean Water Act," William Mitchell Law Review 10 (1984): 901-934.

Remedial Adjudication in the Constitutional Context: Framing the Debate

In 1976, the term "public law litigation" was coined to describe those cases in which the primary goal is the "vindication of constitutional or statutory policies."[2] One of the most interesting aspects of this form of litigation is the role of the courts in formulating and implementing remedies for the violations of law that are found during court proceedings. Those remedies usually involve affirmative injunctions or court orders, requiring that specific steps be taken to bring violators into compliance with the law. Most of the literature on public law litigation focuses on cases involving the violation of the constitutional rights of individuals who are either in the custody of public institutions or have services provided by those institutions, e.g., prison inmates, mental hospital patients, or minority students in public schools. For example, the Fourteenth Amendment ensures that persons not be denied "the equal protection of the laws," thus providing the foundation for most of the school desegregation cases; the Eighth Amendment, outlawing "cruel and unusual punishments," is the basis for many prison overcrowding cases.[3]

In attempting to vindicate constitutional rights, the courts have issued extremely detailed and far-reaching orders that have included the specification of administrative operating standards and procedures ranging from establishing acceptable percentages of white and black students that desegregated schools must attain, the size and condition of cell blocks and other facilities in prisons, and the staffing levels of nurses and physicians at mental institutions.[4] Judicial

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2 Abram Chayes, "The Role of the Judge in Public Law Litigation," Harvard Law Review 89, no. 7 (May 1976): 1284.

3 Bernard Schwartz, Swann's Way (New York: Oxford University Press, 1986), 3; John J. DiIulio, Jr., Courts, Correction, and the Constitution (New York: Oxford University Press, 1990).

4 "The decrees in these cases [institution cases] mandate massive changes in the operation of an institution and its program, changes involving the physical condition of the facility, its staffing, the quality of its services, or a combination of these items." Gerald E. Frug, "The Judicial Power of the Purse," University of Pennsylvania Law Review 126, no. 4 (April 1978): 719; For example, in one of the most widely debated of the public law litigation cases, Wyatt v. Stickney, a District Court judge ruled that mentally ill patients confined in Alabama State hospitals were being denied their constitutional "right to

remedies have not only been extremely detailed, but they have also been expensive. Although estimates of the costs incurred in complying with judicial remedies are "rare", it is clear, from the available literature, that they can be considerable.[5] The impact of such court orders has spawned an extensive debate on the proper role of the courts in constitutional remedial adjudication. The central themes of this debate are the legitimacy, capacity, and effectiveness of court intervention.

Legitimacy addresses the fundamental issue of what approach the courts should take in remedying constitutional violations, given the context of our governmental system. Concerns about legitimacy are supported by a traditional reading of the separation of powers doctrine, which posits that each of the three branches of government has its separate function.[6] The legislative branch makes the laws, the executive branch administers them, and the judicial branch interprets and enforces them. Under this conception, the judiciary is not supposed to make policy, that being the responsibility of the other two branches which are expressly political in nature.[7] The doctrine's exclusion of the judiciary from policymaking is buttressed by concerns about democratic accountability. Some are wary of the potential for "arbitrary rule" of unelected and, therefore,

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treatment," under the Due Process Clause of the Fourteenth Amendment, and ordered that a variety of institutional changes be made at three hospitals. The orders remedying those violations included the following stipulations: "[t]he minimum day room area shall be 40 square feet per patient"; "[t]here will be one toilet provided for each eight patients . . . "; temperature in the hospitals "shall not exceed 83 F nor fall below 68 F"; and it also established the minimum numbers of treatment personnel for each 250 patients, e.g., two psychiatrists and 6 licensed practical nurses. "The Wyatt Case: Implementation of a Judicial Decree Ordering Institutional Change," The Yale Law Journal 84 (1975): 1338-1339.

5 According to Frug, who was writing in 1978, "Estimates of the cost of compliance with federal court orders in the institution cases are rare, but the few hints available indicate the sum will be substantial." 727.

6 According to Philip Kurland, "Separation of powers certainly encompasses the notion that there are fundamental differences in government functions -- frequently but not universally denoted as legislative, executive, and judicial -- which must be maintained as separate and distinct, each sovereign in its own area, none to operate in the realm assigned to another. The tendency even today is to think of the constitutional separation of powers in these terms." "The Rise and Fall of the 'Doctrine' of the Separation of Powers," Michigan Law Review (December 1986): 593.

7 Robert F. Nagel, "Separation of Powers and the Scope of Federal Equitable Remedies," Stanford Law Review 30 (April 1978): 661-662.

"unreachable authorities," such as permanently appointed judges at the state and federal level.[8*]

In light of these concerns, it is no surprise that scholars worry about the potential for the judiciary to usurp the traditional prerogatives of the other branches of government through the development of remedies that establish policy, by determining the allocation of administrative and financial resources. To that end, a key question in the legitimacy debate is what is the appropriate role of the courts in remedy formulation? How should the courts approach this task, who should be involved, and what types of remedial decisions should the courts make?[9]

The legitimacy debate focuses not only on remedy formulation but also on implementation. While the court has formal sanctions it can employ to enforce the implementation of its orders, e.g., holding public officials in contempt of court, many scholars argue that the courts most powerful sanction is intangible, namely its ability to compel implementation as long as its remedial behavior is

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8 Nathan Glazer, "Toward and Imperial Judiciary," The Public Interest 41 (Fall 1975): 122. According to Frug, the "shift of power away from elected officials to individuals appointed for life weakens the democratic accountability of government." 742. "Critics of judicial policy-making argue, with good reason, that it is dangerous to permit unaccountable officials to shape public policy. There are strong risks that such officials will impose their own ideas upon the country even though the citizenry desires different policies. In a democracy, the citizens should be the ultimate decision makers concerning public policy, not unelected, life-tenured judges." Christopher E. Smith, Courts and Public Policy (Chicago: Nelson-Hall Publishers, 1993): 22. "[A] democratic political system is one in which public policies are made, on a majority basis, by representatives subject to effective popular control at periodic elections which are conducted on the principle of political equality and under conditions of political freedom." H. Mayo, An Introduction to Democratic Theory (1960): 70, cited in Mnookin, In the Interest of Children (New York: W. H. Freeman and Company, 1985), 33. As Bickel notes, a "[c]oherent, stable, -- and morally supportable -- government is possible only on the basis of consent, . . . and the secret of consent is the sense of common venture fostered by institutions that reflect and represent us and that we call to account." Alexander Bickel, The Least Dangerous Branch (1962): 20, cited in Frug, "The Judicial Power of the Purse," 742-743.

* Of course, not all judges at the state level are appointed. Many are elected. In the latter situation, the concerns about "unreachable authorities" is not present. The dissertation, however, focuses on cases in which the judge is appointed.

9 See for example, Susan P. Sturm, "A Normative Theory of Public Law Remedies," The Georgetown Law Journal 79, no. 5 (June 1991).

perceived as legitimate by and, therefore, can command the respect and assent of those entities who are responsible for remedy implementation.[10] Given this, there are not only concerns that the courts formulate remedies in a manner that is perceived as legitimate, but also that in attempting to secure the implementation of those remedies, the court avoid taking actions that are considered illegitimate. Thus another question in the legitimacy debate is what types of remedy formulation and implementation actions are perceived as legitimate by the relevant actors and what types are not?

The debate over capacity focuses, in part, on whether the courts have the ability to gather the information necessary to adequately evaluate the causes of constitutional violations and alternative remedies, to understand that information and to use that understanding in establishing remedies that will lead violators into compliance with the law.[11] In other words, do the courts have the institutional means to make informed remedial decisions? The debate over capacity extends beyond remedy formulation to implementation. A remedy, no matter how well crafted or reasoned, is useless if it is not successfully implemented. Here, questions arise about the courts' ability to monitor the implementation of remedies, to respond flexibly to changing circumstances, and to use its powers to overcome obstacles to implementation.[12]

Finally, the debate over effectiveness focuses on whether judicial remedies lead to the elimination of the specified violations of constitutional rights within a reasonable amount of time and at a reasonable cost.[13] If prisoners were being

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10 Colin Diver, "The Judge as Political Powerbroker: Superintending Structural Change in Public Institutions," Virginia Law Review 65 (1979): 103-105.

11 Donald L. Horowitz, The Courts and Social Policy (Washington, D.C.: The Brookings Institution, 1977); Ralph Cavanagh and Austin Sarat, "Thinking About Courts: Toward and Beyond a Jurisprudence of Judicial Competence," Law & Society 14 (Winter 1980): 371-419.

12 See, for example, Horowitz, The Courts and Social Policy, 55; and Stuart A. Scheingold, The Politics of Rights (New Haven, CT: Yale University Press, 1974): 123; "Implementation Problems in Institutional Reform Litigation," Harvard Law Review, Vol. 91 (1977): 428-463; "Special Project: The Remedial Process in Institutional Reform Litigation, Columbia Law Review 78, no. 4 (May 1978): 815-841; and Robert C. Wood, ed., Remedial Law (Amherst, MA: The University of Massachusetts Press, 1990).

13 See, for example: Nathan Glazer, "Should Judges Administer Social Services," The Public Interest 50 (Winter 1978): 64-80; DiIulio, Courts, Correction, and the Constitution; Smith,

subject to cruel and unusual punishments, if mental patients were being deprived of their constitutional right to treatment, or if black school children were not receiving "equal protection under the laws," the question then becomes have those violations ceased as a result of court intervention? Furthermore, the duration and cost of such intervention must be considered in assessing effectiveness, for "justice delayed is justice denied," and in a society with limited resources, we cannot afford to vindicate rights, no matter how dear, at any price.

Remedial Adjudication in the Environmental Context: The Focus of this Study

This analysis is predicated on the assumption that the basic questions raised in the constitutional literature pertaining to legitimacy, capacity, and effectiveness are the same ones that should be asked in the environmental context -- the questions are trans-substantive. Thus, the dissertation focuses on what is the legitimate role of the courts in formulating and implementing remedies for environmental institutions, are the courts capable of making informed remedial decisions and successfully implementing their orders, and are judicial remedies effective in eliminating the violations of environmental law within a reasonable amount of time and at a reasonable cost?

As important as identifying what the dissertation covers is identifying what it does not. The dissertation is not intended to contribute any new insights into the debate over legitimacy, capacity, and effectiveness of the courts in constitutional remedial adjudication. That task is best left to those constitutional scholars who are already engaged in such an endeavor. Nor is this dissertation intended to be a comparative study of constitutionally- and environmentally-based remedial adjudication, attempting to highlight where and how the courts' role differs in those two settings. Rather, the dissertation analyzes remedial adjudication involving environmental institutions on its own terms.

The Courts and Public Policy, 72; Lino A. Graglia, Disaster by Decree (Ithaca, NY: Cornell University Press, 1976): 279.

Organization of this Study

Chapter Two begins with an overview of the framework for environmental protection in the United States, focusing on the central importance of statutes and regulatory agencies, and describing how the courts become involved in remedial adjudication. Next, the chapter establishes criteria that can be used to evaluate the legitimacy, capacity, and effectiveness of remedial adjudication in environmental institution cases.

Chapters Three through Five present two case studies of remedial adjudication and focus on the remedial efforts of a state court and a federal court to bring the publicly owned sewage treatment facilities serving the Boston area into compliance with state and federal water pollution control laws. Chapter Three covers the historical antecedents of court intervention. It describes the development of the sewage system and analyzes what factors caused it to violate the law and precipitate state court involvement in 1982.

Chapter Four details the state court case in which the Metropolitan District Commission (MDC), the state agency in charge of operating the sewage system, was sued for failing to comply with a variety of state pollution control laws. After finding violations of the law, the court became actively involved in formulating and implementing a remedy, the ultimate outgrowth of which was the creation of a new public authority, in 1984, to take over the responsibilities of the MDC.

Chapter Five details the federal court case that followed the state litigation, in which the court found the newly established Massachusetts Water Resources Authority (MWRA) to be in violation of the CWA. Since 1985, that authority has been operating under a court-ordered schedule that is designed to bring it into compliance with the act. As it stands currently, the schedule will be in force through the end of this century when the last of its numerous deadlines, the completion of a new secondary sewage treatment plant, are to be met. At the end of chapters Four and Five is an analysis of court actions in light of the criteria for legitimacy, capacity, and effectiveness outlined in Chapter Two. The final

chapter steps back from the specifics of the cases to focus more broadly on the legitimacy, capacity, and effectiveness of remedial adjudication in environmental institution cases.

Methodology

I have chosen the case study approach for a number of reasons.[14] The "thick" description that goes along with case study research is well suited to analyzing the ways in which the issues of legitimacy, capacity, and effectiveness play out in particular situations. While this form of research does not allow one to prove cause-effect relationships or draw broad generalizations, it does provide the opportunity to explore specific cases, in-depth, and to understand what happened in those cases and why. That exploration and understanding, in turn, can be used to generate insights about how to structure a process in a way that will likely lead to desired outcomes.

The two case studies were chosen because of their similarities and differences. They are similar in the sense that each of them provides opportunities to explore the issues of legitimacy, capacity, and effectiveness, and they also offer exciting and interesting perspectives on these issues. Those perspectives, however, are different in each case. This is important because it makes it possible to compare and contrast the two cases and illustrate how different approaches affected the outcomes of judicial intervention.

The data for this study were drawn from four sources. The first is the voluminous court records for each case. During the remedial process, the parties to the litigation provide the court with numerous submissions, including briefs, affidavits, other assorted documents, and oral testimony. The court, in turn, put into writing its opinions and orders and, in the state case, a special master appointed by the court also submitted his findings in a formal report.

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14 Robert K. Yin, Case Study Research Design and Methods (Newbury Park, CA: Sage Publications, 1989).

The second source of data was interviews with key participants in the remedial process (a list of interviewees is provided in the Appendix). The interviews were loosely structured and their purpose was to elicit first-hand perspectives on what happened, why, and how that reflected on the issues of concern. In many cases, more than one interview with informants was conducted.

The third source of data included studies, reports, books and articles that have been written on the pollution problems in Boston Harbor and the regulatory and legal efforts undertaken to resolve them. These documents have been written by state and federal regulatory agencies, interest groups, the MDC and the MWRA, and academic scholars.

The final source of data are newspaper articles. Boston Harbor and the litigation that surrounds it has been extensively covered by area newspapers. Such articles proved invaluable in piecing together events and getting real-time quotes from the participants in the process.

Major Conclusions

The major conclusions of this dissertation are as follows:

1). The judge is the single most important actor in remedial adjudication in environmental institution cases. His perspective on the proper role of the court, and the actions he takes as a result, will have the greatest impact in determining the legitimacy, capacity, and effectiveness of court intervention.

2). Remedy formulation in environmental institution cases is not a mechanical process in which the nature of the violation clearly indicates exactly what steps need to be taken to bring the institution back into compliance with the law. There are alternative remedial paths that can be chosen. Each path involves choices about which technologies should be

used, how much time the violating institution should have to come into compliance, and how issues of technological, financial, and administrative feasibility should be factored into the remedial decision. Furthermore, each remedial alternative implies a different allocation of societal resources and, therefore, in selecting a remedy one is necessarily engaged in establishing policy for the institution.

In light of concerns about the allocation of governmental power and judicial policymaking, the most legitimate approach for a court to take is to first defer the task of remedy formulation to the regulatory agency in charge of administering the law and the violating institution -- those parties that are politically responsible for making policy decisions. Other parties which should be given the opportunity to participate in the remedial negotiations between the regulatory agency and the institution are those that are official litigants in the case and, as a result, have legal standing to participate in remedy formulation.

3). Judicial deference to the parties is likely to enhance the courts' capacity to formulate remedies. The parties are better equipped than the courts, by virtue of expertise and knowledge, to decide which of the many potential remedial paths is most appropriate given the legal requirements and the specific circumstances facing the institution. By deferring to the parties the court can, in effect, leverage its own capacity.

4). In successfully deferring to the parties during remedy formulation, the court can help generate a working relationship among the parties and a heightened commitment to the remedy which can improve chances for effective remedial implementation.

5). Deference to the parties cannot go on indefinitely. Without a remedial plan, there will be no movement towards the cessation of violations, the ultimate goal of remedial adjudication. If deference to the parties fails to generate an acceptable remedy, the court has to take over the task of remedy formulation. Deciding when it is legitimate for the

court to take on this task is extremely difficult and depends on the balance of the arguments for and against the court's assumption of this role.

6). To be legitimate, remedies must strive to bring the institution into compliance with the law's requirements, regardless of whether or not the judge believes that doing so is in the public interest. If the application of a general law in a specific situation leads to a politically unacceptable outcome, it should be up to the legislators to change the law and, as a result, force the court to modify the remedy. While the court can use its discretion to determine the means of reaching compliance, it should not have the power to, in effect, replace legislative ends or goals with ad-hoc, judicially crafted goals.

7). Despite the complex nature of the issues involved in remedial adjudication or environmental institutions, there is reason to believe that the courts, when faced with the need to formulate a remedy, can have the capacity to gather relevant data and understand it well enough to make informed and reasonable remedial choices that are likely to be effective.

8). Judicial capacity to implement remedies is, in large part, contingent upon the courts' ability to monitor the implementation process and respond flexibly to changing circumstances. Remedy implementation takes place within a dynamic environment. As implementation proceeds, new information becomes available on both the nature of the violation and the feasibility of proposed remedies. To keep the implementation process on track, the court must not only be aware of this information, but also be able to use it to alter the remedial regime when appropriate.

9). One of the most important powers that a court possesses to ensure the implementation of its orders is its inherent legitimacy as an institution. When the court acts in a legitimate manner, those political actors who are responsible for remedy implementation are much more likely to comply with court orders in an expeditious manner. This is because when a court supports a remedial scheme, a powerful moral sanction is brought into

play that is based on the strongly held ideal that the court is a just arbiter of what the law requires and that, therefore, court orders deserve respect and should be carried out. However, to the degree that the courts take actions, either during remedy formulation or implementation, that are illegitimate, it is likely that the relevant political actors will tend to oppose court orders, thereby reducing the court's ability to further implementation.

10). The courts' ability to ensure implementation of its remedies not only depends on its moral sanction, but also on whether the threat of sanctions is percieved as credible by relevant actors and the sanctions themselves, when applied, are able to impose meaningful costs on those who place obstacles in the way of implementation. If court sanctions do not have "teeth," they will likely be ignored and the obstacles will not be overcome.

11). The courts can be highly effective in leading to a cessation of violations. Effectiveness will likely be contingent upon the courts' legitimacy and its capacity. If courts lack legitimacy in the eyes of relevant political actors, the chances of their remedies being successfully implemented are diminished. Also if the court lacks the capacity to formulate sound remedies, successful implementation would be of limited value, for it would not remedy the violation which is the root cause of the litigation.

The effectiveness of judicial intervention also depends on the courts' ability to achieve compliance within a reasonable amount of time and at a reasonable cost. The courts' ability to respond flexibly to changing circumstances can help to ensure that these goals are achieved. A rigid remedial scheme runs the risk of missing opportunities to take advantage of ways to save both time and cost while still moving into compliance with the law. The courts can enhance the effectiveness of remedial adjudication by encouraging the parties to search for

opportunities to save time and money and by being receptive to taking advantage of such opportunities when they arise.

Chapter II

Criteria for Analyzing Remedial Adjudication in Environmental Institution Cases

The questions raised in the introduction concerning the legitimacy, capacity, and effectiveness of the courts in environmental institution cases do not offer a basis for actually evaluating whether a court, in a specific case, has acted in a legitimate, capable, and effective manner. For example, stating that one of the questions posed by the issue of legitimacy is "how should the courts approach the task of remedy formulation," says nothing about how we would know if the approach used by a court was in fact legitimate. To answer that type of question the terms legitimacy, capacity, and effectiveness must be operationalized through the creation of criteria that can be used as benchmarks against which to measure actual court behavior. This chapter sets out those criteria.

The first part of the chapter details the environmental protection framework in the United States, focusing on the role of statutes and the regulatory process. An understanding of that framework is essential, for it determines how courts get involved in remedial adjudication, and it greatly affects the way in which the criteria are construed. The chapter then presents, in turn, the criteria for legitimacy, capacity, and effectiveness. Dividing the debate over remedial adjudication into smaller debates concerning legitimacy, capacity, and effectiveness is not an accurate reflection of reality.[1] For example, if the

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1 Mnookin and Horowitz address the artificiality of separating out interrelated issues of legitimacy and capacity (both of them consider effectiveness as being a part of capacity). "These issues [legitimacy and capacity], while separate, are related. If a court assumes a policymaking role that the public percieves as illegitimate, the court's capacity to implement reform may be quite limited, either because its decrees are ignored or because of political backlash. Conversely, if limitations on judicial capacity lead to the formulation of unsatisfactory policies, the percieved failure of the courts may contribute to a loss of legitimacy." Mnookin, 25; "Of course, legitimacy and capacity are related. A court wholly without capacity may forfeit its claim to legitimacy. A court wholly without

court acts in an illegitimate manner, it might decrease its capacity to ensure the implementation of its orders. Similarly, if courts lack capacity to formulate remedies, the remedies might be flawed and, therefore, ineffective. Nevertheless, breaking the larger debate into smaller ones is a useful analytical device and, therefore, this chapter will deal with each of the smaller debates in turn, while accepting that there is some overlap.

The criteria are neither exhaustive nor conclusive. They are based on my review of the literature on remedial adjudication and my sense of the difficulties confronting a court when it becomes involved in an environmental institution case. I will demonstrate the usefullness of these criteria by applying them to the two cases covered in chapters four and five.

The Environmental Regulatory Framework

Environmental institutions in the United States operate within an environmental protection framework, the central features of which are extensive statutes and a formalized regulatory process designed to ensure the application of statutory requirements to such institutions.[2] Over the past twenty-five years, the federal government has enacted a wide range of environmental statutes, e.g., the Clean Air Act, the Clean Water Act, and the Resource Conservation and Recovery Act. The states, too, have enacted a great variety of environmental laws, either as a response to federal activity or of their own volition.[3] Statutes affect environmental insitutions by establishing standards for operation. For example, most federal statutes set national, minimum standards with which the states, and the environmental institutions in those states, must comply. State

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legitimacy will soon suffer from diminished capacity." Horowitz, The Courts and Social Policy, 18.

2 "Today . . . environmental law is primarily statutory." Daniel A. Farber, "Equitable Discretion, Legal Duties, and Environmental Injunctions," University of Pittsburgh Law Review 45 (1984): 513.

3 Daniel P. Selmi and Kenneth A. Manaster, State Environmental Law (Deerfield, IL: Clark, Boardman, Callaghan, 1992).

laws also establish standards, either independently or as a result of the federal push.

Statutes, however, are only part of the story when it comes to determining what environmental institutions must do in light of the law. There is a formalized and extensive regulatory process that is designed to transform broad statutory requirements into operational requirements that apply to specific institutions. The first step in this transformation is the development of regulations, a task delegated by the legislative branch to environmental, regulatory agencies, e.g., the federal EPA or a state Department of Environmental Protection. Through the rulemaking process, such agencies, which are staffed by scientific, technical, administrative, and legal experts, operationalize statutory standards, transforming the latter into specific requirements that apply to the regulated community.

This is a particularly difficult and involved process. Statutes are often vague or ambiguous, a result of the limitations of the legislative process, e.g., the lack of expertise on the part of elected officials, which restricts their ability to establish specific goals, and the need to keep statutory goals or ends somewhat ambiguous in order to maintain winning coalitions.[4] Furthermore, the legislative history in which the statute is embedded often serves only to further confuse matters.[5] Through floor statements and other insertions into the legislative record, legislators with contending perspectives on how the statute's provisions should be construed, attempt to influence the manner in which regulatory agencies interpret those provisions. Not only must the regulatory agencies take into account legislative "instructions", but also the public's perspective on what regulations should issue -- a perspective that is not uniform, but fractured along the fault lines created by the diverse universe of interested stakeholders. Indeed,

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4 See, for example, Lawrence D. Brown and Bernard J. Frieden, "Rulemaking by Improvisation: Guidelines and Goals in the Model Cities Program," Policy Sciences 7, no. 4 (1976): 456-457. As Francine Rabinowits, Jeffrey Pressman, and Martin Rein note, ". . . legislative ambiguity and contradiction is frequently the price paid for getting sufficient support to pass a bill." "Guidelines: A Plethora of Forms, Authors, and Functions," Policy Sciences 7, no. 4 (1976): 414.

5 See, for example, Stephen Breyer, "On The Uses of Legislative History in Interpreting Statutes," Southern California Law Review 65, no. 2 (January 1992): 845-874.

the typical rulemaking process provides a number of opportunities for public review of and comment on developing regulations.[6] Another difficulty in the rulemaking process is the uncertainty surrounding regulatory decisions. Most environmental regulations are based on a variety of scientific, technical, and economic feasibility data which is far from conclusive. Conflicting research findings and interpretations of such findings must be factored into the decisionmaking process.

Vague or conflicting statutory directives, differing perspectives, and great levels of uncertainty combine to ensure that agency regulations will invariably be controversial.[7] The opponents of regulatory decisions often end up in court in an attempt to either block regulations or force the agency or the courts themselves to change them. For example, in the early 1980s, former EPA Administrator Ruckelshaus estimated that 80 percent of EPA's rules were challenged in court, and 30 percent of them were changed due to litigation.[8] More recent estimates have indicated similar numbers.[9]

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6 For example, the Federal Environmental Protection Agency (EPA) generally adheres to the "notice-and-comment" or "informal" rulemaking process outlined in the Administrative Procedures Act (APA). This process essentially directs federal agencies to give notice of a proposed rulemaking in the Federal Register and allow interested parties "to participate in the rulemaking through submission of written data, views, or arguments with or without the opportunity for oral presentation." The agency then considers such comments in revising the proposed rule and publishes, again in the Federal Register, the final rule, generally 30 days before it goes into effect. Although informal rulemaking is the most common means of transforming statutory provisions into regulations, agencies also use formal rulemaking procedures when required to by statute. Formal rulemaking is covered by the APA and requires the agency to hold hearings at which time evidence is presented in a court-like atmosphere, often with cross-examination and rebuttal by the parties. See, for example, Peter L. Strauss, An Introduction To Administrative Justice In the United States (Durham, North Carolina: Carolina Academic Press, 1989): 155-159.

7 Lawrence Susskind and Gerald McMahon, "The Theory and Practice of Negotiated Rulemaking," Yale Journal of Regulation 3 (1985): 135; For excellent discussions of agency discretion, see Ted Greenwood, Knowledge and Discretion in Government Regulation (New York: Praeger, 1984); and Gary C. Bryner, Bureaucratic Discretion (New York: Pergamon Press, 1987).

8 Susskind and McMahon, 134.

9 According to former EPA Administrator, William K. Reilly, "[f]our of every five decisions I make are contested in court. We spend as much time designing our rules to withstand court attack as we do getting the rules right and out in the first place." Mathew L. Wald,

The next step in regulatory process is the issuance of permits. Typically, each pollution source receives a permit from the regulatory agency, which details the specific pollution control limits and, in many cases, the control technologies that the source must, respectively, achieve or install. The permit, therefore, tailors the broad statutory and regulatory requirements to reflect the unique situation facing individual polluters. Permit development, like the rulemaking process, allows interested parties to have input into the process. The agency and the institution usually interact during the writing of the permit, tranferrring information that enables the agency to develop the relevant institution-specific, factual base and informally negotiating/discussing the terms of the permit. Draft permits are also subject to public review and comment.

Following permit issuance, the regulatory framework usually provides an opportunity for additional agency-institution interaction as well as public input. That is when the institution develops the detailed plans needed to build the pollution control facilities that will bring it into compliance with the law. Those plans are reviewed and approved by the regulatory agency. Most environmental projects, of any significant size, that are carried out under the auspices of federal law will also require the preparation of an environmental impact statement, which details the environmental, social, economic, historic, and archeological impacts of a proposed project and its alternatives, including the "no-project" alternative.[10] While EISs do not require that a specific project alternative be chosen, it is intended to get the project proponent to evaluate alternatives before proceeding, in the hope that such evaluation might lead to selection of the project with the fewest negative impacts.[11] The EIS process also provides for public input. Interested parties are given an opportunity to comment on the EIS as it move through draft and onto final form. Many states

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"U.S. Agencies Use Negotiations to Pre-empt Lawsuits Over Rules," The New York Times, 23 September 1991, A1, B10.

10 Richard A. Liroff, A National Policy for the Environment (Bloomington: Indianca University Press, 1976).

11 Serge Taylor, Making Bureaucracies Think: The Environmental Impact Statement Strategy of Administrative Reform (Stanford, CA: Stanford University Press, 1984).

have similar laws that require significant projects to be reviewed in environmental impact reports.[12]

There are still other stops in the regulatory process that could potentially impact the operations of environmental institutions. On the road to compliance, institutions may have to site a new facility, thereby needing to go through government agency reviews and sign-offs required by state and local siting laws, each of which have their own procedures for review and public input.[13] And there will likely be other agency approvals that will have to be obtained so that a particular project can proceed, e.g., land-use permits.

As is the case with rulemaking, regulatory decisions concerning permits, EIS's, and other agency approval processes are appealable in court. Those who believe that such approval processes were not conducted in compliance with legal requirements can bring their grievances before a judge. If the court sides with those bringing the suit, the agency could be required to revisit the approval process, taking into account the factors that the court determined had been improperly left out during the initial review.

The strength of the normal regulatory process is that the agencies, which have the greatest expertise in determining what steps are necessary to come into compliance with environmental laws and regulations and are, in fact, designed to perform this task, can use their expertise in determing how to apply those laws and regulations of general application to specific circumstances, in a manner that is informed, at various points during the process, by the knowledge and concerns of the regulated institutions and the public. It is during this process that concerns about financial, administrative, and technological feasibility are taken into account in determining how the law will be applied in the instant case.

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12 For example, the Massachusetts Environmental Policy Act requires the preparation of an Environmental Impact Report for significant projects that involve state agencies. Eric Jay Dolin and Judith Pederson, Marine-Dredge Materials Management in Massachusetts: Issues, Options and the Future (Boston, MA: MIT Sea Grant Program and the Massachusetts Office of Coastal Zone Management, December 31, 1991): 23.

13 See, for example, Michael O'Hare, Lawrence Bacow, and Debra Sanderson, Facility Siting and Public Opposition (New York: Van Nostrand Reinhold Company, 1983).

Environmental agencies are given the primary responsibility for enforcing the law. State and federal agencies have a wide array of enforcement tools at their disposal that can be roughly arrayed in a hierarchical manner that reflects the severity of the violation and the violator's posture once the violation is identified. If violations are minor, or it is a first time violation, the agency is likely to use administrative enforcement mechanisms such as engaging in informal conversations with the violator in the hopes that highlighting the violation will lead to compliance. As violations become more severe or of longer standing, the agency will attempt to use other administrative mechanisms such as administrative orders with compliance schedules or, where it is called for in the statute, the imposition of administrative fines. If the violator doesn't respond to any of these enforcement efforts, the agency can file a lawsuit against the institution. Such lawsuits are not instituted lightly, and are reserved for cases in which there are alleged to be serious violations.[14]

Typically, while the lawsuit proceeds, the agency and the violator will try to reach an out-of-court agreement on the remedy. Such agreements, called consent decrees, do not include any findings of fact, nor do they indicate that any law has been violated. Instead, they detail the remedial steps the institution will take to come into compliance with the law that was allegedly violated.[15] The decree is then entered in court and, if the latter finds it acceptable, it becomes judicially enforceable. Only in a few cases will agency enforcement actions move beyond a consent decree to the point where the court finds violations of law and becomes involved in remedy formulation.

Environmental agencies are not the only ones that can initiate law suits to compel environmental institutions to come into compliance with the law. Virtually all federal, environmental statutes, and many state statutes enable

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14 See, for example, Melnick's discussion of the steps leading up to the filing of a suit in enforcement cases concerning the violation of State Implementation Plans under the Federal Clean Air Act. R. Shep Melnick, Regulation and the Courts (Washington, D.C.: The Brookings Institution, 1983): 195-202.

15 Jeffrey G. Miller, Citizen Suits: Private Enforcement of Federal Pollution Control Laws (New York: John Wiley & Sons, 1987): 89-90.

citizens to bring such suits.[16] Federal provisions enable citizens to sue not only the violating institution, but also the enforcement agency for failing to carry out "non-discretionary duties" in the law, e.g., taking enforcement action against those who violate permit requirements. As is the case with lawsuits brought by agencies, most citizen suits end in consent decrees, with only the most unusual or serious cases moving to the courts' finding of a violation of law and its direct involvement in remedy formulation.[17]

The Remedial Adjudication Process Begins

No matter how the case gets to court, once the judge determines that a law is being violated, the remedial adjudication process begins. Then it is up to the judge to determine what type of remedy is appropriate. In environmental institution cases, money damages are not a sufficient remedy.[18] The statutes establish environmental protection goals which are to be met by the regulated community. To allow regulated institutions, therefore, to, in affect, pay for the privilege to continue polluting would render the statutes and the goals they establish meaningless. Furthermore, there is little reason to believe that monetary damages would be viewed as an acceptable remedy by affected parties. If, for example, a municipal incinerator is violating federal Clean Air Act emission limits that are intended to protect human health, those who are potentially being adversely affected by the emissions are not looking to be compensated for such affects, but are interested in getting the incinerator to comply with the emission limits, thereby protecting their health.

In cases concerning statutory violations by environmental institutions, the courts will inevitably be involved in issuing injunctions, court orders that indicate the actions the institution must take to come into compliance. The

16 Miller; In Massachusetts there is a "Ten Citizens Suit Statute," that enables citizens to bring suit to restrain actions that are in violation of state and local environmental law. Susan M. Cooke and Donald S. Berry, eds., Massachusetts Environmental Law Handbook (Government Institutes, Inc., June 1991): 26.

17 "Most enforcement cases are settled by negotiated consent decrees, whether brought by government or citizen enforcers." Miller, 89.

18 Zygmunt J.G. Plater, Environmental Law and Policy: A Coursebook on Nature, Law, and Society (St. Paul, MN: West Publishing Company, 1992): 142.

judicial enforcment sections of most environmental statutes direct the courts to issue injunctions to compel compliance with the law.[19] Those sections usually are not specific and give the judge great discretion in determining what type of injunction is appropriate.[20] While such injunctions may be negative, ordering an institution to stop its illegal activity or, in a worst case, requiring the institution to shut down, these are not the kinds of injunctions that are of interest here. Instead, this dissertation focuses on cases in which there are ongoing violations of the law that will not cease barring some sustained form of remedial relief. The violations cannot simply be stopped in short order. Shutdown, too, will rarely be a practical alternative given the essential services supplied by environmental institutions, e.g., sewage treatment.[21] Instead, the court, in determining ways to compel compliance, will have to consider orders that are in the form of positive, injunctive relief, which outline what steps the violating institution is to pursue so that violations cease.

The Criteria for Evaluating Legitimacy

While the court has considerable discretion in determining the content of a remedy, there are a few widely accepted cannons of legitimate judicial behavior that serve to place limits on such discretion. The ultimate goal of the remedy is to bring the violating institution back into compliance with the law. This necessarily means that the remedy should reflect the violations uncovered during

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19 Sheldon M. Novick, Law of Environmental Protection (Washington, D.C.: ELI, March 1994): 8-102.

20 According to Novick:

> "The primary judicial enforcement remedy available under most of the environmental regulatory statutes is injunctive relief. The wording of the relevant sections varies among the statutes, but most are variants of the CAA [Clean Air Act] section 113(b), which authorizes EPA to commence an action for a temporary or permanent injunction and grants jurisdiction to the courts to restrain the violation and require compliance with the act. CWA [Clean Water Act] section 309(b), [and] RCRA [Resource Conservation and Recovery Act] section 3008(b), . . . appear to go further, authorizing 'appropriate' relief to be granted."

8-102.

21 Gelpe, 78.

litigation and seek to, in fact, remedy those violations.[22] The remedy formulation process is not a time during which other problems, not officially before the court, are to be addressed and resolved. Additionally, great emphasis is placed on the need for the judge to maintain impartiality and, in the process, remain faithful to the application of the law.[23] To that end, the remedy is not supposed to be based on the judge's own opinion of what is necessary to remedy the violations. The judge should not use their discretionary powers to create remedies that reflect personal biases about how things should be as opposed to the popular will embodied in statutory requirements.[24] Although nobody argues that judicial decisionmaking is totally neutral, there is a big divide between a judge who strives for impartiality and one who "calls them as he sees them."[25] Along the same lines, judges are not supposed to "be swayed [in their judgements] by partisan interests, public clamor or fear of criticism."[26] Finally, judges, as well as court personnel subject to the judges control, are supposed to

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22 "In general, the nature of the remedy must reflect the nature of the violation." Phillip J. Cooper, Hard Judicial Choices (New York: Oxford University Press, 1988), 21. "In litigation, there must be a logical connection between the rights asserted by the parties and the court's remedy." Mnookin, 61. "[T]he shape of the legal wrong, as well as the injury suffered by the person aggrieved, defines what relief is appropriate." Diver, 47.

23 Canon 3 of the American Bar Association Code of Judicial Conduct states, in part, that "A judge shall be faithful to the law. . . ". Martindale-Hubbel Law Digest, New Jersey-Wyoming Law Digests, Uniform Acts, A.B.A. Codes (New Providence, N.J.: Martindale-Hubbel, 1994): ABA-65. The same language can be found in many state codes of judicial conduct, including that of Massachusetts.

24 Although referring to the Supreme Court, Glazer hints at this problem -- "The Court is committed to an activist posture, with great impact on various areas of life, by the expansion of the reach of legal principles on the basis of which it operates. Some assert, and in some angry dissents Justices themselves charge, that no legal logic guides the Court -- that it is simply legislating its views on difficult problems." "Toward an Imperial Judiciary?" 115.

25 "Are judges really neutral, unbiased decision makers whose special knowledge of law provides clear answers to the difficult questions brought to the courts for resolution? Of course not. Beneath the black robes are human beings . . . Like other people in American society, judges possess values, attitudes, biases, and political interests which color their decisions." Christopher E. Smith, Courts, Politics, and the Judicial Process (Chicago: Nelson-Hall Publishers, 1993): 129-130; A judge "is governed by a professional ideal of reflective and dispassionate analysis of the problem before him and is likely to have had some experience in putting this ideal into practice." Chayes, 1308.

26 This language is part of Canon 3 of the American Bar Association Code of Judicial Conduct.

refrain from making public comments on pending or impending proceedings before the court that are likely to affect the outcome of those proceedings.[27]

There are other limits on remedial discretion that reflect the nature of the remedy and the regulatory process. In order to come into compliance with the law, violating institutions will likely have to upgrade or build new pollution control facilities. This involves facility planning and design, and, if necessary, formal review and approval by the appropriate regulatory agencies in the form, for example, of EISs and operating permits. It may also involve siting new facilities, a process that will have to be performed in accordance with relevant siting laws and recieve regulatory approval. Court involvement cannot displace these processes. Indeed, any remedy must respect the integrity of the formalized regulatory process. To that end, a remedy can establish timetables for such planning, design, and siting and the accompanying regulatory reviews, but it should not determine, in advance, the outcome of such regulatory processes. To do the latter would not only displace the legally established framework for making such decisions, but it would also deprive the public of its right to influence the outcome of regulatory decisions through the process of public participation. Instead of determining the outcome of the regulatory process, remedial adjudication must be responsive to that outcome. For example, if a remedy required the siting of a new facility, it would be up to the violating institution to plan and design the facility and conduct the siting process in accordance with relevant laws and regulations. The end result of these efforts must be incorporated into the remedy unless, of course, the regulatory process is legally challenged. For example, a suit might be brought claiming that the siting decision was not in compliance with the law. If a court found that to be the case, a new or modified siting process would have to take place and the remedy, once again, would have to reflect the outcome of that regulatory process.

Another limit imposed by the regulatory process concerns the regulations themselves. The process of translating statutes of general application into regulations, which, for example, gives meaning to terms such as Best Available

27 This can also be found in Canon 3.

Technology and establishes acceptable pollutant loadings, is a task that the legislature specifically assigned to the regulatory agency. This task is carried out during formal and informal rulemaking and is judicially reviewable within a context that is separate from the one facing the judge during remedial adjudication. In the latter case, therefore, it is not up to the judge to re-evaluate the validity of the regulations that are to be applied. If, for example, the law required that an environmental institution achieve certain pollutant effluent standards that were developed via the rulemaking process and were either not legally contested or, if contested, were upheld by a higher court, the judge, in fashioning a remedy, should not decide that such standards were somehow improper and should not be applied. Rather, it is the judge's responsibility to ensure that the standards and requirements embodied in the regulations are achieved.

Deferring to the Parties

Beyond these limits, there is no prescribed process for remedy formulation that courts must follow. Indeed, there are many possible approaches that the court can take. The court could, for example, ask one of the parties to the case, e.g., the violating institution or the regulatory agency in charge of overseeing the implementation of the law, to propose a remedy, develop a remedy on its own based on the information gathered during litigation, or bring in an outside expert to develop a remedy.[28] The most legitimate approach for the court to take is to defer the responsibility of remedy formulation to the regulatory agency and the violating institution. More specifically, the court should request that these entities attempt to negotiate an agreement on a remedy that can be presented to the court for review.

The rationale behind this approach has to do with the nature of remedial decisions. Formulating a remedy in environmental institution cases is not a mechanical act, where the specific outline of the remedy flows directly from the nature of the violation. There are many discretionary choices that have to be

28 Sturm, "A Normative Theory of Public Law Remedies,"1365-1376.

made in determining what constitutes compliance and, therefore, what requirements should be included in a remedial decree. The source of such discretion may be a lack of clarity in the statute itself, or in the legislative history, which can lead to varying definitions of compliance. Even when the statute and accompanying history is relatively clear, in moving the violating institution into compliance, there still are discretionary decisions that necessarily attend the application of general statutes and regulations to individual cases.[29] For example, what pollution control facilities are necessary to come into compliance, how long will it take to construct them, how much time should the environmental institution have to complete the prescribed remedial actions, and how should cost and the institutional capacity of the violator be taken into account in making such determinations? Of course, there is no one "correct" remedy. Therefore, formulating a remedy requires weighing the pros and cons of alternatives paths and selecting among them. And, since each potential remedy implies a different allocation of financial and administrative resources, the act of remedy formulation inevitably establishes policy for the institution in question.

It is primarily because remedy formulation establishes policy that judicial deference to the regulatory agency and violating institution is appropriate. Having these two entities make the remedial decisions ensures that policy choices are made by politically responsible and democratically accountable executive branch entities, thereby allaying concerns about the courts overstepping the bounds within which the separation of powers would have them stay. Of course, some may argue that such entities are not as democratically accountable as one might think, pointing out, for example, that the job-protected civil servants in regulatory agencies, who make many of the decisions concerning the implementation of law, are hardly accountable. While such criticisms are not unfounded, there is no doubt that regulatory agencies and environmental institutions are much more accountable than an unelected

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29 "Even the most comprehensive statutory guide to remedy formulation will not . . . make the court's role purely ministerial. Statutes are designed to have general application, and the court must, therefore, evaluate the propriety of applying any remedies offered by the statutory standards to the particular situation." Columbia Law Review, Special Project," 794.

judiciary, and it is that comparison which is important here. And, regardless of questions about their "purity" as democratically responsive actors, they are the entities that society has chosen, by democratic means, to be responsible for implementing the environmental laws in question.

Other reasons for defering first to the regulatory agency and the violating institution have to do with the importance of committment and cooperation. Being able to participate in negotiations and to agree on a remedial approach is likely increase the committment of both entities to its implementation, for they are much more likely to view the agreement as fair and appropriate, and be invested in seeing it succeed.[30] As for cooperation, when the formalized regulatory process runs properly, prior to any violation, the regulatory agency and the institution often develop a working relationship that includes, among other things, informal meetings, information transfers, and negotiations over permits, in which the shared goal is the implementation of environmental law. Court intervention doesn't diminish the value of this relationship. No matter what remedy is chosen, implementation will undoubtedly be more successful when the regulatory agency and the institution work together to achieve a common goal. This outcome is most likely when that goal is a remedy formulated, not by the court, but by those entities most responsible for remedy implementation.

To further enhance legitimacy, the judge should request that any other groups or government entities who are parties to the case participate in remedial negotiations between the regulatory agency and the violating institution. Such parties could include, for example, an environmental organization or a city or town that initially brought suit against the institution. It also could include any

30 "Those who participate feel that they 'own' the agreement, and are therefore more likely to support its implementation." Lawrence Susskind and Jeffrey Cruikshank, Breaking the Impasse (New York: Basic Books, 1987): 27; "[P]articipation plays a crucial role in promoting cooperation with the remedy. Direct involvement influences the participants to accept the result." Susan P. Sturm, "The Promise of Participation," Iowa Law Review, Vol. 78, No. 5 (July 1993): 996-997. "To the extent that the decree reflects their proposals, defendants are more likely to acquiesce in its implementation." Diver, 84.

party that came forward and asked the court to intervene in the case and was granted that right.

By virtue of their official status in the case, all of the parties have the right to, at a minimum, comment on any remedy adopted by the court. Thus, the judge could ask the regulatory agency and violating institution to formulate a remedy and then allow the other parties to comment on it before deciding whether to accept it. However, by asking all of these groups to engage in remedial negotiations, their concerns could be addressed at the outset and the likelihood of presenting a unified remedy to the court would be increased. Evaluating a single remedial proposal in which disagreements have been worked out should be an easier task for the court than evaluating a proposal offered by the reguatory agency and violating institution in light of potentialy conflicting or critical comments presented by the other parties. And, for the reasons cited earlier, agreement among the parties is likely to increase their commitment to the remedy and reduce the odds of them opposing its implementation.

What about other groups or individuals who will be affected by the remedy, but are not parties to the case -- should they participate in remedial negotiations? There are, at least, two arguments in favor of such inclusion. The first is based on the idea that participation maintains the dignity of the individual by giving those that are affected by decisions emerging from social processes a "formally guaranteed opportunity to [in turn] affect" such decisions.[31] While dignity is certainly an important value, in the judicial context, the right to participate in remedy formulation should not be a guaranteed, unconditional right. Instead, it should be predicated upon the individuals or groups coming forward, presenting their rationale for being allowed to intervene in the case, and having the judge decide whether such intervention is warranted given the circumstances of the case. If the judge decides in favor of intervention, the individual or group then becomes a party to the case.

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31 Lon Fuller, "Collective Bargaining and the Arbitrator," Wisconsin Law Review, Vol. 3 (1963): 79, cited in Sturm, "A Normative Theory of Public Law Remedies," 1392.

The second reason for the inclusion of all those who are affected has to do with the possibility that such individuals or groups will possess differing perspectives on the causes of the violations and the feasibility of alternative remedies, perspectives that can inform the formulation process and enhance the prospects for coming up with an effective remedy.[32] There is no doubt that in any case of remedial adjudication involving environmental institutions, there will be a great number of individuals and groups that are likely to have a perspective on such issues, but, once again, their right to participate and offer their perspectives should be predicated upon them coming forward and the judge allowing them to intervene. It is important to note that even if affected groups and individuals are not parties to the case they will, most likely, still have opportunities to present their perspectives and influence the nature of the remedy by participating in the formal regulatory process that takes place during remedy implementation, e.g., participating in the EIS process.

Deference to a Point

Deference to the parties to reach agreement on a remedy cannot go on forever, for without a remedy no progress can be made in moving the violating institution into compliance, which is, after all, the main goal of remedial adjudication. At some point, the court has to intervene and decide on a remedy if the parties do not. It doesn't have the option of putting off the issue indefinitely and letting a non-decision stand.[33] Of course, there is no single span of time, say 4 months, that represents the legitimate amount of time for the court to defer to the parties. Determining when that point is reached must be done on a case-by-case basis. There are, however, some criteria that can be applied in making this determination. With respect to taking over the role of remedy formulation, one would want the court to justify its intervention, persuasively arguing that it had no alternative but to act in light of the inability of the parties to reach agreement and the need to move onto the remedy implementation phase

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32 Sturm, "A Normative Theory of Public Law Remedies," 1393.

33 Robert H. Birkby, The Court and Public Policy (Washington, D.C.: Congressional Quarterly Press, 1983), 3.

so that the violations can be stopped.[34] The persuasiveness of the court's argument can be measured against any arguments raised by the parties in opposition to the court's action. If, for example, the parties argue that court intervention is unwarranted or is coming too soon, does the court have persuasive reasons as to why this isn't the case? Another way for the court to justify intervention is to set deadlines for negotiation. The court could, for example, give the parties five months to formulate a remedy, letting it be known at the outset that if agreement wasn't reached by that time the court would intervene. Here, too, the persuasiveness of the deadline can be evaluated in light of the arguments raised against it.

The parties' inability to formulate a remedy is not the only avenue by which the court might be drawn into the task of remedy formulation. If the parties are able to formulate a remedy within a reasonable amount of time, the court has a responsibility to then evaluate it to ensure that it respects the integrity of the regulatory process, and that its requirements reflect the nature of the violation and are likely to lead the institution back into compliance with the law. If the court is satisfied on these counts, it should accept the remedy, and implementation can begin. If, on the other hand, the court finds the proposed remedy unacceptable, it is placed in the position of having to decide what remedy is appropriate.

When the Court Steps In

Whether the court's direct involvement in remedy formulation is a consequence of a lack of agreement on the part of the parties or the submission of an unacceptable remedy, the court is presented with a difficult task. In formulating a remedy, and selecting among alternative paths, the court will

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34 In the constitutional context, Fletcher argues that, "[t]he only legitimate basis for a federal judge to take over the political function in devising or choosing a remedy in an insitutional suit is the demonstrated unwillingness or incapacity of the political body." He also notes that there is no easy way to determine when that take over should occur. "It will be a matter of subtle judgement in a particular case whether such a serious and chronic default of the political entity exists." William A. Fletcher, "The Discretionary Constitution: Institutional Remedies and Judicial Legitimacy," The Yale Law Journal 91, no. 4 (March 1982): 694-695.

inevitably be drawn into making decisions, e.g., the schedule for remedial measures, that have policy ramifications for the institution and its surrounding political environment. While the concerns about the separation of powers and democratic accountability do not disappear once the court is placed in this position, the fact that the other parties, including those that are traditionally politically responsible for making such decisions, have failed to do so provides justification for the court to step in and fill the void. This perspective rejects the "wooden notion of bounded, separated branches" in favor of a more fluid relationship in which it is accepted that, under certain circumstances, each of the branches must perform the functions traditionally confined to a single branch.[35]

Just because the court is in the position of formulating a remedy doesn't mean that anything is legitimate. Concerns about ensuring that the remedy reflects the violation, avoiding judicial bias, and respecting the integrity of the regulatory process should still serve to place limits on the courts' discretion. There are yet other constraints to judicial discretion that are applicable. Although the failure of the parties to propose an acceptable remedy justifies the courts' assumption of policymaking responsibility, there are reasons to keep the courts' policymaking role limited. It is one thing for the court to make remedial decisions about what level of pollution control is required by the law and what schedule the institution must follow in order to acheive compliance. Indeed, a court in the position of formulating a remedy couldn't avoid such decisions. There are, however, other types of decisions that are likely to attend any

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35 Martha Minow, Making All the Difference (Ithaca: Cornell University Press, 1990): 359. According to Kurland: "If we take the basic arguments usually asserted that it is for the legislature to make the rules governing conduct, for the executive to enforce those rules, and for the judiciary to apply those rules in the resolution of justiciable contests, it soon becomes apparent that it is necesary to government that sometimes the executive and sometimes the judiciary has to create rules, that sometimes the legislature and sometimes the judiciary has to enforce rules, and sometimes the legislature and sometimes the executive has to resolve controversies over rules." 359. The Federalist no. 47 states that "[i]f we look into the constitutions of the several States, we find that, notwithstanding the emphatical and, in some instances, the unqualified terms in which this axiom [separation of powers] has been laid down, there is not a single instance in which the several departments of power have been kept absolutely separate and distinct." Quoted in Steven T. Seward, "The Boston Harbor Dispute: Judicial Strategy and Legislative Deadlock," in Charles M. Haar, ed., Of Judges, Politics and Flounders (Cambridge, Mass.: Lincoln Land Institute, 1986): 41.

remedial process and which also establish policy for the institution in question. Complying with a remedial order will be expensive and most likely will require the environmental institution to come up with new funding, hire new personnel, alter standard operating procedures, and reorganize itself to take on its new tasks. The court should not be making such funding and administrative decisions. They are the types of decisions that should be made by the institution and/or any other entities that are politically responsible for making them, e.g., a town council or legislature.

Remedy Reformulation

The remedy is not a static document. The process of remedy formulation will be followed by a repeated process of remedy reformulation.[36] As circumstances change with the implementation of the remedy, there will be opportunities to consider possible changes in or additions to the remedy for a variety of reasons. Earlier assumptions about the time needed for implementation might be altered in light of experience, new data on pollution discharges may lead to a reevaluation of what control technologies are required to achieve compliance, and the completion of facility planning and environmental review may set the stage for the establishment of new remedial requirements relating to the schedule for constructing the facility. The impetus for reformulating the remedy may come from one of the parties or the court. Either way, the most legitimate approach for the court to take in considering such reformulations is to defer to the parties to reach agreement on what changes are appropriate. The rationale for deference is the same here as it is in the case of

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36 As Cooper notes,

> ". . . the post decree phase of remedial decree litigation involves . . . [an] interactive relationship between remedy implementation and evaluation and remedy refinement. In many situations the parties in the case will return to the district judge while the decree is being carried out to ask for changes based upon implementation problems. Frequently, these suggested changes are accepted. It is not a situation in which a judge issues an order and, assuming it survives any appeals, never hears of the case again."
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> 23.

initial remedy formulation. If the parties fail to reach an acceptable agreement, then the court must determine what remedial changes are called for.

The Review of Higher Courts and the Legislature

Regardless of whether the remedy is formulated by the parties or the court, the ultimate arbiters of the legitimacy of the remedy are the higher courts and the legislative branch. Any remedy imposed by a trial court can be appealed to a higher court for review. Such appeals may ultimately make their way to a state or the federal Supreme Court. Courts of appeal are in the position of determining whether the trial court abused its judicial discretion or exceeded its legal authority in ordering a specific remedy. If a higher court overturns the remedy of the trial court, then that remedy is, by definition, illegitimate. But, courts of appeals are not the final say when it comes to legitimacy. In establishing controversial remedies the courts may generate political pressure for legislative officials to review those remedies. And, the legislative branch, e.g., a state legislature or congress, that both created the law which has been violated and gave the courts the right to remedy those violations through the use of injunctions, can overturn any judicially ordered remedy by amending the law or creating an exemption in such a way as to make the remedy invalid and, therefore, illegitimate.[37]

Legitimacy and Perception

Part of the reason why legitimacy in remedy formulation is an important issue is the belief among many legal scholars that if the court acts in an illegitimate manner, it might put at risk its ability to implement its orders. This is based on the premise that one of the courts most powerful sanctions is its ability

37 This concept is often referred to as a "remand to the legislature." See, for example, Joseph Sax, Defending the Environment (New York, NY: Knopf, 1971): 175-192; Plater, "Statutory Violations and Equitable Discretion," California Law Review 70 (1982): 583-592; and James L. Oakes, "The Judicial Role in Environmental Law," Environmental Law (June 1977): 516.

to compel compliance with its orders as long as its remedial formulation activities are percieved as legitimate by, and, therefore, can command the respect and assent of those political actors who are responsible for remedy implementation.[38] The concern about preserving the legitimacy of the court goes beyond the remedy formulation stage to implementation. If the court, in attempting to ensure compliance with its orders, takes actions that are percieved as being illegitimate by responsible political actors, it might engender resistance from those actors. For example, if a judge were to become a political partisan in an effort to generate support for a court order, that might be viewed as inappropriate judicial behavior and, therefore, lead to opposition. Thus, another question to ask in evaluating the legitimacy of the court in remedial adjudication is whether its actions during implementation are likely to lead to a diminution of its ability to gain compliance with remedial orders. The more a courts' actions diminish this ability, the less legitimate they are.

The Criteria for Evaluating the Capacity to Formulate a Remedy

Assuming that the courts' role in remedy formulation is legitimate, another equally important question is will the court have the capacity to formulate a remedy.[39] More specifically, can the court gather information relevant to remedy formulation, and understand that information well enough to devise remedies that are likely to be effective in leading the institution into compliance? Questions about capacity are especially relevant, given that the

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38 As Diver notes, "A judge's actions must conform to that narrow band of conduct considered appropriate for so antimajoritarian an institution. Whenever a court appears to manipulate the rules of litigation for the attainment of social outcomes, its authority wanes." 104.

39 Horowitz indicates why this issue is so important:"If the separation of powers reflects a division of labor according to expertise, then relative institutional capacity becomes relevant to defining spheres of power and particular exercises of power. . . . Traditional judicial review meant forbidding action, saying 'no' to the other branches. Now the judicial function often means requiring action, and there is a difference between foreclosing an alternative and choosing one, between constraining and commanding. Among other things, it is this difference, and the problematic character of judicial resources to manage the task of commanding, that make the question of capacity so important." The Courts and Social Policy, 19.

discretionary decisions that attend remedy formulation require specialized technical and institutional knowledge, namely an understanding of technical issues relating to the application of the law, as well as institutional issues that are peculiar to the case.

Simply asking whether the court has the capacity to formulate remedies, assumes that the process of formulation will be solitary one in which the court is responsible for the tasks of gathering the information, evaluating it, and coming up with a remedy. This assumes too much. The capacity issue must be evaluated in two different contexts. The first is when the remedy is a result of the agreement of the parties, and the second is when the court takes on the responsibility of remedy formulation.

When the Remedy Comes From the Parties

In the first context, the court, in effect, delegates the task of remedy formulation to the parties who, arguably, have the capacity to do so. The regulatory agency has the most expertise and experience in determining what steps regulatees must take to come into compliance with statutory and regulatory requirements. While the insitution in question will inevitably be unique in many respects, the agency can still rely a great deal on what compliance actions were required in other cases involving the application of the law to similar institutions for guidance. And, the violating institution has the greatest understanding of its own operations, and the institutional obstacles that will have to be overcome to achieve compliance, information that is essential to the formulation of an effective remedy. For example, the violating institution is able to provide information about its administrative capacity and physical plant and the changes that both might have to go through in order to comply with the law. As for the other parties in the case, they might be able to provide additional insights into the appropriateness of different remedial schemes.

When the Remedy Comes From the Court

The other context within which to view the capacity issue is when the courts are placed in the position of having to make remedial decisions. It is here that the issue of the courts' capacity, as opposed to the parties' capacity, comes to the fore. The various tasks of remedy formulation are now in the courts' hands. Many decry the courts capacity by pointing out that judges, as well as the clerks who work for them, are generalists who move from issue to issue in the cases that come before the court and are rarely able to build up any expertise in a particular area such as environmental protection. Without such expertise, the argument continues, the court cannot make informed remedial decisions.[40] Although some may argue that a generalist judge can bring a fresh and uncommitted perspective to the problems in question, which the specialist cannot, as Horowitz contends, "there is a difference between a fresh perspective and an ignorant one. That judges are generalists means, above all, that they lack information and may also lack the experience and skill to interpret such information as they receive."[41]

It is not at all clear that a judge's background hinders their ability to make informed remedial decisions. First, one can question the assumption that generalist judges cannot understand the complex information that must be evaluated in crafting a remedy. Judges are often of keen intellect, and they are likely to lavish a great deal of highly focused attention on the specifics of the cases before them.[42] In reading the often extensive briefs as well as the supplementary information provided to the court, and in questioning relevant parties during hearings, the judge can become very educated about the nature of the violation, as well as the remedies that might be applied and their potential impacts.[43] Furthermore, judges have often exhibited the capacity to deal with

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40 "The generalist character of judges commends them as community representatives for many of the duties they must perform, but it unfits them for processing specialized information. In fact, this is one of the jobs that many judges do with the least skill and the greatest impatience." Horowitz, The Courts and Social Policy, 25.

41 Ibid, 31.

42 Abram Chayes, personal interview with the author, Fall 1993.

43 "Even the diffused adversarial structure of public law litigationn furnishes strong incentives for the parties to produce information." Chayes, 1308.

highly complex issues such as patent law, tax-codes, and business reorganizations, raising the question of why the complex issues involved in public law remedial adjudication are any less subject to judicial mastery. Second, if judges feel that their lack of expertise is a hindrance, they can resort to outside help, e.g., special masters, experts, or advisory committees, who are selected precisely because they have the expertise the judges lack.[44] Such adjuncts to the court not only provide expertise, but they also can conserve one of the judiciary's most precious resources, time, by performing tasks, e.g., synthesizing and evaluating information, that would otherwise have to be handled by the judge.

The focus of the inquiry into capacity should not be on the judges' background, but rather on whether, in specific instances, judges show themselves to be capable of performing the tasks of remedial formulation, with or without the aid of adjuncts. There are a number of questions that can be asked to determine if this is the case. The first has to do with information. To make an informed decision, one would want to have the best available information on the nature of the violations and potential remedies and their strengths and weaknesses. Did the courts have access to that information?

The next question in evaluating the courts' capacity, is how it used the available information in making a remedial decision. The measure of the courts' capacity is not whether it made the "right" remedial choice. As noted earlier, there is no single correct remedy. Rather, one would want to know whether the court made a reasonable remedial choice given the information available at the time the choice is made. In assessing the reasonableness of the courts' decision there are a couple of questions to ask. Did the court justify its remedial choice showing that it considered the alternative remedies, weighed the pros and cons of those alternatives, and selected a remedy that was likely to lead the violating institution into compliance? Is there any evidence that the court misunderstood the available information or made decisions based on erroneous assumptions? Another question to ask is whether the parties viewed the courts' choice as reasonable. While some or all of the parties may not agree with the courts'

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44 Ibid, 1301; Cavanagh and Sarat, 406. Stephen L. Wasby, "Arrogation of Power or Accountability: 'Judicial imperialism' revisited," Judicature 65, no. 4 (October 1981): 215.

remedial choice, they still might find it to be a reasonable one in the sense of being acceptable. If some of the parties find the remedial decision unreasonable, they have the option, as was discussed in the section on legitimacy, to appeal the decision to a higher court which can determine whether the lower courts' decision was reasonable with respect to its use of judicial discretion.

The final measure of the courts' capacity to formulate a remedy comes after the fact. Whether or not the remedy is presented by the parties and adopted by the court, it is intended to bring the institution into compliance. Thus, the question becomes, was the remedy effective? If remedy implementation does not lead to the elimination of the violations, capacity of the court would have to be questioned. However, if implementation led to the desired changes, that would positively reflect on the courts' capacity.

The Criteria for Evaluating the Capacity to Implement

As the remedy makes the shift from paper to reality, the process of implementation begins. It is during this process that so many programs for change, whether initiated by the court or any other public or private entity, fail to achieve their goals.[45] There are four questions that should be asked in evaluating whether or not the courts have the capacity to implement remedies: are the courts able to monitor implementation, respond to changing circumstances, enforce compliance with remedial orders by overcoming obstacles to implementation, and, as a result of the courts' monitoring, responsiveness, and enforcement actions, are the steps required by the remedial order actually carried out?

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45 Jeffrey L. Pressman and Aaron Wildavsky, Implementation (Berkely, CA: University of California Press, 1973); Daniel A. Mazmanian and Paul A. Sabatier, Implementation of Public Policy (Glenview, IL: Scott, Foresman and Company, 1983); and Martin Rein and Francine F. Rabinovitz, Implementation: A Theoretical Perspective (Cambridge, MA: Joint Center for Urban Studies of MIT and Harvard University, Working Paper no. 43, March 1977).

Monitoring

Remedial orders will require the violating institution to take a series of steps designed to lead it into compliance. To build a new pollution control facility, an environmental institution will, for example, have to develop facility plans, have them reviewed by relevant regulatory agencies, and then build the facility in accordance with a construction schedule. To know that such steps are taken and that the remedy is actually being implemented, the court must have the means to monitor the implementation process. Without such a capability, the court is, in effect, "flying blind," and will likely be put in the position of responding to implementation problems after they occur, when one or more of the parties comes forward to alert the court to the situation, as opposed to being able to identify and respond to potential problems early on, in the hopes of solving them before they have the chance to impede remedial implementation.[46]

There are a variety of monitoring tools the courts can use. They can appoint special masters, monitors, or advisory committees to track compliance and report back to the court.[47] Furthermore, the environmental institution can be required to submit periodic compliance reports, describing what has been done as well as the prospects for continued implementation. With respect to assessing the courts' capacity to implement, the question is not whether the court has the tools for monitoring, but rather do those tools work. More specifically, one would want to know if the monitoring tools used are able to give the court an accurate picture of the implementation process and what is, or is not transpiring at the ground level.

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46 According to Horowitz, the courts have scant ability to monitor the implementation of their orders. "The courts are mainly dependent for their impact information on a single feedback mechanism: the follow up lawsuit. This mechanism tends to be slow, erratic, unsystematic. Courts have no inspectors who move out into the field to ascertain what happened. They receive no regular reports on the implementation of their policies." The Courts and Social Policy, 55.

47 Columbia Law Review, 827-830.

Responding

Monitoring is only one element in evaluating the courts' capacity to implement remedies. An equally important element is the courts' responsiveness to changing circumstances. The implementation process is not static. New information and/or factors will arise that might necessitate a reformulation of the remedy. This is inevitable, given the polycentric nature of the situations presented during remedy implementation. According to Fuller, a polycentric situation is "many centered," so that an alteration at one center or location changes the relationships among all the centers.[48] As one element of the implementation process shifts, other elements may have to be recalibrated in order keep the process moving forward. The implementation process is, thus, a series of incremental steps, followed by evaluation and adjustments based on what evaluation uncovers.[49] For example, delays in regulatory reviews could create the need to reconsider the timing of subsequent court-ordered actions that are contingent upon those reviews, or new data may be generated about the nature of the violation and the feasibility of the remedy in light of that data. A remedial implementation process that doesn't respond to such changing circumstances is too rigid and runs the risk of missing opportunities to both improve the effectiveness of the remedy and have the latter better reflect the realities of implementation. Thus, another question to ask regarding the courts' capacity to implement is whether or not they are capable of responding to changing circumstances by reformulating the remedy when appropriate.

Overcoming Obstacles

Another element of the courts' capacity to implement a remedy is their ability to overcome obstacles to implementation. These obstacles can come from many sources. For example, the institution might fail to devise facility plans or to take other actions within the timeframe established by the remedy. Such delays, if widespread, can cripple the implementation process. There may be

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48 Lon L. Fuller, "The Forms and Limits of Adjudication," Harvard Law Review, Vol. 92 (1978): 395. See also, Horowitz, The Courts and Social Policy, 59.

49 Diver, 63. Pressman and Wildavsky, 87-124.

outright opposition to the remedy, or parts of it. This could come from legislative or executive branch officials, including the management of the institution, who view the remedy as illegitimate and/or politically unpopular, and are unwilling to take the actions necessary for implementation, e.g., increase institutional funding. Citizens, too, who perceive themselves to be negatively impacted by the remedy may rise up to oppose it, relying on their considerable powers to halt, delay, or in some other way, undermine implementation.

The court has a variety of sanctions it can use to try to overcome obstacles to implementation. Most environmental statutes allow the court to levy fines for continuing violations of the law which may create an incentive for the institution to comply with remedial requirements. Public officials, such as the head of the violating institution, can be held in contempt of court, and possibly placed in jail, for failure to implement the remedy. In extreme cases, the court can place the violating institution into receivership, taking over the day to day operations of the institution and, in affect, assuming the primary responsibility for implementation.[50] Furthermore, individual statutes may have unique sanctions that the court can apply. For example, under the federal CWA, a federal court can issue a moratorium on new sewer hookups to a treatment works that is in violation of the laws effluent discharge requirements. Regardless of what sanctions the court employs, the key question from the standpoint of capacity is whether or not the sanctions used are able to overcome the obstacles that are placed in the way of implementation.

Is the Remedy Implemented?

The final measure of the courts' capacity to implement is the degree to which remedial actions are carried out in accordance with the court-ordered schedule. As with any type of project that has formally established deadlines, the primary focus of implementation is ensuring that those deadlines are

50 See, for example, Environmental Law Reporter, "Court-Created Receivership Emerging as Remedy for Persistent Noncompliance with Environmental Laws," Environmental Law Reporter, Vol. 10 (March 1980): 10059-10062; and United States v. City of Detroit, 476 F. Supp 512 (E.D. Mich. 1979).

reached. Thus, the courts' ability to monitor, respond, and enforce is important because it enables the court to achieve the instrumental goal of keeping the environmental institution on track in meeting the requirements of the remedial regime.

The Criteria for Evaluating Effectiveness

The ultimate objective of remedial adjudication is to bring the violating institution into compliance with the law within a reasonable time and at a reasonable cost. The degree to which court intervention acheives this objective is a measure of its effectiveness.[51] In evaluating whether the violating institution was brought into compliance with the law, it is necessary ask if the implementation of the remedy had its intended effect. For example, if the law requires that certain effluent or emissions standards be met, or that certain pollution practices be stopped, the question becomes, were those standards met and were those practices stopped?

In determining whether compliance was achieved within a reasonable time and at a reasonable cost, there are no generic numbers that can be applied. Nor can one look to other pollution control projects to see how long they took or how much they cost in the hopes that one can, through comparison, identify what is reasonable for the situation in question. Each case of remedial adjudication is likely to have too many unique characteristics for such comparisons to be useful. Looking to statutory requirements is also unlikely to yield any measures of what is reasonable in a given case. If there were timelines for the attainment of compliance in the law, they will no longer be applicable as guides for reasonableness because the fact that the environmental institution is

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51 The first part of this criteria is relatively straightforward and finds support in the literature. For example, according to Gelpe, "[e]ffectiveness means obtaining compliance with the law." 81. Other studies, which focus primarily on constitutional cases, also have equated effectiveness with obtaining compliance or "correct[ing] the substantive violation." See, for example, Columbia Law Review, 863. As for defining what is a reasonable time and cost, the literature on remedial adjudication provides no guideposts. Thus, the criteria for determining reasonableness is based on the author's experience and research.

involved in remedial adjudication means that those statutory timelines were violated. What is a reasonable time will have to be determined by the circumstances surrounding the case in question. Furthermore, environmental statutes do not indicate what is a reasonable cost for compliance. Primarily through the use of a command-and-control system of regulation, statutes set the goals of compliance, e.g., the use of certain technologies, not the costs. Therefore, as is the case with time, the definition of reasonable cost has to be determined by the circumstances of the case.

In evaluating reasonable time and cost, there are two perspectives that should be taken into account. One is that of the court and how it structured the search for time and cost savings. The other is that of the parties in the case and how they percieved the issue of reasonableness.

From the perspective of the court, one would want to ask a couple of questions. First, did the court encourage the parties to search for ways to shorten the time to acheive the various deadlines in the court-ordered schedule, therefore, shortening the time to come into compliance with the law? Such encouragement is important because of its potential to help create an environment in which the parties will actually take on the task of looking for ways to save time. Second, if the parties offer sound proposals for shortening the time to compliance, was the court receptive to them? The degree to which such opportunities for saving time are capitalized upon is an indicator of reasonableness. The more the court encourages the search for time savings and takes advantage of them, the more reasonable is the resulting time to compliance. In contrast, the less the court encourages the search for and takes advantage of potential time savings, the less reasonable is the time to compliance.

Assessing the reasonableness of the cost of compliance presents a similar dynamic. For the same reasons, one would want to ask, did the court encourage the parties to search for cost savings wherever possible? And, if the parties offer proposals that would enable compliance to be achieved at a lower cost, was the court receptive to those proposals? The more the court encourages the search for cost-effective opportunities for reformulating the remedy and takes advantage of

them, the more reasonable is the ultimate cost of compliance. By the same token, the less the court encourages and takes advantage of cost savings, the less reasonable is the ultimate cost.

From the perspectives of the parties, two questions should be raised. First, do the parties think that compliance was achieved within a reasonable time and at a reasonable cost? Second, do they feel that advantage was taken of the opportunities for time and cost savings?

Chapter III

"What is Past is Prologue"*

Institutional lawsuits are usually triggered by a particular event.[1] For example, litigation might be sparked by the enactment of a statute blocking the implementation of a desegregation plan, or by the layoff of staff necessary to maintain the proper functioning of a mental hospital.[2] Although a triggering event spurs action, the suit itself rarely focuses solely on that event. Indeed, the trigger is most often only the most recent instance of a long-standing series of alleged legal violations by the institution which are brought the court's attention during litigation. If the judge determines that the law has been broken and that remedial action is warranted, he/she must understand the historical circumstances that caused the legal violations. Through an understanding of how and why those violations occurred, the judge can fashion remedies designed to change institutional operations in a way that will ensure that legal norms are upheld.

The lawsuit brought by the city of Quincy in 1982, against the Metropolitan District Commission (MDC), was triggered by a particular event -- the fouling of a local beach with sewage. But as the case developed its scope broadened, focusing on a whole variety of institutional and other problems that had contributed to the deterioration of the Boston area's sewage system and the water quality in the harbor. These problems were the result of historical forces, literally hundreds of years in the making. And the court relied on this historical information in deciding how best to remedy the legal violations uncovered by

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* This phrase, which is incribed on the outside of the National Archives building, in Washington, D.C., is a slight modification of the words of William Shakespeare, in The Tempest -- "What's past is prologue" (Act II, Scene 1, 261).

1 Cooper, 16-18.

2 Ibid, 17, 169.

the litigation. This chapter traces the history that led up to the court's intervention and analyzes how and why the problems facing the court developed. In so doing, the chapter shows the causes of harbor pollution, how the state and federal government responded to that pollution, and why those responses did not adequately control the pollution, thereby precipitating Quincy's legal action.

Sewers and More Sewers

Boston was settled in 1630, and sometime thereafter its residents began digging up the land and laying sewers. The exact date of the first sewer is not known, but it was before 1700.[3] Initially, the process for building sewers was largely unregulated, but by the early 1700s the provincial government had passed an Act formalizing the system of laying and paying for sewers.[4] According to the Act, the sewers were to be "substantially done with brick or stock [stone]" and used "for the drainage of cellars and lands," not for the contents of privy-vaults (out-houses) which virtually all houses had.[5] For more than a century, Boston was sewered by private enterprise, under the auspices of this Act, and most of the waste transported by those sewers ended up in Boston Harbor. Indeed, it would be hard to imagine the waste ending up anywhere else. With much of the town built on hills sloping towards the sea, the laws of gravity and hydraulics dictated the location of sewer outlets. Although the contents of privy-vaults were excluded from the sewers, human waste, often called "nightsoil," still managed to make its way to the harbor, either through the illegal dumping of waste into the sewers, or through the intentional carting of it down to the shore, where it was dumped off the end of docks.[6]

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3 Eliot C. Clarke, Main Drainage Works of the City of Boston (Boston: Rockwell and Churchill, City Printers, 1885): 7.

4 Ibid.

5 Ibid, 8.

6 Carl Seaburg, Boston Observed (Boston: Beacon Press, 1971): 280-286.

In 1822, Boston received a city charter and soon thereafter the city took over control of the construction and maintenance of the sewers.[7] Over the next eighty years a number of events laid the groundwork for the transformation of Boston's patchwork of sewers into three large sewage systems by the turn of the century. The most important of these were the publication of the Report of the Sanitation Commission of Massachusetts 1850, and the increasing use of water.

The Sanitation Commission report signaled the beginning of the "sanitary awakening" in the United States, ushering in a new era of thinking about the relationship between organic waste and human health.[8] It argued that disease could be transmitted through the atmosphere via poisons that result from decaying organic matter, and recommended that "*Drains and Sewers* should be made to carry off water introduced in any way into cities and villages. If the surplus be permitted to remain, it often becomes stagnant and putrid, and is then a fruitful source of disease."[9] The linkage between organic waste and health was given added credence in the mid-1850s, when cholera was found to be a contagious disease caused by a poison that reproduced itself in the bodies of the afflicted. The poison was in the vomit and excrement of those with cholera, and thus, it was argued, that the disease could be transmitted through contaminated water supplies.[10] The emerging understanding of cholera and its mode of transmission had special significance in Boston because the city suffered through a series of cholera outbreaks around mid-century. Although disease was the most serious health issue related to sewage, Boston residents were also greatly concerned about the olfactory distress and, sometimes, nausea caused by decaying sewage at the harbor's edge.[11]

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7 John Koren, Boston, 1822 to 1922, The Story of Its Government and Principal Activities During One Hundred Years (Boston: City of Boston Printing Department, 1923): 9, 161.

8 Ralph E. Fuhrman, "History of water pollution control," Journal of the Water Pollution Control Federation, Vol. 56, No. 4 (April 1984): 308.

9 Lemuel Shattuck, Report of the Sanitary Commission of Massachusetts 1850 (Cambridge, Mass.: Harvard University Press, 1948 (this is a re-publication of the original report)): 160.

10 Charles E. Rosenberg, The Cholera Years (Chicago: The University of Chicago Press, 1987): 193-194.

11 Clarke, 13-14.

Health concerns were not the only reason for the Boston area to consider improving its sewage system. As Boston grew, so did its appetite for water. By 1852 it was estimated that per capita water consumption in Boston was 58 gallons per day. In 1860, it had risen to 100 gallons a day.[12] Just as this water had to make its way into the city, so too, did it have to make its way out, and the way out was through the sewers which were in need of expansion to handle the flow.[13] Virtually all of the sewers built during this time were combined sewers, designed to carry both sewage, e.g., sanitary waste and washwater, and stormwater runoff. Such sewers are quite common in older cities.[14]

In light of the need to address the growing health concerns and the increased sewage flow, the Mayor appointed a commission to "report upon the present sewerage of the city . . . and to present a plan for outlets and main lines of sewers, for the future wants of the city."[15] The Commission recommended that Boston build the type of system that had been "adopted the world over by large cities near deep water," which would carry "the sewage out so far that its point of discharge will be remote from the dwellings, and beyond the possibility of doing harm."[16] This recommendation led Boston, in 1876, to begin building what would come to be known as the Main Drainage System. Completed in 1884, this system collected sewage from Boston and conveyed it through tunnels, interceptors, and pumping facilities to storage tanks on Moon Island, from which point it was discharged, untreated, into the harbor with the outgoing tide.[17] According to one chronicler, the new sewage system immediately benefited the

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12 Koren, 96; and Fern L. Nesson, Great Waters, A History of Boston's Water Supply (Hanover, NH: University Press of New England, 1983): 10.

13 According to one source, in 1863 there were 87,000 Boston households that had piped-in water, and 14,000 had water closets. Joel A. Tarr and Francis Clay McMichael, "Historic turning points in municipal water supply and wastewater disposal, 1850-1932," Civil Engineering ASCE (October 1977): 83.

14 James E. Krier, "Ocean Discharge of Municipal Wastes: Legal and Institutional Aspects," in Ocean Disposal of Municipal Wastewater: Impacts on the Coastal Environment (vol. 2), Edward P. Myers and Elizabeth T. Harding, eds. (Cambridge, Mass.: MIT Sea Grant College Program, MITSG 83-33, 1983): 665.

15 Clarke, 16.

16 Ibid, 17-18.

17 Madeline Kolb, Wastewater Management Planning for Boston Harbor, A Status Report (Boston Harbor Interagency Coordinating Committee, August 1980): 5.

city -- "the death rate diminished; the waters at the docks were no longer polluted; the offensive odors had disappeared; and the cellars were no longer periodically flooded."[18]

Over the next twenty years, Boston built two more drainage systems.[19] 1894 saw the completion of the Northern Metropolitan System, which collected sewage from communities north of the Charles River and transported it to Deer Island where large solids were screened out before the sewage was discharged into the harbor. In 1904, the Southern Metropolitan System began operation, serving, as the name implies, areas generally to the south of Boston. This system discharged screened wastes into the harbor off Nut Island. To oversee these sewerage systems, in 1889 the city established the Metropolitan Sewerage Commission.[20] After a series of legislative reshufflings, the responsibilities of the Sewerage Commission were given to the newly created Metropolitan District Commission (MDC) in 1919, which also was responsible for supplying water to the area in and around Boston and managing the area's parks.[21]

While the three sewerage systems were being built, the cities and towns in the Boston area were also adding to the labyrinth of combined sewers[22] At the time of construction, the three part sewerage system and the combined sewers were believed to be an acceptable way of handling Boston area sewage. In the late nineteenth century, releasing waste with the outgoing tide was considered an innovative approach to waste management, and combined sewers "was the technology to use."[23] But as the population grew and ever more waste was sent

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18 Koren, 162.

19 Kolb, 5.

20 An Act to Provide for the Building, Maintenance and Operation of a System of Sewage Disposal for the Mystic and Charles River Valleys, Chapter 439, Act and Resolves passed by the General Court of Massachusetts in the years 1888-1889.

21 An Act to Organize in Departments the Executive and Administrative Functions of the Commonwealth, Chapter 350, General Acts passed by the General Court of Massachusetts in the year 1919.

22 Most of the combined sewers were built between 1860 and 1900. Metropolitan District Commission, Combined Sewer Overflow Project Summary Report on Facilities Planning, (April 1982), 1.

23 William Kane, CSO Program Manager at the Massachusetts Water Resources Authority, personal interview by author, 3 March 1989.

into the harbor, the problems caused by that waste became more apparent and disturbing.

Sewers Alone are Not Enough

Between 1900 and 1939, the State Legislature conducted six investigations of the harbor that highlighted various pollution and health problems.[24] For example, a 1939 special commission "was repeatedly told that conditions in Boston Harbor are revolting to the esthetic sensibilities and violate all public health requirements."[25] That report went on to say that ". . . when mothers, physicians and health officers -- all of whom testified before us -- believe disease can be traced to polluted water, then steps must be taken to stop pollution. . . . the public is entitled to correction of this nuisance."[26] To correct this and other "nuisances," the 1939 study recommended that treatment works be constructed on Deer, Nut, and Moon Islands, the discharge points for each of the three sewage collection systems.[27]

Ultimately, sewage treatment plants were built on Nut Island in 1952, and on Deer Island in 1968. The construction plans for Moon Island, however, remained only a recommendation. Instead, Moon Island continued to discharge untreated sewage through 1968, when the sewers leading to it were re-routed to Deer Island. Both plants were designed for primary treatment, broadly defined as a level of treatment that removes nearly all settleable solids and reduces the

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24 In 1900, 1917, 1929, 1930, 1936, and 1939. Charles M. Haar and Steven G. Horowitz, Report of the Special Master regarding Findings of Fact and Proposed Remedies, (Norfolk County Superior Court Civil Action No.138477, August 9, 1983), 26. See also, Eric Jay Dolin, Dirty Water/Clean Water (Cambridge, Mass.: MIT Sea Grant College Program, 1990): 17-22.

25 Commonwealth of Massachusetts, House Doc. No. 2465, Report of the Special Commission Investigating Systems of Sewerage and Sewage Disposal in the North and South Metropolitan Sewerage Districts and the City of Boston, (1939), cited in Charles A. Maguire and Associates, Engineering Report on A Proposed Plan of Sewerage and Sewage Disposal for the Boston Metropolitan Area, 30.

26 Ibid.

27 Haar and Horowitz, 12.

concentration of total suspended solids (TSS) by sixty percent and biochemical oxygen demand (BOD) by thirty to thirty-five percent.[28] These pollution indicators are important for a variety of reasons. High levels of TSS increases turbidity, reducing the transmission of light through the water column, which can, in turn, inhibit the growth of aquatic plants and plankton necessary for a healthy ecosystem. BOD indicates the approximate amount of oxygen that will be required to decompose the waste present in the treatment plant's effluent.[29] The higher the BOD content of the effluent, the more dissolved oxygen (DO) needed for decomposition, and the more DO needed for decomposition, the less DO available to the organisms living in the water. If the levels of DO are reduced too much, those organisms can suffocate.[30] As part of the treatment process at the two plants, the solid materials that settled to the bottom of the sedimentation tanks, referred to as sludge, were placed in digestion tanks and partially decomposed by microorganisms, creating methane which, in turn, helped generate electricity to power the plants. The sludge was then combined with the liquid sewage, or effluent, and discharged into the harbor through a number of submerged outfalls.

During the 1950s and through the mid-1960s the water quality in Boston Harbor didn't improve much, if at all. Only the small primary plant on Nut Island was operating, and it was having problems maintaining consistent levels of treatment. Hundreds of millions of gallons of virtually raw sewage were still being discharged into the harbor from Deer Island, and the holding tanks on Moon Island were still doing what they were originally designed to do way back at the turn of the century -- discharging untreated waste on the outgoing tide. Unfortunately, when the tide came in again it brought back much of the waste. In addition, roughly 100 combined sewer overflows (CSO) located throughout the harbor were discharging billions of gallons of untreated urban runoff and sewage into the harbor whenever it rained. Thus, the Nut Island facility, by

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28 U.S. Congress, Office of Technology Assessment, Wastes in Marine Environments, OTA-0-334 (Washington, D.C.: U.S. Government Printing Office, April 1987), 213.

29 Metcalf & Eddy, Inc., Wastewater Engineering (New York: McGraw-Hill Book Company, 1972): 241.

30 U.S. Environmental Protection Agency, Region 3, Chesapeake Bay Program: Findings and Recommendations (September 1983): 24-25.

itself, worked as well as a band-aid on a ruptured artery. The state of the harbor was reflected in newspaper articles of the time. One noted that "[t]he harbor closeup is a . . . slimy, polluted body in places. Oil and sewage smear its surface . . . [and in the air] is the unmistakable stench of man's wastes and the corrupt odor of stagnant water."[31] Another called the harbor "a floating garbage can. Millions of gallons of raw waste are discharged into the harbor every day. And industrial effluent, pumped into rivers and streams, eventually flows into the harbor."[32]

The Federal Role Expands

The passage of the federal Water Quality Act of 1965, an amendment to the Federal Water Pollution Control Act of 1948 (FWPCA), brought with it the promise of change for waterways around the country, including Boston Harbor.[33] Prior to 1965, the federal government had been involved in water pollution control, but only in a limited fashion, providing grants for sewage treatment plants, but leaving virtually all of the pollution management decisions in state hands.[34] With the 1965 Act, the federal government not only increased it sewage construction grants to the states, it also took on a greater management role, requiring the states to develop and implement water quality standards. Under this approach, states had to establish acceptable levels of water quality for interstate, navigable waters and then devise an implementation plan, including monitoring and enforcement actions, to ensure that industrial and municipal polluters controlled their pollutant discharges so that water quality standards were met.[35] As one knowledgeable observer noted, "[t]here is a great deal of

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31 Fred Pillsbury, "Our Filthy Harbor," Boston Sunday Herald, 22 November 1964, Section 4, 1.

32 John C. MacClean, "Divided Responsibilities Help Keep Harbor Dirty," Boston Herald, 1 September 1966, 3.

33 Joan M. Kovalic, The Clean Water Act With Amendments (Washington, D.C.: The Water Pollution Control Federation, 1982).

34 Cynthia Cates Colella, The Federal Role in the Federal System: The Dynamics of Growth (Washington, D.C.: Advisory Commission on Intergovernmental Relations, March 1981).

35 N. William Hines, "Controlling Industrial Water Pollution: Color the Problem Green, Boston College Industrial & Commercial Law Review 9 (1968), 585-586.

theoretical merit to the water quality standard approach. You establish the level of water quality you seek in the water, and then you backtrack to the respective sources that contribute the pollutants that are subject to that water quality standard and then apply the necessary control."[36] The 1965 act also authorized the secretary of the newly created Federal Water Pollution Control Administration, located within the Department of Interior (DOI), to convene enforcement conferences if pollution was found to be adversely affecting shellfish beds in interstate or navigable waters. The purpose of these conferences was to recommend steps that could be taken to reduce pollution.

Massachusetts passed its own water pollution control legislation on September 6, 1966, the Massachusetts Clean Waters Act, and roughly a year later the state's newly created Division of Water Pollution Control (DWPC) devised state water quality standards.[37] Under the state's implementation plan, the level of sewage treatment required in the harbor was clear. For the Nut and Deer Island plants primary treatment was determined to be adequate to maintain water quality.[38]

On paper, the harbor cleanup was moving forward, but the water told a different story. On May 20, 1968, the Federal Water Pollution Control Administration convened an enforcement conference on the "Pollution of the Navigable Waters of Boston Harbor and its Tributaries."[39] According to one of the Administration representatives in attendance, the greatest source of pollution was the 460 million gallons of raw or partially treated sewage, coming from the MDC's two sewerage systems, that were discharging daily into the harbor (the

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36 Thomas C. Jorling, quoted in "Congressional staffers take a retrospective look at P.L. 92-500, Part 2, Journal of the Water Pollution Control Federation, Vol. 53, No. 9 (September 1981): 1370.

37 Massachusetts Clean Waters Act (September 6, 1966, Massachusetts General Laws, Chapter 21, Department of Environmental Management, Secs. 26-53, enacted by Massachusetts Acts of 1966); Subcommittee on Air and Water Pollution, Water Pollution - 1968 Part I, A-32.

38 U.S. Department of Interior, Conference Pollution of the Navigable Waters of Boston Harbor and its Tributaries (May 20, 1968): 97.

39 Ibid, 15.

Deer Island plant had just become operational).[40] This and other pollution entering the harbor, e.g., industrial waste and sewage from other nearby communities, had forced the Commonwealth to restrict or prohibit shellfishing in 89 percent of the shellfish growing areas. In only 500 out of 4,492 acres of shellfish beds was shellfishing approved without restrictions.[41] At the conclusion of the conference, the conferees agreed to form a Technical Committee that would further investigate pollution problems in the harbor and possible remedial actions that should be taken.

Two more enforcement conferences were held in the following years, one in April 1969, and the other in October 1971.[42] The third conference was particularly interesting because the debate over the need for secondary sewage treatment in Boston Harbor.[43] Four months prior to this conference, the newly created Environmental Protection Agency (EPA), which had assumed responsibility for the nation's water pollution control program, promulgated regulations that required publicly owned treatment works (POTWs) receiving federal grants to achieve secondary treatment. The regulations essentially defined secondary as that treatment resulting in the complete removal of all floatable and settleable solids and at least 85 percent of the BOD.[44] There was, however, a potential exception to this blanket requirement. The Administrator of EPA could waive the secondary requirements for POTWs discharging to the

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40 Ibid, 31.

41 Federal Water Pollution Control Administration, Report on Pollution of the Navigable Waters of Boston Harbor (May 1968): 1, included in U.S. Department of Interior, Conference Pollution of the Navigable Waters of Boston Harbor and its Tributaries (May 20, 1968): 87-97.

42 U.S. Department of Interior, Federal Water Pollution Control Administration, Conference Pollution of the Navigable Waters of Boston Harbor and its Tributaries (April 30, 1969).; U.S. Environmental Protection Agency, Conference In the Matter of Pollution of the Navigable Waters of Boston Harbor and its Tributaries -- Massachusetts (October 27, 1971).

43 U.S. Environmental Protection Agency, Conference In the Matter of Pollution of the Navigable Waters of Boston Harbor and its Tributaries -- Massachusetts (October 27, 1971).

44 Environmental Protection Agency, Grants for Water Pollution Control, Federal Register, Vol. 36, No. 134 (July 13, 1971): 13029.

open ocean waters if he determined that such discharges would not adversely impact the ocean environment and the adjoining shores.

The waiver option was primarily the result of lobbying efforts on the part of municipal dischargers from the west coast.[45] Throughout the late 1950s and 1960s the federal government had been encouraging POTWs, most of which used primary treatment, to install secondary treatment in order to improve water quality. West coast dischargers, however, argued that the secondary requirement should not apply to them because they were discharging into deep ocean waters that, due to strong currents and mixing, had great assimilative capacities for BOD and solids in the sewage effluent. Requiring them to upgrade to secondary, therefore, would not result in improved water quality. Furthermore, upgrading to secondary was very expensive, not only in capital costs, but also operation and maintenance costs, both of which were roughly double that of primary treatment. Thus, west coast dischargers argued that it was both environmentally and economically unsound to require them to apply secondary. They were aided in their argument by the conclusions of many, primarily west coast, water quality professionals, engineers, and biologists who agreed that the indiscriminate application of secondary to ocean discharges was improper. Secondary levels of treatment were important for inland, freshwaters, where assimilative capacities were limited, but the oceans are a totally different environment and should be treated appropriately, literally and figuratively.

Reading the waiver language in EPA's regulations, the MDC assumed that they might well qualify for an open ocean waiver and, therefore not be required to upgrade to secondary. But during the enforcement conference, John R. Quarles, Jr., Assistant Administrator for Enforcement and General Counsel at EPA, made it clear, however, that EPA didn't see it that way:

> The time is here I'm sure when it's necessary for the Metropolitan District Commission and the Commonwealth of Massachusetts to face up to the

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45 Joe G. Moore, Jr., telephone interviews by author, 5, 21 January 1993; Charles V. Gibbs, telephone interview by author, 8 February 1993.

> very real prospect that secondary treatment will be required in the Boston Harbor disposal system. Around the country there are few, if any, cities which are comparable in size to the Massachusetts situation where they do not already have secondary treatment or, if they don't have it, are not at least on a program to install it. In many places they are moving to much higher levels of treatment. . . . We have in Boston Harbor one of the most serious situations of urban pollution in the country - with an antiquated system for collecting the wastes and bringing them into the treatment plants, with primary plants, unsatisfactory sludge disposal practices, and a lot of work that needs to be done . . .[46]

John W. Sears, Commissioner of MDC, responded to Quarles, stating that "[i]t is true that the MDC has a problem with secondary treatment. For 82 years we have assumed that we were providing open ocean disposal. And we are startled really to learn that standards that are applied to inland [freshwater] communities may also be applied perhaps without some sophistication to us."[47] DWPC Director, McMahon, added that secondary is a low priority for the harbor and it makes much more sense to address the most serious problem first -- CSOs.[48]

These conferences resulted in the initiation of two very important studies concerning sewage management in the Boston area. In October 1971, MDC and DWPC reached an agreement whereby the former would prepare a sludge management plan. And in July 1972, MDC, DWPC, and EPA signed an agreement in which the MDC would be the lead agency for a comprehensive study of the region's sewage system and the need for improvements over the next fifty years.[49] In the latter agreement, MDC, at the strong urging of EPA, grudgingly put aside its aversion to secondary treatment, pledging to upgrade

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46 U.S. Environmental Protection Agency, Conference In the Matter of Pollution of the Navigable Waters of Boston Harbor and its Tributaries -- Massachusetts, 132-135.

47 Ibid, 136.

48 Ibid, 293-299.

49 Kolb, 25-27.

the Nut and Deer Island plants by December 31, 1980.[50] MDC also agreed, under the threat of an EPA lawsuit, to cease the discharge of sludge into the harbor's waters by May 1, 1976.[51] Later that year, Congress amended FWPCA once again. The 1972 amendments ushered in a new era in water pollution control that would have a profound impact on Boston Harbor.

The Split Between Planning and Reality

Before considering the impact of the 1972 amendments, it is important to reflect on how things stood with respect to the harbor on the eve of the act's passage. From the planning perspective there was cause for optimism. The enforcement conferences had highlighted many of the pollution problems in the harbor and major studies addressing those problems were getting underway. The information provided by those studies was intended to aid the MDC in moving forward with whatever remedial actions were deemed necessary. With respect to the latter, the state had already consented to upgrade the two sewage plants to secondary by 1980 and, regardless of the debate over whether secondary was necessary, the upgrade would, at a minimum, mean less pollution flowing into the harbor. Similarly, the State's pledge to cease the discharge of sludge by 1976 meant that one of the worst sources of harbor pollution would be cutoff. From another perspective, however, there was significant cause for concern. Despite the planning efforts and the promise of future pollution abatement actions, the harbor was still grossly polluted. The two sewage treatment plants continued to discharge tons of sludge daily into the harbor, as they were designed to do. During wet weather, the flow of sewage and stormwater runoff transported through combined sewers would exceed the capacity at Nut and Deer Islands, causing the numerous CSOs to discharge raw sewage at various points in and around the harbor. Even during dry conditions, some CSOs would discharge raw sewage directly into receiving waters. Many Boston area beaches and shellfishing beds remained closed due to pollution.

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50 "MDC treatment plant still pollutes harbor," The Boston Globe, 29 July 1973).

51 James Ayres, "Ecology bill first step in Hub Cleanup," The Boston Globe 16 July 1972.

And to the chagrin of those who believed that the opening of the Deer Island plant would solve many of the harbor's pollution problems, it quickly became apparent that the plant continued to contribute to those problems rather than solve them.

When the Deer Island plant opened in August 1968, it looked great. According to former Governor Francis Sargent, the plant was "as polished and clean as the engine room of an aircraft carrier."[52] Unfortunately, it didn't work properly. The major culprit were the nine Nordberg engines, installed to pump sewage into the treatment tanks. They were simply the wrong machines for the job.[53] Although they were designed to run at a continuous speed, the engine's rate had to fluctuate in response to the changing flow rates for sewage, resulting in numerous breakdowns, and subsequent discharges of raw sewage.[54] Repairs were made difficult by the fact that the Nordberg Manufacturing Company was bought out just as the Deer Island plant opened up. The new company continued to supply replacement parts, but it often took a significant amount of time before the new parts were delivered.[55] Compounding the equipment problems, was a lack of adequately trained staff to run the plant and deal with the operation and maintenance problems as they arose. From day one, Deer Island was understaffed. Finding workers proved difficult, in part because the salaries offered were regulated by the state's civil service system and were relatively low compared to private industry, reducing the financial incentive for trained individuals to work for the MDC.[56] And even when staff could be found, some of those hired were unqualified. The MDC had long had a reputation as a place for patronage jobs, and there is no doubt that some of the Deer Island employees were there because of connections, not qualifications.[57]

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52 Seth Rolbein, "Boston's Floating Crap Game," Boston Magazine (May 1987): 204.

53 "The Treatment", Micheal Rezendes, The Pheonix, 18 August 1981).

54 Ibid.

55 Noel Barrata, personal interview by author, 7 October 1993.

56 "Despite $20 million new plant, raw sewage floods harbor," The Boston Globe (November 9, 1967).

57 Barrata interview, 7 October 1993; "MDC-Patronage Picnic, Sears: Payoff to Politicians is Wrong," Boston Herald (March 29, 1973).

Deer Island was not alone in having operation and maintenance problems. Nut Island, too, suffered from poor performance. Part of this was to be expected. In 1972, the Nut Island plant was already 20 years old and at the end of its operational life expectancy. One of the most serious problems at the plant was the uneven settling of the sedimentation basins which greatly reduced the plant's efficiency.[58] As for staffing, Nut Island was as poorly staffed as Deer Island, for the same reasons. The sewage system's problems extended beyond the plants themselves. Many of the pipes that brought sewage to the plants were quite old, some over 100 years, and in need of repair.

Thus, on the eve of the passage of the 1972 amendments, the divergence between planning for future improvements in the sewage system and the status of the existing system and the harbor resource was becoming apparent. While planning was moving ahead, full of promise, the sewage infrastructure was falling into disrepair and poorly treated and, in many cases, untreated sewage continued to be discharged into the harbor. It remained to be seen how the 1972 amendments would affect the split between planning and reality, and whether they would move the harbor cleanup forward.

The 1972 Amendments to the Federal Water Pollution Control Act

Many observers describe the 1972 amendments in watershed-type terms. They are viewed as "[a] major change in environmental and intergovernmental policy;"[59] "the most sweeping environmental measure ever considered by the Congress;"[60] "a landmark of environmental legislation;"[61] and "one of the most significant bills of all time."[62] Although one may disagree with the superlatives

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58 Barrata interview, 7 October 1993.

59 Harvey Leiber, Federalism and Clean Waters (Lexington, Mass: Lexington Books, 1975): 1.

60 J. Clarence Davies III and Barbara S. Davies, The Politics of Pollution (Indianapolis, IN: Pegasus, 1975), 44.

61 Kovalic, 1.

62 "Sewers, Clean Water, and Planned Growth: Restructuring the Federal Pollution Abatement Effort," Yale Law Journal, Vol. 86 (1977):733.

chosen, the general thrust of these comments is true. The 1972 amendments did usher in a new era of water pollution control. Detailing the changes wrought by the amendments is beyond the scope of this dissertation. Indeed, as signed into law on October 18, 1972, the amendments ran to 89 pages of fine print, and included five different titles, covering many issues including toxic and pre-treatment standards for industry, inspections and monitoring requirement, oil and hazardous substance liability, and standards for thermal discharges.[63] For the present purposes it is sufficient to cover the main sewage-related provisions of the act, for more than anything else, the court cases concerning the cleanup of Boston Harbor were responses to the manner in which the Boston area managed its sewage.

By 1971, Congress had become extremely discouraged with the lack of progress produced by the water quality standards approach embodied in the Water Quality Act of 1965. At the same time it was a high point for environmental concern in the United States.[64] With Earth Day (April 20, 1970) and the publicly supported and successful battle for the Clean Air Act (1970) still fresh in their minds, Congress was eager to aggressively move ahead on the water pollution issue. The main objective of the 1972 amendments is "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters."[65] To achieve this objective the amendments established two national goals. The first was to eliminate the discharge of pollutants into the navigable waters of the United States by 1985, usually referred to as the "zero-discharge" goal, and the second was to "wherever attainable," achieve a level "of water quality which provides for the protection and propagation of fish, shellfish, and wildlife and provides for recreation in and on the water" by July 1, 1983, the so-called "fishable-swimmable" goal.[66]

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63 Lieber, 7; and U.S. Congress, A Legislative History of the Water Pollution Control Act Amendments of 1972, Volume 1, 3-91.

64 Robert C. Paehlke, Environmentalism and the Future of Progressive Politics (Ne Haven, Conn.: Yale University Press, 1989): 13-40.

65 U.S. Congress, A Legislative History of the Water Pollution Control Act Amendments of 1972, 3.

66 Ibid.

To help achieve these goals the act established a wide-ranging policy structure for sewage management. POTWs had to provide a minimum of secondary treatment by July 1, 1977. Secondary treatment was subsequently defined by the EPA as removing, at least, 85 percent of both BOD and suspended solids from the POTW's effluent, and not exceeding certain levels of coliform bacteria and pH.[67]

Congress imposed technology-based effluent limitations on POTWs, in large part, because of the difficulties presented by the old water quality standards approach. Although the standards approach had theoretical merit, in practice they were extremely difficult to enforce. Under the Water Quality Act of 1965, before the government could institute any pollution abatement action they had to prove that a specific polluter was causing a specific problem. Technical expertise at the time was not sophisticated enough to infer from pollution loadings in a particular body of water the level of control required for an individual discharger in cases where more than one source was discharging into the water.[68] The government would thus find it impossible to prove that discharger X was causing pollution problem Y, especially if discharger X claimed that it wasn't them, but some other discharger that was causing the problem. Establishing a technology-based effluent limitation made enforcement much simpler, for one could clearly determine if a violation had occurred.

Despite the reliance on technology-based effluent limitations for POTWs, the amendments did not eliminate water quality standards altogether. POTW's that comply with the technology-based limitations but still violate the water quality standards for the receiving water body are required to take steps, including the installation of additional technologies, to ensure that such

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67 Environmental Protection Agency, "Secondary Treatment Information," Federal Register 38, no. 159 (August 17, 1973): 22298.

68 "WPCF roundtable discussion -- Congressional Staffer take a retrospective look at PL 92-500 -- Part 2," Journal of the Water Pollution Control Federation, 53 (September 1981): 1370.

violations cease.[69] Thus, the amendment's technology-based limitations serve only as a pollution floor, not a ceiling. To aid the states and localities in constructing required facilities, the sewage construction grants program was continued and greatly expanded to $18 billion over three years, with the federal government covering 75 percent of the costs of sewage treatment, and the remaining 25 percent being picked up by state and local government.[70]

The requirements with which POTWs had to comply are spelled out in permits issued by the National Pollution Discharge Elimination System (NPDES). The power to issue NPDES permits is vested with EPA, but can be delegated to the states upon approval by the agency. Massachusetts does not have the authority to run the NPDES program. Instead, the state works along with EPA in writing permits and enforcing them.[71] These permits include not only the effluent limitations for specific pollutants, but also a schedule which details when the discharger must comply with the limitations. If violations of the permit are discovered, the regulating agency can take a variety of enforcement actions, e.g., issuing a notice of violation or an administrative order requiring that certain remedial actions be taken, levying fines, or initiating a civil action in federal district court. Private individuals and groups, too, can also bring a civil action, in federal district court, under the amendment's Citizen Suits Provision.[72] Such suits can be brought against any government or private institution alleged to be violating effluent standards/limitations or an administrative order issued by the Administrator or delegated state agency. Suits may also be brought against the Administrator for failing to perform non-discretionary duties under the Act.

CSOs and sludge are also regulated by the amendments, although not as comprehensively as POTWs. The statutory language on CSOs left some

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69 Robert Zener, "The Federal Law of Water Pollution Control," in Federal Envronmental Law, ed., Erica L. Dolgin and Thomas G. P. Guilbert (St. Paul: West Publishing, 1974), 731.

70 Kovalic, 10.

71 Brian Pitt, Water Management Division, Environmental Engineer, USEPA, Region 1, telephone interview by author, 12 April 1989.

72 U.S. Congress, A Legislative History of the Water Pollution Control Act Amendments of 1972, 75.

unanswered questions about how such pollution sources should be managed. In line with subsequent EPA regulations and supporting court cases, CSOs were defined as point sources and it was up to EPA or the delegated state agency to establish, on a case-by-case basis, appropriate technology-based effluent limitations in accord with the best professional judgment of the permit writer.[73] Such limitations, in turn, were written into NPDES permit. As for sludge, the amendments forbade its discharge into navigable waters except in accordance with a NPDES permit.[74]

From Bad to Worse

Despite the combination of the strong directives contained in the 1972 amendments and the agreements reached prior to the passage of the amendments on long-range sewage planning and sludge management, the situation with respect to Boston's sewage system and water quality in the harbor became worse not better. Indeed, by 1982, when the state court case began, the Deer and Nut Island plants were even more dilapidated than had been the case ten years earlier, with breakdowns, and the subsequent discharge of raw sewage, a common occurrence. Most of the pipes leading to the plants were ten years older and leaking more than ever. The plants remained seriously understaffed. One hundred tons of sludge were still pumped into the harbor daily.[75] With the exception of a couple of CSOs which were receiving some form of treatment, e.g., chlorination, the vast majority of the CSOs emptying into the harbor and its tributaries continued to do so without any form of treatment, during wet and, on occasion, dry weather.[76] Given this, the obvious question is why? There is no one answer. With large and multi-faceted problems, involving numerous actors,

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73 Peter Crane Anderson, "The CSO Sleeping Giant: Combined Sewer Overflow or Congressional Stalling Objective," Virginia Environmental Law Journal, 10 (1991): 381.

74 U.S. Congress, A Legislative History of the Water Pollution Control Act Amendments of 1972, 71.

75 Dianne Dumanoski, "Raw or treated, the sewage flows into Boston Harbor," The Boston Globe, 19 December 1982, 1, 26.

76 Metropolitan District Commission, Combined Sewer Overflow Project Summary Report on Facilities Planning (April 1982).

there never is. Instead, one must analyze how a suite of factors contributed to the failure to adequately address the region's sewage management needs and the continued degradation of the harbor between 1972 and 1982.

At one level, the failure was the result of what Pressman and Wildavsky term the complexity of joint action.[77] The implementation of a governmental program of any consequence requires the coordination among many actors, often with differing perspectives, and the clearance of numerous decision points. The more decision points, the more time expended and, hence, the greater the likelihood for delay in reaching implementation goals. As conflict among the various actors increases the potential for delay increases as well.[78] In the present case, before planned sewage improvements could become actual improvements, numerous administrative hurdles had to be overcome. The planning process established by both federal and state law was extremely involved, presenting many decision points and requiring the input of numerous actors, each of whom had to review the plans and give approvals before the next step could be taken. The delays inherent is such a complex situation were exacerbated by the magnitude of the projects envisioned and controversy over some of the decisions reached.

While the complexity of joint action is a characteristic that inevitably slows government action, in any societal context, it is a particularly prevalent element of government action in the United States. As Wilson notes, "America has a paradoxical bureaucracy unlike that found in almost any other advanced nation. The paradox is the existence in one set of institutions of two qualities ordinarily quite separate: the multiplication of rules and the opportunity for access. We have a system laden with rules, . . . We also have a system suffused with participation."[79] At each step of the way we stop, consider, debate, reflect,

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77 Pressman and Wildavsky, 87-124.

78 According to Pressman and Wildavsky, "[o]ur normal expectation should be that new programs will fail to get off the ground and that, at best, they will take considerable time to get started. The cards in this world are stacked against things happening, as so much effort is required to make them move. The remarkable thing is that new programs work at all." 109.

79 James Q. Wilson, Bureaucracy (New York: Basic Books, 1989): 377.

reformulate, and proceed. The implementation process moves along in fits and starts because we have designed it that way.

At another level, implementation problems were the result of changing federal law. As Mazmanian and Sabatier argue, "much of bureaucratic behavior may be explained by the legal structure (or lack of such structure) imposed by relevant statutes."[80] A necessary corollary of this is that as that structure changes, so too do the dynamics of the implementation process. As the implementation of a particular program proceeds under one set of statutory guidelines the various actors make assumptions about what actions are within the confines of the law and, thus acceptable, and act appropriately. When the rules change, so too do the assumptions and the actions of those involved. Changing legal imperatives can throw into doubt the usefulness of past planning efforts, as well as requiring additional plans and the clearance of new administrative hurdles, each of which is a decision point that only adds to complexity of joint action. In Boston, changing law significantly impacted the movement towards improved sewage management. The 1977 amendments to FWPCA presented the MDC with the opportunity to apply for a waiver from the secondary treatment requirement and the MDC took it. This change in direction added a significant element of uncertainty to the implementation process, for while EPA's decision on whether or not to grant a waiver to the MDC dragged on for years, the ultimate goal of a major part of the MDC's planning efforts, i.e. the choice of primary or secondary treatment, remained unclear. Lacking a clear goal, the MDC planned for both the possibility of getting a waiver and being denied and, as long as the waiver decision was pending, planning continued to be a substitute for action.

At still another level, movement towards improved sewage management in the Boston area was affected by EPA's enforcement posture. In 1976, the agency issued the MDC a NPDES permit that required the latter to comply with various CWA requirements by certain dates. For example, the permit required the MDC to complete a whole series of projects by July 1, 1977, including

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80 Mazmanian and Sabatier, 43.

upgrading the Nut and Deer Island plants to secondary, and constructing sludge and CSO management facilities. In light of such requirements, one might assume that, as those deadlines passed, EPA would have used its enforcement powers to pressure the MDC to comply with the terms of the permit. The delays resulting from the complexity of joint action and EPA's review of the waiver application, however, constrained the agency's ability to enforce compliance with many of the permit's deadlines in the years following its issuance. Instead, EPA chose to extend deadlines and work with the MDC in moving the various projects forward. It wasn't until 1980 that the agency decided to compel compliance with some of these extended deadlines by issuing an administrative order (AO). While the order was partially effective in moving projects forward, by 1982, they were still in the planning stage.

There was one particularly important permit condition that was not affected by the delays resulting from the complexity of joint action or the waiver review. MDC's permit required it to properly operate and maintain its sewage facilities. Although EPA was well aware that this condition was being grossly violated, even before the permit was issued, the agency chose to pursue a non-aggressive enforcement strategy, encouraging the MDC to voluntarily take action to address its operation and maintenance problems. This approach failed and in 1981 EPA issued an AO designed to compel compliance. This order, followed by another in 1982, however, barely touched upon the numerous infrastructure problems that needed to be addressed.

Although EPA can be faulted for not taking stronger enforcement actions against the MDC to get them to improve operations and maintenance at the sewage plants, the real reason why the sewage infrastructure continued to fall apart between 1972 and 1982 is political. Throughout the 1970s and into the early 1980s, neither the legislative and executive branches in Massachusetts, nor the public championed the cause of sewage infrastructure, despite the fact that the problems with the system were widely known. And since the MDC's operations and maintenance budget was set by the Governor and the legislature who, in turn, reacted to public cues, the budget remained woefully underfunded. Furthermore, the MDC's position as a politically weak institution limited its

ability to fight its own battles and, therefore, compounded its financial problems. The following sections illustrate how these different, yet interconnected, factors combined in a way that enabled things to go from bad to worse.

Complexities of Joint Action

The main examples of the delays resulting from the complexity of joint action during this ten year period concern the EMMA study, CSOs, and sludge management. These examples indicate how numerous decision points and rules and the involvement of multiple actors delays the time when a project moves beyond planning to construction.

The EMMA Study

The 1972 amendments required the MDC to upgrade its Deer and Nut Island treatment plants to secondary by July, 1, 1977. Before that could be done, however, the MDC had to prepare plans for the upgrade. That preparation was underway even before the passage of the amendments. An outgrowth of the one of the agreements reached after the enforcement conferences was the initiation of a long-range study called the Boston Harbor-Eastern Massachusetts Metropolitan Area Wastewater Management and Engineering Study, or EMMA for short.[81] EMMA was intended to provide guidance for needed sewage improvements over the next 50 years. This was an enormous task given that the MDC sewerage system was immense, handling hundreds of millions of gallons of waste daily, coming from 43 cities and towns, and was comprised not only of the two treatment plants, but also thousands of miles of sewers.

The study began in late 1972, and was conducted by MDC and the U.S. Army Corps of Engineers. EMMA was completed in October 1975. From its 25 volumes came 52 recommended projects which, if completed, were expected to cost $855 million (1975 prices). These projects included: the rehabilitation,

81 Kolb, 26 - 33.

repair, and expansion of the existing sewage treatment facilities on Deer and Nut Islands and, in accord with the 1972 Act, the upgrade of those facilities to secondary; the construction of advanced (beyond secondary) satellite sewage treatment facilities in the southern Metropolitan Sewerage District; and the building of facilities designed to manage sludge through incineration and to control pollution coming from CSOs.[82]

The process used to produce EMMA was extremely open. From the moment the study began the public was asked for input and kept abreast of developments through numerous public meetings, many of which were quite well attended. In addition, a Citizens Advisory Committee was established and its members included representatives from a variety of public interest groups.[83] Through this form of involvement, the public became quite aware of the MDC's planning efforts. With this public awareness came controversy. Communities located in the Southern Metropolitan District objected to the placement of satellite plants in their area. Concerns focused on the ultimate location as well as the expected water quality and public health impacts.[84] The citizens of Quincy were equally angry. EMMA recommended that part of Quincy bay be filled to make room for an expanded treatment facility.[85] Opposition to this idea was strong enough to result in the legislature passing a bill that forbade filling the bay for that purpose.[86]

EMMA was not the end of the planning process, it was only the beginning. Since EMMA was designed as a preliminary engineering report, the projects it outlined still needed to go through formal facilities planning before moving onto facility design and ultimate construction. The EPA determined that

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82 Metropolitan District Commission, Wastewater Engineering and Management Plan for Boston Harbor -- Eastern Massachusetts Metroplitan Area EMMA Study, Main Report for the Metropolitan District Commission (March 1976), xvi -- xviii.

83 Kolb, 31.

84 Ibid.

85 "400 Oppose MDC Bay Fill Plan," The Patriot Ledger, 3 October 1975); Jerry Ackerman, "Quincy opposes sewage phase of Boston Harbor cleanup plan," The Boston Globe, 18 February 1976.

86 Kolb, 31.

it was necessary to prepare and Environmental Impact Statement (EIS) before the MDC could proceed with facilities planning for the EMMA projects relating to the overall upgrading of the metropolitan sewage system.[87] EPA's EIS, which began in September 1976, focused on the rehabilitation and expansion of Nut and Deer Islands, the upgrade to secondary, the two advanced, satellite sewage facilities, and the construction of facilities to manage sludge associated with secondary treatment and advanced treatment.[88] Like EMMA, the Draft EIS, which came out on August 4, 1978, generated controversy. While scrapping the satellite plant concept, to the relief of the communities in the Southern system who had been exerting political pressure to that end, EPA called for the consolidation of all sewage treatment facilities on Deer Island. This last change caused an uproar in Winthrop whose residents argued that they believed their town already had enough negative impacts, from both the current sewage treatment plant and the prison located on Deer Island, and the noise from planes flying overhead, in and out of Logan Airport.[89]

Looking back on this process, it took three years to complete EMMA and then another two years for EPA to finish the draft EIS on the major EMMA projects relating to the upgrade of the sewage system. This delay was due to the normal workings of a large-scale, environmental planning and review process that had to clear a variety of decision points, was open, provided for significant public involvement, and generated controversy. For example, the MDC held roughly 70 meetings during the drafting of EMMA to solicit public opinion.[90] And EPA's EIS review, which involved public review opportunities, although

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87 Rebecca Hanmer, "EPA Statement on NSF Boston Harbor Study," included in Urban Systems Research and Engineering, Institutional Aspect of Wastewater Management: The Boston Case Study (January 1, 1979): 268.

88 Kolb, Wastewater Management Planning for Boston Harbor, A Status Report, 33. United States Environmental Protection Agency, Region 1, Draft Environmental Impact Statement on the Upgrading of the Boston Metropolitan Area Sewerage System, Executive Summary (August 4, 1978): 3.

89 David Doneski, Cleaning up Boston Harbor: Fact or Fiction?" Boston College Environmental Affairs Law Reveiw, 12, no. 3 (1985): 598. Jack Kendall, "EPA hears disposal dispute," Boston Herald, 21 November 1978).

90 Metropolitan District Commission, Wastwater Engineering and Management Plan for Boston Harbor - Eastern Massachusetts Metropolitan Area, Technical Data Vol. 14 (October 1975): 17-22.

long, was not out-of-line with the review time for other EIS's on projects of this magnitude. Indeed, concerns about the excessive amounts of time taken to complete EIS in the early to mid-1970s, led to a revision of the EIS regulations in 1978, to streamline the process -- too late for the EMMA review process.[91] Today, the average EIS takes a year to complete.

The completion of the draft EIS, of course, was not the end of the planning process for the projects relating to the overall upgrade of the sewage system. There was still more planning to be done before the actual facilities could be built. That planning, however, would not be completed prior to the initiation of the Quincy law suit in 1982. As discussed in the next section, the pendancy of MDC's waiver application up through 1982, confused planning efforts for the upgrade of the sewage system and further delayed the construction of new facilities.

CSOs

EPA did not require an EIS to be completed on EMMA's CSO projects prior to the initiation of facilities planning. Therefore, the MDC applied for federal sewage construction grant money for such planning not too long after the EMMA project was completed. MDC received over three million dollars in federal funding and began CSO facilities planning in June 1978.[92] With roughly 100 CSOs throughout the Boston area, determining what type of facilities were needed to comply with the CSO effluent limitations spelled out in MDC's permit was a major task that was not finished until mid-1980.[93] The MDC's recommended plan was then submitted to EPA and the EOEA for review, whereupon the latter determined that the MDC should prepare an EIR on the

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91 Advisory Commission on Intergovernmental Relations, Intergovernmental Decisionmaking for Environmental Protection and Public Works (Washington, D.C.: U.S. Advisory Commission on Intergovernmental Relations, November 1992): 82.

92 Kolb, 86.

93 Metropolitan District Commission, Combined Sewer Overflow Project Summary Report (April 1982): 11.

plan. That EIR was completed in 1982.[94] Thus, on the eve of the Quincy suit, the MDC was still involved in planning for the construction of CSO management facilities.

Sludge

At the same time EMMA was moving forward, the MDC was trying to figure out how best to manage sludge. Another outgrowth of the enforcement conferences was an agreement to study sludge disposal alternatives and, ultimately, cease the discharge of sludge by May 1, 1976. The firm hired to do the requisite study reported its findings on August 30, 1973. The Plan for Sludge Management recommended the incineration of dewatered sludge by a single facility located on Deer Island, to be accomplished in two phases, with Phase I providing interim disposal for primary sludge production, and Phase II expanding operations to accommodate the additional sludge created by secondary treatment.[95]

Because the MDC intended to apply for federal construction grant funds, it was required to perform an Environmental Assessment Statement (EAS) of the plan, which would be used by EPA to determine if an EIS was needed. The EAS was completed in October 1974.[96] It recommended the "dewatering and incineration of sludge, with resource recovery in the form of electric power generation from waste heat, use of ash to create new land at Deer Island, and provisions for producing soild conditioner from the processed sludge in lieu of incinerators, if desired."[97] These two documents comprised the MDC's facility plan for sludge management.

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94 Ibid.

95 Havens and Emerson, A Plan for Sludge Management (August 30, 1973); and Kolb, 44-45.

96 Havens and Emerson, Environmental Assessment Statement For A Plan for Sludge Management (October 1974).

97 Ibid, iii.

Predictably, when the facility plan was presented at a public hearing, in April 1975, the plans for incineration on Deer Island were quite controversial. "Because of the public controversy surrounding construction of incinerators on Deer Island and EPA's own concerns about the environmental impact of the incinerators," EPA decided that an EIS on the MDC's plans for primary sludge management was required (MDC's plans for secondary sludge management was to be assessed separately, as part of the EMMA EIS).[98] The draft EIS, which had some significant differences from the MDC plan, was completed in February 1976, whereupon it went out for public review. In March the Draft EIS was submitted to the Executive Office of Environmental Affairs for review under the state's counterpart to NEPA, the Massachusetts Environmental Policy Act (MEPA), which requires environmental assessments of significant projects undertaken and/or funded and permitted by the State. In May 1976, the Secretary of EOEA determined that the Draft EIS did not comply with MEPA and requested that additional studies be undertaken before the State sign off on any plan for sludge management.[99]

Nearly three years later, in March 1979, EPA issued its final EIS on primary sludge management, which recommended dewatering and incineration on Deer Island. A major reason for the delay was that during that three year period congress passed amendments to the Clean Air Act, FWPCA, the Marine Protection, Research, and Sanctuaries Act, as well as enacting an entirely new statute, the Resource Conservation and Recovery Act, all of which had something to say about the proper management of sludge and, therefore, had to be incorporated into EPA's EIS review process. The final EIS underwent a 30 day public comment period, during which time two hearings were held in Winthrop and Quincy. At both hearings there was considerable and loud public opposition to the plan. Also, at the hearings, the Boston Harbor Interagency Coordinating Committee, which included various environmental agencies, including EOEA and MDC, presented a statement that expressed reservations about the EIS and recommended further study of certain issues. Separately, the executive director

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98 Kolb, 46.

99 Kolb 47.

of EOEA, issued a statement that the final EIS did not comply with MEPA, and that additional studies would be undertaken by EOEA during its MEPA review.[100]

Just like the situation with EMMA's major sewage system upgrade and CSO projects, primarily sludge management facility planning went on and on. After seven years, and four studies, more studies and planning were yet to come, which also would not be completed prior to the Quincy law suit. The process had been delayed by the magnitude of the task, the need for multiple reviews, controversy over certain options, and changing laws.

The Waiver from Secondary Treatment and Boston's Response

On September 18, 1978, a little over a month after EPA issued its Draft EIS of the EMMA study, the MDC submitted a preliminary application to receive a waiver from the secondary treatment requirement. In applying for a waiver, the MDC threw into question much of analysis that went into EMMA and the associated Draft EIS, and significantly altered the nature of sewage planning for the Boston area, delaying further the construction of any new facilities to reduce the flow of pollution into the harbor, up through 1982 and beyond. Before analyzing why this was the case, it is important to briefly place the waiver in its proper national and local context.

Those who favored the ocean waiver provision included in the pre-1972 sewage treatment regulations, fought, unsuccessfully, to have it included in the 1972 amendments as well. No sooner had the amendments passed, than the waiver supporters began amassing their strength and arguments for an assault on Capitol Hill. The basic argument in favor of the waiver was the same as it had been prior to 1972. Secondary makes sense for slow moving, shallow inland waters, but not for ocean waters where strong currents and tides allow wastes to

100 Ibid, 47- 50.

be rapidly diluted, assimilated and dispersed. To build secondary in such areas, at great expense, would be doing "treatment for treatment's sake."

A waiver provision was included in the 1977 amendments to FWPCA.[101] According to section 301(h), the administrator, with the concurrence of the state, may issue a permit modifying the secondary sewage treatment requirements for ocean dischargers if the applicant demonstrates to the administrator that eight different conditions will be met. For example, an applicant must prove that the modified permit "will not interfere with the attainment or maintenance of that water quality which assures the protection of public water supplies and the protection and propagation of a balanced, indigenous population of shellfish, fish and wildlife . . . " Nor will a waiver be granted if the modified discharge violates water quality standards specific to the pollutant for which the modification is requested.

Shortly after the 1977 amendments passed, EPA established a 301(h) Task Force within the Office of Water and Hazardous Materials, whose job was to devise the regulations to implement the waiver provision. The highly contentious rulemaking process took roughly 1.5 years to complete and the final regulations were issued on June 15, 1979.[102] The MDC's September 18, 1978, preliminary application served as a placeholder. EPA had hoped to have the final regulations prepared by September 24, 1978, the statutory deadline for application submissions, but a variety of factors caused them to miss that date. The delay in promulgation created a problem in that, if the statute were strictly adhered to, applications would be due before the final regulations were promulgated. EPA solved this by announcing the applicants would be required to submit only preliminary applications by the statutory deadline. Once the final

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101 U.S. Congress, Senate Committee On Environment and Public Works, Legislative History of the Clean Water Act of 1977, 95th Congress, 2nd Sess. (October 1978): 1076-1077.

102 Heidi Burgess, Dianne Hoffman, and Mary Lucci, "Negotiation in the Rulemaking Process (The 301(h) Case)," in Lawrence Susskind, Lawrence Bacow, and Michael Wheeler, eds., Resolving Environmental Regulatory Disputes (Cambridge, Mass.: Schenkman Books, Inc., 1983): 222-256. Environmental Protection Agency, "Modification of Secondary Treatment Requirements for Discharge into Marine Waters," Federal Register (June 15, 1979): 34788.

regulations were issued, the MDC could submit it final application, which it did on September 13, 1979.[103]

The reasoning behind the MDC's waiver bid was straightforward. Ever since the late 1960s, the MDC had argued that secondary treatment was not a priority for the harbor. As John Snedeker, Commissioner of the MDC from 1975 through 1978, noted around this time, "there is no evidence that secondary treatment will benefit the marine environment of Boston Harbor. The construction of combined sewer facilities and the expansion of primary treatment with extended outfalls will, in our judgment, provide ample water quality in the harbor for at least the next two or three decades."[104] But, just as with other municipalities, water quality considerations were not the only ones that prompted Boston-area officials to argue against an across-the-board requirement for secondary. Upgrading to secondary cost a great deal of money.[105] Even if the MDC received federal funding of 75 percent of the project costs, the other 25 percent had to come from the state. According to the MDC it didn't make sense to spend all that money if the benefits weren't there.[106]

MDC's application requested a waiver of effluent requirements for BOD and suspended solids, and called for a cessation of sludge discharges, upgrading the primary treatment facilities at both Deer and Nut Islands and constructing one, combined ocean outfall to discharge the effluent from the two plants in 100 feet of water, roughly 7.5 miles out into Massachusetts Bay. The decision of

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103 Commonwealth of Massachusetts, Metropolitan District Commission, Application to the U.S. Environmental Protection Agency for Modification of Secondary Treatment Requirements for Discharges Into Marine Waters of Boston Harbor and Massachusetts Bay for its Deer Island and Nut Island Wastewater Treatement Plants (September 13, 1979).

104 Ackerman, "Quincy opposes sewage phase of Boston Harbor cleanup plan."

105 "Granting a waiver can save $144 million in construction costs and about $14 million in annual operation and maintenance costs." Metropolitan District Commission, Application to the U.S. Environmental Protection Agency for Modification of Secondary Treatment Requirements for Discharges Into Marine Waters of Boston Harbor and Massachusetts Bay for its Deer Island and Nut Island Wastewater Treatement Plants , 33, 35 (double-check).

106 John Snedecker, Commissioner of MDC from July 1975 through December 1978, telephone interview by author, 7 April 1989.

whether to grant the MDC a waiver was in the hands of the 301(h) Waiver Task Force at EPA Headquarters in Washington, D.C.. Of the 225 preliminary applicants nationwide, 70 submitted final applications by the September, 1979 deadline.

The Task Force had hoped to review the applications in relatively short order. Indeed, in a letter from EPA's Region 1 administrator to the MDC Commissioner, in June 1980, the former expressed the confidence that Boston would learn the fate of its application soon. "I requested that your application be given review as a first priority by our headquarters ocean waiver office. They honored my request and they expect to be able to make a decision by the end of this year."[107] The decision was not made by the end of the year, nor were the decisions on any of the applications made by that time. The Task Force found the review process more difficult than expected. Many of the applications were quite extensive, e.g., MDC ran to five volumes.[108] None of the applications were summarily dismissed or approved. All had pros and cons, and the Task Force had to make very difficult scientific and technical determinations in coming to its decisions. As an attorney on the Task Force noted, "we had a combination of people agonizing over whether they had enough information to really know [if a waiver should be granted], and you also had people who felt there was enough data, agonizing over what it meant."[109] The Task Force was also intent on making well-founded decisions. With so much money on the line, the applicants and the politicians who represented them were sure to attack any decision to deny. The Task Force wanted to make decisions that could withstand scrutiny and any administrative and/or judicial appeals.[110] For these and a variety of common bureaucratic reasons, e.g., scheduling meetings among 20 or more people, some of whom had to be flown in from the regions, the Task Force made

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107 Letter from William R. Adams, Jr., Regional Administrator, Region 1, to Terrence Geohagan, Commissioner, MDC (June 24, 1980).

108 U.S. Congress, House Committee on Investigations and Oversight, Implementation of the Clean Water Act (Concerning Waiver Provisions for Municipal Ocean Discharges), 413.

109 John Lishman, former member of the 301(h) Task Force, telephone interview with the author, 14 January 1993.

110 Ron DeCeasare, former 301(h) Task Force Manager, telephone interview with author, 14 January 1993.

slow progress. It wasn't until September 8, 1981, that EPA announced its first eight waiver decisions, and Boston's was not among them.[111] The decision to deny Boston's waiver application was not made until June 30, 1983.[112] The details of that decision and the MDC's response to it are taken up in Chapter 4. For the present purposes, what is important is that up through the filing of the Quincy suit, the waiver decision was still pending.

The pendancy of the waiver during this period greatly impacted the MDC's movement towards improved sewage management. First, large-scale construction, either of the sewage upgrade envisioned in the waiver application or secondary treatment facilities, was put on hold.[113] In order to build, one needs to know what one is supposed to build. Second, while the MDC waited on the results of the application, planning became more difficult. Not only were many of the elements of past planning efforts, specifically EMMA and the Draft EIS, now questionable, but the MDC, in preparing for the future, was also forced to pursue double-track planning. This can be seen in the preparation of the Nut Island Wastewater Treatment Plant Facilities Planning Project Phase 1 Site Options Study, which was intended to determine the most environmentally sound and cost-effective location for the MDC's sewage treatment plants.[114] In that study, which was completed in 1982, the MDC evaluated both primary and secondary treatment options, to be located on one or more of three harbor islands, Deer, Nut, and Long. This was done for two reasons, one practical and one legal. First, by considering primary and secondary configurations, whatever the outcome of the waiver, the MDC would have already thought through the issue of where treatment facilities should be located. This, in turn, would enable

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111 House Subcommittee on Investigations and Oversight, Implementation of the Clean Water Act (Concerning Waiver Provisions for Municipal Ocean Dischargers), 412.

112 Environmental Protection Agency, Boston Metropolitan District Commission Deer Island and Nut Island Publicly Owned Treatment Works, Application for Secton 301(h) Variance from the Secondary Treatment Requirements of the Clean Water Act, Tentative Decision of the Administrator (June 30, 1983).

113 According the Jekabs Vittands, a consultant with Metcalf & Eddy, Project Manager for the MDC's waiver application, "not making that decision for all those years caused nothing to happen." Telephone interview with Vittands by author, 12 April 1989.

114 MDC, Nut Island Wastewater Treatment Plant Facilities Planning Project Phase 1 Site Options Study, (June 29, 1982).

the MDC to begin facility planning earlier than would have been the case had they waited until the waiver process was completed.[115] Secondly, the waiver regulations required all applicants to continue planning for secondary while the waiver was pending, for the same reason -- to ensure that the applicant could quickly move forward with planning and construction, regardless of the outcome. Such double-track planning cost the MDC in both time and money.[116] Finally, in addition to making planning for sewage treatment facilities more cumbersome, the pendancy of the waiver frustrated efforts to plan for sludge management because of the disparity, in both tonnage and character, between the sludge produced by secondary as opposed to primary treatment. Secondary treatment creates roughly twice as much sludge as primary, and secondary sludge contains higher concentrations of certain toxic materials.[117] Not knowing what type of sludge had to be managed added a great element of uncertainty to decisionmaking, and made the MDC reluctant to commit to a specific plan of action.[118]

EPA Enforcement

During the 1970s and early 1980s, the planning, reviews, and decisions for sewage management in the Boston area were motivated and structured by the requirements embodied in the FWPCA. Those requirements, in turn, became part of the NPDES permit issued to the MDC on August 12, 1976.[119] Along with the permit, EPA issued an Enforcement Compliance Schedule Letter (ECSL), which stated that:

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115 Barrata interview, 14 April 1989.

116 Barrata interview, 7 October 1993.

117 Donald R.F. Harlemann, "Cutting the Waste in Wastewater Cleanups," Technology Review (April 1990): 64. Affadavit of Noel D. Barrata, P.E., U.S. v. Metropolitan District Commission, United States District Court, District of Massachusetts, 83-1614-MA, 85-0489-MA (July 12, 1985): 9.

118 Barrata interview, 7 October 1993.

119 U.S. Environmental Protection Agency, Region 1 and the Commonwealth of Massachusetts, Division of Water Pollution Control, Discharge Permit, Metropolitan District Commission -- MA0102351, M180 (August 12, 1976).

> EPA and MDC concluded that it [the permitee -- MDC] cannot, despite all reasonable best efforts, achieve the limitations from the discharge between the final effective date of the Permit [August 12, 1976] and July 1, 1977.
>
> The compliance schedule contained in the Permit notwithstanding, this Agency, in the exercise of its prosecutorial discretion, will not take [enforcement] action against the Permittee . . . with respect to the Permittee's failure to achieve the limitations on and after July 1, 1977, until the date specified herein for the achievement of the limitations provided that the Permitee complies with the following conditions.[120]

Those conditions extended the time that MDC had to comply with the various deadlines established in the permit. For example, the ECSL required the MDC to complete construction of secondary treatment at Deer Island by May 1, 1984, and at Nut Island a year later, and also to construct facilities for the disposal of primary sludge by May 1, 1980, and for secondary sludge by May 1, 1985. The ECSL also included a variety of interim deadlines, concerning facility planning and design that would have to be completed prior to the actual construction of facilities.

That MDC would be unable to meet the construction deadlines in its permit was not surprising. When the permit was issued, the EIS process for EMMA had not begun and, thus, the potential construction of the facilities envisioned by EMMA, was still relatively far off in the future. Similarly, sludge management planning was still at the early stages of development, with draft EIS having only recently come out. In issuing the ECSL, EPA was only acknowledging the reality of the situation -- the MDC had been acting in good faith to implement the requirements of the law and the agreements it had formerly reached with EPA concerning sewage treatment facilities. The EPA was one of the motivating forces behind the EMMA project and had closely monitored its progress every step of the way. When EMMA was completed, the

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120 United States Environmental Protection Agency, Enforcement Compliance Schedule Letter (August 12, 1976).

general feeling at both EPA and the MDC was that the tide was turning in the fight for improved sewage treatment in the Boston area.[121] The delays in implementation were not due to recalcitrance on MDC's part. More than anything else, the delays were the result of the scope of the projects envisioned and the obstacles created by the complexity of joint action.

From a national perspective, the fact that MDC would not have secondary on line by 1977, was not at all unusual. By that date, only about thirty percent of the POTWs in the United States had upgraded to secondary.[122] The secondary portion of the act suffered from the twin problems of underestimation of the magnitude of the problem and over-expectation of what could be achieved within a relatively short timeframe.[123] The $18 billion dollar sewage construction grant program turned out to be way too small. The 1974, EPA construction grants national needs survey came in at $342 billion, while the 1976 survey, based on a different accounting mechanism, dropped to $96 billion, still much higher than envisioned in 1972.[124] President Nixon's impoundment of $9 billion of the $18 billion right after the passage of the act, and up through 1975 when the Supreme Court overturned the impoundment, limited funds even further.[125] Even if unlimited funds had been available from the start, compliance with the 1977 deadline would still have been poor. It simply took longer than five years for regulations to be promulgated, sewage construction plans to be developed and approved, money to be dispersed, contractors to be hired, and construction to be completed. In the 1977 amendments to the Act, Congress took stock of these problems and extended the deadline for achieving secondary to July 1, 1983, for those POTWs that either couldn't complete construction by July 1, 1977,

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121 Barrata interview, 7 October 1993. Lance Carden, "$800 million cleanup of Boston Harbor, rivers due," The Christian Science Monitor, 15 January 1976.

122 Kurt M. Hunicker, "The Clean Water Act of 1977 -- Modification of the Municipal Program," Harvard Environmental Law Review, 2 (1977): 129; and Kovalic,19.

123 House Subcommittee on Investigations and Review, (. . . Addressing Messy Practical Issues" Interim Staff Report, 3.

124 Kovalic, 14.

125 Hunicker, 131.

or for which the federal government had failed to make funds available in time to meet the original deadline.[126]

The year following the issuance of the permit and the ECSL, sewage planning for the Boston area progressed. By the summer of 1977, however, EPA enforcement staff became concerned about the slippage of some of the ECSL's deadlines and were eager to enter into a consent decree with the MDC governing various sewage projects, thereby creating a court-enforced schedule for the completion of those projects.[127] When the proposed consent decree was transmitted by the EPA to the MDC, on August 18, 1977, and backed up by threats of litigation, it provoked a sharp response. The MDC, supported by the Secretary of the EOEA and the State's Attorney General not only refused to sign a consent decree, they filed a suit against EPA, essentially alleging that it was EPA's fault, not the MDCs, that certain projects were not being completed on time.[128] The MDC also prepared a script for a press conference which would pin the blame for the delay in the harbor cleanup on the EPA.[129] Wanting to avoid open confrontation with the state, EPA agreed to reconsider its suit and the MDC, in turn, withdrew its suit and canceled the press conference. In reconsidering legal action, EPA determined that litigation wasn't appropriate, especially since the main reason why many of the deadlines had been missed, or were in danger of being missed, was due to delays in EPA's EIS work on EMMA and primary sludge management, not recalcitrance on the part of MDC. Thus, EPA decided to forego any legal action and, instead, work cooperatively with the MDC in trying to complete environmental reviews quickly and move forward with the various projects.[130]

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126 Legislative History of the Clean Water Act Amendments of 1977, 22.

127 Action Memorandum: Boston Harbor (MDC); Proposed Moratorium on an Enforcement Suit, from William R. Adams, Jr. Regional Administrator, Region 1 to Marvin B. Durning, Assistant Administrator for Enforcement (November 11, 1977).

128 Ibid, 4-5.

129 According to Snedeker, because many of the missed deadlines were due to EPA's delay in performing its environmental reviews (the EISs), the agency's threat o slap the MDC with a consent decree was the "most arrogant thing I've ever seen in public life." When they delivered the consent decree "I blew my top." Telephone interview by author, 20 October 1993.

130 Snedeker interview.

In the following year it appeared as if the cooperative relationship between EPA and the MDC was working. On September 27, 1978, Rebecca Hanmer, Deputy Regional Administrator, Region 1, concluded that:

> it can be stated that the cleanup of Boston Harbor's water pollution is gathering momentum. Comprehensive facilities planning is underway to find cost-effective solutions for combined sewer overflows, and similar planning is about to start for the collection, treatment, and disposal of sewered wastes. When this planning is complete, design and construction of the necessary facilities will begin immediately.[131]

At the same time these comments were made, the MDC was entering into the waiver process. According to Richard Kotelly, Deputy Director of Water Management at EPA, Region 1, while the waiver decision languished, planning efforts were "knocked into a cocked hat."[132] Despite this uncertainty, EPA continued to have conversations with MDC concerning the progress of the ongoing implementation and administrative review process and the possible next steps that could be taken even though the waiver issue had yet to be decided. As a result of those conversations, additional planning efforts, e.g., the Nut Island options study, were begun.

It wasn't until late 1980 that the EPA decided that the cooperative approach alone was not working. On August 8th of that year, EPA issued an AO that required, among other things, that the MDC complete facilities planning for CSO projects and primary sludge management by new deadlines that replaced the old deadlines. The AO was partially effective, and over the next couple of

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131 William R. Adams, Administrator in Region 1, echoed these sentiments:
"It is my opinion that planning for effective wastewater management in the Boston Metropolitan area is now underway. Where necessary, the conclusions and recommendations of past plans are being amended and improved. This is a natural consequence of the facilities planning and environmental impact statement preparation process that have been, and will be conducted. I am confident that cost-effective solutions will be expeditiously implemented for the water pollution problems that now affect Boston Harbor and its tributaries." Urban Systems Research & Engineering, Institutional Aspects of Wastewater Management, 219.

132 Rolbein, 203.

years, the MDC had produced some of the required plans, e.g., CSO facilities plan. Yet, however effective the AO was, one fact remained -- on the eve of the Quincy suit planning was still the order of the day.

The AO notwithstanding, throughout the late 1970s, and up through the initiation of the Quincy suit, the EPA was reluctant to pursue enforcement actions against the MDC for missing deadlines relating to the planning and ultimate construction of new sewage-related facilities, in large part, because many of the violations were due to delays resulting from the complexity of joint action and EPA's review of the waiver application -- causes that were largely outside of MDC's control. There was one permit condition, however, that was unaffected by all of these delays. The MDC was required to properly operate and maintain its sewage treatment facilities.[133] This was a basic requirement and would have to be complied with regardless of what future improvements or changes in the MDC's sewage system might be mandated by federal law. When the EPA issued its permit to the MDC, the agency already knew that this permit condition was being violated.

The operation and maintenance problems in evidence at the Nut and Deer Island plants prior to the passage of the 1972 FWPCA amendments became worse in the following years. For example, the Nordberg engines at Deer Island, which began breaking down as soon as the plant opened in 1968, became even less reliable. The company that had bought out Nordberg Manufacturing in 1968, discontinued supplying engine replacement parts in 1973.[134] After that point new parts were either specially fabricated at the plant, a process that was both difficult and time-consuming, or inoperative engines were cannibalized to keep others running.[135] Equipment breakdowns were common at Nut Island as well. To make matters worse, both plants were still significantly understaffed. Graphic evidence of these problems came in January 1976, when all of the generators at Nut Island broke down, resulting in the discharge of hundreds of

133 Metropolitan District Commission, Discharge Permit (August 12, 1976, MA0102351, M180): 25.

134 Barrata Interview, 7 October 1993.

135 Doneski, 576.

millions of gallons of raw sewage into the harbor. The EPA task force convened in the wake of the spill to look into the plants problems, painted a disturbing picture. Nut Island was understaffed by 21 percent, the equipment in the plant had passed its life expectancy and was in need or repair or complete restoration, and there was no preventive maintenance program and no spare parts for the three major engines.[136] Later that year, an EPA audit of the MDC concluded that a "[l]ack of funds . . . was the most significant factor contributing to the breakdown of Nut Island as well as other operational problems [at the MDC's sewerage division]."[137]

The operation and maintenance problems continued in the years following the issuance of the permit. With respect to staffing, for example, a 1978 EPA inspection report on the Nut Island plant noted that there were 16 staff vacancies, 8 of which were on the maintenance crew. A 1981 EPA reported that 50 million gallons of chlorinated, raw sewage were discharged at the plant "because no 'qualified' diesel operators were available that day." The same year, the state Department of Environmental Quality Engineering reported that the Nut Island plant did not have "adequate, qualified, certified" staff. These last two reports highlight the fact that the MDC's staffing deficiencies not only concerned the quantity of staff, but also the quality. The civil service-based salaries offered by the MDC were much less than the salaries offered for comparable work in the private sector, therefore, the MDC often lost out in the competition for highly trained personnel. Similar staff deficiencies were to be found at Deer Island. In 1981, for example, only 190 of the necessary 236 positions at the plant were filled, and many of them were not well qualified. According to Noel Barrata, the former Chief Engineer of the MDC's sewerage division, too few staff made for a situation in which "you have a preventive maintenance program that is never adhered to because you don't have enough men. Therefore, repairs take place on a crisis basis."[138] As for the condition of the facilities themselves, they continued to wear out and breakdown. Indeed, the equipment problems at Nut Island were so bad that Commissioner Snedeker stated in November 1977, that "only a

136 Dumanoski, "Raw or treated, the sewage flows into Boston Harbor."

137 Dumanoski, "The cycle: breakdowns, no money," 17.

138 Rezendes, "The Treatment."

complete reconstruction of the Nut Island Facility will allow the plant to achieve adequate capacity, reliable performance, and improved water quality."[139] The combination of inadequate staff and old and faulty equipment led to numerous breakdowns that, in turn, meant more raw sewage was discharged into the harbor. The problems with Deer Island's pumps provide an excellent illustration of this. When those pumps failed, the MDC had to close the gates at the headworks which regulates the flow of sewage into the plant. The backed up sewage then overflowed into the harbor via CSOs and the holding facility located on Moon Island. As a result of pump failures at Deer Island, the number of raw sewage discharges via the Moon Island, between 1980 and 1981, rose from 12 to 144.[140]

After issuing the permit, EPA's response to the operation and maintenance problems at the plants was to encourage MDC to voluntarily improve conditions. On August 12, 1981, the agency lost its patience with MDC's lack of progress in remedying these violations and issued an AO, ordering the commission to take actions to ensure that at least five of the eight pumping units at Deer Island are in good working order.[141] Roughly a year later, on June 30, 1982, EPA issued another AO, ordering MDC to maintain the power generation equipment at Nut Island in good working order and to improve its maintenance programs.[142] These orders resulted in some improvements, but in light of the magnitude of the operation and maintenance problems at the plants, they were merely "band-aid measures."[143]

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139 "U.S. funds free to start Hub harbor cleanup," Boston Herald, 26 November 1977.

140 Dumanoski, "Raw or treated, the sewage flows into Boston Harbor."

141 Environmental Protection Agency, Region 1, "Findings of Violation and Order for Compliance," re: NPDES Permit No. MA0102351 (August 12, 1981).

142 Haar and Horowitz, 25.

143 Pitt interview.

Infrastructure Politics

The operation and maintenance problems that plagued the MDC were representative of a larger problem -- infrastructure neglect. There are numerous examples of governments building expensive public works projects and then allowing them to fall into disrepair.[144] In the present case the root cause of the neglect of the MDC's sewage infrastructure was political. To see why, it is necessary to understand how the MDC was funded. Annually, the MDC used a statutorily established method to allocate the sewerage costs to the cities and towns within the district. The cities and towns, after having the opportunity to review and comment on their assessment, would pay the proper amount to the general fund of the Commonwealth, not to MDC. The legislature would then fund MDC's sewage budget out of the general fund. Thus, MDC funding was totally dependent upon the state budgeting process, which culminated in a legislative appropriation, and therein lies the problem.

Each year the MDC developed an in-house budget. During that process the sewerage division competed with the other divisions in the Commission, e.g., the police, parks and recreation, for limited resources. Because sewerage was not considered a "sexy" issue at the time, and there was much more of a constituency for the MDC's other services, the sewerage division was often lost out in the battle over limited resources.[145] The MDC's budget was next sent to EOEA where it competed with other state agencies, e.g., DEQE (now the DEP) and the Department of Environmental Management, for funds. Once again, the sewerage division's piece of the MDC budget usually didn't fare well in relation to other, more high-profile programs, e.g., air pollution and hazardous waste.[146] Then, the EOEA budget would be sent to the Administration to be woven into the overall state budget that was submitted to the legislature. More often than not, the sewerage division's funding was cut again at one or both of these last

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144 Pat Choate and Susan Walter, America In Ruins (Washington, D.C.: The Council of State Planning Agencies, 1981); Robert Royer and Cathleen Carr, Thinking About the Infrastructure (National Council on Public Works Improvement, 1986).

145 Barrata, interview, 7 March 1989.

146 Ibid.

two stops of the budget process.[147] The result of all this was that the MDC's sewerage division was chronically underfunded. The dynamics that led to this situation are best understood by analyzing why those actors who potentially could have helped generate the political climate necessary to improve the sewerage division's funding situation but didn't.

The first question one can ask is "where did the public stand on the sewage infrastructure issue?" This must be answered from the perspective of the general public and the organized public, e.g., interest groups. Between 1972 and 1982, the average citizen knew little, if anything, about the operation and maintenance problems besetting the MDC. The primary source of such information was the media, especially newspapers. Based on a review of the Boston Globe library's clipping file, which contains all the Globe's coverage of this issue as well as coverage by selected area newspapers, it is clear what kind of information to which the public was being exposed. Although there were occasional articles documenting sewage infrastructure problems, the few articles that went into any detail didn't appear until the end of that ten year period. Instead, the vast proportion of sewage-related coverage involved the planning efforts taking place under the auspices of the FWPCA, e.g., EMMA and the various EIS's. The other route via which the average citizen might have become engaged in the infrastructure debate was through personal experience. If the problems with the plants and the pipes leading to them resulted in sewage backing up into people's houses, there would have been a great hue and cry to do something. But despite the problems at the plants, when you flushed the toilet it went away, and most people at the time had an "out-of-sight-out-of-mind" mentality when it came to sewage.[148] To the extent that any citizens made the conscious connection between the degradation of Boston Harbor and infrastructure decay, they could still focus on the flurry of planning taking place as an indication that those problems would be taken care of in the not too distant

147 Ibid. Snedeker interview.

148 "Out of sight, out of mind. When a bridge is stuck in the up position, there's a huge public outcry. But when the sewage system breaks, everyone can still flush and it goes away. The problem is out in Boston Harbor." Stephen Burgay, MDC spokesman, quoted in Associated Press, "To MDC, sewers were 'stepchild'" The Boston Globe (December 9, 1984): 31.

future. This is not to say that average citizens were totally disengaged from the sewage debate. All of them didn't view the planning efforts in a detached manner, as an indication that things would get better. As discussed earlier, when citizens perceived planned improvements as threats to their communities' health and well-being, they rose up in protest. Don't build an incinerator here, don't fill in Quincy Bay for an expanded primary plant. Still, the focus was on the future, not the current deterioration of the sewage system.

As would be expected, public interest groups were much better informed about the operations and maintenance problems at the MDC and the resulting infrastructure decay. They knew how bad the problems were as a result of both formal and informal interactions with the state and federal agencies involved in sewage planning. For example, one component of the EMMA project was the establishment of a Citizens Advisory Committee, which was intended to act as a conduit between the planning agencies and the public, helping to inform the public about the planning process and the planners about public concerns. Among the groups represented on the CAC were the Sierra Club, Charles River Watershed Association, League of Woman Voters, Massachusetts Audubon Society, and the Neponset Valley Conservation Association. Through their involvement, the citizen's groups became familiar with planning efforts as well as the current status of MDC's operations. The latter type of knowledge was supplemented as a result of informal contacts citizen group representatives had with the staff from various agencies and their review of agency documents. Knowledge, however, doesn't necessarily translate into action. According to one of the representatives on the EMMA CAC noted, "there wasn't as much discussion as you might think" about the MDC as an institution and the management of its existing infrastructure. "We spent much more time focusing on planning for the large-scale, system-wide improvements . . . as opposed to addressing current problems."[149] Other public interest groups reflected this position. However concerned they were about infrastructure problems, these groups never effectively used their voice to demand change. As for the

149 Madeliene Kolb, former Sierra Club representative on the CAC, interview, by author, 18 October 1993.

Conservation Law Foundation (CLF), which would later play such a critical role in the harbor clean-up, prior to the Quincy suit its efforts focused on the issues of land use and offshore oil drilling, not the harbor or the sewage that flowed into it.[150]

The stance of the average citizen and the organized citizens groups meant that there was no active, public constituency in favor of improving the sewage infrastructure. Thus, one of the major forces behind political change, public pressure, was nowhere to be found. Elected officials didn't pick up where the public left off. Rather, they chose not to give the MDC the resources necessary for proper operation and maintenance. Neither the three governors elected during this period nor the legislative officials saw fit to take stand up and fight for increasing the MDC's budget so that these problems could be adequately addressed. As Chester Atkins, former chairman of the state Senate Ways and Means Committee, noted in the early 1980s, "it is a very difficult thing to appropriate public money for the invisible infrastructure."[151] Whereas public officials often reap electoral dividends by getting highly visible public works projects off the ground, building something new, putting people to work, and pumping money into the local economy, such dividends are usually absent or, at least, much reduced when those officials support improvements in the existing infrastructure that is out of sight. As one MDC commissioner in the early 1980s noted, "[s]ewers do not have a built-in constituency like parks, where you see something demonstrable for what you spend, where you can sit on the swings."[152] Thus, it is no surprise the MDC commissioners were able to get legislative appropriations for politically popular parks, skating rinks and pools, while at the same time they were being squeezed on the sewage side of their operations.[153]

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150 Peter Shelley, lawyer at CLF, telephone interview by author, 10 May 1993.

151 Dumanoski, "The cycle: breakdowns, no money," 17.

152 Ibid, 19, quoting Richard A. Nylen.

153 "According to Bill Geary, MDC Commissioner from 1983 to 1989, it was always possible for him to get legislative appropriations for swimming pools or skating rinks that were not really necessary, but it was virtually impossible to get appropriations for the "invisible" underground infrastructure that was essential to the region's health and well-

Not only was there no political payoff in funding operations and maintenance, there was an explicit disincentive. In the years from 1972 to 1982, the ratepayers in the MDC service area paid among the lowest sewage rates in the country, and for good reason. The ratepayers were, in effect, being partially subsidized to the degree that MDC was not spending money on properly operating and maintaining its sewage systems. If politicians increased the MDC's budget they would have to increase assessments to the cities and towns. Increased assessments would mean increased rates for individual users. Raising rates, like raising taxes, would have been extremely unpopular among the voters, especially since the politicians were receiving no signals from the electorate that increasing MDC's budget was something they favored.

In light of this political atmosphere it was always a struggle for the MDC to get funding. In 1980, for example, the Senate Ways and Means Committee decided to cut $1.5 million from the revolving maintenance account for Deer Island. Only after Atkins toured the plant and saw how bad things had become, was the money put back. According to Barrata, "that's what it took. $1.5 million dollars which is peanuts. If we didn't have that we wouldn't have kept the Nordberg's running. The point is nobody cared. Nobody was out there saying I want sewerage. . . . Let's be honest about it."[154]

Making matters worse, the MDC was poorly equipped to fight for increased funding. It just didn't have any political clout. Between 1973 and 1983, ten commissioners came and went at the MDC.[155] This lack of stability and continuity hampered the MDC's ability to defend its budget requests. Before the commissioners could get up to speed on the issues and build political support, they were out the door. The MDC also continued to be perceived, not without basis, as a patronage dumping ground, further reducing its credibility and clout within the political establishment.[156]

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being." Paul F. Levy, "Sewer Infrastructure, An Orphan of Our Times, Oceanus (Spring 1993): 57.

154 Barrata interview, 7 October 1993.

155 Associated Press, "To MDC, sewers were 'stepchild'".

156 Barrata interview, 7 October 1993; and Rolbein, 204.

The Stage is Set

Things could have been different. MDC planning efforts, federal and state reviews and decisions all might have taken less time; aggressive enforcement might have sped things up; increased public and political concern might have resulted in improved operations and maintenance; and the combined impact of these actions might have resulted in an upgraded sewage system and improved water quality. But, these things didn't come to pass. As a result, the stage for the Quincy suit was set and the judiciary began what was to become a long-standing role in the cleanup of Boston Harbor. How the state court reacted to the Quincy suit and the history of problems it presented is taken up in the next chapter.

Chapter IV

The State Court Case

In December 1982, the City of Quincy brought a legal suit in state court alleging that the MDC had violated a series of state laws and, as a result, was illegally polluting Boston Harbor. The Court found there to be violations of law, and the main outcome of court intervention was the creation of a new authority, MWRA, in December 1984, to take over the water and sewer responsibilities of the MDC. This chapter first presents the events pertaining to the state court's involvement in remedy formulation and implementation. The chapter ends with an evaluation of the case in light of the criteria for legitimacy, capacity, and effectiveness.

This chapter's conclusions present a complex and varied picture of court intervention. Such intervention was effective in getting the authority created, and in so doing, establishing the institutional capacity necessary to resolve the violations of law uncovered in the litigation. While some of the court's actions during remedy formulation and implementation were legitimate, others were either illegitimate or of questionable legitimacy. As for the capacity to formulate remedies, the court showed how, through the use of a special master, it has the capacity to make informed and reasonable remedial decisions. And with respect to implementation, there is an instance in which the court exhibited the capacity to implement its remedies and one in which it didn't.

The Suit

With so much partially or untreated sewage going into the harbor during the early 1980s its not surprising that some of it was washing onto local beaches. One of those was Wollaston Beach where William B. Golden, City Solicitor for Quincy, was running on a summer's day in 1982. At some point he looked down and suddenly realized that he "was running on human excrement."[1] That excrement, he surmised, probably came from one of the MDC's sewage treatment plants. Angry about his discovery, Golden marched down to Quincy City Hall, still clad in his running clothes, to speak with Mayor Francis X. McCauley about the problem on the beach. McCauley asked him "what do you want to do about it?"[2] Golden's response came on December 17, 1982, when he filed a civil suit in state Superior Court, on behalf of Quincy, against the MDC.[3] Among the suit's claims were that the MDC had violated the conditions of its joint federal/state discharge permit by discharging partially treated and raw sewage into Boston Harbor and also violated the state law prohibiting the discharge into coastal waters of sewage or other substances which might be injurious to public health or contaminate shellfish.

Quincy invited EPA to join as plaintiffs to no avail. According to Ralph Childs, Assistant U.S. Attorney representing EPA, for the agency to become a party to a state court suit would be "inconsistent with the whole federalist system and would raise lots of difficult issues of jurisdiction . . . We do not want to be a party in the state court."[4] Although the EPA didn't want to get involved in the state case, they were soon thereafter brought into the legal fray by the Conservation Law Foundation of New England (CLF). On June 7, 1983, the CLF,

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1 William Golden, quoted on Rolbein, 154.

2 McCauley, quoted in Anthony Wolff, "Boston's Toilet: The True Story," Audubon (March 1989): 28.

3 Dolin, Dirty Water/Clean Water, 63.

4 According to Ralph Childs, Assistant U.S. Attorney representing EPA, for the agency to become a party to a state court suit would be "inconsistent with the whole federalist system and would raise lots of difficult issues of jurisdiction. We do not want to be a party in the state court, but we are interested in being helpful in state court proceedings . . . " Judy Foreman, "Judge asks Reagan for harbor cleanup help," The Boston Globe, 24 August 1983, 21, 28.

"shocked" by the allegations in the Quincy suit, brought their own suit in federal district court against the MDC and EPA, asking "for . . . injunctive relief against the state and federal officials responsible for the chronic, unauthorized, and massive discharge of partially treated, often raw sewage into the Boston Harbor and its adjacent waters . . . [which is] in violation of federal law [CWA], MDC's Federal permit and even the weak administrative orders issued by EPA."[5] CLF requested the court establish a schedule requiring MDC to implement a plan designed to remedy the violations of the CWA. Judge A. David Mazzone was assigned to the case.

Picking the Court and the Judge

The venue of the Quincy suit was driven by an explicitly legal strategy. As Peter Koff, an attorney hired by Golden to work on this case, noted,

> The relief we were looking for was a judicial assertion of responsibility and control over the way the MDC was operating. We thought this more likely would happen in state court rather than federal court in light of the reluctance of some federal judges to assert themselves in control of state political institutions that weren't doing their job. . . . We just made a judgment that political institutional concern would be better dealt with in state court, where it would be a state judge dealing with a state agency, as opposed to having to deal with the question of federal intrusion coming into play.[6]

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5 Conservation Law Foundation of New England, Inc., v. Metropolitan District Commission, et. al. , Complaint (June 7, 1983): 1-2. According to Peter Shelley, Senior Attorney at CLF, "we assumed that everything was working at the sewage treatment plant, and if it wasn't, we'd be hearing a large outcry. Then, in early 1983, the Quincy suit came to our attention. The allegations were so extraordinary that we looked at federal and state files and, well, we were shocked into action. I mean, the shit was going into the ocean and no one had noticed, us included. It was the damnedest thing." Quoted in Rolbein, 202. Although Shelley is correct in pointing out that there was no "large outcry," as Chapter 3 indicates, his assumption that "no one had noticed" is not correct. Different groups had noticed, they just decided not the push the issue.

6 Peter Koff, personal interview by author, 12 May 1993.

Not only did they want to stay in state court, Golden and Koff also wanted a particular judge, so they waited until Paul Garrity rotated into the City of Quincy's district before filing suit.[7] According to Koff, "we felt Garrity would be best because he wouldn't be afraid of asserting himself, as a judicial activist, to take over and prod the agency."[8] Certainly, Garrity's background indicated as much. Appointed to the Superior court by Governor Dukakis in October, 1976, Garrity, a registered democrat, was described by one commentator as being "rumpled, walruslike behind a handlebar mustache, opinionated in a way that is more mercurial than dogmatic . . . [and having] an activist, populist attitude about government, courts, and, most of all, himself."[9] In July 1979, after finding that an earlier consent decree had failed to eliminate widespread violations of the Massachusetts Sanitary Code by the Boston Housing Authority had failed, Garrity appointed a receiver to take over the day-to-day operations of the authority.[10] This action reflected Garrity's remedial philosophy that when other branches of government fail to carry out their legal duties it is necessary for the court to step in to ensure that the law is complied with.

Summer Moves

In June, 1983, Quincy amended its suit in a number of ways. Three parties were added as defendants -- the Director of the DWPC, the Commissioner of the DEQE, and the Secretary of EOEA. Quincy alleged that these defendants, as representatives of the state agencies with the legal responsibility for enforcing state law and overseeing MDC's operations, had failed to take action to remedy the violations of law cited in the original suit. Quincy also made its request for relief more specific by asking the court to grant preliminary injunctive relief in the form of either 1) a moratorium on new connections to the sewage system or

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7 Rolbein, 202.

8 Koff interview, 12 May 1993.

9 Rolbein, 202; and Paul Garrity, personal interview by the author, 14 December 1993.

10 Charles M. Haar and Lance Liebman, Property and Law (Boston: Little, Brown and Company, 1985): 447-450. The case is referred to as Perez v. Boston Housing Authority, which was appealed to the Massachusetts Supreme Court (379 Mass. 703, 400 N.E.2d 1231 (1980)).

2) a system-wide reduction of two gallons of wastewater flow for every new gallon added. In addition, Quincy requested that the court appoint a receiver to manage and operate, subject to court supervision, the sewage division of the MDC.

Garrity held a hearing on Quincy's motion for preliminary injunctive relief in mid-June. As a result of that hearing and the submission of plaintiff and defendant affidavits, Garrity found that

> Boston Harbor is significantly and visibly polluted primarily because of the discharge of inadequately treated and untreated sewage into it and adjoining waters. The current and potential impact of that pollution upon the health, welfare and safety of persons who live and work near-by Boston Harbor and who use it for commercial, recreational and other purposes is staggering. . . . Moreover, the damage to that environment and to the creatures who live in it may very well become irreversible unless measures are taken to control and at some point preclude the pollution and consequent destruction of that very valuable resource.[11]

Garrity determined that, as a result of such discharges, conditions of the MDC's jointly issued, state/federal permit had been violated, but he failed to specifically indicate which conditions those were. For example, Quincy's complaint had alleged violations of a variety of permit conditions, including the ones prohibiting the exceedance of effluent limitations for various parameters, e.g., BOD, and prohibiting discharges that caused visible discoloration of the receiving waters or cause state water quality standards to be violated. Garrity's ruling gave no clue as to which of these, or other, violations he felt had occurred. Garrity also determined that there had been violations of the state law prohibiting sewage discharges that threatened public health and shellfish. Although Garrity implied that the MDC was to blame for such violations, he stopped short of finding the agency liable.

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11 City of Quincy v. Metropolitan District Commission and Boston Water & Sewer Commission, (Norfolk Superior Court, C.A. no. 138477), Findings, Rulings and Orders on Plaintiff City of Quincy's Application for Preliminary Injunctive Relief (June 27, 1983) 4.

Noting that "plaintiffs must not be relegated to have rights without a remedy", Garrity further determined that Quincy was entitled to preliminary injunctive relief. Such relief is not intended to fully remedy legal violations. Instead, preliminary injunctions are designed to maintain the status quo until a trial on the merits of the case can be completed and liability determined, after which time more complete remedial relief can be decided upon.[12] To support his contention that preliminary injunctive relief was necessary, Garrity argued that the record gave no indication that the violations of law would cease any time in the near future if the existing situation were allowed to remain unchanged. For example, Garrity stated that the defendants had no plan in place, the implementation of which would result in the discontinuation of raw sewage discharges to the harbor. Furthermore, Garrity had little confidence that things would change by virtue of Governor Dukakis's recent appointment, in May 1983, of a committee to establish a clean-up plan for the harbor.[13] The committee's mandate, Garrity contended, "appears to contemplate what committees do best, i.e., study."[14] Garrity decided to hold another hearing on July 6, at which time the parties could present their arguments as to the appropriate form of preliminary injunctive relief. Garrity indicated that he was inclined against appointing a receiver and, instead was considering appointing a special master and giving him thirty days to consult with all the parties and "come up with the most effective remedy and to prepare a comprehensive order."[15]

The state defendants, who were collectively represented by the State Attorney General, expressed great concern about Garrity's findings and his tentative plan to appoint a special master. They argued, among other things, that Garrity's conclusions were based on extremely limited and, in some case,

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12 Owen M. Fiss and Doug Rendleman, Injunctions (Mineola, NY: Foundation Press, 1984 - 2d. ed.): 331.

13 Dukakis appointed the so-called, Sargent Committee, headed by former Governor Francis W. Sargent, on May 26, 1983. In establishing the Committee, Dukakis noted, "[w]e have had dozens of studies. We know what the problems are. What we now need is action, a plan and a timetable." Andrew Blake, "Dukakis names Sargent to lead harbor cleanup," The Boston Globe, 27 May 1983, 17.

14 City of Quincy v. Metropolitan District Commission and Boston Water & Sewer Commission, Findings, Rulings and Orders on Plaintiff City of Quincy's Application for Preliminary Injunctive Relief, 9.

15 Ibid.

incorrect information. Noting that the courts findings were based on only a single hearing and on "untested affidavits and colloquies with counsel," the State believed that before any remedial decisions were made it should have the opportunity to more fully explore the accuracy of the plaintiff's claims and the court's findings.[16] The State questioned the need for judicial intervention, arguing that it did have some plans in place to improve the operation of the sewage system and, furthermore, that it was moving ahead with the development of more comprehensive remedies, as indicated by the Governor's appointment of the special commission.

Instead of having the court devise a remedy, the state believed that it should have the opportunity to develop the political consensus necessary to develop a schedule of remedial actions and to generate the political/financial support required to implement such a schedule. The state also worried that the court had something else, besides preliminary injunctive relief, in mind. Garrity's inclination to appoint a special master for thirty days and to have him "prepare a comprehensive order," suggested to the state that the master's task would go beyond determining preliminary relief to establishing a long-term remedial regime, an approach the State felt was clearly unwarranted at this juncture in the case.[17]

Garrity discounted the State's concerns. He was especially unconvinced by the State's claim that the court should defer to the political branches of government to allow them to reach political consensus on appropriate remedies. Garrity argued that the court could not afford to wait for the other branches to act for two reasons:

> First, the history of political consensus building, leading to a rectification of the extensive pollution of Boston Harbor which has been and is permitted to continue and regrettably increase in violation of the law is

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16 Commonwealth of Massachusetts, City of Quincy v. Metropolitan District Commission, et. al., (Norfolk Superior Court, C.A. no. 138477), Memorandum in Support of Motion for Further Consideration and Clarification (July 6, 1983)page 3 of the july 6 document.

17 Ibid, 24.

> bleak. That history has been characterized by commission after commission and study after study which both always fade from sight when the appropriations crunch is reached. Second, and most significantly, any effective remedy requires federal, state and local municipal cooperation which needs to be accomplished much more quickly than appears to be possible voluntarily in order to address the issues of health, welfare, safety and the environment referred to above. In sum, there is an urgency about this that the political branches of government just do not seem to be responding to appropriately considering what is occurring is, again, in violation of the law.[18]

On July 8, Garrity appointed Charles M. Haar, the Louis D. Brandies Professor of Law at Harvard Law School, as special master and gave him thirty days to hear evidence, make findings of fact, and propose injunctive relief.[19] Garrity decided that the special master was necessary for two reasons. While he didn't view the case as being scientifically complex, Garrity agreed with the plaintiffs that it posed other legal, governmental, and political complexities.[20] A legally and politically savvy special master could help the court develop remedies that could address these issues. Garrity also believed that appointing a special master would save time by enabling the court to avoid the "time consuming and obviously delay-causing evidentiary hearings [requested by the defendants] to resolve disputed issues of fact and their claim that much of Boston Harbor's pollution comes from sources beyond their control."[21]

Haar was an experienced special master who held very similar views as Garrity on the role of courts in remedial adjudication, especially the need for the court to intervene, as the option of last resort, when the politically responsible

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18 City of Quincy v. Metropolitan District Commission, et. al., (Norfolk Superior Court, C.A. no. 138477), "Further Findings, Rulings and Orders on Plaintiff City of Quincy's Application for Preliminary Injunctive Relief" (July 8, 1983): 4.

19 Haar and Horowitz, 4.

20 "The Boston Harbor case was not a complex case scientifically at all. It was one of the least complex cases I've ever had where institutional litigation is involved." Garrity interview.

21 Seward, 4; Koff interview, 12 May 1993.

branches fail to remedy legal violations on their own.[22] Haar's expertise is in urban policy and land and property law.[23] With the courts permission Haar appointed Steven G. Horowitz, a former student and local attorney, to assist him.[24] Haar also got permission to consult with three environmental experts and to hire research assistants.[25]

During the next month, the Special Master and his staff read through numerous documents, heard the testimony of thirteen witnesses over 2.5 days of hearings, consulted various experts and public officials, and toured Deer, Moon, and Nut Island as well as Wollaston Beach, accompanied by representatives from the media, the parties to the litigation, and interested citizens. Departing from the traditional judicial inquiry process, Haar undertook, with the consent of the parties, ex parte contacts and reviewed documents not strictly introduced as evidence, although the Master's findings were to be based solely on information introduced in the record. "The purpose of this process," according to Haar, "was to become as familiar as possible in a short time with an enormously complex and significant problem with many ramifications -- environmental, social, political, economic, biological, and hygienic", and then use that understanding to establish findings of fact and propose remedies.[26]

The master focused on the problems associated with Deer and Nut Island's primary treatment plants and their failure to provide adequate

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22 Charles M. Haar, "What Only Courts Can Do," The National Law Journal (January 4, 1982): 13-14; and "A Helpful Judicial Tool," The National Law Journal (January 11, 1982): 11, 16.

23 Gary McMillan, "Charles Haar -- the lawyer as 'more of a mason than an architect," The Boston Globe, 15 December 1984).

24 Timothy G. Little, "Court-Appointed Special Masters In Complex Environmental Litigation: City of Quincy v. Metropolitan District Commission," Harvard Environmental Law Review, 8 (1984): 445.

25 The environmental experts consulted were: E. Eric Adams, Principal Research Engineer and Lecturer, MIT; Joseph J. Harrington, Gordon McKay Professor of Environmental Engineering and Chairman of the Department of Environmental Science and Physiology, School of Public Health, Harvard University; and Allan R. Robinson, Professor of Oceanography and Chairman of the Committee on Oceanography, The Center for Earth and Planetary Physics, Harvard University. Haar and Horowitz, footnote on page 4.

26 Ibid, 5.

treatment.[27] He did not deal with other pollution problems such as CSO's, toxics, sludge, and the potential upgrade of the Deer and Nut Island plants to secondary. The Master made it clear that these issues didn't fall within the "present ambit" of the case.[28] Indeed, while the Master was conducting his inquiry, the waiver issue was continuing to evolve. On June 30, 1983, EPA tentatively denied the MDC's waiver application. Among the findings were that MDC's proposed discharge would violate Massachusetts' water quality standards for dissolved oxygen and interfere with the "protection and propagation of a balanced, indigenous population of shellfish, fish and wildlife."[29] During the summer of 1983, MDC evaluated whether or not to take advantage of its one-time opportunity to resolve the issues that led to the tentative denial, and to re-apply. In September, after meeting with EPA officials, including EPA Administrator William Ruckelshaus, MDC decided that the outstanding issues in their initial application could be addressed and began gathering the necessary data to do so.[30] On June 30, 1984, MDC submitted its second waiver application.[31] It wasn't until after the State court case had run its course that EPA would decide the fate of this second application.

The Special Master's 196-page report documented the pollution problems in the Harbor and the many ills that beset the MDC's sewage treatment system. The Master found that "[d]ue to the age of the plant, insufficient capacity, inadequate maintenance and breakdowns, the Nut Island Wastewater Treatment Plant is unable to treat influent sewage to meet present-day primary standards.[32] Consequently, partially treated sewage is regularly discharged into the

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27 Ibid, 40.

28 Ibid, 133, footnote.

29 EPA, Region 1, Tentative Denial of the Administrator Pursuant to 40 CFR Part 125, Subpart G (June 30, 1983): 6-7.

30 According to James Hoyte, then Secretary of the Executive Office of Environmental Affairs, the EPA officials did not discourage the MDC from reapplying. Telephone interview by author, 8 March 1989.

31 MDC, Application For A Waiver of Secondary Treatment For the Nut Island and Deer Island Treatment Plants (June 30, 1984).

32 At Nut Island, "preventive maintenance and scheduled equipment replacement have been neglected by MDC administrations to the extent that nearly all maintenance is conducted in response to emergencies. As a result of the neglect, necessary treatment units are frequently out of service for extended periods of time." Haar and Horowitz, 69.

surrounding waters, and in wet weather, partially treated sewage flows are pumped out . . . closer to the shore."[33] Similarly, "[a]s a result of equipment breakdowns and staff failures at Deer Island, as well as the inability of the plant to handle wet weather flows, Moon Island periodically discharges enormous volumes of untreated, raw sewage into the waters off Moon Island."[34] The report recounts one of the most told stories about the failures at Deer Island. On Mother's Day, 1983, a coupling split on one of the pumps. Two million gallons of raw sewage flooded the building to a height of two stories. Over the next three days, two MDC police frogmen repeatedly dove into the sewage to locate and repair the break. During that time, 153 million gallons of raw sewage was discharged to the Harbor via Moon Island.[35]

One of the main reasons why the plants' peak capacity was often exceeded had to do with infiltration and inflow.[36] Infiltration was "defined as surface or ground water which enters a sewer system through defective pipes, joints, connections, and manhole walls", while inflow is "the quantity of water discharged into a sewer system from roof leaders, foundation and surface drains, streams, catch basins, tidal overflow weirs, etc.."[37] The report concluded that infiltration/inflow (I/I) accounted for fifty to sixty percent of the average influent to Deer Island and fifty-nine percent of the flow to Nut Island.[38] The Master highlighted the chronic staffing problems at the MDC, noting that "as of October, 20, 1982, 441 of the 558 authorized positions were funded to be filled in the MDC's Sewerage Division. On average, however, only 417 were actually filled that year."[39] The discharges from the sewage treatment plants were found to contribute to objectionable odors, colors, turbidity in violation of state water

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33 Ibid, ix-x. "2.1 billion gallons of influent bypassed primary treatment at the Nut Island plant in 1982." Ibid, 51.

34 Ibid, 114. "As a result of equipment limitations and failures, as well as staff inadequacies, the functional capacity of Deer Island is considerably below its design capacity." Ibid, 101.

35 Ibid, 102.

36 "[B]ecause of large quantities of infiltration/inflow, the Nut Island plant, even when operating at its peak capacity, does not have adequate capacity to treat wet weather flows." Ibid, 50.

37 Ibid, 42.

38 Ibid, 47-48.

39 Ibid, 70.

quality standards,[40] bacterial contamination,[41] fin erosion in winter flounder,[42] the closure of beaches and shellfishing areas,[43] and alterations in the natural state of benthic communities.[44]

Having laid out the findings of fact, the Master turned to the issue of remedies, stating that,[45]

> After reviewing the extensive record in this case, the Master is convinced . . . that it is both appropriate and necessary for the court to fashion judicial remedies to clean up the Bay and the Harbor. By appropriate, it is meant that Court is neither overstepping its authority nor improperly impinging on the prerogatives of our other two branches of government. By necessary, it is meant that, without judicial intervention, the problem in this case will remain with us for the foreseeable future.[46]

The Master first dismissed the plaintiff's request for a sewer moratorium, arguing that new connections to the system are not the "causes or main sources of the environmental degradation problem," and that the growth for which sewer connections are needed is an important element in the continued economic revitalization of the Boston area. "[T]o stop all building," the Master stated, "would be to cut the societal nose off to spite the face."[47]

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40 Ibid, 91.
41 Ibid, xi.
42 Ibid, 92
43 Ibid, 95-96, 114, 116.
44 Ibid, 92.
45 Prior to the completion of the Master's Report, the court issued a ruling that affected the Report's ultimate focus. On August 2, Garrity found that the plaintiff was not entitled to relief against the BWSC at this time. This was due primarily to the fact that, although the BWSC operates the Moon Island facility, the discharge of untreated sewage via that facility is due to factors beyond its control. This is because the Moon Island facility is essentially an "overflow valve" that is used only when the influent capacity to Deer Island is exceeded and the BWSC "is not in a position to do anything about the overflow of untreated sewage from defendant MDC's Deer Island plant into its Moon Island Facility." Haar and Horowitz, 155.
46 Ibid, 125
47 Ibid, 136.

He then went on to recommend a series of 23 remedial actions along with a schedule for their completion. For example, it was recommended that the MDC determine acceptable infiltration/inflow rates and design and implement cost effective infiltration/inflow control projects,[48] and that the MDC initiate the two-for-one influent sewage reduction system requested by the plaintiff.[49] It was also recommended that the MDC: continue ongoing efforts to upgrade Nut Island; devise a plan and time schedule for completing those efforts; submit a plan outlining the improvements at Deer Island necessary to reduce the discharges of raw or partially treated sewage; and present to the court and the legislature a plan for staffing and a supplemental budget request to cover those staffing needs.

The master also argued that what was desperately needed was a long-term financial plan to ensure that the MDC would be able to fund the remedial measures called for in the master's report. To that end, the master recommended that the MDC and the DWPC hire independent financial consultant to prepare the plan. As part of its analysis, the consultant was to evaluate the advisability of adopting a variety of measures designed to enable the MDC to carry out the tasks arrayed before it. These measures included revising the current system of charges to MDC user communities and changing the way in which the state legislature appropriated funds for sewage treatment. The most far-reaching of those measures was to consider whether "the sewerage division of the MDC be spun off and responsibility placed in an independent, autonomous, self-sustaining financial authority, with the advantages and flexibility of a public authority."[50]

Garrity enthusiastically accepted the master's report. So too did the City of Quincy, the EOEA, the AG, the MDC, all of whom agreed that the Master had done an excellent job in establishing findings and remedies.[51] For example,

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48 Ibid, 137-142.

49 Ibid, 142.

50 Ibid, 165.

51 For example, a Boston Globe editorial included the following: "Not only have Environmental Affairs Secretary James Hoyte, MDC Comr. William Geary and other state officials publicly welcomed Haar's report, they have now proposed to go several

although the MDC's head engineer didn't feel that the report's findings were "100 percent correct," they were, he said, "70 or 80 percent correct and that gave . . . [the report] an awful lot credibility; the experts were excellent."[52] The AG's lawyer stated that the findings were "very accurate, very well done . . . Haar recruited very good people from Harvard and MIT."[53]

As for the proposed remedies, there were equally supportive sentiments, the most important coming from the MDC, who would ultimately have the responsibility for implementing any remedial measures. Reflecting on the Masters remedies, the Assistant to the MDC Commissioner stated that the agency "intends to implement the recommendations -- we think they're realistic."[54] Garrity, with Quincy's support, recommended that the parties enter into a consent decree to implement the Master's remedies.

However, while the State defendants did not challenge the appropriateness of the masters findings of fact or proposed remedies, it had no interest in entering into a consent decree. As Seward notes, the AG's office "felt that other consent decrees to which [the State] . . . was a party had led to judicial meddling . . . "[55] This history led to the AG's "unbending" policy of avoiding such decrees.[56] More specifically the AG didn't feel that any court order, consent decree or otherwise, was appropriate in this case. According to Assistant Attorney General, Michael Sloman, "[o]ur position to date has been that, in view of the willingness of [the] administration as a whole to address the question of pollution in the harbor, why do you also need a court order?"[57] As an alternative

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steps beyond it." The Boston Globe (August 13, 1983). On August 14, the Globe reported that "[v]irtually all experts and citizens groups concerned with the problem of sewage pollution in Boston harbor have given kudos to the comprehensive report issued last week by court-appointed special master Charles M. Haar." Judy Foreman, "Harbor pollution remedies: Giant step or just stopgap?" The Boston Globe, 14 August 1983).

52 Noel Barrata, quoted in Scott T. McCreary, Resolving Science-Intensive Public Policy Disputes: Lessons From the New York Bight Initiative (Cambridge, MA: Unpublished Ph.D. Dissertation, MIT Department of Urban Studies and Planning, May 1989): 145.

53 Mike Sloman, quoted in McCreary, 145.

54 Foreman, "Court given plans to clean Hub harbor," The Boston Globe (August 11, 1983), quoting Stephen Burgay.

55 Seward, 6.

56 Koff interview, 12 May 1993. Seward, footnote on page 6.

57 Foreman, "Court given plans to clean Hub harbor." The Boston Globe (August 11, 1983).

the State proposed that the court retain jurisdiction in the case for six months during which time the court could measure the State defendant's performance against the masters remedies.[58] The State also implied that if the court sought to impose the master's remedies as a court order it would appeal such a move, arguing, in part, that the extent of the remedies went well beyond what is called for in a preliminary injunction which is intended to maintain the status quo, not establish a long-term, open-ended, remedial regime.

The State's position put Garrity in a tough spot. He couldn't get agreement on a consent decree. While the court traditionally has a great deal of discretion in determining what to include preliminary injunctions, Garrity himself thought the remedies went beyond what was called for in a preliminary injunction and was concerned that an effort to unilaterally impose the remedies would likely be appealed to and overturned by a higher court.[59] There was, of course, the option of proceeding with a trial at which time, if the defendants were found liable for the violations, the court would be in a position to order more complete injunctive relief. However, both the defendants and Quincy wanted to avoid this option, the former because they felt it unnecessary given their willingness to voluntarily implement the masters remedies, and the latter because of the time and cost involved in continued litigation.

Garrity's solution was a compromise that satisfied the plaintiffs and the defendants. On September 12, 1983, he issued a procedural order under which the parties made "a voluntary moral commitment to accept and comply with the" remedies and schedule for implementation established by the court, thereby avoiding "further adversarial litigation" and getting on with the "massive . . . effort to clean up Boston Harbor pollution and remove its causes."[60] According to Garrity, the procedural order "was the best I could do" and the plaintiff

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58 Commonwealth of Massachusetts, City of Quincy v. Metropolitan District Commission (Norfolk Superior Court, C.A. no. 138477), State Defendants' Objection to the Report of the Special Master (August 22, 1983): 2.

59 Garrity interview.

60 City of Quincy v. Metropolitan District Commission, et. al., (Norfolk Superior Court, C.A. no. 138477), Procedural Order (September 12, 1983): 1-2. Sloman (Assistant AG) said "[t]his gets to the concerns but without a judicial order. This is essentially the same position we have had all along." Foreman, "Boston Harbor gets 10-year plan."

agreed.[61] As Golden recalls, "[t]he case had the potential to burgeon with appeals and ancillary suits costing millions of dollars, and not one penny would go to clean up Boston Harbor. We wanted to find common ground that would lead to action, and keep the court involved. There's no question that the procedural order was the best we could do."[62]

The remedies in the procedural order were essentially the same ones offered by the Master with one important addition. The Master's report did not address the issues of primary versus secondary treatment, CSOs, sludge and toxics. Thus, it was argued, even if the Master's remedies were implemented, serious harbor pollution problems would remain.[63] Responding to expressed concerns that the scope of the relief was too narrow, Garrity added, with the parties' consent, a requirement that they develop a "supplemental schedule addressing the pollution problems of Boston Harbor at large, including Quincy and Hingham Bays, concerning such matters as combined sewer overflows, sludge management, secondary treatment, and toxic wastes."[64] Haar was appointed to monitor compliance with the procedural order.

The Procedural Order

The parties, along with representatives of EPA, CLF, and local government, met bi-weekly to discuss progress in complying with the Procedural Order's list of remedies. Most of the meetings were attended by Haar who, in turn, kept Garrity updated on what was happening. By all accounts the Procedural Order process was frustrating. The parties felt there was little sense of direction. EPA's General Counsel noted that "it was a sort of rolling ad hoc agenda; there was no clear objective or mandate."[65] The representatives from Quincy agreed.

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61 Garrity interview.
62 McCreary, 147.
63 Foreman, "Harbor pollution remedies: Giant step of just stopgap?"
64 City of Quincy v. Metropolitan District Commission, et. al., Procedural Order, Exhibit A.
65 McCreary, 149.

One of the problems was that due to the voluntary nature of the order the court could not apply sanctions if deadlines were missed. This reduced the sense of urgency among the parties to comply. Making matters worse was Haar's acerbic style of running the meetings. According to an MDC representative, "no matter what you did and how quickly you did it, he berated you because it took so long."[66] "Every two weeks it was a scolding."[67] "Haar acted like he thought he was running a Roman galley: if he pounded harder and shouted louder he thought the boat would move faster. But the oars weren't lined up and people rowed in seven directions at once."[68]

The CLF representative felt that entire process "was stupid." "The notion that a voluntary moral commitment was going to be enough to move metropolitan Boston to do anything that cost money was just flying in the face of 15 years of real solid history that the legislature was not going to fund the MDC at anywhere near that level that it needed to maintain and operate its facilities."[69] This lack of faith in the ability of the Procedural Order to produce results, moved the CLF to press forward with its lawsuit in District Court. On March 27, 1984, however, Judge Mazzone complied with the state's request to stay the proceedings of CLF's case in order to let the agreement reached in the Quincy case run its course.[70]

The process did achieve some of its goals. While deadlines were often pushed back, in the year following the signing of the Order, a number of the required remedial actions were taken. For example, the MDC analyzed its staffing needs, spent millions on repairs, submitted supplemental budget requests for increased staffing and funding, held a two-day seminar on I/I for user communities, and made plans for reducing I/I.[71]

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66 Barrata interview, 7 October 1993.

67 Barrata, quoted in McCreary, 150.

68 Doug MacDonald, quoted in McCreary, 150.

69 Peter Shelley, telephone interview by author, 10 May 1993.

70 United States v. Metropolitan District Commission, Nos. 85-0489, 83-1614 (D. Mass, September 5, 1985), cited in Bureau of National Affairs, Environmental Law Reporter 16 (Washington, D.C.: Bureau of National Affairs, July 1986): 20622.

71 Charles A. Radin, "Cleanup of Boston Harbor defies effort at tidy solution," The Boston Globe 22 April 1984, 1, 22. Little, footnote 264 on page 468.

However, these steps barely began to address what needed to be done to improve the MDC's institutional capacity, reduce pollution discharges and, therefore, remedy the violations of law illuminated by the litigation. Furthermore, there was virtually no progress in developing a supplemental schedule to address the issues of CSOs, sludge, toxics, and the ultimate level of sewage treatment. It is for these reasons that, at the October 9, 1984, First Year Compliance Hearing on the Procedural Order, Haar could report that although the defendants had complied with a number of the Order's remedies, the MDC sewage division was still understaffed and underfunded, the plants were still operating poorly, and the harbor was no cleaner.[72] By the time of Haar's October report, however, little attention was being paid to the Procedural Order and MDC's success or failure in complying with its requirements. All eyes were on the legislature where bills were being considered that would establish an independent water authority to take over the sewage system from the MDC. The creation of such an authority had been advocated by the court ever since the signing of the procedural order.

The "Ultimate Remedy"

The Procedural Order required the MDC to hire a consultant to evaluate various options for improving MDC's financial health and, therefore, its ability to construct, maintain and operate a sound sewage system. Since the consultant's plan was not due until March, 1984, one might assume that the decision on which option to pursue would not be made before then. From the court's perspective, however, the decision was clear. Immediately after concluding the agreement on the Procedural Order, Garrity told the press that "[t]he ultimate remedy is a separate authority that is pay-as-you-go, with bonding and enforcement authority."[73]

Haar not only agreed, it was his work on the masters report that led to this conclusion. While preparing the report, He consulted with financial experts in

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72 Seward, 7; Foreman and Andrew Blake, "MDC harbor receivership eyed," The Boston Globe 10 October 1984.

73 Foreman, "Boston Harbor gets 10-year plan," The Boston Globe (September 7, 1983).

New York and Massachusetts.[74] Within two weeks of beginning his job as special master, Haar was convinced that the "MDC couldn't work" and that an authority had to be created.[75] Simply stated, the MDC, as constituted and funded, was incapable of operating and maintaining its existing sewage system, much less taking on future responsibilities relating to sludge, CSOs, and the ultimate outcome of the waiver application. Garrity and Haar had little faith that Massachusetts' politicians would support the institutional modifications needed to make the MDC an effective and efficient organization, e.g., significant increases in funding and new hiring rules. The court, however, couldn't order the creation of an authority, that would require a legislative act. Instead, Garrity decided to use Haar as the court's representative, informally advocating the authority option both during the procedural order meetings and in his contacts with legislators and the public. In this way, Garrity and Haar hoped they could help develop the political consensus needed to establish an authority.

In deciding to push the authority concept, the court was drawing on a veritable American tradition.[76] Since the creation of the Port Authority of New York and New Jersey in 1921, authorities have proliferated throughout the country to the point where there are now tens of thousands of them, doing everything from building highways and airports to providing water, gas, electric, and solid waste disposal services.[77] Authorities are hybrid entities, having characteristics of both traditional government agencies and private corporations.[78] The general characteristics of public authorities include:

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74 Little, footnote 87 on page 445.

75 Charles Haar, personal interview by author, 8 November 1993.

76 For an excellent review and analysis of the authority mechanism, see Annmarie Hauck Walsh, The Public's Business (Cambridge, MA: The MIT Press, 1978). See also, Robert G. Smith, Ad Hoc Governments: Special Purpose Transportation Authorities in Britain and the United States (Beverly Hills: Sage Publications, 1974).

77 According to one recent compilation, there are, for example, 2,863 Housing Authorities, 1,166 Environmental Protection Authorities, 869 Economic Development Authorities, 236 Transportation Authorities, and 108 Port Authorities. See Jerry Mitchell, "Policy Functions and Issues for Public Authorities," in Public Authorities and Public Policy, ed. Jerry Mitchell (New York: Praeger, 1992): 6. As Walsh notes, an authority by any other name may still be an authority -- "State and local government corporations are generally labeled public authorities, although they . . . are sometimes called agencies, commissions, districts, corporations, trusts, or boards." 4-5.

78 Walsh,, 4.

independent sources of funding that are not tied to political processes and legislative control, e.g., the issuance of tax-exempt bonds that are paid off through the collection of permit or usage fees; the right to set user rates or permit fees; personnel hiring and pay systems that are not determined by civil service requirements, but rather are more closely tied to the methods used by the private sector; a bureaucratic structure with an appointed Board of Directors at its head and an executive director at the helm; and the right to own property and the right to sue and be sued.

The theory of public authorities places great stock in the ability of such institutions to be more efficient and effective, and less subject to "political" influences than traditional line agencies in running government programs, particularly ones involving the implementation of large-scale projects over long periods of time, requiring stable sources of funding.[79] It is the promise of efficiency, effectiveness, and autonomy, characteristics the MDC did not possess, that led Garrity and Haar to view the an independent authority as the ultimate remedy.

The Other Branches Consider the "Ultimate Remedy"

Political support for an independent authority came quickly. On September 16, 1983, State Senate President William Bulger (D-Boston) created a special commission to evaluate ways to improve MDC's water and sewer services, including the creation of an independent agency.[80] In early January, 1984, the commission submitted a bill to create an independent water and

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79 "The common wisdom for much of this century has been that public authorities . . . are simply too businesslike and efficient to fall prey to the corruption and managerial disarray that infect less businesslike, less efficient, more 'political' units of traditional government." Diana Henriques, The Machinery of Greed (Princeton, NJ: Princeton University Press, 1982): 1. Walsh notes that "The corporate form of public authorities permits jobs and projects to be completed without the clamorous debates, recurring compromises, and delaying tactics and counterchecks that characterize the rest of American government." 3-4.

80 Doneski, 564

sewage authority.[81] At the same time the Senate was considering the options, so too was the Dukakis administration. Governor Dukakis was concerned about the Harbor and agreed that something needed to be done to alter the status quo. Upon evaluation, the administration decided that an independent water and sewer authority was the way to go. On January 25, 1984, James Hoyte, Secretary of the EOEA, announced the Governor's plans to submit a bill that would create such an authority, stating that "[w]e have concluded that the current [MDC] structure just doesn't work . . . [an authority will mean] we will be able to run the system as a self-sustaining business, not as a bureaucracy."[82]

These political developments were the direct outgrowth of judicial intervention. The Quincy litigation, especially the Master's activities, e.g., visits to the plants, and report, and the procedural order, received widespread media coverage and generated significant public and political pressure to take action to improve the area's sewage system and, thereby, help clean up the Harbor.[83] No longer could these problems be ignored. When politicians began exploring the alternatives for addressing those problems, the authority mechanism was high on the list, in part, because Garrity's statement upon signing the procedural order, the pending financial consultant's report, and Haar's behind-the-scenes efforts had placed it there. As Garrity expected, Haar had been able to take the "political temperature" or "pulse" of the legislature, and use his connections at the State House to encourage action on the authority issue.[84] Indeed, Haar met

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81 Ian Menzies, "Cleaning up the harbor," The Boston Globe, 9 January 1984, 11.

82 Jerry Ackerman, "MDC breakup to be urged in Dukakis budget," The Boston Globe 25 January 1984).

83 Haar addressed the impact of the special master's report as follows: "A legal proceeding, with its attendant public fact-finding, proves to be a good way to put information before the public. Even if the information is openly available, the court process -- especially if it includes a special master's report -- provides a mechanism for consolidating a mass of information from disparate sources and molding it into a coherent story that can catch the attention of the public and the media. In this case in particular, the special master's on-site visits to sewage plants with representatives of the press and television drew widespread attention to the needs of the harbor." Haar, "Boston Harbor: A Case Study," Boston College Environmental Affairs Law Review 19, no. 3 (1992): 647.

84 "He [Haar] was really taking the pulse of the legislature. That's what he likes to do. He's a political junkie. I say that in a very admiring sense. He was trying to figure out what was possible." Garrity interview.

many times with legislative as well as executive officials and gave advice on the drafting of the bill submitted by the legislative commission.[85]

The decision on the part of the commission and the administration to propose the creation of a combined sewage and water authority was purely pragmatic. Although the Quincy litigation focused on MDC sewage division and its myriad of operational and institutional problems, it was equally clear that the same types of problems affected the water division, though to differing degrees. Much needed improvements to the water system were going to be expensive and require long-term investment and excellent management skills. Thus, it made sense to move both the sewage and water divisions into a new authority, so they could both benefit from the improved institutional capacities.

History was another reason the authority mechanism was high on the list of alternative mechanisms for addressing the problems highlighted by the court. When Garrity stated that the "ultimate remedy" was a "pay-as-you-go" authority, few were surprised. It wasn't the first time that this option had been discussed by Massachusetts' politicians. The creation of an independent sewage authority had been considered less seriously, on and off, by government officials as far back as 1972.[86] With the litigation serving as a focusing event, however, the discussion moved from the back burner to the front. The authority concept was now on the political agenda.[87] For an increasing number of politicians it was an idea whose time had come.[88]

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85 Menzies, "Cleaning up the harbor."

86 Barrata interview, 7 October 1993. Boston Harbor Associates, Boston Harbor . . . Who Cares? (A summary of the June 5, 1975 Boston Harbor Conference held at the Boston Campus of the University of Massachusetts).

87 Kingdon defines the agenda as "the list of subjects or problems to which government officials, and people outside of government closely associated with those officials, are paying some serious attention at any given time." John W. Kingdon, Agendas, Alternatives, and Public Policies (Boston: Little, Brown and Company, 1984): 3.

88 According to Victor Hugo, "Greater than the tread of mighty armies is an idea whose time has come." Kingdon, 1.

Bank of Boston Report

The authority approach received a strong boost on February 8, when the Bank of Boston came out with the report on financial planning required by the procedural order.[89] To provide quality water and sewerage services to the city and towns within MDC service area, the bank argued that the agency must be able to raise the funds necessary to hire adequate staff, maintain and operate the plants, finance long-term capital programs, and have the ability to develop operating budgets that are responsive to existing and future needs.[90] Like the Senate Commission and the Administration, the bank found the MDC's current structure seriously inadequate for achieving these goals, stating, in part, that "the agency lacks the independent control over finances and operations which is essential for managing the enterprise in an efficient and effective manner."[91]

Not only did the report disparage MDC as an institution and the means by which it was financed, it also argued that the institution was beyond repair -- the problems were too widespread and the modifications that would be required too far-reaching to achieve political support, e.g., granting a line agency the authority to independently set rates.[92] Furthermore, the report cited structural constraints, including legal restrictions, that would likely obstruct efforts to modify the MDC. For example, the limitations on increases in public authority assessments created by Proposition 2 1/2, could restrict the MDC's ability to generate the revenue necessary to support needed operation and maintenance costs and capital

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89 Bank of Boston, Public Finance Group, Protecting Water Resources: A Financial Analysis (February 8, 1984).

90 Ibid, 15.

91 Ibid.

92 According to the Bank of Boston report, "[u]nder the existing structure, [MDC] management is unable to plan expenditures with any certainty or to obtain adequate human and material resources to support the Agency's activities. Possible solutions include the creation of a separate dedicated fund solely under Agency control, granting of authority to independently set rates and exemption from State Civil Service Provisions. Any or all of these changes, however, represent a radical departure from existing policies and procedures related to the management of State government. In our judgment, neither the Legislature nor the Executive Branch would deem it responsible to relinquish their respective oversight responsibilities for a single line agency. In addition, this could set a precedent for the management and governance of other line agencies which would be institutionally unacceptable." Ibid, 30.

projects.[93] Instead, the report recommended the creation of an independent water and sewage authority. This approach, it was argued, would result in the long-term system integrity needed to carry out the many extremely expensive and complex sewer and water projects that would have to be implemented in the coming years.[94]

The Administration's Bill and the Senate's Response

The actions of the legislature and the Dukakis administration's plans to submit its own authority bill, buoyed both Garrity's and Haar's hopes that the "ultimate remedy" would become a reality. Yet, by the beginning of April little action had been taken on the commission's bill and the administration had yet to submit its own. Haar publicly expressed his concern about this state of affairs at a Boston Citizens Seminar on April 12. In response to Secretary Hoyte's statement to the same seminar that the administration would be filing its authority bill soon, Haar responded, with some exasperation, "[m]y question is: where is it?" He added that "I think the plaintiffs will come back to court . . . a year has passed . . . more steps have to be taken."[95]

On April 19, Dukakis officially submitted his water and sewage authority bill to the House of Representatives.[96] It was drafted on a *pro-bono* basis by the law firm of Palmer & Dodge, and drew much of its inspiration from the organizational structures of two other authorities, the Massachusetts Port Authority (Massport) and the Massachusetts Bay Transportation Authority (MBTA).[97] These two Massachusetts-based authorities were hardly the only ones the administration could have used as examples. Authorities are extremely

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93 Ibid, 15, 31.

94 For an extended and more critical review of the Bank of Boston report, see Greg D. Peterson, "After the Deluge: A Critical Evaluation of the Governance Structures of the Massachusetts Water Resources Authority," in Haar, Of Judges, Politics and Flounder, 77-83.

95 Ibid.

96 Norman Lockman, "Dukakis proposes sewer authority as new MDC unit," The Boston Globe, 20 April 1984.

97 Peterson, 93-114.

common in the state. A 1989 article indicated that there were an estimated 506 of them.[98] While various observers have expressed concerns about the sweeping powers of this, so-called, "shadow government" or "fourth branch of government," as is indicated by the numbers, Massachusetts government has not been shy about going the authority route.[99]

With the introduction of the administration bill, legislative activity picked up and, as a result, Quincy did not go back to court. Instead, the plaintiffs and the court waited to see what the legislature would do. That Spring there were clear signs that the harbor issue had moved higher on the legislative agenda. For example, the Senate Ways and Means Committee's proposed fiscal 1985 budget recommended only a half-year's budget for the MDC's sewer and water divisions, and also included $250,000 for the MDC to be used by the agency as planning and startup costs for a new authority. According to Committee Chairman, Chet Atkins, this was a clear indication that the Senate leadership expects to have the new authority in operation by January 1, 1985.[100] On June 19, Dukakis told a packed hearing before the Joint Committee on Urban Affairs, that "[w]e are now faced with the reality of a harbor that is outrageously polluted. The sense of urgency is very high. We've got to act soon and we've got to act decisively."[101]

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98 John Strahinich and J. William Semich, "Inside the Shadow Government," Boston Magazine (November 1989): 131. Other authorities include the Massachusetts Convention Center Authority, State College Building Authority, Massachusetts State Lottery Commission, an the Boston Water and Sewer Commission. The 506 number is subject to question. According to a 1990 survey by Mitchell, Massachusetts doesn't even make it onto the list of the fifteen states with the most public authorities, and the last state on that list, Wisconsin, has only 100 such entities. The divergences are probably due to different assumptions as to what constitutes an state or local authority. Whatever the number actually is, there is no disputing that Massachusetts has quite a few authorities. Jerry Mitchell, "The Policy Activities of Public Authorities," Policy Studies Journal, Vol. 18, No. 4 (Summer 1990): 931.

99 See, for example, Massachusetts, Senate Ways and Means Committee, State Authorities: The Fourth Branch of Government? (1985); Donald Axelrod, Shadow Government (New York: John Wiley & Sons, 1992): 9.

100 The Boston Globe, "Sewers on the legislative agenda," 15 June 1984.

101 Blake, "Dukakis pushes bill for a sewer authority," The Boston Globe, 20 June 1984). At the hearing, Dukakis held aloft a jar of water from the harbor, stating that "[t]his is not a urine sample, but it comes awfully close."

A few weeks after Dukakis's impassioned speech, consideration of the various bills was put on hold as the Legislature went into recess until after the September primaries.[102] While the legislature was out, the Dukakis administration continued to lobby for the creation of a water and sewage authority.[103] Once the legislature reconvened, Bulger submitted his own authority bill, but unlike the Dukakis bill, Bulger's would create a sewage authority, leaving the water division at MDC.[104] Bulger's rationale for only splitting off the sewage division was political. The drinking water for cities and towns serviced by the MDC is piped in from the Quabbin Reservoir in the western part of the state.[105] The area around the Quabbin is used for recreation and Western legislator's were concerned about removing it from public control. Those same legislators were also concerned about the potential that the new authority might have the power to draw down the Quabbin and divert the Connecticut River.[106] Bulger felt that by leaving the water division where it was, the bill would be more "politically palatable," increasing its chances of passing.[107] In a partial test of Bulger's theory, his bill passed the Senate on October 4.[108]

The Court Raises the Stakes

Despite a growing number of bills and increased legislative activity, Haar and Garrity were concerned about what they perceived to be the slow rate of movement towards the ultimate remedy. As they saw it, the court had given the politicians a year to build a consensus and pull the various constituencies together, but the legislature still had yet to pass a bill for the Governor to sign. At the October 9th Compliance hearing, therefore, Garrity decided to accept Haar's recommendation that the court exert some pressure on the legislature to

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102 Blake, "Time is with Dukakis in push for programs," The Boston Globe, 15 July 1984).
103 Ibid.
104 The Boston Globe, "Sen. Bulger's sewer coup," 10 October 1984, 20.
105 For an excellent review of the water side of the MDC's operations, and its fascinating history, see Nesson.
106 Seward, 8. Neil O'Brien, Director of Research, House Committee on Natural Resources, Commonwealth of Massachusetts, telephone interview by author, 8 October 1993.
107 Peterson, 58; and Foreman and Blake, "MDC harbor receivership eyed."
108 Peterson, 58.

act.[109] Specifically, Garrity stated that if the legislature had failed to pass a sewage authority or a combined sewage and water authority bill by November 15, he would consider issuing a moratorium on sewer hookups and placing the MDC in receivership.[110] Clearly, Garrity preferred that the legislature act, but his past experience steeled him against letting inaction go on too long:

> "It's a shame that the court has to get involved in situations that are the functions of government. But I probably made a terrible mistake in waiting four years with the Boston Housing Authority before I took it over. We have to make a fresh start, and it has to be made in the next month or so. This case is my highest priority, and I won't leave it."[111]

It is important to note that in attempting to hasten the creation of a sewage authority, Garrity was not bucking the political tide. Ever since the Quincy suit raised the MDC's and the Harbor's problems to a high place on the public agenda, a political consensus in support of a sewage authority had been building. By the Fall of 1984, that consensus was both broad and deep. It included the administration, with the head of the MDC actively urging the diminution of his own agency, and a majority of legislators on Beacon Hill.[112]

Some argued that this desire to create a new authority was a symptom of a larger political disease. It would be just another example of Massachusetts government failing to face up to its responsibilities and, instead, passing a problem to the "fourth branch of government."[113] As Robert Turner, a Boston Globe columnist remarked at the time, "[o]nce again the politicians are trying to give some faceless 'authority' with little accountability a job they should be doing themselves."[114] Despite the argument that administration and the legislature

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109 Seward, 8.

110 Foreman and Blake, "MDC harbor receivership eyed."

111 Ibid.

112 Jerry Ackerman, "MDC says it's overwhelmed by harbor cleanup," The Boston Globe 31 October 1984).

113 Steve Angelo, one of the 11 house members who voted against the MWRA bill, personal interview by author, August 1993.

114 Robert L. Turner, "Legislature again passing the buck?" The Boston Globe 12 December 1984).

should have worked harder to modify the MDC rather than "re-organize" above it, there were two powerful arguments against modification that, in turn, cemented the political consensus on the need for an authority.

As the Bank of Boston report made clear, the authority mechanism was likely to be an effective and efficient means of overcoming the institutional and financial problems of the MDC and implementing necessary short- and long-term cleanup efforts. Indeed, there were numerous examples here in Massachusetts and throughout the country of successful authorities delivering a variety of public services. Thus, the politicians supporting the authority concept could claim, with some conviction, that their solution was not one of shrinking from responsibility but rather a sound and responsible reaction to a serious problem. It made no difference that the problem was largely of the politician's making. The issue was "what do we do know?"

However much politicians wanted to paint their support of the authority concept as being primarily based on the institution's virtues, there was another, less discussed, but more persuasive reason why such support ran high -- they didn't want to be held directly accountable by the voters for the huge increases in sewer rates that would undoubtedly be necessary to bring the MDC's sewage system into compliance with state and federal law.[115] Everyone knew that the costs of compliance would be enormous, whether or not the waiver was ultimately denied.[116]

Although there were hopes that a significant percentage of the cost would be borne by the federal government, the most recent amendments to the CWA had slashed the federal share to 55% and there were strong signs that the next round of amendments would see that share go lower or disappear altogether.[117]

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115 O'Brien interview.

116 For example, at the same time the Dukakis administration announced its plans to create a sewage and water authority, MDC Sewer Division Director, Noel Barrata stated that necessary improvements to the MDC sewage system would cost between $1.2 and $1.6 billion dollars (1983), and could reach $2 billion accounting for inflation. Ackerman, "MDC breakup to be urged in Dukakis budget."

117 Kovalic, 24-30; and Deegan, 772-773.

This meant that much, if not all of the costs would have to be paid by state and local government and, ultimately be reflected in sewer rates.[118] If the MDC were modified so that it could be properly funded, yet remained under the control of the administration and the legislature, the politicians would be perceived by the voters as being responsible for rising rates. Given the huge rate hikes that were anticipated, such perceptions might be enough to drive politicians out of office. By creating an authority, the politicians could displace the voters' wrath.[119] After all, it would be the authority, not the politicians who were raising rates. Specious though this argument is, it was likely to be effective.

Politicians, of course, weren't the only supporters of the sewage authority concept by this time. Added to the ranks were the City of Quincy, many environmental and citizens groups,[120] and area media, including *The Boston Globe* . With such widespread support for a sewage authority, why hadn't an authority bill already been passed by the legislature and signed into law by the Governor? The reason hinges on the difference between a concept and its operationalization. While virtually no voices argued against the need for an independent sewage authority, there was significant disagreement over how the authority should actually be structured. Issues that needed resolution before any bill could make it out of the legislature included specifics on the composition of the Board of Directors and, thus the balance of power at the Authority, the exact method of funding and how the costs would be allocated among users, management rights, the extent of police powers. Further complicating the debate was the question of water -- should the authority take over the sewer division's responsibilities or both the sewage and the water divisions'? Many of those who supported the creation of an independent sewage authority also wanted to include water; But some didn't, especially western legislators concerned about control over their region's water supply.

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118 In early 1984, Barrata estimated that with a 55 percent federal share, sewer rates would need to rise five time there present level. Without federal assistance the rise would be nine times their current level. Ackerman, "MDC breakup to be urged in Dukakis budget,"

119 O'Brien interview.

120 This list included the Environmental Lobby, the New England Chapter of the Sierra Club, the CLF, and the Massachusetts Taxpayers Association. Peterson, 83-86. Blake, "Dukakis pushes bill for a sewer authority."

The Stakes are Raised Again

The November 15th deadline came and went without any appreciable action having been taken. Haar recommended that the court give the legislature five more working days to pass an authority bill, and if they failed to act, receivership proceedings should commence, Haar said.

> Judge Garrity cannot afford to wait any longer. "The long-promised deadline for action has arrived. . . . The administration and the legislature have had ample time to study the . . . legislation, to air their differences and to negotiate an acceptable compromise. I can assure you that Judge Garrity, however reluctant, is prepared to act.[121]

On this point, Haar was right.[122] Calling the harbor "unsafe, unsanitary, indecent, in violation of the law and a danger to the health and welfare of the people," Garrity issued another ultimatum.[123] The parties to the suit were to report back to him on legislative progress on November 29, at 2 p.m.. If the legislature had failed to create a sewage authority or a combined water and sewage authority by that time, or if "there is no hope" of a bill passing, Garrity would begin a receivership trial.[124] While reiterating his reluctance to place the MDC in receivership, noting that is an "inappropriate remedy . . . [t]he only way is to go through the political branches," Garrity made it clear that he was willing to go this route if no action was forthcoming.[125]

Garrity wasn't the only one who wanted to avoid receivership. A spokesman for the Dukakis administration stated that "[r]eceivership is something we want to avoid at all costs. . . .we are confident that because of the

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121 Ackerman, "Legislature faces deadline for harbor cleanup vote," The Boston Globe 15 November 1984, 27.

122 When Haar made these statements at Boston Citizen Seminar, he knew Garrity would act because Garrity had approved Haar's remarks in advance. Ackerman, "Legislature faces deadline for harbor cleanup vote."

123 Foreman, "Receivership threat for harbor cleanup," The Boston Globe 16 November 1984).

124 Ibid.

125 Ibid.

progress, and the commitment of House Speaker Thomas McGee and Senate President William M. Bulger to take legislative action . . . receivership will not be the ultimate outcome."[126] Similarly, Representative John F. Cusack (D-Arlington), an author of one of the pending bills, stated that "We are extremely close to working out a version of the water and sewer bill. It will absolutely not come to [receivership]."[127]

Garrity's deadline didn't leave much time. Although the Senate had passed its bill, the House had yet to act, and then there would have to be a House-Senate conference to hammer out the likely differences between the House and Senate bills. Nevertheless, the House was close, though not "extremely close," to working out a bill of its own.[128] Any thoughts of meeting the November 29 deadline vanished on November 28, when the Chairman of the House Ways and Means Committee, Representative Michael Creedon (D-Brockton), postponed committee action on a new authority, stating that "I have a belief about court orders, I ignore them."[129] In addition to disliking court orders, Creedon decided to postpone action because of his concerns about the authority's potential control over the development in the Quabbin region. Creedon's decision to postpone action, however, was not supported by the majority of representatives who believed that the House should have already passed a bill. According to Representative Steven Pierce (R-Westfield), "we should have the bill out here now. Creedon is way off base on this one."[130] John Flood (D-Canton), added that "[w]e have to address this question, regardless of Judge Garrity. It is absolutely of paramount importance that we stop fouling the harbor."[131]

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126 John DeVillars, Dukakis's Chief of Operations, quoted in Foreman, "Receivership threat for harbor cleanup."

127 Ibid.

128 Ibid.

129 Laurence Collins, "The Politics behind the stalled bill," The Boston Globe, 30 November 1984.

130 Ibid.

131 Ibid.

The Moratorium

Garrity didn't ignore the deadline. He was visibly angered by the legislature's inaction, and on the 29th he issued an injunction imposing a moratorium on all commercial sewer hookups and scheduled the receivership trial to begin the next week.[132] The court's rationale behind halting sewer hookups, is that each one will just increase the amount of illegal pollution. Garrity re-iterated the court's preference to avoid receivership, stating that he would "back off with pleasure" once the legislature acts. But he warned that if forced to appoint a receiver he would not relinquish the court's control of the cleanup for several years.[133] Garrity's move mobilized the business community, as he hoped it would.[134] The President of the Greater Boston Chamber of Commerce estimated that the moratorium could affect $2.3 billion of construction in Boston alone.[135] As Shelley recalls, the developers "swarmed Beacon Hill," generating pressure on the legislature to pass a bill so the Judge would lift the moratorium.[136]

The moratorium was short-lived. The AG appealed it and, on December 5, Massachusetts Supreme Court Justice Joseph R. Noland, overturned it without comment.[137] Shortly after Noland's decision, however, the House voted 92-52 to postpone a scheduled debate on the authority bill. According to Representative Cusack, the Supreme Court decision "took the pressure off the legislators."[138] But the showdown was far from over. A couple of hours after Noland's decision, EPA Region 1, Administrator, Michael Deland, announced that, come January, his agency was going to sue the MDC, in U.S. District Court in order to place the

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132 Foreman, "Court bans tie-ins to MDC Sewers, sets receivership trial," The Boston Globe, 30 November 1984). Lynda Gorov and Jan Wong, "Businessman call the decision a ploy and say it could cripple development," The Boston Globe 1 December 1984, 1-2.

133 Foreman, "Court bans tie-ins to MDC Sewers, sets receivership trial."

134 Haar interview.

135 Ibid.

136 Quoted in Rolbein, 207.

137 Foreman, "Sewer tie-in ban is lifted," The Boston Globe, 6 December 1984; and Collins, "Attorney general's office to ask court to lift ban on MDC sewer hookup," The Boston Globe, 1 December 1984, 1-2.

138 Foreman, "Sewer tie-in ban is lifted."

harbor cleanup under federal supervision. Deland added that, if the legislature hadn't acted to create a sewer authority by then, he would ask the District Court judge to impose a moratorium on hookups, labeling that "an entirely appropriate remedy."[139]

The Receivership Trial and the Photograph

Garrity was undaunted by the Supreme Court's decision and happy to have EPA's support. On December 6, Garrity moved forward with the receivership trial and, on December 7, he threatened a new ban on commercial sewer hookups.[140] Two days later, Garrity posed for an exceptionally unusual photograph that had him standing in his judicial robes, arms-crossed, wearing a serious countenance, with the Harbor and the Boston skyline at his back.[141] The photograph first ran in the Washington Post, on Sunday, December 9, then was reprinted, with accompanying articles in *The Boston Globe* on Tuesday and Thursday of that week.[142] This very public stance, literally, reflected a relatively recent change in Garrity's involvement in the case.

Ever since he decided to turn up the heat on the legislature in October, Garrity had been making numerous public statements to the media about his feelings on the legislature's progress, or lack thereof. The photograph was just another public statement, albeit pictorial rather than verbal. This change in behavior was a break from Garrity's earlier decision to let Haar be the court's point man outside of the courtroom. It was, nevertheless, a natural outgrowth of Garrity's judicial philosophy:

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139 Ibid.

140 Foreman, "Garrity vows a new ban on tie-ins to sewer system," The Boston Globe 8 December 1984.

141 "The Subject is Boston Harbor," picture on the front page of The Boston Globe, 11 December 1984).

142 Peter Mancusi, "Objection, Your Honor, say some," The Boston Globe, 13 December 1984).

> It's absolutely essential to win the hearts and minds of the local media, both print and electronic, in order to deal effectively with the organizations that are involved in a particular case. A front-page horror story will position a judge in his or her reaction to the parties in that particular case on that particular day.[143]

The receivership trial, the threatened moratorium, EPA's response, and the public reaction to Garrity's public statements and actions (e.g., the photograph) all combined to place extreme pressure on the legislature. The House resumed debate on December 10, and Garrity stayed the moratorium for "24 to 48" hours to give the legislature time to act, and he asked Haar to stay on Beacon Hill to answer legislator's questions. As would be expected with such a complex and important bill, amendments were being offered left and right -- more than 50 in total.[144] It took two days to debate the proposed changes, and on December 12, the House passed its water and sewer authority bill by a vote of 133-12.[145]

As the House was passing its bill, Garrity stepped up his highly visible efforts to generate public support for the authority bills wending their way through the legislative process. On the day of the House vote, he led reporters on a tour of Deer Island, greeting the plant's supervisor with a jocular "Hi, I'm the sludge judge, thanks for laying this on."[146] That night, Garrity appeared on a local T.V. news show alongside Representative Creedon to discuss the case. He told the anchor what everybody already knew, that he was planning to leave the bench at the conclusion of the case.

The Final Threat

The House-Senate conference committee began hammering out a compromise bill immediately after the House action. The biggest point of

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143 Robert C. Wood, ed., Remedial Law (Amherst, MA: The University of Massachusetts Press, 1990):, 74.

144 Blake, "House begins debate on sewer authority bill," The Boston Globe 11 December 1984).

145 Collins, "House approves sewer authority," The Boston Globe 13 December 1984.

146 Mancusi, "Objection, Your Honor, say some."

disagreement centered on whether the authority would have both sewage and water responsibilities. Senate President Bulger, who, in an unusual move, appointed himself to the committee, argued for keeping the water division in the MDC. "I agree reluctantly that an authority is necessary but it should be limited to what has to be done right now," Bulger said. "There is no question that water is a serious concern but the question is do we have to do it now?"[147] House members speaking before the committee disagreed, arguing, among other things, that "if we just do sewers" the bill won't pass, that "we are fast approaching the same problems with water as we now have with sewers," and, furthermore, it would be difficult to expand a sewer authority to include water at a later date.[148] Before the conference committee could iron out its differences, the House Speaker announced plans to recess for Christmas, leaving the fate of the bill undecided.[149] Garrity immediately responded by upping the ante. If the legislature didn't have an authority bill on the Governor's desk for signature by December 20, Garrity would place the MDC in receivership.[150] In making this ultimatum, Garrity stated that:

> I am not frustrated but I am concerned as a citizen that the harbor has become more polluted during these proceedings. The sad part is that the focus has been on what occurs politically and not on the continued pollution of the harbor. I'm not in a confrontation with them [the Legislature]. They have to do their legislative thing and I have to do my judicial thing.[151]

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147 Blake, "House-Senate panel agrees on state water authority," The Boston Globe, 14 December 1984.

148 The comments of Representatives Peter C. Webber (R-Pittsfield), William G. Robinson (R-Melrose), and John Cusack (D-Arlington), cited in Blake, "House-Senate panel agrees on state water authority."

149 Blake, "Ultimatum given on harbor bill," The Boston Globe, 15 December 1984.

150 Ibid.

151 Ibid.

Resolution

Of course Garrity's distinction is more apparent than real. He was in confrontation with the legislature, using the Court's powers, e.g., threatening sanctions, to prod that branch into action. Garrity's strategy worked. While the House went into recess, the committee continued meeting. On December 17, a compromise was reached that would create a combined water and sewage authority.[152] House arguments in favor of combination won the day. Two days later the House reconvened, voting 120-11 to pass the measure. The Senate followed suit with a vote of 29-1.[153] Upon witnessing the votes, Garrity said "it may be a bit injudicious but . . . whoopee!"[154] Calling it "one of the most far-reaching and important pieces of environmental legislation in this state in the last century," Dukakis signed it into law on December 19, creating the MWRA.[155] At the same time, he noted, this is only a "first step, just a beginning in the larger effort to clean up the harbor."[156]

MWRA was structured like many other authorities. Unlike MDC, MWRA has the ability to raise money by issuing tax-exempt municipal bonds, which are paid off through the collection of sewage and water payments from user communities; the right to set rates; personnel hiring and pay systems that are not determined by state civil service requirements; and an organizational structure with a board of directors at the top and an executive director who handles day-to-day operations.

The Judge Steps Down

Garrity had vowed to stay with case until it was resolved, one way or another -- with the creation of a new authority or placing MDC in receivership. Now that the ultimate remedy was in place, Garrity stepped down from the

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152 Blake, "Panel OK's harbor bill; voting due tomorrow," The Boston Globe 18 December 1984, 1, 10.
153 Blake, "Harbor bill OK'd, signed into law," The Boston Globe, 20 December 1984, 1, 18.
154 Ibid.
155 Ibid.
156 Ibid.

bench.[157] In his last act as judge, he ordered court supervision of efforts to address the areas sewage problems and appointed Haar as court monitor.[158] Although this arrangement was to continue for three years, there were already clear indications that the cleanup of Boston Harbor was likely to become a concern of the federal District Court. CLF was intent on having District Court Judge Mazzone lift the stay on their lawsuit, and EPA was planning a federal lawsuit of its own. And on the day state court supervision was put into place, Koff noted that while the creation of the authority "has been a substantial step forward," Quincy intended to join in the efforts to have the issue moved to federal court.[159] The outcome of these efforts is taken up in the next chapter.

The State Case, Legitimacy, Capacity, and Effectiveness

There are three parts to the state case. The first part covers the court's actions up through the signing of the voluntary procedural order. The second part details the implementation of the procedural order, while the third part deals with the court's efforts to realize the "ultimate remedy." Each part of the case offers different insights into the issues of legitimacy, capacity, and effectiveness. The following sections use the specifics of the case to cover each of these issues in turn.

Legitimacy of Remedy Formulation and Implementation

Garrity has argued that "[t]he sine qua non for a judge is not to be political but to be a good politician, and you have to walk that fine line between blowing your legitimacy as a judge and being political enough to affect the environment in which the organization exists."[160] In this case there are a number of instances in which Garrity stepped over the line, both during the process leading up the

157 Ackerman, "Garrity, in last move as judge, orders 3-year harbor supervision," The Boston Globe (December 22, 1984).
158 Ibid.
159 Ibid.
160 Wood, 72.

creation of the procedural order and in the court's efforts to realize the ultimate remedy.

Upon determining that state law was violated, Garrity decided that it was up to the court, through the offices of the special master, to formulate a remedy. To evaluate the legitimacy of this approach it is necessary to first determine whether Garrity's justification for assuming the remedial role was persuasive. The alternative to the court to proceeding with remedy formulation was to put off direct court involvement and defer to the state defendants to allow them to proceed with their voluntary efforts to come up with a plan to improve the sewage system.

There were arguments in favor of deferring to the state defendants. The litigation raised the issue of sewage treatment higher on the political agenda and led to the creation of a Governor's commission which held out the potential promise of addressing the region's sewage problems. Furthermore, if such deference had been successful it would have eliminated concerns about judicial legitimacy and the court overstepping its bounds, for the court would have disengaged itself from the remedial process by leaving all remedial decisions in the hands of the MDC, the larger executive branch of which it was a part, and the legislature who held the purse strings -- in other words, the politically responsible entities.

There were, however, reasons to favor court intervention in remedy formulation. In arguing that voluntary efforts were unlikely to be successful in the foreseeable future, Garrity pointed to a long history of failed efforts and/or inability on the part of the "political branches" to take action to address the violations of state law resulting from the discharge of sewage that was not receiving adequate primary treatment. And while the appointment of a special commission to look into the problem was a positive sign, Garrity had good reason, in light of history, to be skeptical of its ability to move beyond rhetoric to action. Given this, Garrity's justification for taking over the task of remedy formulation was, on balance, persuasive and, therefore, this action was legitimate.

While the court acted legitimately in assuming the remedial role, the remedies proposed by the master and supported by Garrity represented an abuse of judicial discretion and, therefore, in devising them the court acted illegitimately. To see why it is necessary to reflect on nature of the remedial task presented to the court. Chapter two indicated the broad discretion statutes afford the courts in fashioning the terms of injunctive relief so that violating institutions are brought into compliance. In this case, however, that discretion was somewhat constrained by the fact that the court was faced with the task of determining appropriate preliminary injunctive relief. Rather than establish final remedies that would lead the MDC into compliance, under the terms of preliminary relief the court was charged with devising measures that would maintain the status-quo until a trial on the merits was completed.

It is clear from both Garrity and Haar's statements and actions that they viewed their task as being much broader. State defendants had good reason to believe that the master's remedies would go beyond what is called for in a preliminary injunction. Garrity had instructed Haar to come up with a "comprehensive order," and the tenor of the master's report as well as the proposed remedies were anything but preliminary in nature. They were the first steps in what promised to be a long-term, remedial regime. It is clear, as well, from Garrity's comments about the likelihood that a remedial order in the form of the master's remedies would be overturned on appeal, that the knew those remedies exceeded the bounds of a preliminary injunction.

In shifting the focus to the later stages of the case, there are number of the actions taken by the court on the path to getting the ultimate remedy in place that are either illegitimate or of questionable legitimacy. One example of the former has to do with Garrity's announcement of the ultimate remedy. By making that announcement Garrity stepped out of the role of an impartial judge, applying the law, and, in effect, became a biased political actor arguing in favor of his preferred solution to the problem. Nothing in the laws that had been violated indicated that the establishment of an authority was either the only or the most appropriate remedy. What was necessary to remedy those violations was the upgrading the MDC's sewage treatment facilities. While such upgrades

obviously would require significant amounts of money and improved staffing at the MDC, creating an authority was not the only option for getting those funds and staff. Indeed, the purpose of the Bank of Boston Report was to explore the various options available, including not only the authority route but also, for example, modifying the MDC's structure and the way the legislature funded it.[161] It makes no difference that Garrity and Haar "knew" that the authority was the only way to go, that was not a decision for the court to make. Instead, it is the kind of remedial decision that should be made by the responsible political entities, in this case the executive and legislative branches.

Garrity's use of Haar as point man for the court in the political arena was of questionable legitimacy. According to Fiss,

> The special master . . . can . . . be used as an intermediate structure, standing, if you will, . . . between the judge and the body politic. . . . The special master is the judges appointee, but the hope is that once the authority is infused, the judge will be able to stand in the background, return to his position of independence, judging rather than wheeling-and-dealing.[162]

From the point of announcing the ultimate remedy up through the issuance of his first threat to the legislature in October, 1984, Garrity did indeed stand in the background and left the political wheeling-and-dealing to Haar. But one can question whether the use of a master in this way really protects the judge's independence and impartiality. Everyone knew that Haar was acting as an advocate for the judge's position, therefore it becomes debatable as to whether one can view Haar's highly political actions as having no bearing on the position of the court. It may be that such use of a master preserves the appearance of judicial independence and impartiality, but in reality it brings the court squarely into the political fray.

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161 Peterson, 77-83.

162 Fiss, "Foreword: The Forms of Justice," 56.

Garrity's action in the Fall and Winter of 1984 provide the most significant examples of illegitimate behavior. While Garrity stayed in the background during much of the case, letting Haar serve as the court's advocate for institutional change, as soon as the court began applying more pressure in late 1984, Garrity came out of the courtroom and into the public eye with increasing frequency. It is during this period that he posed for a Washington Post photographer at the edge of the harbor and often spoke to the media about the case. These efforts to galvanize public opinion and pressure the legislature into taking action violated the judicial cannon of legitimacy that states that judges are not supposed to publicly comment on pending cases. Beyond that, such actions also, once again, positioned the court, and specifically the judge, in the role of political actor as opposed to impartial arbiter of the law.

The illegitimacy of Garrity's public actions is confirmed by the reactions of members of the legal community. Many area lawyers were "stunned" by the photograph, finding it an inappropriate judicial action.[163] As for Garrity's media campaign, one lawyer commented "I have a problem with a judge who is using publicity to put pressure on the Legislature to act. You're not supposed to use publicity to determine what happens in the courtroom."[164] Indeed, even Haar felt that Garrity had "overstepped judicial bounds" in taking the public actions he did.[165]

Most telling, however, are Garrity's own reflections on his behavior:

> My being ready to step down affected my decision to go to the people. I was interviewed a lot on television. I figured, what I'm doing now ultimately the Supreme Judicial Court is going to have my head if I'm still a judge, but I'm not going to be a judge anymore. I planned to get off by the end of the year or as soon as the legislation was adopted. I did a lot of reasonably risky things that I never would have done had I had an interest in staying on the court. Because you're not supposed to talk about a

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163 Mancusi, "Objection, Your Honor, say some."
164 Ibid.
165 Haar interview.

> pending case with the media if you're a sitting judge and that was a pending case. Once I left the bench the SJC had no interest in going after me, especially because of the results.[166]

Another instance of the court acting illegitimately concerns the moratorium. The fact that the moratorium was overturned on appeal is prima facie evidence that it was an illegitimate action. In ordering such an action, the SJC determined that Garrity had abused his judicial discretion. Despite the rebuke of the SJC, Garrity threatened to impose another, arguably illegal moratorium. While Garrity didn't carry through on his threat, the fact that he made it raises additional questions about the legitimacy of his behavior. Indeed, the legitimacy of Garrity's second moratorium threat can be questioned in light of his desire to step down from the bench as soon as possible. The threat appears to have been borne as much by personal considerations as it was by legal considerations of what type of judicial response was legitimate in light of the circumstances.

The issue of legitimacy also comes up in relation to Garrity's threats to impose receivership if the legislature didn't get a bill to the Governor to sign by a certain date. Of course it is within a courts' power to place a public institution into receivership. And the legitimacy of actually placing the MDC into receivership was never tested because Garrity didn't need to follow through on his threat. Nevertheless, here, as was the case with the moratorium threat, it appears that Garrity's actions were motivated more by personal than legal considerations.

The Perceptions of the Parties

With respect to the court's actions prior to the signing of the procedural order, Quincy felt they were legitimate, while the state defendants did not. This is why the former supported the court's assumption of the remedial role and the

166 Garrity interview.

adoption of the master's remedies as an enforceable order, and the latter opposed those actions. None of the parties, however, perceived the adoption of the "voluntary" order as being an illegitimate judicial action. Indeed, all the parties supported that outcome.

As for the court's behavior following the signing of the procedural order, the Dukakis administration viewed the courts actions in two ways. With respect to the moratorium the administration felt it was illegitimate for the court to use that as a means to forcing the legislature to take action. That is why the administration sued to have it overturned. As the Assistant Attorney General on the case said, "we felt that the "judge was engaging in lawless behavior to reach a particular end."[167] At the same time, however, the administration viewed the court as a strategic ally in the fight to get an authority bill passed. Thus to the extent that the court could pressure the legislature to pass an authority bill by going public, and threatening to take action, it aided the administration's cause, giving the latter little incentive to decry those aspects of judicial behavior. That is why the lawyer for the commonwealth could add, that "we were generally satisfied with the course of events and the creation of the authority, but dissatisfied with some of the particulars including the moratorium."

While Quincy had not originally argued for the creation of a new authority, by the time the court began its active campaign of coercion in the Fall, the city supported that end.[168] If the city had any misgivings about the legitimacy of the court's actions it didn't voice them. As for the legislators, there was little outcry over the court's behavior.[169] By the time the court began to pressure the legislature to pass a bill, there was widespread consensus that sewage authority had to be created, the remaining debate was over how to

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167 Michael Sloman, former Assistant Attorney General, Massachusetts, telephone interview with author, 16 November 1994.

168 Koff interview, 12 November 1993.

169 One exception is the comment by House Speaker, Thomas McGee, who after the authority bill was signed criticized Garrity, saying "I don't know if he's going to come up here in his robes to tell us what to do, but I think he's a lunatic." After meeting Garrity, for the first time, shortly after making his lunatic comment, McGee said "well, I guess you don't look as though you ought to be locked up." Blake, "Harbor bill OK'd, signed into law."

structure it and whether to give the authority control over water supplies as well. According to a House Staffer, "none of the legislators jumped up on a soap box and said we can't create an authority, the question was how do we do it?"[170] The legislators reacted to the court's pressure tactics, not by digging in their heels and opposing the court's actions, but by working harder to resolve their differences over the nature of the authority and passing a bill for the Governor to sign.

Capacity and Remedy Formulation

The issue of judicial capacity and remedy formulation can be explored by evaluating Garrity's use of the special master mechanism. Special masters have long been used in a variety of ways in the judicial process. They have served as, among other things, factfinders with respect to the existence of legal violations and their causes, proposers of remedial relief, and monitors of the remedial implementation process.[171] Garrity looked to Haar to determine the causes of the violations the judge had identified and to prepare a "comprehensive" set of remedial measures. Assessing how well Haar performed these tasks is made difficult by the fact that Garrity didn't clearly identify exactly what violations had taken place with respect to Quincy's main allegation concerning the MDC's failure to comply with the terms of its permit. Nevertheless, assuming, as did Haar, that the his task was limited to figuring out the causes of and remedies for the continued discharges of raw and/or partially treated sewage, one can assess the job that the special master performed. Upon doing so it becomes clear that the special master in this case was an effective means of leveraging the courts capacity to make informed remedial decisions.

The first question to ask is if the master was able to gather the best available information on the causes of the violations and potential remedies. The

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170 O'Neil interview, 11 November 1994.

171 Francis E. McGovern, "Toward a Functional Approach for Managing Complex Litigation, University of Chicago Law Review 53 (1986): 441-493; Wayne D. Brazil, Geoffrey C. Hazard, and Paul R. Rice, Managing Complex Litigation (Chicago, IL: American Bar Foundation, 1983): and Lawrence Susskind, "Special Masters as Mediators," Negotitaion Journal 1, no. 3 (1985): 295-300.

answer is clearly yes. As to determining the causes of the violations, the master's task was made relatively easy by virtue of the resources available to him. Prior to the initiation of the Quincy suit, tens, if not hundreds of major reports had been completed by EPA, MDC, and others documenting the harbor's pollution problems and causes.[172] The Master had access to all of these materials. Not only was the master able to draw from a voluminous written record, he also had access, as a result of affidavits, direct testimony, and ex-parte discussions, to those individuals, e.g., regulators and MDC personnel, who had the greatest understanding of the sewage system and its problems. In using this written and oral record, the master avoided the potential weaknesses of relying on the "filtered" knowledge of outside experts who had only a theoretical, as opposed to a practical, understanding of the situation.

Access to all this information alone is not the only factor that made the master's task relatively easy. There might have been great disagreements among the experts as to the causes of the violations. If that had been the case, the master would have been placed in the potentially difficult position of having to decide among competing claims. As it was, however, there were no such disagreements. Indeed, the written and oral record evinced a near unanimity on the nature of the problems besetting the MDC. All the major parties knew that the sewage systems were in great disrepair, that staffing and funding was too low to properly maintain adequate primary treatment levels, and that pollution was negatively impacting the harbor. That is why nobody blinked when this information was presented in the master's report. Thus, rather than having to develop findings from scratch, a research task that, of course, would have been impossible given time constraints, the Master had them supplied to him in abundance. What the Master did, and did so well, was pull the relevant data from these many sources and present it in a coherent manner, a task that was made easier because of the skilled team Haar had assembled. The master's role was more synthesizer and collator rather than creator of information.

172 Dolin, Dirty Water/Clean Water.

A similar story can be told for the proposed remedies. For the most part, the steps required to remedy the legal violations uncovered were not a mystery. The reports, affidavits, administrative orders, and testimony supplied to the Master not only provided data on the causes of those violations, they also discussed appropriate remedies. And, just as was the case with the findings of fact, there was significant agreement among the various parties on what remedies were required. The master used these sources of information, in turn, as the basis for his remedies and, as a result, served to justify the reasonableness of his remedial choices. He considered the various remedies available and chose those that it was generally agreed would likely begin the process of leading the MDC into compliance. The Master's role was, once again, more synthesizer and collator than creator. That is why the master's remedies were perceived as reasonable by the various parties to the case -- they had been established goals for years.[173] Both on their own, and at the urging of the EPA, the MDC had, for instance, been planning for a long time to upgrade Nut and Deer Island and reduce infiltration and inflow. Similarly, the MDC had been asking the governor and the legislature for adequate funding and staff for over a decade to no avail.

Potential concerns about capacity are further dampened when one looks at the specificity of the remedies themselves. Rather than lay out detailed requirements with which MDC had to comply, many of the remedies simply instruct the MDC to prepare plans by certain dates. For example, the MDC was to present to the Court by January 1, 1984, a plan indicating the improvements needed at Deer Island in order to reduce raw sewage discharges from Moon Island.[174] If, on the other hand, the Master had decided to spell out what those improvements should be, then the capacity of the Master to do so would need to be more fully questioned. Instead, the remedies largely avoid such scrutiny by leaving so much discretion to the MDC, which it would exercise within the

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173 As a Boston Globe editorial noted, "Haar has asked for a court-enforced timetable to ensure enactment of a number of steps. Most of them -- upgrading and maintenance of the Deer Island and Nut Island treatment plants, and repair of aging, leaking sewer lines -- have been sitting unimplemented on planners' desks for several years." The Boston Globe. 13 August 1983).

174 Haar and Horowitz, 169

context of the close regulatory oversight of state and federal environmental agencies.

Capacity to Implement

The state case affords two opportunities to evaluate the capacity of the court to implement its remedies. The first has to do with the implementation of the procedural order, and the second with the implementation of the ultimate remedy. With respect to the former, the court exhibited a distinct lack of capacity. While some of the remedial measures included in the procedural order were completed, more were not.

As the court's eyes and ears, Haar was able to monitor the degree of compliance with the order's deadlines, but without the threat of judicial sanctions for failure to meet those deadlines the parties had a reduced incentive to comply.[175] Furthermore, the ability of the court, through the offices of special master, to move the process forward appears to have been hampered by Haar's acerbic style. According to one of the participants in the process, "Haar was the last person in the world to convey encouragement; he was badgering and critical."[176] Another commented that "Haar's berating people built up resistance to the special master; they were waiting for the boom to fall."[177]

The court's lack of capacity to implement the procedural order was not only a reflection of these limitations. While the procedural order meetings were taking place, administration and legislative efforts to create a new authority were ongoing. The progress of those efforts were often discussed at the procedural order meetings. As the support behind the authority concept grew, the push to implement the remedial measures included in the procedural order waned. This can be seen in the failure of the parties to the order to come up with a long-term plan for other remedial measures dealing with such issues as sludge

175 Barrata interview, 7 October 1993; Shelley interview, 10 May 1993.
176 William Lahey, quoted in McCreary, 150.
177 Koff, quoted in McCreary, 150.

management and CSO control. As Koff commented, "we were in a transition from making a plan and getting someone to implement it."[178]

The court was much more successful in getting the ultimate remedy implemented. Garrity's announcement of the ultimate remedy and Haar's behind the scenes efforts on behalf of that remedy helped raise the authority concept on the political agenda. Garrity's threats of receivership, his imposition of the moratorium, and his public efforts to generate support for an authority bill, all designed to overcome the political obstacles to implementing the ultimate remedy, certainly had their intended effect.

The efficacy of the court's actions is reflected in the comments of various participants in the process. According to Koff, "there is no question in my mind that without Garrity's involvement and the pressure the court placed on the legislature the authority would not have been created. It would not have happened voluntarily."[179] A key staff member in the state House of Representatives, stated that "the judge shook a lot of people up. The creation of the authority might not have happened without the court bringing pressure to bear."[180] The lawyer for CLF, adds that "the MWRA was created at the end of a gun. It wasn't a free political act. Haar decided that this is what needed to be done, Garrity cocked the trigger and pulled it a couple of times and got everyone so gun-shy that they decided to create the authority."[181] And according to an EPA representative, "Garrity was the right person, in the right place, at the right time."[182]

It is important, however, to place these comments and the role of the court in the proper context, and not give the court more credit than it deserves for leading to the implementation of the ultimate remedy. The court's ability to successfully pressure the politicians to act was, in part, due to way in which the

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178 Koff, quoted in McCreary, 152.
179 Koff interview, 12 May 1993.
180 O'Brien interview.
181 Shelley interview, 10 May 1993.
182 Jeffrey Fowley, Chief of the Water Office in the Office of Regional Counsel, U.S. EPA, Region 1, personal interview with the author, 23 November 1993.

authority concept was received by the administration, the legislature, and the public. While the court helped to raise consideration of the authority concept on the political agenda, once it was raised both administration and the majority of legislators embraced it, prior to the Fall of 1984 when the court began pressuring the legislature to act. It was not simply a case of those political actors saying we have to support the creation of an authority because the court says we do. Rather, they had evaluated the alternatives and found the authority mechanism to be the most attractive one. The politicians were well aware of the costs entailed in upgrading the sewage system and they had no interest in being held accountable to ratepayers/voters for those rising costs. The authority mechanism provided an alternative with a proven record of performance, in Massachusetts and elsewhere. The anti-authority sentiment that would characterize state politics in later years was not yet in evidence.[183] Furthermore, there was widespread public support for the creation of an authority.

The court's ability to pressure the politicians into passing the authority bill also was due, in part, to the nature of the legal violations uncovered and pending litigation. The permit, conditions of which had been violated, was issued jointly by the state and federal government in accord with both the Massachusetts Clean Waters Act and the Federal Clean Water Act. Therefore, the requirements of the permit couldn't be erased by state legislative action alone. The politicians had to find a way to comply with the law because the option of changing state law so as to remove the need to resolve the violations was not available. The pending federal court case, lodged by CLF, combined with EPA's threat to file suit against the state, only added to the pressure on the politicians to figure out a way to create the institutional means necessary to comply with the law.

The situation facing the court in the Fall of 1984, therefore, was one in which the administration, the majority of legislators, and the public supported the creation of an authority, and the only real issue left on the table was how the authority would be structured and whether it would be a sewer authority or a combined water and sewer authority. Thus, instead of being in the position of

183 O'Brien interview.

trying to pressure a reluctant executive and legislative branch to create an authority, the court really was only in the position of having to pressure the legislature to resolve the issue of what the authority would look like. As events turned out this was not easy, but the point is that it most likely would have been much more difficult for the court to have overcome political obstacles to the implementation of the ultimate remedy if there hadn't been strong political support for an authority in the first place.

Effectiveness

The procedural order was clearly ineffective in leading to a cessation of violations. The few actions that resulted from the implementation of the procedural order were only preliminary steps which had little or no impact on improving the operation of the area's sewage treatment system and bringing it into accord with legal requirements. As for the court's actions in relation to the ultimate remedy, there is no doubt that the court was a politically effective force in getting the authority created.[184] The court was also effective in the light of the criteria in that with the signing of the authority bill into law an institution was created that had the capacity to move forward with the actions that were necessary to bring the sewage system into compliance with the law. Thus, while the creation of the authority didn't lead to a cessation of the violations, the ultimate measure of effectiveness, it was clearly a positive first step in that direction.

184 For spirited support of this contention, see Seward.

Chapter V

The Federal Court Case

The creation of the MWRA opened a new chapter in the ongoing story of the cleanup of Boston Harbor. It wasn't, however, going to be a chapter written by the authority alone. In July, 1985, MWRA officially took over the water and sewer responsibilities of the MDC. Three months later, a federal district court judge handed down an opinion that held the MWRA liable for a variety of violations of the CWA. Three months after that, the judge issued the first of many court-ordered and enforced schedules, which established deadlines the authority was to meet in order to comply with the CWA's requirements and, as a result, help to restore the environmental integrity of Boston Harbor, e.g., constructing what will be the second largest secondary sewage treatment plant in the country.[1] The schedules, therefore, embody the court's determination of what remedies are necessary to adequately address the violations of federal environmental law uncovered through litigation. From the moment the first schedule was issued, up through the present, the MWRA has been operating with the court looking over its shoulder and overseeing the implementation of its remedies. Such oversight is expected to continue on through the end of this century, at least, when the last of the currently scheduled deadlines, the completion of the new secondary plant on Deer Island, is to be met.

The federal court's involvement provides a second opportunity to analyze judicial legitimacy, capacity, and effectiveness within the context of environmental, remedial adjudication. In many ways, federal court involvement provides a richer case study than the state court case because the breadth, detail, and impact of the remedies is far greater in the federal case. For example, in the

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1 Massachusetts Water Resources Authority, The State of the Boston Harbor 1992 (March 1993): 34.

nearly ten years since the federal court intervened, Judge Mazzone has issued over 100 memorandum and orders pertaining to all aspects of the case, as many, if not more, court-ordered deadlines have come and gone, and billions of dollars have been spent or obligated by the authority in complying with those deadlines. Given the richness of this case it is impossible to detail all, or even most of the actions taken by the court and their ramifications. Instead, this chapter focuses on key events in the case that provide material for analyzing legitimacy, capacity, and effectiveness. The chapter first presents the details of the case, and then analyzes the case in light of the criteria.

The chapter's conclusions reflect favorably on court intervention as it has played out thus far. The court's role in remedy formulation and implementation has not only been legitimate, but it also offers evidence that the courts have the capacity to make informed remedial decisions and to ensure that its orders are implemented. As for the effectiveness of the remedial regime, it is clear that the court has been instrumental in leading the authority into compliance with the law within a reasonable amount of time and at a reasonable cost.

The Federal Case Begins

The lawsuit EPA, Region 1, had promised in December 1984, became a reality on January 31, 1985, when the agency brought a civil action in Massachusetts District Court against the MDC, the MWRA (as a successor agency to the MDC), the Commonwealth of Massachusetts, and the BWSC, requesting "injunctive relief and civil penalties for repeated and continuing violations of the Clean Water Act. . . . which have resulted in the unlawful discharge of massive quantities of raw and partially treated sewage and other pollutants into Boston Harbor and its adjacent waters."[2] The agency wanted the court, among other things, to order the MWRA to submit plans and schedules for coming into compliance with the CWA and for the court, in turn, to approve those plans and schedules and insure that they are implemented.[3] One of Region One's motivations in filing suit and asking for federal court involvement

2 U.S. EPA v. MDC, BWSC, Complaint (D. Mass, C.A. no. 85-0489-MA): 1.
3 Ibid, 37.

was the national compliance policy for POTWs, which EPA headquarters issued in early 1984.[4]

The national compliance policy was born of frustration. In 1977, when the CWA amendments passed, less than thirty percent of the POTWs' had achieved the CWA goal of secondary treatment. Congress responded by extending the secondary deadline to July 1, 1983. Then in the 1981 CWA amendments, in the face of continued, widespread noncompliance, Congress again extended the deadline to July 1, 1988.[5] There were various reasons for such noncompliance. Some municipalities were waiting for federal funding before building their plants, others were still in the construction phase, while still others had finished construction but were not meeting the secondary effluent limitations in their permits. And some POTWs, like the MDC, were out of compliance as a result of a whole suite of reasons, political, bureaucratic, and financial. Whatever the reason, as the years passed, EPA grew more concerned about the large number of facilities that had yet to go to secondary. The national compliance policy responded to this concern by encouraging the regions and states to place those POTWs that were not likely to the meet the 1988 deadline on court-enforced, compliance schedules. The MWRA's sewage system certainly fell into this category.

In 1983 Ronald Reagan appointed William Ruckelshaus as EPA Administrator to replace Anne Burford and to repair the damaged agency she had left in her wake. Ruckelshaus quickly appointed Deland, a well respected administrator, to head up Region 1. Region One's aggressive stance in the lawsuit also was a reflection of the Administrator's priorities. Deland had signed on at EPA Region 1 as a lawyer back in 1971, and by 1973 was in charge of

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4 Bureau of National Affairs, "Final EPA Enforcement, Compliance Policy for Publicly Owned Sewage Treatment Plants Under Clean Water Act (January 23, 1984)," Environment Reporter, 27 January 1984, 1706-1712; and Bureau of National Affairs, "Thomas Says Suits Against Cities Will Spur Construction of Secondary Treatment Plants," Environment Reporter, 11 October 1985, 1026.

5 Kovalic, 24-26. Neither deadline extension was universal. There were certain restrictions, e.g., to get the deadline extended to 1988, the POTW had to request an extension and show that federal funds will not be available in time to meet the earlier 1983 deadline.

enforcement, a job he left in 1976 to do private consulting.[6] Ever since taking office, on June 30, 1983, Deland had made the cleanup of Boston Harbor one of his top priorities.[7] There were two reasons Deland felt so strongly about this problem:

> First, it was clear to me that the EPA should have filed a suit about Boston Harbor years ago. I mean, I was embarrassed. When I returned in 1983, I found that the EPA had made little, if any, progress on the harbor since 1976, when I left. I was amazed, to put it mildly. The agency should have long since been the plaintiff in this case. I also recognized that the EPA itself was in a deplorable state, racked by the scandal of the Burford days. I needed a visible cause to rally people, and Boston Harbor was a natural.[8]

Another motivation for the lawsuit was the belief that the ongoing state case was severely limited in its ability to move the long-delayed cleanup process forward. According to Deland:

> [The state proceeding] is an insufficient substitute for enforcement of federal requirements through this federal court action. The Quincy proceeding was instrumental in obtaining the establishment of the new Massachusetts Water Resources Authority (MWRA). The Procedural Orders entered therein, however, have not provided the binding commitments or long-term assurance of compliance sought through this action. In particular, there is no mechanism in the Quincy proceeding for the EPA to obtain resolution on issues about which defendants and it disagree and no way for EPA to seek sanctions or other relief when voluntary orders are violated. . . .
>
> EPA is not satisfied with the slow pace that has characterized the Boston Harbor cleanup. While secondary treatment plants are in operation or

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6 Rolbein, 204.

7 Michael R. Deland, Affidavit, 12 April 1985, U.S. EPA v. Metropolitan District Commission, et. al. (D. Mass, C.A. no. 85-0489-MA), 1.

8 Deland quoted in Rolbein, 206.

> under construction in virtually every other major metropolitan area, the Boston metropolitan area has yet to begin construction of even modern primary treatment plants. Moreover, the MDC continues to discharge unlawfully into Boston Harbor each day the sludge collected by its treatment plants, with no date set as to when this will stop. Such sludge discharges have been stopped in every other major metropolitan area in the country, except Los Angeles, which is under federal court order to cease its sludge discharges. In my opinion, the MDC system currently is the worst violator of the Clean Water Act in New England and one of the worst in the country.[9]

Deland's concerns about the state proceedings were well-founded. Garrity's departure from the bench took away the driving force behind the court's involvement. The case was placed in the hands of Chief Judge Thomas R. Morse, Jr., who had neither Garrity's grasp of the issues nor his intense commitment to the case. There were also indications that Morse was beginning to become incapacitated by an illness that would soon end his life.[10]

Of course Haar was still involved in the case, providing an intellectual and institutional bridge between the past and the present. But the value of such a bridge is predicated upon the potential for the voluntary moral commitment among the parties to progress beyond discussing and planning to making the hard decisions and implementing plans. EPA didn't believe that potential was there. The procedural order had faltered during Garrity's tenure and there were reasons to believe it would continue to do so without his presence, despite the entry of a new and more powerful player -- the MWRA. According to the lead EPA lawyer on the Boston Harbor case,

> Even with the best of intentions, the MWRA would be subject to a lot of the same political pressure and alot of the same constraints as the state, and you needed cooperation from lots of other people. We were convinced you needed a combination of the MWRA and the court order to

9 Deland Affidavit, 2, 3.
10 Haar interview.

> do the trick. The state case worked great in terms of laying the groundwork for creating the MWRA, but it did not work great in terms of actual follow through and getting things done.[11]

Not only did EPA look disparagingly upon the implementation value of the procedural order, but it also presented federal court involvement as an enforcement tool with a proven track record. For example, in his affidavit, Deland noted that:

> Resorting to the federal courts for enforcement of the Clean Water Act has, in EPA's experience, typically been an appropriate and required step to obtain speedy compliance with federal law. Federal lawsuits by EPA have helped speed progress in New York City, Philadelphia, Washington, D.C., and Providence, Rhode Island, among many other examples. The filing of these lawsuits [which led to consent decrees being signed] has not ended cooperation between EPA and the defendants in those actions. Rather, it has helped ensure that cooperative efforts lead to firm decisions and real progress rather than the stalling, indecision, and continuous studies which have characterized the Boston Harbor cleanup effort until now.[12]

CLF agreed with EPA on the need for federal court involvement in this case and the environmental group was pleased to drop EPA as a defendant in its lawsuit and, in effect, join forces with the agency in its efforts to move the harbor clean-up forward.[13] Fearing that a continuation of the procedural order would go nowhere, CLF asked District Court Judge Mazzone to lift the stay on its case.

Here, the environmental group ran into some opposition. The state argued that the case should remain in the state court system and that the MWRA be given a chance to prove that it is not only willing but able to move forward, under the auspices of the procedural order, in a way that will ensure quick and

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11 Fowley interview, 23 November 1993.
12 Deland affidavit.
13 Shelley interview, 10 May 1993.

effective compliance with the CWA.[14] After all, the authority was designed to solve the institutional problems that plagued the MDC -- shouldn't the MWRA be given a chance? Since it wasn't until July 1, 1985, that the MWRA would assume "ownership, possession, and control" of the water and sewerage system formerly run by the MDC, shouldn't judgment be postponed to a later date so that the MWRA could be judged on its own merits? The state used the same argument in its request to Mazzone that he place a stay on EPA's suit.[15]

Mazzone agreed with EPA that "time was of the essence" and that further delays would result in additional environmental harm. He also believed that the non-enforceable, "voluntary agreement" developed through the state process had been relatively unsuccessful in moving the cleanup forward.[16] Part of the problem, as he saw it, was that EPA, which had an integral role to play in the clean-up, was not an official party. As for the notion of giving the MWRA a chance to succeed on its own, Mazzone felt that while the authority had significant powers it would still face many serious obstacles that could stand in the way of complying with the law, e.g., the need to dramatically raise rates leading to a political backlash and public opposition to the siting of sewage-related facilities.

Every day that passed, the CWA was being violated, and Mazzone "couldn't ignore that any longer based only on a promise of good faith."[17] Once liability was determined, the court would be able to more effectively use its powers, e.g., sanctions, to enforce compliance. As a result, on May 22, 1985, Mazzone lifted the stay on the CLF suit, denied the stay on the EPA suit, consolidated the two suits and granted Quincy the right to intervene (on July 10, the town of Winthrop, which abuts Deer Island, was allowed to intervene).[18] This joined four parties, along with the Commonwealth and the BWSC in a single

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14 Commonwealth of Massachusetts, Defendants' Memorandum of Law in Opposition to Motions for Partial Summary Judgment (July 12, 1985) (D. Mass., C.A., no.s 85-0489-MA and 83-1614-MA).

15 Dumanoski, "Boston Harbor pollution case will be in federal jurisdiction," The Boston Globe. 23 May 1985, 49.

16 Ibid.

17 A. David Mazzone, personal interview by author, 6 December 1993.

18 U.S. v. Metropolitan District Commission (23 ERC 1350, September 5, 1985):1351.

action in federal court. Deland was delighted. "Another big step forward in the clean up of Boston Harbor. We now have an entity which has jurisdiction over all the parties, EPA included."[19]

The Judge

The court heard oral arguments on the consolidated cases on August 8, 1985.[20] Before discussing Mazzone's decision it is important to reflect on Mazzone himself. He was appointed to the federal bench in 1978, at age 49, by President Jimmy Carter.[21] Prior to his appointment he had been in private practice and, in the early 1960s, was an Assistant U.S. Attorney. Mazzone is a well-liked judge and many litigants say they enjoy appearing before him. One lawyer noted that "he's a wonderful judge. . . . compassionate, thoughtful, flexible -- yet firm . . . a sensible sort of judge you can reason with."[22] As for his legal ability, the reviews are mixed, but generally quite favorable.[23] Like Garrity, he is a generalist. His prior experience in environmental cases was limited to two decisions concerning oil drilling/leasing off of Georges Bank, and a case on mercury in Swordfish.[24] His self-described approach to cases involving remedial adjudication is straightforward, pragmatic, and traditional. "In all of these cases I step in and say why? And then I judge what should be done."[25] "I make decisions based on the facts and law and nothing else, not personal philosophy or political considerations, except those that flow from the statute being enforced."[26]

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19 Dumanoski, "Boston Harbor pollution case will be in federal jurisdiction."

20 U.S. v. Metropolitan District Commission, 1351.

21 Almanac of the Federal Judiciary, Volume 1 (1993): 8 - 1st Circuit.

22 Ibid, 9.

23 Comments from lawyers that have appeared before him include: "He's a nice guy, but he's not intellectually the most brilliant man on the bench"; "He's on the upper end of good"; "His legal ability is average"; "He's not a rocket scientist, but he's more than adequate. He handles complicated cases quite well"; "He's very competent. He's now a very experienced judge who moves his caseload as well as anybody up there." Ibid, 9.

24 Mazzone interview, 6 December 1993. Also, See CLF v. Watt, 586 F. supp 1238 and 654 F. supp 706.

25 Mazzone interview, 4 May 1993.

26 Mazzone interview, December 6, 1993.

The Decision

Mazzone handed down his decision on September 5, 1985.[27] In it he determined that the MDC had violated the CWA by failing to comply with the requirements specified in its permit requiring the Deer and Nut Island plants to achieve effluent levels based on secondary treatment. Mazzone also found the MDC to be violating permit conditions requiring both plants to cease discharging sludge into marine waters. Finally, Mazzone found the MWRA "liable for the MDC's acts because it is basically a continuation of the MDC."[28] Due to this liability, the MWRA is responsible for remedying the violations to the CWA cited in the decision.

The purpose of the decision was to determine liability, not to establish remedies. Nevertheless, in his concluding statement, Mazzone offered insight into his thoughts about the proper role of the court in formulating remedies and ensuring compliance with them:

> The task the MWRA has been assigned is complex and politically sensitive. It will entail many unpopular decisions. We are all aware that sewage treatment plants are expensive; that they are complicated and time-consuming to construct; and that they will not be welcome neighbors. The MWRA will be in a better position to cope with these problems than the MDC. It is certainly in a better position than any court to make decisions about the myriad of details that will arise during the course of the cleanup effort. . . . The purpose of these proceedings is to ensure that the MWRA fulfills the mission entrusted to it by the state legislature. Delay in this mission only enlarges the problem and means even more expensive and prolonged effort. 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

27 United States v. Metropolitan District Commission (D. Mass., 5 September 1985), cited in Environmental Law Reporter 16 (July 1986): 20621.

28 Ibid.

> 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 it should be solely 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. Fulfillment of this duty will assure that the Harbor will remain a vital economic and esthetic resource.[29]

Deferring to the Parties

Mazzone first asked the parties to formulate remedies. Immediately after the September 5 ruling, the parties began their negotiations, and at the beginning of October, Mazzone noted the progress being made and decided to give the parties until December 2 to come up with a schedule for both short-term and long-term remedial measures that could be entered as an order of the court.[30] The parties reacted quite favorably to the court's remedial posture. According to James Hoyte, both Secretary of EOEA and chairman of the MWRA board, "we're heartened that the judge understands that we as the authority are in the best position to get the job of cleaning up the harbor done. He makes it clear that he expects the court to restrain itself from getting directly involved as long as he sees the authority moving ahead." Deland added that "if at any point the cleanup schedule breaks down, there is now a concerned judge who is ready to move and has the legal authority to move." And CLF's Shelley noted that Mazzone is "flashing a strong signal that as long as the authority does its job, it will be given lots of rope. But, once they start to slip, he's going to yank the rope and impose whatever penalties are necessary."[31]

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29 U.S. v. Metropolitan District Commission (23 ERC 1350, September 5, 1985): 1363.

30 U.S. v. Metropolitan District Commission, Memorandum to All Parties (October 1, 1985): 2.

31 Dumanoski, "Court set to enforce harbor cleanup," The Boston Globe 6 September 1985.

The content and scope of these negotiations was greatly affected by MWRA decisions made shortly before Mazzone's September 5th decision and just after. On July 10, 1985, the MWRA Board selected Deer Island as the preferred site for new sewage treatment facilities.[32] In accord with earlier EPA and MDC siting studies, this decision assumed that the sewage flows going to Nut Island would be routed to Deer Island via an under-the-harbor tunnel and, further, that the treated wastewater would be discharged through an outfall tunnel with a terminus in Massachusetts Bay.[33] There was still some question, though, as to whether the facilities would include secondary treatment.

At the end of March, 1985, EPA denied the MDC's second waiver application, but at the time of the July 10 vote, the Board had yet to decide whether it would exercise its option to appeal the denial.[34] On September 17, the Board decided not to appeal, stating that "[w]e take this step to illustrate our profound desire to get on with the business of cleaning up the harbor. Further legal entanglements could well have delayed progress for an additional five years or more. Such a delay is intolerable."[35] Due to these MWRA decisions, the ultimate goals of the harbor cleanup project became more defined, leaving the parties with a clearer sense of what they were negotiating about.

The parties continued to meet throughout October and November on a weekly basis to hammer out an agreement.[36] On December 2, MWRA, EPA, and CLF each submitted their own project schedules. While there was substantial agreement among the parties as to short-term remedial measures, there was little agreement on long-term measures.[37] Mazzone was thus placed in the position of having to decide how to proceed in the face of conflicting recommendations from

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32 Dolin, Dirty Water/Clean Water, 75.

33 Ibid.

34 Environmental Protection Agency, Tentative Decision of the Regional Administrator on the Revised Application Pursuant to 40 CFR Part 125, Subpart G (March 29, 1985).

35 MWRA, The Clean-up of Boston Harbor Status Update (September 23, 1985): 13.

36 U.S. v. Metropolitan District Commission, Comments of the Massachusetts Water Resources Authority on the Status Report of the United States (November 7, 1985).

37 U.S. v. Metropolitan District Commission, Memorandum by the United States Regarding Proposed Form of First Interim Order (December 2, 1985). Response and Comments of the Massachusetts Water Resources Authority to Proposed Orders and Schedules of CLF and the United States (December 10, 1985).

the parties. On December 23, he made his decision and established a "schedule of interim steps to be taken by the MWRA to help achieve and maintain compliance with the requirements of the Act."[38] In so doing, Mazzone found "that there is a need for expedition to resolve the ongoing discharges of sludge and inadequately treated sewage into Boston Harbor and that an interim order is necessary to ensure that initial steps are undertaken expeditiously to address these discharges."[39]

The interim steps focused on the first few years of the project and generally corresponded with the suggestions of EPA and accelerated certain of the deadlines recommended by MWRA.[40] The judge presented no rationale for choosing the deadlines he did and none of the parties questioned his choice. Most of the deadlines in the interim schedule required the MWRA to either continue planning efforts that it had inherited from the MDC, or to begin developing new plans so that the legally required facilities could be built. For example, the court ordered the MWRA to complete the final facilities plan for the secondary treatment plant by September 1987. It also ordered the authority to develop plans that would ultimately enable it to cease discharging sludge into the harbor. The latter planning effort required the authority to decide, among other things, how to dewater the sludge and what type of land-based facility to build to treat the sludge, e.g., incinerator or landfill.

Mazzone decided to give the parties more time to establish a long-term schedule. Specifically, he ordered the parties to continue their negotiations and set a deadline, February 17, 1986, for them to report back to the court on their progress in reaching agreement on a variety of issues including, commencement and completion dates for the construction of the new primary and secondary treatment plants, the under-the-harbor tunnel, and the outfall tunnel into Massachusetts Bay.[41]

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38 U.S. v. Metropolitan District Commission, Order (December 23, 1985): 2.

39 Ibid.

40 U.S. v. Metropolitan District Commission, Schedule One Compliance Order Number 1 (December, 1985) (February 7, 1986): 1.

41 U.S. v. Metropolitan District Commission, Order (December 23, 1985): 6.

Negotiating the Long-Term Schedule for Secondary Treatment

Throughout January and early February 1986, the parties continued negotiating over the elements of a long-term schedule. One unifying feature of the negotiations was the use of the "critical path method" (CPM) as a means for assessing schedule milestones. The CPM, run by MWRA's engineering consulting firm, Camp, Dresser & McKee, relied on computer-generated flowcharts to schedule the sequencing of the numerous tasks required to complete the harbor clean-up project in the shortest amount of time. It showed which tasks could be pursued concurrently, those which had to be undertaken sequentially, and in what order.

The parties used the CPM as the common referent, or yardstick, in evaluating the schedules they each supported. While the CPM provided a common analytical tool, the parties differed in their assumptions concerning the sequencing and duration of the required tasks.[42] As a result, on the February 17th deadline set by Mazzone there were still major areas of disagreement. For example, CLF proposed a schedule under which the MWRA would complete construction of secondary treatment by 1996.[43] MWRA urged the adoption of a schedule that would see the secondary plants completed by 2000 and operational by early 2002.[44] EPA argued that secondary facilities could be completed by early 1998, at the latest, and promised the court a specific long-term schedule by mid-March.[45] When the EPA submitted its proposed schedule it called for the secondary plant to be built by the fourth quarter of 1997.[46]

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42 U.S. v. Metropolitan District Commission, Long Term Scheduling Order (May 8, 1986):2.

43 Ibid, 8; and U.S. v. Metropolitan District Commission, Report of the Conservation Law Foundation on Dates for the Completion of Treatment Plant Construction (February 18, 1986).

44 U.S. v. Metropolitan District Commission, Second Interim Order (MWRA Proposed form, February 18, 1986).

45 U.S. v. Metropolitan District Commission, Report by the United States on Schedules for Construction of Treatment Plants and Related Facilities, and Certain Other Matters (February 18, 1986): 4.

46 U.S. v. Metropolitan District Commission, Memorandum by the United States in Support of its Motion for Establishment of Long Term Target Dates (March 19, 1986): 4.

The differences among the parties focused not only on the date for constructing the secondary plant, but also the dates for the completion of the new primary plant and the various tunnels associated with the project. For example, the CLF schedule called for the simultaneous construction of the primary and secondary plants; EPA allowed for some overlap in construction; and MWRA urged sequenced construction, with the primary plant being built first, followed by secondary.

Mazzone, concerned about the prospects for continued delay, scheduled an evidentiary hearing to resolve the factual issues raised by the parties. The hearing was postponed at the request of EPA and MWRA who noted that they had reached some agreement on long-term dates and argued that if they were given two more weeks to negotiate the need for an evidentiary hearing might disappear or, at least, the issues needing resolution at the hearing could be narrowed. In place of the hearing, Mazzone called a conference of the parties at which time they expressed the desire to continue working toward consensus. Mazzone gave them until April 18 to reach agreement and let them know that if no agreement were reached, an evidentiary hearing would be held on the 22nd.[47]

During that two-week period the parties met numerous times and the differences among them were somewhat narrowed. For example, the MWRA and the EPA agreed on the dates for the completion of the under-the-harbor tunnel and the commencement of primary treatment construction.[48] And the MWRA, the Commonwealth, BWSC, the City of Quincy, and the Town of Winthrop all agreed to support a modification of the earlier MWRA schedule that would have the secondary plant on-line in 1999.[49] Although differences were narrowed they were far from eliminated. The parties had gone as far as

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47 U.S. v. Metropolitan District Commission, Schedule One Compliance Order Number 3, February, 1986 (April 8, 1986).

48 U.S. v. Metropolitan District Commission, Report of the United States on its Proposed Form of Order On Long Term Construction Scheduling (April 28, 1986); and U.S. v. Metropolitan District Commission, Long Term Scheduling Order (May 8, 1986):7.

49 U.S. v. Metropolitan District Commission, Report of the Massachusetts Water Resources Authority Concerning Long-Term Scheduling (April 18, 1986); and U.S. v. Metropolitan District Commission, Long Term Scheduling Order (May 8, 1986).

they were willing to go in ironing out their differences, leaving the ultimate decisionmaking authority with the court.

The Parties Present Their Cases

Mazzone held evidentiary hearings on May 1 and 2, at which time the parties were allowed to present expert testimony and their arguments for and against the adoption of various long-term deadlines.[50] The focus of the evidentiary hearing was on establishing the start and finish dates for the following activities: facilities planning, site access, site development, primary plant construction, under harbor tunnel construction, new outfall construction, and secondary plant construction.[51]

Through their submissions to the court, including many affidavits by various experts, as well as the testimony presented in court, the various parties each did their best to convince Mazzone why their preferred schedule was the most reasonable and should therefore be adopted. In pushing for the 1996 deadline for the construction of the secondary treatment plant, CLF argued that its schedule, requiring completely overlapping construction of the primary and secondary plants, was technically feasible.[52] From CLF's perspective, both EPA and, to a greater extent, MWRA's schedule were too conservative and would allow the degradation of the harbor to continue too long.

EPA also felt that the MWRA schedule was too conservative, but believed it wasn't' technically wise to have the primary and secondary plants built entirely at the same time. Instead, EPA's schedule would allow for some overlap in

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50 U.S. v. Metropolitan District Commission, Long Term Scheduling Order (May 8, 1986).

51 Ibid, 3.

52 Ibid, 8; U.S. v. Metropolitan District Commission, Second Affidavit of James J. Colantonio (February 18, 1986); and U.S. v. Metropolitan District Commission, Opposition of Conservation Law Foundation to Massachusetts Water Resources Authority's Motion for Order Entering its Compliance Schedule (February 28, 1986).

construction of the two facilities as well as a shortening of the time needed to build the primary plant.[53]

MWRA argued against both the EPA and the CLF schedule.[54] Building the secondary plant before 1999 would be, according to the MWRA, technically unsound.[55] Shortening the schedule by overlapping the construction of primary and secondary plants would likely lead to unsafe and congested engineering conditions, added noise pollution and other inconveniences with which Winthrop would have to contend.[56] Furthermore, hasty construction would probably result in a poorly designed and constructed plant that would have a higher likelihood of operational and maintenance difficulties and continuing pollution problems. Saving time at the expense of building right was not worth it.[57]

The MWRA's concern about the shorter schedules went beyond technical to financial feasibility. The authority argued that the shorter schedules would result in significant increases in project cost which would have to be borne by the ratepayers.[58] And given the likely technical problems associated with shorter schedules, those ratepayers would be in the position of paying more for a less reliable plant. MWRA's financial advisor claimed that the CLF schedule would

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53 U.S. v. Metropolitan District Commission, Memorandum by the United States in Support of its motion for establishment of long term target dates (March 19, 1986).

54 "CLF and EPA place overriding emphasis on advancing by few years the target completion date of a plant that is to last a century. They advocate this sort-sighted aim, wich in fact is not even superior in the short run, at the cost of large potential sacrifices of quality of technology and reliability of performance and without any regard whatsoever to the resulting great financial burden on the public. The Authority believes that such a course is irresponsible." U.S. v. Metropolitan District Commission, Report of the Massachusetts Water Resources Authority on Scheduling and Compliance ad Memorandum in Support of Adoption of Proposed Second Interim Order (February 18, 1986): 14.

55 U.S. v. Metropolitan District Commission, Report of the Massachusetts Water Resources Authority on Scheduling and Compliance and Memorandum in support of adoption of proposed second interim order (February 18, 1986).

56 U.S. v. Metropolitan District Commission, Long Term Scheduling Order (May 8, 1986): 7.

57 U.S. v. Metropolitan District Commission, Affidavit of David Standley, consultant to the City of Quincy (April 28, 1986): 7; and U.S. v. Metropolitan District Commission, Third Affidavit of Richard D. Fox, P.E. (February 27, 1986).

58 U.S. v. Metropolitan District Commission, Long Term Scheduling Order (May 8, 1986): 4-7;

increase the sewer rate and revenue requirements by roughly $760 million as compared with the costs of the Authority's schedule.[59] EPA and CLF experts contested MWRA's claims about the financial impacts of the various schedules.[60]

The Long-Term Scheduling Order for Secondary Treatment

Mazzone was faced with a difficult task. Having heard all the testimony and read all the submissions, he now had to decide what the long-term deadlines would be. As Mazzone stated in his May 8, 1986, Long Term Scheduling Order:

> long term dates are essential to the successful clean up of Boston Harbor. Although my initial scheduling order in this case was entered a mere five months ago, it is already clear that specific dates must be established for each major step of this long and complex construction project. The parties must be held to a clear, understandable, and rational schedule. The Court and the public must be able to hold specific individuals and agencies responsible for accomplishing specific tasks within given time periods. . . . Despite the negotiations between the parties in the last few weeks, and their agreement on certain dates, they have been unable to present to the Court a jointly proposed schedule of specific long term dates for the construction of the new treatment plants and related facilities. This Court has jurisdiction to protect the cleanliness of the Harbor and the safety of the citizens who enjoy and use that Harbor, even in the absence of an agreed schedule. Thus, given that the establishment of long term target dates is essential to the cleanup of the Harbor, I must set such dates at this time.[61]

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59 U.S. v. Metropolitan District Commission, Second Affidavit of Mark S. Ferber (April 30, 1986).

60 U.S. v. Metropolitan District Commission, Memorandum by the United States in Support of its motion for establishment of long term target dates (March 19, 1986): 18-19.; and U.S. v. Metropolitan District Commission, Affidavit of John E. Petersen (March 14, 1986).

61 U.S. v. Metropolitan District Commission, Long Term Scheduling Order, 3-4.

Mazzone decided to adopt the MWRA's proposed schedule, which included the following deadlines: initiate construction of the new primary treatment plant by December, 1990; commence operation of that plant by July, 1995; complete construction of outfall by July, 1994; initiate construction of secondary during 1995; and complete secondary during 1999.[62] Mazzone's decision turned on his evaluation of the evidence presented by the parties.

On financial matters, Mazzone discounted the validity of the findings of Mark Ferber, MWRA's expert, and sided with the conclusions of EPA's expert, John Petersen, which were, in turn supported by CLF's expert. Mazzone disputed Ferber's claim that the shorter schedules would result in massive increases in project cost. In support of this view, Mazzone pointed to the Petersen affidavit which clearly showed, based on MWRA's own data, that more than fifty percent of those increased costs were "attributable to operation and maintenance costs arising from earlier completion of the project. Earlier completion means earlier compliance."[63] The claim that costs necessary to comply with the law should be used as an argument against early compliance simply fell of its own weight.

As for the MWRA's claims that adoption of EPA's schedule would result in a 20% reduction of federal funding, Mazzone agreed with Petersen who noted that the amount of federal dollars potentially available under any of the schedules was too uncertain to support MWRA's contention.[64] Finally, Mazzone used the Petersen affidavit as well as the one submitted by CLF's financial expert to refute MWRA's claim that the authority would find it more difficult to float the bonds necessary for construction under EPA's or CLF's scheduling scenario.[65]

Although Mazzone questioned Petersen's assumption that there would be no difference in capital costs between the three proposed schedules, he wasn't

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62 Ibid, 16-18.

63 U.S. v. Metropolitan District Commission, Long Term Scheduling Order, 5.

64 U.S. v. Metropolitan District Commission, Petersen affidavit, 11; and U.S. v. Metropolitan District Commission, Long Term Scheduling Order, 5.

65 U.S. v. Metropolitan District Commission, Long Term Scheduling Order, 5.

"presented with sufficient evidence to the contrary to disbelieve him."[66] Given the available information, Mazzone dismissed the determinacy of the financial issue, stating that "the differences in cost associated with the different target completion dates are insufficient to affect my decision as to the appropriate long term construction dates."[67]

On the issues pertaining to construction timelines, Mazzone reviewed the backgrounds and findings of EPA's, CLF's, and the MWRA's construction and engineering experts. Mazzone was clearly most impressed by MWRA's expert, Richard D. Fox. According to Mazzone,

> [Fox] was clearly a qualified expert. Mr. Fox has had extensive, direct contact with many large wastewater treatment plants. . . . Mr. Fox was clearly better qualified and more familiar with the intricacies of the existing construction schedule than any other expert at the hearing. He explained satisfactorily to the Court why the dangers of accelerated construction could outweigh the benefits to be gained by the advancement of two years over the EPA's schedule, and several years over the schedule of the CLF. Further, while I am somewhat curious about the recent advancement in the MWRA's proposed target dates, I nonetheless find that the MWRA has made very substantial efforts to show that it intends to complete the project at hand in as expeditious a manner as it believes consistent with good engineering practice. . . .
>
> Mr. Fox persuasively pointed out the flaws in . . . [EPA's schedule], and I am forced to accept his opinion. I must also agree with Mr. Fox that the schedule proposed by CLF must be rejected. . . . I agree with Mr. Fox that an overly compressed construction schedule will result in the long run in a plant that is less reliable and, consequently, expensive to maintain. This community has long suffered the effects of living with an unreliable sewage treatment system. Despite my inclination to expedite the process, I cannot avoid the more convincing evidence and impose a schedule that

66 Ibid.
67 Ibid..

> may haunt the citizens of the Commonwealth for the next fifty years or more.[68]

In adopting MWRA's schedule, Mazzone noted that its deadlines were target dates that could and, most likely, would be altered as planning progressed to take into account changing circumstances and opportunities:

> The complexities of the construction project before the Court are vast in scope. There will, of course, be instances in which various specific deadlines will have to be altered due to circumstances unforseeable at the moment. There will also be occasions on which specific tasks can be completed more quickly than currently anticipated. Therefore, these target dates will be subject to review at the end of facilities planning. Nonetheless, target deadlines create a framework within which the parties may work together to accomplish the common goal. I also do not underestimate the importance of giving the citizens of this commonwealth a public assurance that Boston Harbor will be cleaned up within a defined period of time.[69]

While Mazzone's long-term scheduling decision was based primarily on his evaluation of the weight of evidence presented, he was also fully aware of, and partially influenced by, the implementation benefits associated with giving the MWRA the schedule it requested. The authority now couldn't blame the court for forcing it into doing something it felt was unreasonable. The defense that "it's not our plan" would be unavailable and, therefore, the authority would have a greater incentive to comply. As Mazzone saw it, "they have only themselves to blame if they can't comply."[70]

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68 Ibid, 11-13.
69 Ibid, 4.
70 Mazzone interview, 6 December 1993.

Negotiating the Schedule for CSO Management

Another remedial issue not dealt with in the long-term schedule for secondary, and barely touched upon in the interim order, was what to do about CSOs. EPA's original suit alleged that the MDC had violated its permit by not completing projects for the one hundred and eight CSOs connected to its sewage system that were intended to bring those CSOs into compliance with the CWA effluent limitations based the application of best practicable control technology (BPT).[71] In the request for partial summary judgment that EPA presented to the court, however, the agency did not ask the court to rule on the CSO issue, preferring, instead, to have the court focus on the issues of secondary treatment and sludge. That is why Mazzone's September 5 memorandum and order did not address CSOs.[72] Nevertheless, all of the parties agreed that the pollution coming from CSOs was serious and had to be addressed and, furthermore, that the fact that most of the CSOs were receiving little or no form of treatment was a violation of the CWA's requirements for the application of BPT. In light of this, right after Mazzone handed down his opinion the parties agreed, at the courts urging, to work together to develop a schedule of actions for dealing with CSOs. This task was complicated by the issue of who would take responsibility for developing and implementing CSO management plans. While the one hundred and eight CSOs were connected to the MWRA's sewage system, only 19 of them were officially owned and operated by the authority.[73] Others were owned and operated by cities and towns within the MWRA service area, e.g., Somerville, and the BWSC. The MWRA was not convinced that it should have to plan and implement projects for CSOs it did not own and operate, especially since its liability for CSO effluent violations had not been established. The state and the EPA wanted the MWRA to assume those responsibilities.

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71 U.S. EPA v. Metropolitan District Commission, et. al., Complaint (January 31, 1985) (D. Mass, C.A. no. 85-0489-MA), 28.

72 U.S. EPA v. Metropolitan District Commission, et. al., Report of Massachusetts Water Resources Authority Concerning Combined Sewer Overflows (April 30, 1986).

73 U.S. EPA v. Metropolitan District Commission, et. al., Complaint, 28

By Spring 1986 there was still no agreement. In the May 8, 1986, long term scheduling order Mazzone noted that this issue was still to be decided and stated that he was "particularly concerned about the CSO problem . . . [t]he elimination of CSO discharges will result in an immediate improvement in the water quality in Boston Harbor."[74] The parties continued negotiating over the Summer and into the Fall to no avail. In his ninth compliance order Mazzone summed up the current situation:

> Although the parties indicated early in the course of this litigation that a compromise plan to eliminate CSO discharges might be forthcoming, it is now apparent that there will be no mutual agreement as to the responsibility for eliminating those discharges. As I have noted many times, discharges of raw sewage from CSOs into the most delicate areas of the Harbor create an immediate threat to the well-being of the citizens of Massachusetts. These discharges must be halted at the earliest possible opportunity. The United States has indicated its intention to file a motion for partial summary judgment as to liability for CSO discharges. A hearing will be scheduled immediately upon receipt of such a motion.[75]

In his tenth compliance order, issued October 27, 1986, Mazzone noted the lack of resolution on the CSO issue and, even though the U.S. had yet to file its motion, the court decided that if the parties couldn't resolve their differences on the matter by November 30, the court would hold a hearing designed to promote action.[76] Responding to the mounting pressure to act, the MWRA Board "voluntarily undertook responsibility for overall planning for combined sewer overflow programs and for causing those programs to be implemented either by the Authority itself or by others."[77] Mazzone was pleased with this turn of events, but noted in his next compliance order that he agreed with EPA and CLF

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74 Ibid, 15.

75 U.S. EPA v. Metropolitan District Commission, et. al., Schedule One Compliance Order Number 9 (September 29, 1986): 3.

76 U.S. EPA v. Metropolitan District Commission, et. al., Schedule One Compliance Order Number 10 (October 27, 1986): 6.

77 U.S. EPA v. Metropolitan District Commission, et. al., Massachusetts Water Resources Authority Report on CSO Responsibility (October 30, 1986): 1-2.

that, however laudable MWRA's actions were, it was important for the Authority's voluntary assumption of responsibility to "be reduced to a working and binding understanding to avoid future misunderstanding and controversy over this issue."[78] Negotiations among the parties concerning the creation of this binding understanding moved slowly, and by February 2, 1987, Mazzone again turned up the heat, deciding that if the issue is not resolved by the 27th of the month a hearing would be scheduled without delay.[79] On the 27th, EPA and MWRA signed a stipulation in which the authority agreed to assume legal liability for the management and control of all the CSOs.[80] With this stipulation in place, negotiations over the specifics of the CSO program began and resulted, seven months later, in an agreement among the parties on a schedule containing deadlines that the MWRA would have to meet in completing a final CSO management facilities plan by May 1990, e.g., issue a draft plan by December, 1989.[81] Mazzone, in turn, adopted that schedule.[82]

Monitoring Implementation of the Schedule

The primary means the court has of keeping track of the implementation of the schedule is the reporting system that it established at the outset of the remedial regime. On the 15th of every month the MWRA is required to submit a report the court indicating the authority's compliance with the prior month's schedule deadlines and its progress as of the 15th in moving towards compliance with future deadlines.[83] The MWRA's reports often will bring up other issues relevant to the court schedule that it feels the court should be made aware of, e.g., political developments that may affect implementation at a later date. Other

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78 U.S. EPA v. Metropolitan District Commission, et. al., Schedule One Compliance Order Number 11 (December 2, 1986): 4.

79 U.S. EPA v. Metropolitan District Commission, et. al., Schedule One Compliance Order Number 13 (February 2, 1987): 5.

80 U.S. EPA v. Metropolitan District Commission, et. al., Stipulation of the United States and the Massachusetts Water Resources Authority on Responsibility and Legal Liability for Combined Sewer Overflow Control (February 27, 1987).

81 U.S. EPA v. Metropolitan District Commission, et. al., Motion for Adoption of Order For First Combined Sewer Overflow Schedule (August 13, 1987).

82 Dolin, Dirty Water/Clean Water, 85.

83 Elizabeth Steele, legal assistant at the MWRA, telephone interview by author, 2 November 1994.

parties have the opportunity, which they often exercise, to submit there own reports to the court, in which they can comment on the MWRA's submission or raise other issues of concern that they feel are relevant to the court schedule.

To help him digest the information in MWRA's compliance reports, as well as the filings of other parties in response to those reports, Mazzone appointed a monitor to collect all these submissions and summarize what they contained, noting in particular those issues that require immediate court attention. Mazzone, then uses the monitor's report, and the original submissions, to write his monthly compliance order, in which he documents the progress in meeting deadlines and discusses court decisions relating to the schedule, e.g., a change in a deadline. Mazzone also often uses his monthly order to request the parties to report back to the court on various issues pertaining to the schedule at a later date.[84] In addition to the monthly reports, Mazzone is kept up to date on the implementation of the court's order through the MWRA's submission of mid-year and annual progress reports which also identify potential compliance problems. Finally, occasional hearings on specific issues, at which time all the parties are represented, offer Mazzone another opportunity to keep abreast of the implementation process.

Interactions Among the Parties

A good working relationship has evolved among the parties.[85] The legal and technical representatives of the parties regularly meet with one another in person and over the phone and transferring documents and proposals concerning the court schedule, obstacles to implementation, and potential modifications to the schedule.[86] Participation in the meetings depends on the

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84 See, for example, U.S. EPA v. Metropolitan District Commission, et. al., Schedule Three Compliance Order Number 53, 5.

85 According to Virgina Renick, Associate General Counsel for MWRA, "Generally the working relationship is constructive." Telephone interview by author, 9 May 1993; According to Steve Lipman, Boston Harbor Coordinator, Massachusetts Department of Environmental Protection, "the working relationship is good among us." Telephone interview by author, 15 November 1994.

86 According to Renick, "Our technical people and lawyers are always speaking with the other parties technical people and lawyers." Telephone interview, 3 November 1993.

nature of the issues facing the parties as dictated by the schedule's requirements. For example, all the parties were involved in the discussions leading up to the establishment of the initial CSO management and planning deadlines in the schedule. On the other hand, parties have the option of not participating if they believe that the issues being discussed do not affect their interests. For example, when the topic of discussion was the placement of a water line for the Deer Island plant through the town of Winthrop, other parties, besides the town and the MWRA did not participate. Furthermore, the frequency of the interactions among the parties depends on the scope of the issue under consideration, with more contentious issues, usually, requiring a greater investment of time.

Remedy Reformulation

The court-ordered schedule is not a static document. There have been many reformulations of the schedule, including changes in established deadlines and the addition of new deadlines. The way in which such reformulations come about follows a consistent pattern in which Mazzone is placed in the position of responding to proposals for change that are presented to him. In some cases the reformulation is one that has been negotiated and agreed to by all the parties and proposed to the court in the form a unified motion. After the court reviews the motion it invariably incorporates the proposed changes into the schedule. This is evident in revisions to the long-term scheduling order handed down on May 8, 1986. That order provided that the deadlines it contained would be reevaluated after MWRA completed the plans for the new Deer Island-related facilities and those plans were reviewed and approved by the relevant regulatory agencies. By the end of 1988, that planning and approval process was complete. Now that the parties knew the design specifications for the facilities they were in a better position to determine how long it would take to construct them. Thus, the parties recommended that the earlier deadlines be changed to reflect new realities.[87] For example, whereas the May 8th order had set July 1995 as the date for completion of the new primary facilities, the parties now wanted to have July 1994 be the date for completing the first two batteries of primary treatment, and

87 U.S. EPA v. Metropolitan District Commission, et. al., Joint Motion for Adoption of Long-Term Scheduling Order (May 10, 1989).

July 1995 be the date for the completing the final two batteries. Similarly, the earlier order had set July 1994 as the date for completing the outfall tunnel and sometime in 1995 as the date for initiating construction of the secondary facilities, while the new date for the outfall would be July 1995 and construction of the first of four secondary batteries would begin in January 1993. Mazzone adopted the parties proposed revisions in their entirety.

In other instances, proposals for reformulating the schedule are presented to the court in the form of a motion by the MWRA or a joint motion by MWRA and EPA. The motions are then assented to by the other parties. In light of this general agreement as to the appropriateness of the proposed reformulations, the court then incorporates the changes into the schedule. A good example of this concerns reformulations of the CSO schedule. In September 1990, the MWRA completed a CSO facilities plan. That plan recommended a variety of CSO control facilities including the construction of deep rock tunnel storage system to contain sewage overflows until the time at which they could be pumped out and adequately treated by the Deer Island plant. The estimated cost of the proposed CSO facilities was $1.3 billion. After the plan came out, however, the MWRA argued that additional studies should be undertaken before proceeding to implementation.[88] The authority believed that actual CSO flows were much lower than assumed during the development of the facilities plan and that, therefore, it would be wiser to find out if this was in fact the case, for if it was there might be opportunities to scale back the CSO facilities and save money while still providing adequate treatment. EPA agreed with the authority and they both proposed that the court add specific milestones to the schedule requiring the authority to undertake further testing, e.g., to commence new flow measurements by March 1992.[89] The other parties supported the schedule changes and the court adopted them.[90]

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88 U.S. EPA v. Metropolitan District Commission, et. al., Memorandum of the United States in Support of Joint Motion of United States and Massachusetts Water Resources Authority to Add Combined Sewer Overflow Planning Milestones (December 28, 1993).

89 U.S. EPA v. Metropolitan District Commission, et. al., Joint Motion to Consolidate and Amend Schedules (January 31, 1992).

90 U.S. EPA v. Metropolitan District Commission, et. al., Schedule Four Compliance Order Number 74 (March 2, 1992), 5.

Once the CSO flow tests were completed in late 1993, and it was found that flows were less than originally assumed, the MWRA and EPA again filed a joint motion to add new CSO deadlines to the schedule. The deadlines directed the MWRA, among other things, to submit a report to the parties evaluating alternative CSO management strategies based on revised estimates of CSO flows, and to prepare a final conceptual plan for CSO control by December 1994.[91] Once again, the other parties supported the changes and the court incorporated them into the schedule.[92]

Another example of the joint motion approach concerns the establishment of a revised schedule for long-term residuals management. Residuals is a term that includes sludge as well as grit and screenings, the heavy solids that settle out of the wastewater during treatment and large objects, e.g., pieces of wood, that are trapped in screens placed at sewage pumping stations and headworks.[93] The first interim schedule issued by the court in late 1985 established an August 1987 deadline for the MWRA to complete facilities plans for long-term residuals management. In June 1986, after further review of the feasibility of meeting that deadline, the MWRA and EPA filed a joint motion for the court to change it to April, 1988, and to establish December 1991 as the target date for ceasing the discharge of sludge to the harbor and commencing land-based disposal.[94] Mazzone gave the other parties ten days to comment on this motion, and receiving no objection, adopted it. This change in the deadline for the completion of the long-term residuals plan was not the last one. In late 1987 the MWRA presented a motion, supported by the other parties, to change the deadline yet again. On December 30, 1987, Mazzone wrote:

> I have stated before that any party is free to move for revision of a scheduled milestone if it can show good cause for changing that milestone

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91 U.S. EPA v. Metropolitan District Commission, et. al., Joint Motion of United State and Massachusetts Water Resources Authority to Add Combined Sewer Overflow Planning Milestones (December 28, 1993).

92 U.S. EPA v. Metropolitan District Commission, et. al., Schedule Five Compliance Order Number 97 (January 28, 1994), 6.

93 Dolin, Dirty Water/Clean Water, 96.

94 U.S. EPA v. Metropolitan District Commission, et. al., Schedule One Compliance Order Number 6 (June 27, 1986).

> [please note that the author uses the term "deadline" in referring to what the court calls "milestones"]. If the assumptions on which the various milestones are based prove to be erroneous, any party is free to seek relief from imposition of the schedule and the sanctions, if any, that may be imposed for failing to meet any of the specific milestones. . . . This phase of the harbor cleanup was originally scheduled for completion in August, 1987. . . . It was revised and scheduled for completion in April, 1988. . . . The MWRA is seeking yet another revision, this time to October 31, 1989. As the parties are aware, an unambiguous, enforceable schedule is essential to moving this complex project forward. Accountability was a key factor in my adopting this schedule proposed by the MWRA. . . . I do not find at this time any good cause for changing this milestone. I will consider this matter further if a clear and unambiguous schedule is presented to me which will not affect the 1991 deadline for ending sludge discharge into the harbor.[95]

Within the next month the parties convinced Mazzone that a schedule revision was justified:

> In my last Compliance Order . . . I denied the MWRA's motion for revisions to the long term residuals management portion of the schedule. At a hearing held on January 19, 1988, on other motions pending before the Court, the parties reiterated their collective belief that revisions to the schedule would be useful at this time, primarily because a prospectively achievable schedule permits the MWRA to enforce deadlines imposed on its various consultants. Because of the effort expended in arriving at an achievable schedule, I am reluctant to revise it. However, I am now persuaded by the parties that the ultimate goal will be best protected by the establishment of an achievable schedule. Therefore, I find that

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95 U.S. EPA v. Metropolitan District Commission, et. al., Schedule One Compliance Order Number 24 (December 30, 1987), 6.

revisions to the milestones relating to the long term residuals management plan are necessary and appropriate at this time.[96]

In the great majority of instances when the remedy has been reformulated, the court has simply adopted changes supported by all the parties. There are, nevertheless, a very few cases in which the judge has had to entertain a motion for reformulation over which there was less than complete agreement. In these cases, however, the level of disagreement among the parties has been "relatively minor."[97] For example, once the planning for the long-term residuals management facilities was complete and the regulatory approvals in hand, the parties began negotiating over a schedule for the construction of the facilities. On most of the proposed schedule modifications there was substantial agreement among the parties. The Commonwealth, however, opposed adding new deadlines pertaining to the construction of a residuals landfill in Walpole. The Commonwealth, for reasons that are more fully discussed in a later section, didn't want the landfill to be sited in Walpole. Failing to reach agreement on all issues, the MWRA, in October 1991, filed a motion to add new deadlines relating to long-term residuals management.[98] Mazzone discounted the Commonwealth's objections to the proposed schedule, noted the agreement of the other parties and stated that "[i]t is apparent to everyone involved in the process that a landfill must be designed and permitted and begin operations on a timely basis in order for the overall cleanup project to proceed. For these reasons, I adopt the [MWRA-proposed] milestones relating to the residuals landfill . . ."[99]

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96 U.S. EPA v. Metropolitan District Commission, et. al., Schedule One Compliance Order Number 25 (January 29, 1988), 4.

97 Renick interview, 8 November 1994.

98 U.S. EPA v. Metropolitan District Commission, et. al., Long-Term Residuals Management Scheduling Order (October 31, 1990).

99 U.S. EPA v. Metropolitan District Commission, et. al., Schedule Three Compliance Order Number 58 (October 31, 1990), 8.

The Court and the Specificity of the Remedy

The court doesn't determine the specific details of the facilities the MWRA has to construct in order to come into compliance with the CWA. Rather, those determinations are the result of the formalized regulatory process in which the MWRA develops facility plans that are, in turn, subject to public scrutiny as they are reviewed by the relevant regulatory agencies to ensure that they comply with the applicable environmental law and regulations.

For example, it was the MWRA that produced the facility plans for the secondary treatment plant and the two tunnels. Those plans were, in turn, reviewed and approved by the state and federal regulatory agencies. This process is exactly the same that would have transpired had the court not been involved in the case. Of course, the court affects the workings of the formalized regulatory process by setting deadlines, in the schedule, for the authority to meet in devising facility plans and for the regulatory agencies to review those plans. However, determining the timing of the regulatory process is quite different from a situation in which a judge actually makes the decisions himself.

The Role of the Regulatory Process

The approval of facility plans by regulatory agencies is not necessarily the end of the process that determines what type of facilities will be built. There is always the option for any party to appeal regulatory decisions. In this case that option has been exercised on a number of occasions. For example, Cape Cod groups concerned that the effluent coming out of the new outfall pipe would negatively affect endangered species living in Massachusetts Bay brought a suit against EPA alleging, in part, that in conducting the EIS on the outfall tunnel, the agency had inadequately studied the impact of the tunnel on such species. For this and other reasons, the plaintiffs argued that the construction of the sewage tunnel be halted. Similarly, Walpole filed a suit in state court against the MWRA arguing that the environmental reviews leading up to the selection of Walpole as the residuals landfill site failed to comply with the law governing those reviews and, as a result, the MWRA should be enjoined from putting the landfill in the

town. Ultimately, neither of these, or any of the other legal challenges to regulatory decisions relating to schedule have been upheld. Thus, neither the court nor the parties has yet had to consider altering facility plans to take into account the outcomes of litigation over the regulatory process.

Implementation of the Remedy

There are four ways in which the court has influenced the implementation of the schedule. The court's backing of the schedule creates incentives for the MWRA and the relevant regulatory agencies to meet the schedule's deadlines. The court's presence increases the investment community's confidence in the authority's financial stability, thereby enhancing the authority's ability to float the bonds which are necessary to fund the projects required by the court order. The court's presence also decreases the potential for legislative restrictions on the MWRA's ability to secure the funding necessary to comply with the schedule. And when obstacles are placed in the way of implementation, the court has used its powers to overcome them.

Incentives for Compliance with the Schedule

The court schedule serves as a focal point for action. It is a clear statement of what actions the MWRA is supposed to complete and when. The items on the schedule rise to the top of the authority's agenda.[100] This is no surprise. The harbor project is one of the MWRA's top priorities, not because of court involvement, but because of the authority's explicit mission to comply with water pollution control laws.

Court involvement, however, creates an even stronger incentive for the MWRA to comply. As the "gorilla in the closet," the court is ready to force the MWRA to act if necessary through the application of sanctions, e.g., levying of

100 Renick interview, 3 May 1993, Paul Levy, former Executive Director of the MWRA, personal interview by author, 14 September 1993; Shelley interview, 10 May 1993; and Fowley interview, 23 November 1993.

fines.[101] When the MWRA Board of Directors makes decisions, it knows that the court is, in effect, looking over its shoulder. As Paul Levy, former MWRA Executive Director, notes, "when voting on something they would ask 'is this on the schedule?'" If it was, chances are that "what would take years to be decided [in the absence of the court] would be decided in months."[102]

Although the "gorilla in the closet" image has negative connotations, from the MWRA's perspective the court's presence is a welcome incentive to compliance. While MWRA was initially opposed to court intervention, the court schedule has become a security blanket of sorts for the authority, giving it increased confidence that it will be able to ultimately fulfill its organizational mission. As Mazzone notes, "it is a comfort to the MWRA to know that if they don't perform they will be held to the schedule."[103]

Court involvement also affects the incentives of the state and federal regulatory agencies. Those agencies place a priority on MWRA-related projects, thereby minimizing delays arising from regulatory review.[104] Here, too, the potential for the court to apply sanctions acts as an inducement for prompt action, e.g., holding the head of an agency in contempt if his/her agency fails to review schedule-related projects in a timely fashion. But it is not the potential coercive power of the court, alone, that creates incentives for compliance. As Levy notes, "the judge is like a father figure, nobody wants to tell him that it is my fault that the schedule is not being met." This sentiment reflects a larger truth. Namely, that the court, as an institution, is accorded great legitimacy in the context of this case. When it placed its imprimatur on a schedule, a powerful element of moral suasion was brought into play that is based on the strongly held ideal that the court is a just arbiter of what the law requires.[105] In large part,

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101 Renick interview, 3 May 1993.

102 Levy interview, 14 September 1993;.

103 Mazzone interview, 4 May 1993.

104 Fowley interview, 23 November 1993; Levy interview, 14 September 1993;. Renick interview, 3 May 1993. According to Douglas Wilkins, the Assistant Attorney General who worked on this case from 1985 through 1992, "the court does raise things to the top of the agenda." Telephone interview by author, 2 November 1994.

105 Fowley interview, 23 November 1993.

therefore, the MWRA and the regulatory agencies seek to comply with the schedule because the court authoritatively says that is what must be done.

Calming the Bond Market

Mazzone's willingness to uphold the integrity of the schedule has helped the MWRA achieve high bond ratings. Such ratings are critical to the effective implementation of the court-ordered schedule, for the higher the ratings the more easily the authority can sell the bonds needed to finance the cleanup. Higher ratings also makes it possible for the authority to sell their bonds even though the investors would earn a fairly low interest rate. Paying investors such a low interest rate should, in turn, translate into significant savings for MWRA ratepayers over the life of the bonds. Throughout the MWRA's existence its bond rating, as determined by credit rating companies such as Standard & Poors, has not fallen below A-.[106] This is in marked contrast to Massachusetts' bond ratings during the same period. For example, in 1989, the state's rating was just a notch above junk bond status.[107] In accounting for the MWRA's high credit rating, Standard & Poors cites the authority's "strong management and efficient organizational structure and the stabilizing influence of federal court oversight."[108] If anything threatens the MWRA's ability to repay it bonds with interest, the bond market has faith that the Court can and will take steps to make sure the authority can fulfill its fiduciary obligations.

On one occasion, at least, Mazzone felt it necessary to specifically reassure the bond market of his resolve. This happened in late 1989, as an initiative sponsored by the Citizens for Limited Taxation began to pick up steam. That initiative was designed to roll back all fees imposed by any state authority or agency to 1988 levels, require the Secretary of Administration and Finance to

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106 Mazzone interview, 6 December 1993. At the end of 1993, the Standard & Poors upgraded the MWRA's bond rating from A- to A. MWRA Advisory Board, Summary of the MWRA Board of Director's Meeting (November 17, 1993): 1.

107 Dolin, "Boston's Murky Political Waters," 26.

108 Standard & Poors Credit Week, "Boston Harbor Clean-Up Makes Progress" (May 6, 1991): 38.

determine how much should be charged for public services, and make any changes in fees subject to legislative approval.[109] The MWRA argued that passage of such a measure, stripping the authority of its fiscal autonomy, would likely negatively affect its ability to meet its debt service obligations and to comply with the schedule. When the MWRA notified Mazzone that the credit rating agencies were concerned about the potential impact of the initiative, he wrote,

> What the parties evidently seek is an assurance that this Court will order the MWRA to meet its debt service obligations and will use its coercive powers to ensure that such an order is obeyed. . . . until the issue is squarely presented . . . it would be inappropriate for me to speculate about a future decision. . . . However, while I cannot provide the specific assurance the parties seek, my previous statements over the course of the past four years should suffice to reassure all concerned that the Harbor cleanup will go forward in accordance with the schedule, and that there is a vast array of remedial and equitable powers available to the Court under the law to ensure compliance with that schedule.[110]

Ultimately, the initiative made it onto the 1990 ballot and was voted down. Therefore, Mazzone was not required to exercise the court's authority to ensure the project's continued implementation.

Deflecting Legislative Restrictions

A few Massachusetts politicians have responded to MWRA ratepayer concerns about rising water and sewer rates resulting from the implementation of the court-ordered schedule by introducing bills in the state legislature that would strip the MWRA of its rate-setting powers and bring the authority more

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109 U.S. EPA v. Metropolitan District Commission, et. al., MWRA monthly compliance report for August 1989 and progress report as of September 15, 1989 (DATE): 6.

110 U.S. EPA v. Metropolitan District Commission, et. al., Schedule Three Compliance Order Number 47 (November 30, 1989), 2.

under the control of state government.[111] The court is highly aware of these developments and sympathetic to ratepayer concerns. Indeed, on numerous occasions, Mazzone has encouraged the MWRA to "explore all legal and feasible means of reducing the financial burden this project will impose on the MWRA's ratepayers."[112] However, when it has appeared that political developments were heading towards a situation in which compliance with the schedule might be threatened, Mazzone has made it clear that, no matter how the state or local political situation changes, his responsibility is to ensure that federal law is complied with and that he will do everything in his power to make sure that happens. An example of this is offered by Mazzone's response to a piece of legislation filed by two state senators in 1991.[113]

The bill in question was designed to reign in the MWRA. It included provisions that would subject the authority to regulation as a public utility, with the Department of Public Utilities having the right to approve rate increases, and give the MWRA Advisory Board control over final budgetary approvals.[114] Mazzone reacted to the introduction of these bills with the following observation:

> Throughout the course of this litigation, this Court has consistently refrained from taking any action that intrudes on the legislative process. It is worth recalling that the legislative process first established the MWRA as an independent agency. This pending legislation seems aimed at stripping the MWRA of its independence and its ability to make the difficult, politically charged decisions that are necessary in this effort. Of course, the legislature should not ignore what it believes are important areas for increased attention. Its oversight and efforts to improve are necessary and welcome in our political system. But, the construction

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111 U.S. EPA v. Metropolitan District Commission, et. al., Schedule Four Compliance Order Number 68 (August 28, 1991), others.

112 U.S. EPA v. Metropolitan District Commission, et. al., Schedule Three Compliance Order Number 64 (April 25, 1991), 2.

113 The two senators in question were Paul Harold (D-Quincy) and Christopher Lane (R-Medfield). Scott Lehigh, "Judge says bill could declaw MWRA," The Boston Globe, 25 September 1991, 25.

114 Lehigh, "Judge says bill could declaw MWRA." U.S. EPA v. Metropolitan District Commission, et. al., Schedule Four Compliance Order Number 68 (August 28, 1991).

> project underway as a result of the remedial order in this case is not a project that may be abandoned just because it is no longer acceptable to the "Political Environment," or because it costs too much in a temporarily stalled economy or because it sites certain facilities in the backyards of voters who elect legislative representatives. The orders of this Court are designed to compel compliance with a federal law that the Commonwealth has flouted for years. As I have repeatedly stated, the full remedial powers available to this Court will be used to scrutinize closely any attempt that would derail the project and undermine or circumvent those orders.[115]

Nothing ever came of the bill. Part of the reason was that many legislators believed that things should be left as they are with the MWRA having the responsibility for making the difficult, costly, and necessary decisions that the legislature had earlier decided it wasn't willing to make. Another part of the reason, undoubtedly, was the knowledge that were the legislature to strip the authority of its ability to comply with the schedule the Court would not sit idly by. Mazzone's veiled threat raised the very real possibility that, if the bill became law, the bill's implied purpose, to keep the authority from making politically unpopular decisions, would not be realized because the court would use its powers to ensure that the unpopular decisions necessary for compliance with the schedule were made.

Overcoming Obstacles

This case includes a variety of examples of the court using its coercive powers to maintain the integrity of the schedule. This section focuses on three examples having to do with water and fire.

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115 U.S. EPA v. Metropolitan District Commission, et. al., Schedule Four Compliance Order Number 68 (DATE), 2-3.

Water

During the summer of 1990, MWRA informed the court of difficulties it was having in securing local permits from the city of Quincy that were necessary for the authority to proceed with the construction of the sludge-to-fertilizer plant located there.[116] In early October of that year, MWRA still had yet to get permits for local water and sewer hookups and it claimed that if those permits were not obtained by mid-October the construction schedule would be placed in jeopardy.[117] As a result, Mazzone issued an order on October 18, requiring Quincy to respond to MWRA's claims that it was holding up the issuance of permits. Mazzone also scheduled a hearing later that month to discuss this matter, noting his concern that "any unjustified refusal to issue these permits will disrupt the schedule resulting in delay and increased costs."[118] By bringing this issue to a head at the hearing and making clear the intention of the court to intervene more coercively if the issues couldn't be resolved, Mazzone spurred action. According to the lawyer who represents Quincy, the threat of sanctions, in this instance and in general, creates an "enormous incentive" for the parties to comply with the schedule.[119] The permits were issued by the end of the month. Reflecting on this turn of events, Mazzone wrote, "I have always encouraged the parties to reach an agreement on this and similar matters so that the Court is not compelled to intervene in what should be a local affair."[120]

Within two years another water-related issue threatened the schedule's integrity. In order to operate the new primary plant, a water line had to be routed to Deer Island. That line had to go through the Town of Winthrop, but not before a variety of issues were resolved concerning the extent and nature of

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116 U.S. EPA v. Metropolitan District Commission, et. al., Schedule Three Compliance Order Number 56 (August 22, 1990), 3.

117 U.S. EPA v. Metropolitan District Commission, et. al., Schedule Three Compliance Order Number 57 (October 2, 1990), 2-3.

118 U.S. EPA v. Metropolitan District Commission, et. al., Order (October 18, 1990).

119 Koff interview, 1 November 1994.

120 U.S. EPA v. Metropolitan District Commission, et. al., Schedule Three Compliance Order Number 58 (October 31, 1990), 3-4.

the line's construction.[121] Furthermore, the town had to issue certain easements and street-opening permits before construction could proceed.[122] Throughout the late 1991 and into the summer of 1992, MWRA and Winthrop negotiated over these issue with little success.[123] On August 5, Mazzone noted this impasse and his intention to hold a hearing on the issue if the parties couldn't resolve it themselves by August 22. Reports that the parties were nearing agreement caused Mazzone to cancel the hearing scheduled for August 23rd.[124] While the parties had narrowed their differences, negotiations stalled in mid-September and Mazzone held a hearing. Shortly thereafter, Mazzone made clear his frustration and resolve to break the impasse:

> Despite several optimistic reports that agreement was near and the holding of a hearing at which I encouraged the parties to reach agreement so that Court intervention would not be required given that the remaining areas of disagreement were very small, the parties have failed to reach agreement. As I stated at the hearing, it is deeply disappointing that an agreement could not be reached. On a project of this magnitude, it is discouraging that a dispute over the timing of approvals of the plans for one water line should require the intervention of the federal court overseeing the case. There have been, and will be far more divisive issues ahead of us, and no satisfactory explanation has been made to me by Winthrop as to why it cannot commit, without seemingly ever-increasing conditions, to a relatively straightforward schedule. . . . In light of the very generous concessions by the MWRA and in the absence of any sound

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121 U.S. EPA v. Metropolitan District Commission, et. al., Schedule Five Compliance Order Number 79 (August 5, 1992).

122 U.S. EPA v. Metropolitan District Commission, et. al., Special Report of the Massachusetts Water Resources Authority Concerning Winthrop Water Line (October 23, 1992); and U.S. EPA v. Metropolitan District Commission, et. al., Order (September 25, 1992).

123 U.S. EPA v. Metropolitan District Commission, et. al., Schedule Four Compliance Order Number 71 (November 26, 1991); U.S. EPA v. Metropolitan District Commission, et. al., Schedule Five Compliance Order Number 79 DATE .

124 U.S. EPA v. Metropolitan District Commission, et. al., Schedule Five Compliance Order Number 80 (August 26, 1992).

explanation for Winthrop's indecision, I reluctantly conclude that my direct intervention is required.[125]

That intervention was the issuance of an September 25th order requiring the construction to proceed by December 2, 1992.[126] In the shadow of the Order, the parties were able to resolve their differences and hammer out an agreement. On October 23, MWRA reported to the court that it "expects the renewed spirit of good will and cooperation between the parties to prevail as the parties continue to work together closely," and asked the court to vacate its September 25th order and approve the agreement in its place.[127] Mazzone did so gladly, commending "the parties on their diligence and efforts to resolve this matter without further court intervention."[128] Despite the agreement the issue was not completely resolved. By March 1993, the easements and permits had not been issued and Mazzone decided to turn up the pressure again, stating that if these outstanding matters were not resolved by mid-April the court would consider holding a conference on the matter.[129] Resolution came, no conference was held,[130] and the construction of the water line through Winthrop began. According to the lawyer representing Winthrop, the pressure brought to bear by the court "did hurry things along."[131]

Fire

On the morning of August 6, 1992, a small fire occurred at the sludge pelletizing facility at the Fore River Staging Area (FRSA) in Quincy. Immediately

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125 U.S. EPA v. Metropolitan District Commission, et. al., Schedule Five Compliance Order Number 81 (September 25, 1992), 4-5.

126 U.S. EPA v. Metropolitan District Commission, et. al., Order (September 25, 1992).

127 U.S. EPA v. Metropolitan District Commission, et. al., Special Report of the Massachusetts Water Resources Authority Concerning Winthrop Water Line.

128 U.S. EPA v. Metropolitan District Commission, et. al., Schedule Five Compliance Order Number 82 (October 26, 1992): 6.

129 U.S. EPA v. Metropolitan District Commission, et. al., Schedule Five Compliance Order Number 87 (March 31, 1993).

130 U.S. EPA v. Metropolitan District Commission, et. al., Schedule Five Compliance Order Number 88 (April 27, 1993); U.S. EPA v. Metropolitan District Commission, et. al., Schedule Five Compliance Order Number 89 (June 4, 1993).

131 Harlan Doliner, telephone interview by author, 2 November 1994.

after the fire, MWRA notified city officials, suspended operations at the facility and began taking steps to determine the causes of the fire and the steps necessary to operate the plant safely.[132] That same day, "[i]n the interest of public safety" the Quincy fire chief issued a directive that all operations at the plant cease until he ordered otherwise.[133]

This posed a serious problem for the MWRA and the integrity of the clean up of Boston Harbor. Although the plant was temporarily shut down, the sewage plants weren't. Each day, each plant produced tons of sludge. With the pelletizing plant closed down that sludge couldn't be converted into fertilizer which would normally be shipped off site for sale. While the MWRA initiated the development and implementation of a backup plan to transport the sludge to a disposal site, in lieu of turning it into fertilizer, it needed to be able to store the sludge temporarily.[134]

The Chief's directive, however, not only shut down the pelletizing facility, it also forbid the use of the sludge storage tanks at the FRSA, despite the fact that those tanks were not involved in the fire. Without the use of the tanks, MWRA would be forced to rely on the storage capacity on-site at the two treatment plants. This posed a particularly acute problem at Nut Island, where storage capacity would be exceeded by August 10. If this happened, MWRA would be forced to discharge the sludge into the harbor, violating the court schedule's prohibition of sludge discharges to the harbor after December 1991.

To avoid this outcome, MWRA asked the court, on August 10, to issue an order overriding the Fire Chief's directive as it related to the storage tanks at the

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132 U.S. EPA v. Metropolitan District Commission, et. al., Memorandum of the Massachusetts Water Resources Authority in Support of Motion Concerning Sludge Storage at Fore River Staging Area (August 10, 1992).

133 Ibid; Thomas F. Gorman, Chief Quincy Fire Department, Official Directive (August 5, 1992).

134 U.S. EPA v. Metropolitan District Commission, et. al., Special Report of the Massachusetts Water Resources Authority Concerning Sludge Pelletizing Facility (August 7, 1992); U.S. EPA v. Metropolitan District Commission, et. al., Memorandum of the Massachusetts Water Resources Authority in Support of Motion Concerning Sludge Storage at Fore River Staging Area.

FRSA. The MWRA argued that with the use of the FRSA tanks, storage capacity would be extended to August 16th, giving it much needed time to address Quincy's concerns and put into place disposal plans.[135] Mazzone issued the order, averting sludge discharges to the harbor.[136] Interim disposal plans were implemented, Quincy's concerns were addressed, and ultimately the pelletizing plant came back on line.

The Walpole Landfill: An Example of the Dynamics of Court Intervention

The controversy over the siting of a residuals landfill in Walpole is singled out for extensive review in this section because it offers insights into a variety of the key issues of concern in this dissertation. Those issues include the court's ability to overcome obstacles to implementation, its role in remedy formulation, and its ability to respond flexibly to changing circumstances.

In January 1989, the MWRA Board selected a site in Walpole, Massachusetts as its preferred location for a residuals landfill.[137] The selection process began in 1986 and involved the evaluation of nearly 300 sites within the state. The landfill was to accept grit and screenings from the sewage treatment plants.[138] The landfill was also to be used as a backup for sludge disposal. It was to be a backup because another element of the authority's residual management plan was constructing a pelletizing plant in Quincy that would turn sludge into fertilizer. The Walpole landfill would be used only if the authority were unable to market the sludge as fertilizer or, in some other way, legally dispose of it[139]

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135 U.S. EPA v. Metropolitan District Commission, et. al., Memorandum of the Massachusetts Water Resources Authority in Support of Motion Concerning Sludge Storage at Fore River Staging Area.

136 Ibid.

137 Dolin, Dirty Water/Clean Water, 93.

138 Ibid, 96..

139 U. S. v. Metropolitan District Commission, 757 F. Supp. 121 (D. Mass. 1991): 123.

Before the landfill could be built, however, a number of hurdles had to be cleared. The MWRA's residuals management plan had to undergo favorable environmental review by state and federal environmental agencies, and the MWRA had to acquire the Walpole site, which was owned by the Massachusetts Department of Corrections. Under Massachusetts law, before the MWRA could acquire ownership, the state legislature would have to pass a bill that allowed for the transfer of land.[140] Because construction of the landfill was a crucial part of the clean-up plan, and especially in relation to the December 1991 deadline for the cessation of sludge discharges to the harbor, Mazzone closely monitored MWRA's progress in clearing these hurdles.[141]

The MWRA simultaneously began pushing for the approval of its landfill plans and the filing of the necessary land-transfer legislation. On the approval side of the ledger things went well. On November 20, 1989, the EOEA accepted the MWRA's Final Environmental Impact Report (FEIR) on long-term residuals management, that not only included the designation of the Walpole landfill, but also the decision to build the sludge pelletizing facility in Quincy.[142] On March 30, 1990, EPA issued its own Final Supplemental Environmental Impact Statement approving MWRA's long term residuals management plan.[143]

On the land transfer side of the ledger, progress was delayed repeatedly. The MWRA began efforts to have the land transfer legislation filed soon after voting in favor of the Walpole site and Mazzone ordered the authority to keep the court updated as to the status of its efforts.[144] In June 1989, Governor Dukakis decided to postpone filing the legislation. Later that summer, the Governor again decided to postpone filing the legislation, preferring to wait until the state and federal environmental review process had run its course. While accepting this rationale, Mazzone warned that, "[i]n the event of any slippage in

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140 Ibid.

141 Ibid. 124.

142 Ibid. MWRA, Residuals Management Facilities Plan/Final Environmental Impact Report (August 1989).

143 EPA, Region 1, Public Record of Decision on the Final Supplemental Environmental Impact Statement, Long-Term Residuals Management for Metropolitan Boston (March 30, 1990).

144 U. S. v. Metropolitan District Commission, 757 F. Supp. 121 (D. Mass. 1991), 124.

the schedule for completion of the . . . environmental review process, however, I will reconsider whether further action is appropriate concerning this issue."[145] The state and federal reviews were completed, as noted above, but by May 1990, EPA was expressing great concerns about the problems related to getting access to the Walpole site. As a result, they asked Mazzone to issue an order requiring the MWRA to make plans for an alternative landfill in order to maintain the integrity of the schedule.[146] Mazzone deferred his decision on the EPA's motion and held onto the hope that action would be taken soon to resolve this problem:

> I will not interfere in local and state processes so long as there is no real and imminent threat to the schedule that has been imposed to remedy decades of violation of federal law. . . . The legislature and executive have always before acted on a timely and responsive basis when faced with critical decisions relating to the Harbor clean up. I have no reason to believe they will not do so at this time.[147]

At this point the Dukakis administration, which had since submitted land transfer legislation, told the court that it was committed to getting the legislation approved. At the same time, however, the House had voted to put off consideration of the legislation until December 5, 1990. Responding to this turn of events, Mazzone wrote,

> I believe the best course is to withhold current action until December 5, 1990. . . . As I have repeatedly stated throughout this litigation, this court should not become involved in the substantive decision-making process required to site, design, and build the facilities necessary to achieve full and timely compliance. . . . My role is to see that decades of violations of federal law were identified, and, once identified, terminated as quickly as reasonably possible. . . . At the same time, I am mindful of the huge risk that attends my decision to forego action until December 5, 1990. At stake

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145 U.S. EPA v. Metropolitan District Commission, et. al., Schedule Three Compliance Order Number 44 (August 24, 1989), 3.

146 U. S. v. Metropolitan District Commission, 757 F. Supp. 121 (D. Mass. 1991), 125.

147 U.S. EPA v. Metropolitan District Commission, et. al., Schedule Three Compliance Order Number 53 (May 30, 1990), 9.

> is the credibility of the Court's schedule and the public's faith in the integrity of the entire project. . . . In the event that necessary legislation has not been approved by that date and that slippage in the schedule results from the paralysis surrounding the siting issue, I will entertain and intend to grant a motion for sanctions designed to ensure immediate resolution of this matter.[148]

A large part of the paralysis Mazzone refers to was the result of the political power of the Not In My Backyard Syndrome (NIMBY).[149] The selection of the Walpole site engendered a swift and strong reaction from local residents.[150] Despite MWRA's extensive search and site analyses and the approvals of various environmental agencies, the people of Walpole did not believe that the siting decision was either fair or environmentally sound. Neither did Norfolk, Walpole's neighbor closest to the proposed site.

This opposition was not solely a reflexive case of NIMBY. While it is true that neither wanted the facility, Walpole already housed a state maximum security prison and Norfolk a minimum security prison, both towns claimed they had done their fair share for the state with respect to siting locally unwanted land uses (LULUS).

Walpole and Norfolk filed suits in state and federal court challenging the review processes that led to the selection of the Walpole site.[151] Beyond that, the citizens of Walpole and surrounding communities successfully pressured the local, state and federal politicians representing them to oppose the siting

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148 U. S. v. Metropolitan District Commission, 757 F. Supp. 121 (D. Mass. 1991): 125.

149 For an analysis of NIMBY, see Daniel Mazmanian and David Morell, "The 'NIMBY' Syndrome: Facility Siting and the Failure of Democratic Discourse," in Norman J. Vig and Michael E. Kraft, eds., Environmental Policy in the 1990s (Washington, D.C.: Congressional Quarterly Press, 1990):125-144.

150 David Arnold, "Walpole residents say they've done their share for the state," The Boston Globe, 22 December 1988; Renee Graham, "Day of Decision on Walpole landfill Norfolk Residents to join protest," The Boston Globe, 4 January 1989): 21; Alexander Reid, "400 protest sludge landfill for Walpole," The Boston Globe 18 March 1990, 25.

151 U. S. v. Metropolitan District Commission, 757 F. Supp. 121 (D. Mass. 1991): 124.

decision.[152] And during the 1990 Gubernatorial campaign, the ultimate victor ran in opposition to placing the landfill in Walpole. All of these pressures combined to stall the transfer legislation.

On October 31, 1990, the court schedule was amended with a timeline for the construction of the long-term residuals management facilities.[153] With respect to the landfill, the schedule now required facility design to be completed by November 1991, construction to commence on or before September 1992, and for the landfill to begin operation by March 1994.[154] With these dates fast approaching, the need to quickly resolve the land transfer impasse grew. In late November, 1990, Mazzone warned that if legislation weren't approved by December 5, he would hold a hearing on the matter. Despite the clear intention of the court to step in if the legislature failed to pass the bill, the House voted on December 10, not for the transfer, but against it.[155] Mazzone's patience had worn out. On December 26, he wrote,

> The United States suggested some months ago that awaiting legislative resolution of this issue would prove unavailing. . . . Unfortunately, the United States has proven correct. . . . My confidence was misplaced. As the Conservation Law Foundation has put it succinctly, the legislature has defaulted to the court.[156]

The EPA now asked the Court to either order the Commonwealth to transfer the Walpole site to the MWRA or, alternatively, place a moratorium on sewer hookups in the MWRA service area until the Authority was able to acquire a suitable landfill site.[157] After a hearing on this motion in early January 1991,

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152 James L. Franklin, "Congressional Delegation agrees to help in Walpole fight," The Boston Globe, 8 March 1991),18.

153 U.S. EPA v. Metropolitan District Commission, et. al., Long-Term Residuals Management Scheduling Order (October 31, 1990).

154 Ibid.

155 James Franklin, "House kills measure to transfer Walpole site for use as landfill," The Boston Globe, 11 December 1990, 11.

156 U.S. EPA v. Metropolitan District Commission, et. al., Schedule Three Compliance Order Number 60 (December 26, 1990), 2.

157 Franklin, "EPA asks court for landfill in Walpole," The Boston Globe 7 December 1990, 33.

Mazzone issued a moratorium on February 25, 1991.[158] In doing so, Mazzone noted that such an action was explicitly contemplated by the CWA as an appropriate sanction in the face of continued violations of permit conditions.[159] Although he clearly preferred not to intervene in this manner, he made it clear that the time to do so had come.[160]

Mazzone's move placed newly-elected Governor, William Weld, in a difficult spot. He had run against the Walpole siting decision and wanted to make good on his campaign promise.[161] At the same time the moratorium jeopardized the state's economy which he desperately wanted to jump-start. In the hope of getting the judge to lift the moratorium, Weld announced, on April 1, the appointment of a special commission to find an alternative, in-state, landfill site to take Walpole's place. The Commission's focus on in-state, as opposed to out-of-state, alternatives reflected the EPA's insistence that the MWRA construct an in-state, backup landfill, in part due to EPA concerns about the reliability of out-of-state options.[162]

With the Commission scheduled to report within 120 days, the Commonwealth asked Mazzone to suspend the moratorium pending the completion of the Commission's work. When Mazzone denied this motion, the Commonwealth appealed the denial as well as the imposition of the moratorium

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158 It was not a blanket moratorium. There were exceptions made for facilities necessary to protect public health and safety, sources discharging less that 2,000 gallons of wastewater per day, and facilities needed to carry out the schedule. U. S. v. Metropolitan District Commission, 757 F. Supp. 121 (D. Mass. 1991): 129-130. On April 1, the moratorium was expanded to include hookups for less than 2,000 gallons.

159 "In the event any condition of a permit for discharges from a treatment works . . . is violated, . . . the Administrator . . . may proceed in a court of competent jurisdiction to restrict or prohibit the introduction of any pollutant into such treatment works by a source not utilizing such treatment works prior to the finding that such condition was violated." 33 U.S.C. §1342(h).

160 "I have consistently stated my reluctance to take a substantive decision-making role in the process, and I have been sensitive to the conflict between state and federal authority that court action would implicate. However, I have also made it clear that I would consider taking action at such time that this court's scheduling order is jeopardized. That time has come." U. S. v. Metropolitan District Commission, 757 F. Supp. 121 (D. Mass. 1991): 126.

161 Ross Gelbspan, "Panel finds no option to Walpole landfill," The Boston Globe 9 August 1991, 19.

162 Ibid.

to the United States Court of Appeals, First Circuit, arguing that Mazzone's actions were unreasonable.[163] The Circuit Court sided with Mazzone and upheld the moratorium on April 22, 1991.[164]

Hours after the Circuit Court decision, Weld vowed to soon introduce the land transfer legislation, stating that "the economy of Massachusetts will grind to a halt" if the moratorium is not lifted, and, further, that his administration "really doesn't have any option but to take action to satisfy the federal judge."[165] The transfer legislation passed the legislature on May 21, 1991, and was signed the same day by Weld. Mazzone then lifted the moratorium, stating that "hopefully, this puts the [landfill] matter behind us."[166]

Mazzone's optimism, however, was misplaced. On November 20, 1991, the MWRA Board voted to direct the authority to develop and issue a Request for Proposals to consider alternatives for residuals management backup other than the current plan of using Walpole. The vote was actually two-pronged. Given the court schedule, which contained deadlines for the construction of the Walpole landfill, the Board knew that Mazzone wouldn't allow the search for an alternative to proceed at the expense of continued progress towards complying with the schedule. Thus, part of the Board's vote was a commitment to ensure that work on the Walpole landfill continue in accord with the schedule, while the search for alternatives was under way. The actual search didn't begin until April 1992, when the Authority appropriated $100,000 for that purpose.[167]

The MWRA's decision to re-open the search was based on politics and the belief that an acceptable alternative might still be found. Furthermore, the political pressure to find an alternative to Walpole didn't disappear with the land transfer, it intensified. Although the Governor's Commission reported, in

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163 U. S. v. Metropolitan District Commission, 757 F. Supp. 121 (D. Mass. 1991), 134.

164 Ibid.

165 Gelbspan and Frank Phillips, "Weld will file bill for landfill on Walpole site plan," The Boston Globe 23 April 1991, 27.

166 Sean P. Murphy and Jerry Ackerman, "Judge lifts sewer hookup ban with landfill site in MWRA hands," The Boston Globe. 22 May 1991, 37.

167 Gelbspan, "Agency's new landfill search revives old dispute," The Boston Globe, 1 April 1992, 18.

August 1991, that it had failed to find an acceptable, in-state alternative to Walpole, the administration didn't give up the fight. Instead, the Commission took the offensive, arguing that "the EPA is requiring an excessive level of certainty in requiring an in-state landfill," and that the agency should reconsider its opposition to out-of-state options.[168]

Congressman Barney Frank (D-MA), who represented Walpole and strongly opposed the landfill decision, also wanted EPA to reconsider its stance. In October 1992, a measure authored by Frank was included in an EPA appropriations bill.[169] That measure, while allowing the EPA to require sufficient, in-state, backup capacity for MWRA sludge, grit and screenings, also stated that the MWRA should not be required to construct a backup landfill if other legally acceptable alternatives were found within a year. Although neither the Commission's stance or the Frank amendment affected EPA's position, it certainly created substantial political pressure in favor of continuing the search for an alternative to Walpole.

That pressure was not lost on the MWRA Board, which included three members appointed directly by the Governor, including the chairperson, as well as other members who were sympathetic to Walpole's and Norfolk's concerns. The MWRA's decision, however, wasn't solely based on political pressure. There was also sentiment among a majority of the Board members that with one more evaluation, the authority just might be able to come up with an alternative that would prove acceptable to EPA.[170]

EPA reacted to the MWRA's decision with dismay:

> The authority is free to conduct any study and the EPA will fairly evaluate any concrete proposals that result from it. On the other hand, this action by the authority seems far more likely to prolong the controversy and

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168 Gelbspan, "Panel finds no option to Walpole landfill."

169 Gelbspan, "Frank amendment may provide another year to find sludge site," The Boston Globe, 28 September 1991, 27.

170 Gelbspan, "Agency's new landfill search revives old dispute."

> create false hopes than to result in a better alternative to the Walpole site.[171]

EPA also reiterated its position that "there is going to have to be an in-state backup site."[172] The MWRA Advisory Board, which represents MWRA ratepayers, was also dismayed by the authority's decision, arguing that the siting issue had been studied enough and, therefore, why ask the ratepayers to shell out another $100,000?[173] Mazzone's reaction was predictable. Throughout the case his interest has always been to maintain progress in meeting the schedule's broad deadlines. He has invariably left it up to the parties to determine the specifics of how those deadlines will be achieved. Thus, Mazzone felt that if the MWRA were able to devise an alternative to the Walpole landfill that was legally acceptable and would still allow for the backup landfill capacity to be in place by March 1994, that would certainly be acceptable.[174] He was, however, skeptical about the authority's actions, and let the MWRA know his concerns shortly after the Board's vote:

> the cost of yet another study is an additional expense to the ratepayers, while, at the same time, the Board purports to be concerned about the impact of rising rates on those same ratepayers. Those ratepayers can expect that Secretary Tierney [the head of the board], as well as the majority of the Board, have discovered a reasonably-founded basis to reopen this divisive issue and are not merely taking public advantage of Congressman Frank's amendment described in earlier orders. Advances in knowledge that would make this project more cost effective and efficient are always welcome. . . . As I have said on countless occasions,

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171 U.S. EPA v. Metropolitan District Commission, et. al., Response of the United States to certain recent filings (November 21, 1991), 2.

172 EPA Region 1 Administrator, Julie Belaga, quoted in Gelbspan, "Agency's new landfill search revives old dispute."

173 Joseph Favaloro, Director of the Advisory Board, stated that the decision was "another raid on the ratepayers. We are concerned and angry that, whatever the motives behind this decision, the end result will cost ratepayers another $100,000. How many times are we going to go through the same exercise?" Gelbspan, "Agency's new landfill search revives old dispute."

174 Mazzone interview, 6 December 1993.

> the remedial schedule . . . will not be frustrated by political concerns. This is not to say that the Secretary and the Board should not explore every feasible alternative in carrying out their obligations to direct the MWRA and to make the hard decisions necessary to fulfill its purpose. It is to say that their actions and the underlying rationale should be fully explained so that the added burden to the ratepayers is justified.[175]

Thus began a two-track process, with the authority simultaneously preparing to move forward with the Walpole site and seeking out alternatives. From the Spring of 1992 through the early summer of 1993, the move towards construction of the Walpole landfill was halting, and the schedule's deadline for the commencement of construction, September 1992, was missed for a variety of reasons including delays in getting state approval of the landfill permit and the need for additional site field work.[176] The court was quite concerned about the missed deadlines, but decided that the delays had not reached a critical point, thereby requiring his active intervention to assure the integrity of the schedule's requirement for backup landfill capacity by March 1994.

At the same time, the MWRA had been expressing increasing faith in its ability to devise an alternative landfill plan that would satisfy all the parties. Indeed, on July 7, 1993, the MWRA presented the court with an outline of its proposed plan to use an out-of-state landfill in place of Walpole.[177] Despite the MWRA's optimism, the EPA was growing increasingly concerned about the prospects of having backup capacity in place by 1994 if the MWRA didn't act soon to finally resolve the landfill debate, one way or another.

To that end, the EPA requested that the court order the MWRA to issue a notice to proceed with construction of the Walpole site by October 12, 1993.[178]

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175 U.S. EPA v. Metropolitan District Commission, et. al., Schedule Four Compliance Order Number 71 (November 26, 1991): 7-9.

176 U.S. EPA v. Metropolitan District Commission, et. al., Schedule Five Compliance Order Number 85 (February 1, 1993).

177 U.S. EPA v. Metropolitan District Commission, et. al., Schedule Five Compliance Order Number 91 (July 30, 1993), 6.

178 Ibid.

The MWRA countered that the appropriate deadline was November 1, and the court agreed.[179] Reflecting on Mazzone's decision to set the November 1 deadline, an EPA spokesperson said "there's been a lot of talk and not a lot of action. The Judge is telling the MWRA there's a length of time we'll listen to the talk, and then it's time for action."[180]

During July and August, the MWRA further refined its proposal and got the other parties to sign on. On September 9th of that year the MWRA submitted a motion to modify the long-term residuals management scheduling order. In place of the immediate construction of the Walpole landfill, the MWRA would instead move forward with a plan that included entering into a contractual arrangements with a private firm that would guarantee 30 years worth of commercial disposal capacity of the authority's sludge cake output at a landfill in Utah, with backup sludge disposal capacity at another landfill in North Dakota, and an option for additional grit and screenings disposal capacity.[181] The proposed plan would also guarantee additional backup commercial disposal capacity if there are any problems at the aforementioned landfills. Furthermore, the authority, in agreement with the Towns of Walpole and Norfolk, would maintain ownership of the Walpole site so that a landfill could still be built there if the need arose. In their motion to the court, the MWRA made clear the benefits of the new plan:

> Unlike the Walpole landfill which provides backup capacity for only two to three years . . . the alternative plan provides backup capacity for . . . the next 30 years. . . . by substituting multiple backup landfills available through commercial means in place of sole reliance on a landfill to be owned by the MWRA, the alternative provides a better way to achieve the Court's objective of ensuring long-term compliance with the Clean Water Act. . . . Finally, the alternative plan can be in place within the original

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179 Ibid, 7.

180 Stephen Power, "Court gives MWRA sewage ultimatum," The Boston Globe 3 August 1993, 63.

181 U.S. EPA v. Metropolitan District Commission, et. al., Memorandum of the Massachusetts Water Resources Authority in Support of Motion to Modify Long-Term Residuals Management Scheduling Order (September 9, 1993).

March 1994 Court-scheduled milestone for operation of the Walpole landfill.[182]

At the October 1, 1993, hearing on MWRA's motion, each party rose to support the new plan.[183] Mazzone, clearly excited by this turn of events, commended the parties and stated that the alternative was "better than" the original plan and, therefore, altering the schedule to reflect the alternative was a "meritorious modification in accordance with federal law."[184]

The Outcomes of Court Intervention

From 1985 through the end of 1993, MWRA missed many of the schedule's numerous deadlines. Nevertheless, those "misses" were often relatively minor, e.g., overshooting the date for submitting a draft facility plan by a few months, and did not add up to a flouting of the schedule's basic integrity. Indeed, during that period the MWRA was quite successful in meeting or beating the schedule's major and most important deadlines. For example, the authority ceased discharging sludge into the harbor by the court imposed deadline of December 1991, and commenced construction of the first battery of secondary treatment two months in advance of the milestone scheduled for January 1993.[185] In addition, the upgrades of the old primary plants on Deer and Nut Island, as well as the construction of the new primary plant and the two tunnels was on track. This is why Mazzone was correct in stating that, as of December 1993, the

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182 Ibid, 3-4.

183 MWRA, CLF, Quincy, and a representative of Walpole who was allowed to speak, all lauded the new plan as being better than the old. EPA accepted the plan, but was unwilling to call it better than the one it replaced, although the agency agreed it was good enough and would fulfill legal requirements. In an interview the week before the hearing, the acting Regional Administrator said that EPA's decision to support the MWRA proposal "was not based on politics, but on the merits of the plan." Quoted in Scott Allen, "EPA ends push for Walpole landfill, approves sending sludge to Utah," The Boston Globe, 24 September 1993, 23. Also see, Michael Grunwald, "Judge buries Walpole dump plan, group triumphs: MWRA moves sludge site," The Boston Globe, 10 October 1993), 1.

184 Author's notes at the October 1, 1993 hearing.

185 U.S. EPA v. Metropolitan District Commission, et. al., Schedule Five Compliance Order Number 86 (February 26, 1993).

MWRA had "complied reasonably with the schedule" and that the project is essentially "on time."[186]

Since late 1993 there has been continued progress. For example, CSO planning is proceeding in accord with the reformulation of the CSO planning deadlines. The authority has also missed one major deadline and fallen behind in its efforts to meet key future deadlines. July 1994 was the deadline for commencing operation of the first two batteries of the new primary treatment plant. As of the date of this dissertation, those two batteries are still not on line. The authority plans to have them up and running by January 1995, and that seems to be a reasonable assumption given the fact that as of August 1994, 94% of the construction of the batteries was complete.[187] The delay was in large part due to severe winter weather conditions which slowed the pace of construction considerably.

While Mazzone, as well as the other parties, expressed concern about the delay, they are all confident that the authority is doing the best it can to complete construction as soon as possible. As Mazzone stated, "[t]he reasons given by the MWRA for the delays are . . . coherent and understandable, particularly given the complexity of the project and the difficult winter conditions that have prevailed this year."[188] Interestingly enough, despite the delay with the first two batteries, the authority is slightly ahead of schedule in its efforts to meet the July 1995 deadline for completing construction of the final two batteries of primary.[189]

The construction of the outfall tunnel and the inter-island tunnel has fallen behind schedule. As is the case with the first two batteries of primary, the reasons for this slippage are primarily the result of problems that are beyond the court's control. There were fires in both tunnels that halted construction for a while, while safety concerns were addressed. And the workers in the inter-island

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186 Mazzone interview, 6 December 1993.

187 U.S. EPA v. Metropolitan District Commission, et. al., Schedule Six Compliance Order Number 104 (August 23, 1994), 1-2.

188 U.S. EPA v. Metropolitan District Commission, et. al., Schedule Five Compliance Order Number 98 (February 28, 1994), 3.

189 The Boston Harbor Project July 1994 MWRA report -- 7.

tunnel have encountered unstable and porous rock, which has led to considerable flooding and a slowdown in tunneling activities. As a result of delays it appears unlikely that the authority will meet either of the original deadlines for tunnel completion.

As for environmental restoration, MWRA's efforts have led to a cleaner harbor. In its 1990 report card, The State of Boston Harbor, MWRA gave the harbor an almost failing grade of D+.[190] The various components that went into determining that overall grade included evaluations of the safety of swimming beaches, fish contamination, sediment contamination, and aesthetics. A year later, the grade had risen to C-, a change that surprised MWRA, which had not expected to see improvements so soon.[191] The most recent State of the Boston Harbor reports did away with the grading system. Nevertheless, there is no doubt that the improvements already seen are being sustained and, if anything, the state of the harbor has become a bit better as a result of continuing upgrades and system repair. According the Eric Hall, water quality specialist at EPA, there is "no question" that MWRA's efforts have led to water quality improvements.[192]

Court intervention has not only affected the environment, but also the pocketbooks of those who are serviced by the MWRA. From the day the MWRA was created everyone knew that complying with the CWA would be extremely expensive. Indeed, that was one of the main rationales for creating an independent authority. In its drive to comply with court schedule the authority has already awarded over two billion dollars in contracts to pay for the various projects that are either completed or underway. And current estimates place the overall price tag of moving to secondary at anywhere from 3.4 to 4.3 billion dollars, and that doesn't include the amount that will be necessary to complete whatever CSO facilities are finally agreed upon.[193]

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190 Massachusetts Water Resources Authority, The State of Boston Harbor: 1990 (November 1990).

191 A. C. Rex, et al., The State of Boston Harbor: 1991 (MWRA, Technical Report No. 92-3, January 1993). Also see, David Luberoff and Dominic Slowey, "'Sludge judge' faults the politicians," Middlesex News, 13 September 1987).

192 Telephone interview by author, 8 November 1994.

193 The variation depends on who's doing the estimating, what they are including, and how they count current dollars. Dolin, "Boston's Murky Political Waters," 31; Deegan, 772-

As a result the expenditures to date, MWRA ratepayers have seen their water and sewer bills skyrocket. In 1985, the average annual water and sewer bill for a family of four within the MWRA service area was just under $200.[194] Since that time the MWRA has had to raise rates to the point where, in 1993, the average water and sewer bill was $572, which is among the highest average rates in the nation.[195] And, one thing is certain, those rates will continue to rise many years into the future.[196] Rising rates, in turn, have fueled ratepayer anger which has translated into political pressure to keep rates down.

This pressure has not been lost on the MWRA. From its inception the authority has pursued ways of reducing the cost of service to the ratepayers. Early authority efforts focused on getting the federal government to financially support the cleanup. The hopes for large-scale federal support, however, faded significantly in 1987 when Congress amended the CWA and phased out the construction grants program between 1987 and 1990. Nevertheless, the lobbying efforts of the MWRA and various state political representatives to secure cleanup appropriations from Congress and the Presidents Reagan, Bush, and Clinton have netted hundreds of millions of dollars in support from the federal government. The MWRA has also been able to secure some additional funding from the state. Federal and state aid has helped to reduce the financial burden borne by the ratepayers.[197] Despite this, it is expected that roughly 90 percent of the cleanup costs will still have to be paid by the MWRA ratepayers.[198]

773; Allen, "MWRA rates rank 54th in new survey," The Boston Globe, 23 October 1993; Allen, "Where it all goes," The Boston Globe 13 December 1993, 8-9. Commonwealth of Massachusetts, Office for Administration and Finance, Division of Capital Planning and Operations, Management Review of the Massachusetts Water Resources Authority's Boston Harbor Project -- Deer Island Facilities, Final Report (May 1994).

194 Dolin, "Boston's Murky Political Waters," 31.

195 According to a recent EPA survey, the MWRA rates rank 54th in the country. Allen, "MWRA rates rank 54th in new survey,"

196 How high the rates will go depends on who's doing the calculating. get numbers from different estimates, ranging from around 1,000 up to 2,000 dollars.

197 According to Paul DiNatale, MWRA Spokesman, "Without the assistance that we've been receiving from the state and federal government, our rates would be off the chart." Scott Allen, "Water-sewer bills 3d costliest in US," The Boston Globe, 3 November 1994, 33.

198 Commonwealth of Massachusetts, House Committee on Post Audit and Oversight, Subcommittee on MWRA Operations, The Boston Harbor Cleanup Project: Funding Options and Engineering Alternatives to Produce Rate Relief (May 20, 1993): 1.

The authority has also sought ways to reconfigure the project so that cost savings could be realized. One example of this is the authority's efforts to re-size CSO facilities in light of more accurate information on sewage flows. MWRA is also looking into ways of building a cheaper secondary treatment plant. Such treatment is defined under the CWA in terms of pollutant removal efficiencies, not specific treatment technologies. Thus, as long as the treatment technology used eliminates 85 percent of the BOD and TSS it complies with the secondary requirement. Currently, the MWRA is moving ahead with the design construction of a relatively standard, activated sludge secondary treatment plant. However, the Authority, is also exploring the potential of achieving secondary using a cheaper treatment alternative advocated by a group of engineers at MIT, headed by Donald R. F. Harleman -- chemically enhanced primary treatment. The latter uses a coagulant, such as ferric chloride, to produce "flocs" that settle out and can be collected as sludge. Citing the use of enhanced primary treatment in Europe, Canada, and California, the engineers claim that it will achieve reductions in TSS and BOD that are comparable to, but not quite as high as, those achieved by more traditional secondary treatment. Thus, to meet the CWA's secondary requirements, the engineers recommend that, in addition to retrofitting the new primary plant to become a chemically enhanced facility, MWRA should also build a small, add-on secondary plant that would bring the effluent up to CWA standards. This reconfigured facility, it is argued, would be more efficient than the one it replaces and, therefore, be able to handle more sewage flow. Increased efficiency, in turn, would enable MWRA to build smaller facilities. The engineers estimate that the newly configured plant would reduce construction, operation and maintenance costs considerably.[199] MWRA is also exploring the possibility of eliminating one or two batteries of the planned secondary treatment plant, arguing that it may be possible to meet secondary standards despite a reduction in treatment capacity.

199 Dolin, "Boston Harbor's Murky Political Waters," 30-31. At the writing of this dissertation, the MWRA was about to come out with a study of advanced primary treatment that indicates that using this technology would not reduce the costs of acheiving secondary and, indeed, would likely increase those costs. Renick interview, 8 November 1994.

The court's position with regards to the cost of the project and how it should impact the schedule is clear. Mazzone has consistently argued, from the outset of the remedial process, that rising costs and the political outcry they engender are no defense against compliance with the CWA as embodied in the schedule's remedial actions. Yet, at the same time, he has consistently encouraged the "MWRA to explore all legal and feasible means of reducing the financial burden . . . [the] project will impose on the MWRA's ratepayers."[200]

The Federal Court Case, Legitimacy, Capacity, and Effectiveness

The federal court case has many years left to run. Nevertheless, enough has transpired to analyze the legitimacy, capacity, and effectiveness of the federal district court's intervention in the remedial process. The following sections take each of these issues in turn.

Legitimacy in Remedy Formulation and Implementation

The court's role in remedy formulation and implementation in this case has been highly legitimate. This becomes clear in the following sections which analyze not only how the remedial process was structured and the types of remedial decisions that were made, but also how the various parties perceived the nature and scope of the court's intervention.

Deferring to the Parties

Mazzone has consistently deferred to the parties to make the remedial decisions.[201] According to one party, Mazzone's "whole approach has been to get the parties to reach consensus.[202] Another comments that "the judge has made it clear that the parties should work things out by agreement."[203] A third

200 U.S. EPA v. Metropolitan District Commission, et. al., Schedule Order number 53, 3.
201 "I always encourage the parties to reach agreement." Mazzone interview, 4 May 1993.
202 Renick interview, 25 August 1994.
203 Fowley interview, 20 September 1994.

adds that "Mazzone has always deferred to the parties."[204] This deferential posture has certainly had an impact on the deliberations. From the outset of the remedial regime up through the present, the parties have endeavored to reach agreement on remedial decisions, ranging from establishing the original long-term schedule for secondary treatment to reformulating the CSO schedule.

In most cases the parties have been able to present the court with remedial reformulations that they all support. "In almost every case in which Mazzone has deferred to the parties, such deference has been successful."[205] Of course, the means by which the parties have reached agreement has varied. For example, the proposal to change the long-term scheduling dates for secondary and the tunnels was negotiated and agreed to by all the parties before a motion for reformulating the schedule was presented to Mazzone.

In other cases, however, e.g., the reformulation of CSO deadlines, the MWRA and EPA hammered out the specifics of the proposed changes among themselves and then presented their proposal to the other parties who ultimately supported it. In light of the criteria there is room to question the legitimacy of this approach. Having the parties presented with what appears to be a fait accompli, proposed remedial change by the MWRA and EPA seems contrary to the idea that the court is most legitimate when all the parties reach agreement on remedial decisions as a result of negotiations among themselves. A closer look at situations in which remedial changes are supported by all the parties but are not negotiated by all the parties indicates that legitimacy is not sacrificed.

First, it is not as if the negotiations between any of the parties is done in secret. The parties have developed a close working relationship that involves "many layers of communication and interaction."[206] As a result all the parties are aware of any remedial changes that are being considered at any one time. For example, all the parties knew that MWRA and EPA were negotiating potential changes to the CSO deadlines.

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204 Doliner interview , 8 November 1994.
205 Ibid.
206 Renick interview, 8 November 1994.

Second, having all parties participate in negotiations over remedial changes assumes that all the parties are, in fact, interested in being involved. This is not always true. As a representative of Winthrop, noted, "the CSO issue doesn't enjoy a high level of interest for Winthrop. We were told about the negotiations between MWRA and EPA ahead of time and said okay, waiting to see what they came up with."[207] In other instances, parties have expressed a similar willingness to let negotiations proceed in their absence.

Third, even though the proposed remedial changes are hammered out by a subset of the parties, all the parties are given the chance to review any such proposal before it is submitted to the court. This is both a matter of professional courtesy among lawyers and a function of the local rules of the District Court which require all motions to be circulated among the parties before submission to the court.[208] If the parties oppose proposed remedial changes they can make their opposition known to the court. The fact that parties don't oppose the motions means they find the changes acceptable. Thus, whether proposed remedial changes are negotiated by all the parties, or negotiated by some and supported by all, in such instances the courts' deference to the parties to reach agreement on remedial decisions has been a success, and the judge, as a result, has been able to avoid making those politically and administratively sensitive decisions on his own.

This analysis would likely be quite different, however, if the negotiations among EPA and MWRA were done in secret and the other parties felt that they were being put in the position of commenting, after the fact, on issues about which they were greatly concerned. As a representative of Winthrop noted, while they were willing to sit back on the CSO issue, if the MWRA and EPA had "not included us in negotiations over, for example, the level of disinfection done at Deer Island [which is very important to us] we would have gone into low earth orbit."[209]

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207 Doliner, interview, 9 November 1994.

208 According to Renick, "MWRA would not want to catch any of the parties by surprise in submitting a motion to the court." Interview, 25 August 1994. Fowley interview, 20 September 1994; Doliner, interview, 9 November 1994.

209 Doliner, interview, 8 November 1994 .

There is evidence that the court's deferential stance has been instrumental in fostering the creation of the positive working relationship that has evolved among the parties. As one of the respondents noted, "the parties know that if there is a disagreement among them, Mazzone will urge them to resolve it and, therefore, the parties' first response is to try to solve the problem themselves."[210] There is also evidence that the parties' ability to reach agreement on remedial issues does increase the level of commitment to seeing the remedy successfully implemented. "Our commitment to seeing the remedy achieved is enhanced by the good working relationship we have developed with the other parties and our support for most of the remedial decisions that have been made."[211] Another respondent added that, "the relationship among the parties and the agreement certainly helps generate increased commitment to the implementation of the remedy. There is a feeling of ownership of the process."[212]

Deference up to a Point

Another aspect of legitimacy is the determining the moment when court should replace deference with action. Judge Mazzone has repeatedly indicated that, while he would prefer the parties to make the remedial decisions, he will step in if they are not able to do so. In determining whether a judge's assumption of the remedial formulation role is legitimate one has to evaluate the persuasiveness of the justification the judge uses for stepping in. When Mazzone has gotten directly involved in remedy formulation his justifications have been persuasive. The best example of this is the initial negotiations over the long-term schedule. As he had done in regards to the earlier interim order, Mazzone first deferred to the parties, hoping that they could resolve their differences over long term scheduling. He established a deadline for negotiations to which none of the parties objected. When the parties asked for more time to narrow their differences, he gave it. Only after the parties reached an impasse did Mazzone step in, and none of the parties opposed the judge's assumption of the remedial role. As Mazzone noted at the time, since a long-term schedule was essential to

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210 Ibid.
211 Lipman interview, 15 November 1994.
212 Shelley Interview, 5 August 1994.

moving the MWRA into compliance with the law and helping to clean up the harbor, continued delay in devising such a schedule could not be tolerated.

Mazzone's posture of deference up to a point had one particularly important impact. By making clear his intentions to make a decision if the parties could not, Mazzone altered the dynamics of the negotiations. The uncertainty over how the judge would decide the issues, created an incentive among the parties to reach a mutually acceptable agreement on their own. Although no final agreement was reached, Mazzone's judicial strategy was not a failure. The parties did narrow their differences. They negotiated to the point where they would rather risk a court decision adverse to their interests than make any more concessions.

Specificity of the Remedy

The criteria presented in chapter two argued that it is illegitimate for the court to make specific funding and administrative, e.g., personnel, decisions that are traditionally made by the institution or other politically responsive entities. Mazzone has avoided getting the court involved in making such decisions. This supports his claim that the "court has consistently taken the position that it would not involve itself in the day to day affairs of the MWRA. . . ."[213] Whether the remedy has been formulated by Mazzone or by the parties and adopted by Mazzone, the required remedial actions have been limited in scope. The schedule, for example, does not require the MWRA to hire staff, to create new divisions to oversee the project, or issue a certain number of bonds in a particular manner. Those types of decisions are left to the authority's discretion. What the schedule does do is establish deadlines for the MWRA to meet in developing and finalizing facility plans, and beginning and completing the construction of those facilities. It is left up to the authority to fill in the funding and administrative blanks that will enable it to comply with the deadlines.

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213 U.S. EPA v. Metropolitan District Commission, et. al., Schedule Five Compliance Order Number 77 (May 28, 1992), 3.

Given the scope of the schedule it is equally clear that court intervention has been legitimate in the sense that the remedy has respected the integrity of the regulatory process. According to Mazzone, it has been the court's position that "whenever possible, applicable regulatory agencies are to remain responsible for making substantive decisions concerning the design, construction, and operation of the new sewage facilities."[214] The courts actions bear this out. While it is the MWRA's responsibility to plan, design, construct, and operate the sewage facilities, it is the responsibility of the relevant regulatory agencies to review and approve the authority's actions every step of the way. The court schedule creates a framework within which those reviews and approvals take place; it doesn't make those decisions, it responds to them. As one party noted, "Mazzone is a very strong proponent of having decisions made by the appropriate body or party."[215]

The Remedy Reflecting the Violation

This case highlighted three major violations of the CWA -- the discharge of sludge into the harbor, the failure of the MWRA's sewage plants to provide secondary treatment, and the failure to provide adequate treatment for CSOs. The legitimate focus for the court-ordered remedy, therefore, would be on addressing those three violations, as opposed to other issues that are not before the court, and that is exactly what the schedule does focus on. That does not mean, however, that every requirement in the schedule is dictated by the terms of the CWA. Take, for example, the sludge issue. To comply with the CWA the MWRA had to stop discharging sludge into the harbor, yet the act says nothing about what alternative means of sludge management is to be used. Nevertheless, the court had to become involved in ensuring that alternative means were developed, for one cannot stop discharging thousands of tons of sludge daily if there is not some other management option available. Ceasing the discharge of sludge and developing land-based, sludge management facilities became issues that were inextricably linked. The court couldn't address one without addressing the other.

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214 Ibid.

215 Wilkins interview, 2 November 1994.

Higher Courts and Congress

As with any judicial remedy, parties who oppose a remedial decision have the option of appealing the trial court's ruling to a higher court or taking their grievances to the legislative body. In this case only one of Mazzone's remedial actions has been appealed to a higher court -- the imposition of a moratorium as a response to the landfill siting situation. The court of appeals upheld the moratorium and, in so doing, confirmed the legitimacy of that remedial action. As for appeals to Congress to change the law in a way that would overturn any of the court's remedial decisions, the MWRA has focused its lobbying efforts on getting increased federal funding for the project, not on getting the requirements of the CWA changed in a way that would render illegitimate any planned remedial actions. And Congress, which is well aware of the huge costs of the Boston Harbor project has not sought to amend the CWA in a way that would either change the act's requirements as they relate specifically to Boston Harbor or to change the requirements in a general way that would impact the project.

The Perspectives of the Parties

In asking the parties whether Judge Mazzone has acted legitimately, both during remedy formulation and implementation, there was unanimous agreement that he had. Among the responses were:

> Mazzone involvement has been superb. I don't know of any party that is not respectful of the role he has played. He continues to defer to the parties to try to resolve things. He exercises power when needed, and only then. He has not been intrusive, but supportive. No party feels that the court has acted illegitimately.[216]

> We are very happy with the judge, not that we agree with every one of his decisions.[217]

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216 Koff interview, 12 May 1993.
217 Fowley interview, 23 November 1993.

> The court's actions have been highly legitimate. He has shown restraint while still getting the results he's looking for. He gives the parties an opportunity to make decisions and overcome obstacles on their own.[218]

> Mazzone has drawn the right balance between intervention and restraint in a way that is . . . accomplishing the plaintiff's purposes and Congress's intention.[219]

Despite the battle over the moratorium, which pitted the Commonwealth against the court, the former party still feels that, overall, Mazzone has "acted in a legitimate manner, he's been superb."[220] Because the court has been able to maintain its inherent legitimacy in the eyes of the parties, it has avoided opposition to its orders that might have arisen had one or more of the parties perceived the court as overstepping the bounds of appropriate judicial behavior.

Capacity and Remedy Formulation

The court has shown it has the capacity to formulate remedies in large part because it has created a context of deference within which the actual formulation process is carried out, in most instances, by the parties, who collectively have more capacity than the court to make remedial decisions. Those parties, especially EPA and MWRA, are extremely knowledgeable about the nature of the violations, the alternative remedies that are potentially available, and the feasibility of remedial alternatives.

The court has placed great confidence in the ability of the parties to formulate remedies. There is not a single instance in which the court has significantly modified any remedial actions that were agreed to by all the parties. This is not to say that the court reflexively accepts any agreement. Mazzone, as is his responsibility, reviews the proposed remedial actions to ensure that they are

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218 Doliner interview, 8 November 1994.
219 Shelley interview, 10 May 1993.
220 Wilkins interview, 3 November 1994.

in line with the law and will serve to keep the MWRA moving towards compliance.[221]

The court's, as opposed to the parties', capacity to formulate a remedy can be analyzed using Mazzone's deliberations surrounding the long-term schedule for secondary. To date, it is the only significant example of the court making a substantive remedial choice on its own, as opposed to adopting the remedial choice agreed to by the parties. The information Mazzone had available to him in deciding which of the three long-term schedules to adopt was extensive. The MWRA, EPA, CLF presented detailed descriptions of their proposed plans as well as analyses of the plans, buttressed by numerous affidavits by the experts of three proposing parties and testimony delivered during the two days of court hearings. The court was thus presented with a classic case of adversary science, in which each expert disagreed with the next and the analyses they brought to bear were designed to support their own schedules and discredit the other schedules.

In light of the criteria for capacity the first question to ask is did the court have the best available information pertaining to the alternative remedial proposals? There is good reason to argue that it did. The experts brought in by MWRA and EPA were quite knowledgeable about the area's sewage system, the construction of sewage facilities in general, and the financial aspects relating to such construction.

CLF's experts, however, by its own admission, were somewhat at a disadvantage compared to the others, due to both the financial limitations of the group in hiring experts and the fact that many experts didn't want to testify against the "the golden goose [MWRA], since they all wanted to get a piece of the action or at least be able to bid on the 2-4 billion dollar treatment plant."

As a result, CLF had to retain expert consultants "of lesser reputation [than those retained by the other parties] from the farm leagues."[222] As CLF's attorney

221 Mazzone interview, 6 December 1993..
222 Shelley, quoted in McCreary, 156.

noted, "we got a guy who builds skyscrapers."[223] In addition to the experts presented by CLF, MWRA, and EPA, Mazzone received submissions and testimony from the other parties in the case, which offered additional valuable information for him to consider.

Of course Mazzone was not in the position of having to make the "correct" remedial decision, for there was no right choice. Each schedule was based on debatable engineering and financial considerations as well as assumptions about future events. The ultimate wisdom of any remedial decision Mazzone made at the time would be reflected in the implementation process which was yet to come. The question to ask is whether Mazzone's selection of MWRA's schedule was a reasonable choice at the time it was made. There are reasons to argue that it was. It is evident in Mazzone's eighteen page, long-term scheduling order that he had carefully reviewed the data presented to him and had weighed the pros and cons of the three schedules. Although Mazzone had no particular expertise in either treatment plant financing or construction coming into the case, through the course of the case he had become quite knowledgeable on these subjects. This was a natural outgrowth of his spending ten to fifteen hours per week on the case and reading the extensive and detailed documents that the parties provided to the Court in preparation for the May evidentiary hearings.[224]

The order also shows that Mazzone evaluated the strength of the assumptions upon which the various proposals were built. This is seen most clearly in his consideration of cost, where he discounted the MWRA's claim that EPA's and CLF's schedule would result in greatly increased costs as compared to the authority's. It is important to reiterate that the judge was not divining truth. Rather, he was performing the most fundamental judicial task of weighing the strength of the evidence placed before him and deciding which evidence is most compelling. What Mazzone essentially did in choosing MWRA's schedule is to go with the recommendations of the experts he believed. While it may trouble some that Mazzone's decision was based primarily on his own balancing of the data, what this situation shows is that whenever the court has to make any

223 Shelley interview, 10 May 1993.
224 Mazzone interview, 6 December 1993.

remedial decision there is an irreducible element of judgment that comes into play.

The data alone, however, was not the only reason Mazzone adopted the MWRA's schedule. He factored in the value of giving the MWRA just what they asked for. As one respondent noted, "it was politically astute and tactically shrewd to give them their schedule. If they hung themselves with it at least they couldn't complain it was EPA's or CLF's."[225] This too, appears reasonable, especially since it was the authority who had the primary responsibility for actually implementing the schedule.

Further support for the reasonableness of Mazzone's decision comes from the reactions of the two parties whose schedules were not chosen. Neither CLF nor EPA appealed Mazzone's decision. Indeed, both parties felt he had made a reasonable choice. According to a CLF representative, "the process was fair and the decision was made on substantial grounds and we can live with it." An EPA representative stated that "Mazzone made a good decision. Lawyers are trained to make these choices . . . Although we were disappointed in terms of losing . . . that was probably the right thing for the judge to do."[226]

Time, too, has reflected positively on the court's capacity to formulate remedies. The long-term schedule has proven to be an aggressive one and, thus far, largely effective in moving the MWRA into compliance with the secondary treatment requirements. Indeed, given the massive nature of the project and the difficulties to date, the CLF believes that its proposed schedule was probably "unrealistic."[227] As for the parties' collective capacity to formulate remedies that are effective, here too, time has reflected positively. For example, the party-generated residuals schedule did in fact lead to a cessation of sludge dumping by the scheduled deadline of December 1991, eliminating one of the most important violations of the CWA.

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225 Shelley interview, 10 May 1993.
226 Fowley interview, 20 September 1994.
227 Shelley interview, 10 May 1993.

Capacity to Implement

The court has been quite successful in implementing the schedule. Most of the deadlines have been met. Where things are behind schedule, e.g., the first two batteries of primary and tunnel construction, it is due to factors that are outside of the court's control. Indeed, such factors would have caused delays in moving toward compliance whether or not the court was involved. Part of the reason why the court schedule has been successfully implemented, to date, is attributable to the characteristics of the MWRA. The Authority is a powerful ally of the court in the implementation process for three reasons. First, one of its primary missions is to comply with federal water pollution control laws. Thus the authority and the court share the same fundamental goals.

Second, MWRA has substantial powers that enable it to carry out its mission, e.g., access to independent revenue sources and the ability to hire high-quality personnel. Without such powers the court's task would be much more difficult. For example, if the state case hadn't led to the creation of an authority, the district court might have had to face the more difficult and uncertain prospect of trying to force the legislature to give the MDC sufficient resources to come into compliance.

Finally, the MWRA not only has the power to further the implementation of needed measures, it also has the will. As with most new organizations, MWRA includes among its staff a large number of highly dedicated professionals who are greatly invested in seeing the organizations' mission achieved.[228] There is no indication that the MWRA has lost any of its earlier drives.

However much the implementation of the court schedule is aided by the characteristics of the MWRA, focusing too much attention on this implementation variable is a mistake. The court's ability to monitor the implementation process, respond to changing circumstances, and overcome

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228 For an excellent discussion of why new bureaucracies are usually staffed by advocates or "zealots" who support the organizations' mission see Anthony Downs, Inside Bureaucracy (Boston: Little, Brown and Company, 1967): 5-10.

obstacles placed in the way of implementation, all combine to enhance the courts implementation capacity.

Monitoring

The MWRA's monthly court reporting, its mid-year and annual progress reports, the responses of the other parties to the MWRA reports, and Mazzone's monthly compliance orders, all serve to create a running dialogue between the court and the parties focusing on the implementation of the court schedule. As a result of this dialogue, Mazzone is kept up to date on the progress of the implementation process. As deadlines approach and compliance appears unlikely, the parties, on their own, or at the urging of the court, will usually present information as to why the deadline might be missed, what steps can be taken to avoid missing it, and whether a modification in the schedule is warranted.[229] Thus, the schedule, along with the submissions and any hearings pertaining to it, serves both as an early warning device and a source of data that the court can use to assess whether schedule modifications are justified.[230]

Mazzone's ability to monitor the implementation process is aided by the nature of the remedial actions in the schedule. Those actions, e.g., preparing plans, having them reviewed, and constructing facilities, are highly visible. The plan is done or it is not, the review is complete or it is not, and the facility is in

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229 The usefulness of the schedule is illustrated by the following text, which appeared in one of Mazzone's compliance orders: "... the MWRA failed to commence construction of the interim residuals facilities at either Deer or Nut Islands. As previously reported, an unforeseen need for extensive cleaning of Digest #4 at Nut Island has delayed commencement of construction. The MWRA now expects to award the construction contract in September, 1990. As suggested by the United States, the MWRA should report on its efforts to prevent any delays in future milestones relating to this project. There has also been an unexpected minor slippage concerning the Deer Island interim residuals facilities, which arises from bid protest that has since been favorably resolved. The MWRA indicates that the resulting minor delay in commencement of construction will have no adverse effect on the September, 1991 milestone for completion of construction." U.S. EPA v. Metropolitan District Commission, et. al., Schedule Three Compliance Order Number 55 (July 30, 1990), 2.

230 U.S. EPA v. Metropolitan District Commission, et. al., Long Term Scheduling Order (May 8, 1986), 2.

construction or still on the drawing board. Even if the authority wanted to misrepresent its progress in complying with the schedule, it would not be able to get away with it. Compliance, or lack thereof, with the deadlines is too easy to verify, especially given the presence of regulatory agencies, federal, state, and local, which are keeping a close eye on the MWRA's progress.[231]

Responding

As one of the lawyers at MWRA noted, "every few years the project looks quite different, it evolves over time."[232] Indeed, from the outset of the remedial regime Mazzone expected the remedy to be modified in light of changing circumstances and he has consistently shown a willingness to respond to such circumstances by reformulating the remedy when he is convinced that modifications are appropriate. This is evidenced in his adoption of reformulations in the schedule relating to secondary treatment facilities, CSO management, and the location of the residuals landfill in Walpole. In each case the fact that all the parties agreed that a remedy reformulation was necessary and appropriate undoubtedly made Mazzone's decision to adopt the proposed changes easier than would have been the case had the parties disagreed. Nevertheless, just because the parties agree to a remedial reformulation doesn't diminish the court's role in actually having to make the decision that a proposed reformulation is "meritorious" and worthy of adoption. Mazzone could have, for example, rejected the Utah alternative to the Walpole landfill despite the fact that all the parties supported it. According to one of the parties, the fact that Mazzone didn't reject the alternative is testimony to his ability to respond appropriately to changing circumstances. "Not many judges would have said okay to the Utah stuff. Mazzone showed wisdom and humility in making the right decision."[233]

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231 For example, EPA has staff on site who keep track of the construction taking place at Deer and Nut Islands, and in the tunnels.

232 Renick interview, 25 August 1994.

233 Wilkins interveiw, 2 November 1994.

Mazzone's decision in the Walpole situation is especially interesting because it shows that there are limits to the courts' willingness to respond to changing circumstances. While Mazzone was initially skeptical of the wisdom of the MWRA's decision to continue searching for alternatives, he accepted the possibility that such a search might be successful and simply required the MWRA to prove its case. Mazzone would alter the schedule if such an alteration were justified.[234] His flexibility, however, was not unbounded. The MWRA had to make its pitch within the window of opportunity provided by the court, and the authority could not abandon plans for the Walpole landfill while conducting its search for an alternative. If the MWRA had been unable to come up with a plan acceptable to the court by November 1, 1993, the scheduled date to begin construction of the Walpole landfill, Mazzone would have taken whatever steps he deemed necessary to ensure that the MWRA began construction on that day.[235]

Overcoming Obstacles

One of the key ways in which this court intervention has overcome obstacles to implementation is by keeping those obstacles from arising in the first place. As the history of the MDC indicates, a serious obstacle to the implementation of an environmental program is the complexity of joint action and accompanying delays in regulatory decisionmaking. As the implementation process drags on without resolution, achievement of the goals of the process is put off further into the future. Delays in decisionmaking have not been an obstacle to implementation in the federal case. The items on schedule are placed at the top of the agenda of the authority and relevant regulatory agencies. This is due, in large part, to the combined impact of the perception among the parties that because the court is acting in a legitimate manner its orders demand respect and should be complied with, as well as the knowledge that the court can

234 ". . . the Court stands ready, as I have stated many times before, to consider with an open mind any motion filed by any party for justifiable schedule modifications." U.S. EPA v. Metropolitan District Commission, et. al., Schedule Five Compliance Order Number 91 (July 30, 1993), 7.

235 Mazzone interview, 6 December 1993.

employ meaningful sanctions to enforce compliance with the schedule's deadlines.

Another potential obstacle to implementation is securing adequate funding to pay for remedial actions. Here, too, court intervention has helped to keep this potential obstacle from materializing in two ways. First, the bond market has confidence in the courts' ability to use its powers to ensure the institutional stability of the MWRA, thereby enabling the authority to implement the various projects covered by the schedule and fulfill its obligations to bondholders. Second, court intervention, and the belief that the court would use its powers to enforce the schedule regardless of changes in the MWRA's institutional makeup, has also played a role in keeping the state legislature from taking any actions that would strip the authority of its power to set rates in a way that enables it to pay for the implementation of the schedule.

As the water, fire, and sludge landfill examples indicate, it is not only potential obstacles to implementation that the court has successfully dealt with. Those examples show the court's ability to address actual obstacles to implementation through the use of both the threat of sanctions and sanctions themselves. In these cases it was not the courts legitimacy as an institution that broke the impasse, but its ability to employ coercive powers. As a lawyer for EPA noted in commenting on Quincy's closure of the sludge processing facilities, "if the court only relied on moral suasion [its legitimacy as an institution] nothing would have happened. Without the court ordering Quincy to open the plant, along with the potential for sanctions if they didn't, sludge would have been dumped in the harbor."[236]

Effectiveness

The ability to evaluate the effectiveness of court intervention is extremely limited because the case is far from over. Most of the major deadlines with

236 Fowley interview, 23 November 1993.

respect to the completion of the secondary treatment facilities are yet to come, and a schedule for actually constructing necessary CSO management facilities has not even been established. Nevertheless, enough has transpired begin to ask whether court intervention has led to the cessation of violations within a reasonable amount of time and at a reasonable cost. In light of the criteria, there are good reasons to argue that the answer is yes.

Of the three violations of the CWA which the court schedule is intended to address only the one relating to sludge has been remedied. The cessation of sludge discharges into Boston Harbor in December 1991, is clear evidence of the effectiveness of court intervention in leading to compliance with the law. Compliance was also achieved within a reasonable amount of time and at a reasonable cost. Mazzone's ongoing encouragement of the parties to seek ways to save time and reduce cost in coming into compliance applies to all aspects of the schedule including sludge management.

Mazzone, however, was not presented with any proposals by the parties for shortening or lengthening the 1991 date and, therefore, his response to such potential alterations in the time to compliance cannot be assessed. As for the issue of cost savings relating to the cessation of sludge discharges, Mazzone was marginally involved. The costs of achieving the 1991 deadline were those associated with the development of the land-based, sludge management alternatives necessary to make sure that marine waters were never again used as a repository for MWRA's sludge.

In large part, the determination of how much those facilities would cost was an outgrowth of the regulatory process, where the decisions were made about the type and the design of the facilities. Mazzone had nothing to do with those decisions. He did, however, play a direct role in the decision allowing the Utah alternative to replace the Walpole landfill. There were many reasons Mazzone found the Utah alternative to be a "meritorious" modification of the schedule, one of which was the fact that it was a less-expensive alternative than building the landfill in Walpole. Thus, in adopting the modification Mazzone

helped to ensure the reasonableness of the cost of achieving compliance with the 1991 deadline.

From the parties' perspective, both the time and cost of achieving compliance with the CWA's prohibition against sludge discharges were reasonable. When the parties supported the initial adoption of the 1991 deadline, back in June 1986, that meant that they believed that a little over five years was a reasonable amount of time to reach compliance. Over the years, the parties re-evaluated the deadline on a number of occasions, yet none of them argued for its alteration.[237] As for the cost of the facilities, none of the parties felt the costs of the land-based facilities were unreasonable or that opportunities for cost savings had been missed. Indeed, the court's adoption of the Utah alternative, which was supported by all the parties, is an example of taking advantage of a cost savings.

As for whether court intervention is likely to lead to the future cessation of CWA violations within a reasonable time and at a reasonable cost, there are some promising signs, but, of course, it is too early to know. Despite unavoidable delays, the construction relating to the attainment of secondary treatment is progressing. The planning for CSO management facilities is also progressing. As one of the parties comments, "Mazzone is always pushing the authority to move forward as aggressively as possible," and, based in his statements and actions to date, there is reason to believe that Mazzone would be receptive to any proposals for reducing the time to compliance.[238]

The court also continues to be receptive to proposals for cost savings presented by the parties. This is clearly evidenced by Mazzone's acceptance of the changes in the CSO management facility planning deadlines. The parties, in turn, show every indication of being confident that all reasonable efforts to reduce costs are being pursued. This is seen in the parties response to a June 1993 motion by the Commonwealth.

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237 Lipman interview, 15 November 1994.
238 Shelley interview, 5 August 1994.

In that motion, the Commonwealth requested the court to order the parties to regularly report on design changes that might result in cost savings and scientific studies that would indicate whether such savings are achievable, and to develop statements that indicate what steps would be necessary to implement the new proposals.[239] The Commonwealth did not offer this motion because it thought that the parties' cost saving efforts to date were inadequate. As the lawyer representing the Commonwealth notes, "we just wanted to push the envelope on the issue and press further inquiry."[240] All of the other parties opposed this motion, arguing among other things that such additional reporting requirements were unnecessary given the history of cooperation among the parties and regular reporting, and that the motion was "perilously close to frivolous." Mazzone agreed and denied the motion:

> It is clear to the court that the MWRA is attempting on every front -- indeed, on some fronts that may not be acceptable under the Clean Water Act -- to reduce the cost of the project. While I continue to believe that regular monthly reporting is critical to the ongoing progress of this project, I agree that the existing, monthly format is adequate and that an additional layer of forced reporting by multiple parties is unlikely to forward the goal of cost reduction and might instead impede the attainment of that goal.[241]

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239 U.S. EPA v. Metropolitan District Commission, et. al., Schedule Five Compliance Order Number 91 (July 30, 1993).

240 Tom Bean, Assistant Attorney General, Massachusetts, telephone interview with author, 15 November 1994.

241 U.S. EPA v. Metropolitan District Commission, et. al., Schedule Five Compliance Order Number 91, 6.

Chapter VI

Remedial Adjudication in Environmental Institution Cases: Lessons Learned

The issues of legitimacy, capacity, and effectiveness will be of central importance in any case of remedial adjudication involving environmental institutions. The analysis of the state and federal court actions in light of these criteria provides the basis for drawing out a number of lessons of which all of the parties involved in remedial adjudication should be aware. This chapter presents those lessons. Through an understanding of the dynamics of remedial adjudication the parties will be in a better position to structure the process in a way that expeditiously moves the dispute to a satisfactory conclusion.

In keeping with the analytical construct presented in chapter two, the first part of this chapter is divided into sections on legitimacy, capacity, and effectiveness. Given the interrelationships among these issues, there will be instances where this neat division is sacrificed to more accurately account for the textured nature of the remedial adjudication process. The chapter then discusses the central importance of the judge in the process, recounts the lessons learned, offers suggestions for further study, and comments on the future of environmental institution, remedial adjudication.

Legitimacy

Legitimacy focuses on the proper role of the court and the parties during remedy formulation and implementation. The case studies indicate the instrumental value of judicial deference to the parties, as well as the need for the court to take over the role of remedy formulation in certain circumstances. The

cases also offer evidence that the inherent legitimacy of the court as an institution contributes to its ability to ensure the implementation of its orders. Finally, the federal case offers an opportunity to consider the legitimacy of the court requiring strict compliance with the law in all circumstances.

Deference to a Point

In his analysis of remedial adjudication, which focused primarily on constitutional cases, Cooper noted that there usually were two stages in the remedy formulation process. In the first stage, the court acts as a facilitator, encouraging the parties to formulate a remedy, or at least narrow their differences. This is the equivalent of the deferential stance presented in the criteria for legitimacy. Judges, however, declared limits on the amount of time they were willing to defer and assume the facilitator role. When that point was reached, the second stage began in which the judge became more "a validator or ratifying official who placed the court's imprimatur on specific parts of the plans submitted by the parties without regard to voluntary acceptance by other parties."[1]

The Facilitator Role

The federal case offers evidence that there are a number of benefits that accrue when the judge is able to successfully defer to the parties, and thereby play the role of facilitator. It can enhance the legitimacy of court intervention by keeping the court out of the role of making politically or administratively sensitive remedial decisions that are better left to the parties. Deference can increase the likelihood of the parties developing a working relationship which can help them to resolve differences and, therefore, make remedial decisions on their own. By agreeing to a remedy, the parties are more likely to feel "ownership" of it and be committed to seeing it successfully implemented. Finally, deference can save the court valuable time, the time it would have taken

1 Cooper, 337-338.

the judge to either choose among remedial options or formulate the remedy himself.

The legitimacy of the facilitator role, as construed in this dissertation, depends, in part, on the participation in the remedial negotiations of the regulatory agency with the responsibility for implementing the law that has been violated. The rationale for including the regulatory agency, as already discussed, goes to the heart of the concerns about ensuring the legitimacy of judicial intervention as well as the capacity of the court in both remedy formulation and implementation. In the federal case, the participation of the regulatory agency was not an issue because EPA had brought one of the suits that was the foundation upon which the remedial process was built. Thus deference to the parties included EPA. Indeed, in all cases where the regulatory agency brings suit against an environmental institution, it will necessarily be involved in the remedial process when the court is able to successfully defer first to the parties.

There can be, however, cases in which the regulatory agency is not a party. Under citizens' suit provisions, a citizens group may decide to sue only the environmental institution for violating the law and not the regulatory agency for failing to ensure that the law was properly enforced. For example, CLF sued the city of New Bedford under the citizens suit provision of the CWA for violating CSO requirements.[2] EPA was not named in the suit and the court-ordered schedule, under which the city is now operating, was formulated by CLF and the city, without the direct involvement of the agency.

The citizens' suit provision of the CWA, as well as other environmental laws such as the Clean Air Act and the Resource Conservation and Recovery Act, allow the administrator of EPA to intervene in a citizens' suit as a matter of right.[3] But, in light of the importance of the regulatory agency's participation in

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2 Shelley Interview, 5 August 1994.

3 The language in the CWA, CAA, and RCRA, all states that "In such action under this section [citizens suits] , the Administrator, if not a party, may intervene as a matter of right." 772. 375, 559. Bureau of National Affairs, U.S. Environmental Laws (Washington D.C.: Bureau of National Affairs, 1988): 375, 559, 772.

remedial negotiations during the facilitator stage, lawmakers should seriously consider amending the citizens' suit provisions of environmental laws, at both the federal and state level, in a way that requires the relevant regulatory agency to intervene in the case if they are not specifically named in the suit.

The Validator/Ratifier Role

The validator/ratifier role is as important as the facilitator role. Ultimately, the court must make the remedial decisions if the parties are unable to do so. The state case shows that deciding when to take over the remedial formulation process may not be a simple task and will require the judge to weigh the pros and cons of doing so and to justify his assumption of remedial responsibilities. The federal case, on the other hand, indicates that a good way for the judge to structure the remedial process so that he can more easily identify when to assume such responsibilities is to set deadlines for remedial negotiations among the parties. Deadlines can be an effective means of both placing pressure on the parties to reach agreement and defining the limits of the facilitator role. The knowledge that the court will step in on a certain date if the parties fail to reach agreement, is likely to create incentives among the parties to agree because of the parties' uncertainty about what remedial decision the court would make.

The Potential for Enhancing the Facilitator Role

Given the instrumental value of the court successfully adopting the facilitator role and getting the parties to formulate the remedies, it might be worthwhile for those involved in environmental institution, remedial adjudication to consider the use of persons trained in the skills of negotiation to assist the parties in coming to agreement, such as a facilitator, mediator or a special master whose task it is to help the parties explore their differences and bridge them through consensus building processes. There are many examples of environmental litigation in which such persons have helped the parties overcome

differences and reach agreement.[4] However, there are two reasons that neither the state nor the federal case presents an opportunity to contribute any insights into the benefits of assisted negotiation. First, neither case has any examples in which negotiation assistance was used. Second, there is no clear cut evidence that such assistance would have led to improved outcomes.

In the state case, during the development of the procedural order, the state was adamantly opposed to any kind of negotiations. During the implementation phase of the procedural order, a trained negotiation specialist might have had more success than Haar in helping the parties reach agreement on more of the remedial tasks in the order. However, even if that had happened, negotiations among the parties would not have been of any consequence until the legislature and the administration agreed on a way of creating the institutional capacity necessary for the area's sewage system to be brought up to legal operating standards. It is not clear how any more formal negotiated process would have aided the legislature and the administration in resolving the institutional capacity issue any sooner or more satisfactorily.

In the federal case, by contrast, more formal negotiations among the parties might have led them to resolve their differences over the original long term schedule for secondary treatment. The negotiations, as they were conducted, did result in an exchange of information and a narrowing of differences. But, it was more a case of one set of experts versus another.[5] A trained negotiator or facilitator might have been able to help the parties more fully explore the validity of the assumptions upon which their arguments were based, and help them to find more common ground. A trained negotiator also might have been able to help overcome the unequal distribution of resources among the parties. For example, CLF had to go to the "farm leagues" for its

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4 See, for example, McGovern; Lawrence Susskind, "The Special Master as Environmental Mediator," Environmental Law Reporter 17 (July 1987): 10239-10241; and Connie Ozawa, Recasting Science (Boulder, CO: Westview Press, 1991).

5 The situtation in which one set of experts disputes the findings or interpretations of another set of experts in a public fora has been termed "advocacy science." See, for example, Susskind and Cruikshank, 29; and Ozawa and Susskind, "Mediating Science-Intensive Disputes," Journal of Public Poilcy Analysis and Management 5, no. 1 (1985): 23-39.

technical support. By creating a context for sharing information, creating new information and exploring options, a negotiation specialist might have placed the CLF on more equal technical footing with EPA and MWRA.

However, it is not clear how assisted negotiation would have resulted in a better solution. All of the parties felt that Mazzone had made a reasonable remedial choice given the information available at the time, and none of them opposed the schedule or worked to undermine it. And, subsequent implementation certainly has supported the wisdom of Mazzone's choice. Also, by making the remedial decision after giving the parties a certain amount of time to work out their differences, Mazzone ensured that a remedial decision was made in fairly short order.

There is the strong possibility that formal negotiations, replete with joint fact-finding and the exploration/resolution of differences, would have taken much longer than what actually transpired. Thus, even if agreement were reached, it might have required more time, thereby pushing the actual task of remedying the violations even further into the future. Furthermore, in virtually all their subsequent negotiations, the parties in the federal case have been able to reach agreement on their own, without formal outside help. While formal negotiations are useful in many circumstances, it is highly unlikely that they could have improved matters in either the state or federal case.

Legitimacy and Implementation

The federal case offers evidence to support the contention that one of the most important powers that a court posesses to ensure the implementation of its orders is its moral sanction. This is an extension of the courts' inherent legitimacy as an institution. By acting in a manner that the relevant political actors perceive as legitimate, Mazzone has had a positive influence on the desire of those actors to comply with the terms of the court-ordered schedule. The courts' imprimatur on the remedy brings a powerful element of moral suasion into play. This element is based on the perception that the court is a just arbiter

of what the law requires and that, therefore, the courts' orders deserve respect and should be carried out.

The flipside of this causal nexus is that if a court acts illegitimately, the relevant political actors will tend to oppose court orders, thereby reducing the courts' ability to further implementation. The state case offers evidence that appears to contradict this claim. The fact that some of the courts' actions on behalf of the "ultimate remedy" were illegitimate did not result in a backlash of the political actors whose actions were necessary to get the remedy implemented. Indeed, quite the opposite is true. Garrity's actions were instrumental in getting the authority bill passed and signed into law. Thus, using an "ends justifies the means" rationale, it could be argued that illegitimate judicial behavior is acceptable as long as it leads to desirable outcomes.

While the state case provides evidence that casts doubt on the instrumental value of the court acting in a legitimate manner and, in fact provides some evidence that there is an instrumental value to illegitimate behavior, this should not be construed as an argument in favor of illegitimacy. The judicial process is not just about reaching certain ends; it is also about the means used to achieve those ends. If judges, on a regular basis acted as did Garrity towards the end of his tenure on the bench, it would most likely lead to a "waning of judicial legitimacy" and a corresponding increase in resistance to judicial orders.[6] Such resistance is especially problematic because the courts are inherently weak institutions. This is primarily because the judiciary is largely dependent on the cooperation of the other branches of government to carry out its orders.[7] If those branches strongly oppose court orders because they believe

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6 Rose has formally defined "waning judicial legitimacy" as "a diminution of the public respect for and decrease in the public's sense of obligation to be bound by the rulings of courts, resulting from the perception that courts do not themselves conform to an abide by accepted legal principles limiting their authority." Jerome G. Rose, "New Additions to the Lexicon of Exclusionary Zoning Litigation, Seton Hall Law Review, Vol. 14 (1984), 885, cited in Rose, "Waning Judicial Legitimacy: The Price of Judicial Promulgation of Urban Policy," The Urban Lawyer 20, no. 2 (Summer 1988), 802.

7 As Alexander Hamilton stated, ""The judiciary . . . It may truly be said to have neither FORCE nor WILL, [sic] but merely judgment; and must ultimately depend upon the aid of the executive arm for the efficacy of its judgment." Quoted in Smith, Courts and Public Policy, 21.

the court to be acting in an illegitimate manner, there is likely to be little that the court can do to force them to implement their decrees.

Legitimacy and Strict Compliance

According to the criteria for legitimacy, it is the responsibility of the court to enforce compliance with the law. In light of this, Mazzone's actions with respect to secondary treatment have been highly legitimate. The law requires secondary treatment, and until the law changes Mazzone will not waive that requirement regardless of how much it costs to achieve it. "When the law changes, the order changes."[8] By requiring the MWRA to achieve secondary treatment, Mazzone's remedy clearly reflects the nature of the violation, and once the authority achieves such treatment levels, it will be in compliance with that part of the law. But, one can question whether the courts should require strict compliance with the law in all circumstances. What if, for example, Mazzone had refused to order the MWRA to meet the secondary standard because he believed that the costs of achieving secondary outweighed the benefits and, as a result, ordering the MWRA to meet the standard would not be in the public interest? Would that be a legitimate judicial action? This section provides five reasons why it would not. Before presenting those reasons, however, it is useful to briefly consider the events surrounding a court case involving the city of San Diego in which one of the main issues is the CWA's secondary treatment requirement.[9]

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8 Mazzone interview, 4 May 1993.

9 The discussion of the San Diego case is based primarily on the following sources: U.S. v. City of San Diego, Memorandum Decision and Order Rejecting Proposed Partial Consent Decree Lodged January 31, 1990, and Setting Status Hearing for April 25, 1994 (United States District Court, Southern District of California, Civ. No. 88-1101-B, March 31, 1994); U.S. v. City of San Diego, Order Setting Status Hearing; And Ordering Parties to Meet and Confer (United States District Court, Southern District of California, Civ. No. 88-1101-B, April 29, 1994); Association of Metropolitan Sewerage Agencies, "Secondary Treatment Rejected in San Diego," Law Digest (Summer 1994): 1-6; National Research Council, Managing Wastewater in Coastal Urban Areas (Washington, D.C.: National Academy Press, 1993): 47-51; and Hugh Barroll, Assistant Regional Counsel, EPA, Region IX, telephone interview by author, 29 November 1994.

In the mid-1980s, after failing to get a waiver from the secondary treatment for its sewage treatment plant, San Diego and the EPA entered into a consent decree that would have required the city to upgrade its sewage treatment plant to secondary by 2003, plus take a variety of other actions relating to improving water quality, e.g., building water reclamation facilities. EPA and the city submitted the consent decree to federal district court judge Rudi Brewster in 1990. After hearings that raised concerns about the costs and appropriateness of the decree, Brewster put off his decision on whether to enter the decree and ordered the city to conduct pilot tests to determine if the plant could use alternative technologies to achieve secondary levels of effluent reduction for less money than would be the case if the conventional technologies identified in the decree were used.

In early 1994, after three weeks of testimony, Brewster decided that the consent decree was not in the public interest and he refused to enter it. This decision was, in part, due to Brewster's perspective on the secondary issue. He found that while the city's improved treatment processes still were unable to meet secondary standards, they were close to meeting those standards, and that the plant's discharges did not harm the marine environment, but in fact were beneficial to it (e.g., adding nutrients). As a result, Brewster argued that to spend all that money, when there appeared to be no environmental benefit coming from doing so was an improper use of the public's money.

Following the court's decision, EPA asked the court to order the city to comply with the secondary requirements of the CWA. The city and the other parties in the case urged the court to deny such a request, "in large part due to their concern that such an order would 'kill' their efforts in the [U.S.] Senate and with EPA to obtain relief from the secondary requirement, either by legislative amendment or by administrative waiver."[10] Brewster said that he couldn't wait indefinitely for congress or the EPA to act and that as the law presently stood, the city must ultimately comply with secondary treatment standards. He gave the parties until January 1995 to come up with a plan that would enable the city to

10 U.S. v. City of San Diego, Order Setting Status Hearing; And Ordering Parties to Meet and Confer (April 29, 1994), 2.

achieve secondary standards, thereby giving the city and the other parties some time to further pursue legislative and/or administrative relief. Soon thereafter, San Diego got the relief it was looking for. On October 31, 1994, President Clinton signed into law an amendment to the CWA which specifically gave San Diego the right to reapply for a waiver.[11] The city is now in the process of putting together their waiver application.

Assessing the legitimacy of Brewster's decision to reject the consent decree is beyond the scope of this dissertation. The rules governing judicial evaluation of consent decrees give the judge considerable discretion in deciding whether to adopt them, and one of the criteria for such decrees is finding that they are in the "public interest."[12] What is interesting, from the perspective of the current analysis, is Brewster's response to EPA's request to enforce the secondary requirement. Despite his misgivings, Brewster took essentially the same stance as Mazzone -- secondary is what the law requires and that is, therefore, what the court must require, only congress has the right to change that.

The San Diego case, like the hypothetical that introduced this section, serves to raise the question of whether a judge who is involved in remedial adjudication should enforce compliance with the law when he believes that achieving such compliance would not be in the public interest because the costs outweigh the benefits, even though the law doesn't require a cost-benefit calculation? In other words, should the courts be "helpful partners" to the legislature, balancing the cost and benefits of applying laws of general application to specific circumstances and refusing to enforce compliance in cases where to do so runs counter to the judge's estimation of what is in the public interest? Or should the courts' task be to determine what the law requires in the way of compliance and then use its powers to move the institution into compliance, even if the judge believes that to do so would not be in the public

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11 Ocean Pollution Reduction Act, an amendment to the CWA, creating a new Section 301(j). Photocopy provided by Barroll. At the time of the writing of this dissertation, this amendment had yet to be formally published in the U.S. Code.

12 U.S. v. City of San Diego, Memorandum Decision and Order Rejecting Proposed Partial Consent Decree Lodged January 31, 1990, and Setting Status Hearing for April 25, 1994 (March 31, 1994): 12.

interest? Five reasons are presented as to why the second approach is the legitimate one and why, therefore, both Mazzone's actions and Brewster's ultimate stance with respect to the enforcement of the secondary treatment requirement represent legitimate judicial behavior.

First, by inserting its opinion as to what is in the public interest, the court, in effect, takes over the policymaking role and replaces the legislative body's conception of what is in the public interest with its own.[13] For example, in establishing the secondary treatment as a uniform floor requirement, Congress put into writing its determination of what level of environmental protection is in the public interest. In a society that values the principles that underlie the separation of powers doctrine, it is not acceptable for the courts to displace legislative mandates unless they are found to be unconstitutional. Of course, it may not be easy as it is in the case of secondary treatment to determine what the law requires in the way of compliance. The statute may be ambiguous and the legislative history confusing. Nevertheless, however ambiguous or confusing the task may be, it is the court's responsibility to, in fact, determine what the law requires and then, to the best of its ability, move the violating institution into compliance.

Second, the degree to which the courts are perceived to be making policy by inserting their own conception of what is in the public interest, they run the risk of damaging their legitimacy as an institution and losing the power that flows from the perception that they are acting in a legitimate manner. Third, if this type of judicial policymaking is accepted as legitimate behavior, then it becomes even more difficult, and perhaps impossible, to determine where to create boundaries separating legitimate from illegitimate judicial action. For example, although it may be relatively clear in the San Diego case that the costs of going to secondary far outweigh the benefits, what decision should the court make in cases where divergence of costs and benefits is not as wide, e.g., when the costs outweigh benefits by a "significant" margin or only by a little bit? Furthermore, the courts ability, or the ability of any entity for that matter, to

13 "By enacting the environmental statutes, Congress established the public interest in a clean environment." Miller, 79.

accurately assess costs and benefits and factor them into remedial decisionmaking is highly questionable.[14] While the costs of a remedy, e.g., the money required to build a new pollution control facility, may be relatively easy to measure, many of the benefits, e.g., rejuvenation of ecosystems and aesthetic improvements, are not.

Fourth, the fact that the court requires strict compliance doesn't mean that cost is irrelevant to remedy formulation. Although in requiring strict compliance with the law the court has no flexibility in determining the appropriate ends or goals of enforcement, the court retains flexibility in determining the means by which those goals will be attained. Thus, whether the remedy is formulated by the parties or the court, the latter can use its discretion to help ensure that the goals are attained in a cost-effective manner, thereby ameliorating the financial impact of compliance.

Fifth, if the application of the law results in a situation that political actors perceive as unjust or not in the public interest, they always have the option of pressuring legislators to redress such an injustice by amending the law. The San Diego case and the related congressional amendment to the CWA illustrate the potential effectiveness of such pressure tactics. By insisting on strict compliance with the law, the courts can serve a valuable purpose by exposing the true ramifications, financial and otherwise, of legislative enactments and, thereby, generating political pressure for the legislature in question to reconsider the wisdom and appropriateness of the law itself either with respect to a specific situation or in general.[15] According to Plater,

> Where the judge believes that a statute does not serve the public interest in a particular case, he or she is of course free to say so, but must nevertheless give the law its required effect. In such cases the practical result of statutory enforcement, by injunction or otherwise, will often be a

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14 Walter A. Rosenbaum, Environmental Politics and Policy, Second Edition (Washington, D.C.: Congressional Quarterly Press, 1991): 128-134.

15 According to Farber, if the courts provide "ad-hoc relief to individual violators," it could make it more difficult for congress to see the effects of its lawsl and, thereby, lead to a reduction in congressional accountability. 543.

> transfer of the controversy to the legislature, which is the proper repository of the power to promulgate statutory exemptions and amendments.[16]

There are many examples of such "remands to the legislature."[17] As Farber notes, "to the extent that existing statutory schemes [enforced by the court] are too rigid, Congress has proved that it is quite capable of providing legislative remedies. Polluters have found that it is possible to obtain congressional relief from unduly harsh statutory provisions."[18] And there is no reason why state legislatures could not provide similar relief from the strict application of environmental laws promulgated at the state level.

Capacity to Formulate

In addition to helping to ensure the legitimacy of judicial intervention, by successfully deferring to the parties, the court can also help to ensure that it has the capacity to formulate remedies. In the course of the federal case, the court schedule has been formulated and reformulated numerous times, and in virtually every instance the remedial decisions have been agreed to by all the parties and adopted by the court. Mazzone's deferential posture has enabled him, in effect, to leverage the court's capacity by leaving decisionmaking in the

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16 Plater, 528. This rationale is reflected in former Chief Justice Warren Burger's words in the majority opinion for TVA v. Hill:

> We agree with the Court of Appeals that in our Constitutional system the commitment to the separation of powers is too fundamental for us to pre-empt congressional action by judicially decreeing what accords with 'common sense and the public weal [public interest]'. Our Constitution vests such responsibilities in the political branches.

TVA v. Hill, 437 U.S. 153 (1978), at 195, cited in Jonathan Mallamud, "Courts, Statutes and Administrative Agency Jurisdiction: A Consideration of Limits on Judicial Creativity," South Carolina Law Review 35, no. 2 (Winter 1984): 231.

17 The judicial phenomenon of the remand to the legislature was first described by Joseph Sax in 1971 in his book Defending the Environment, 175-192. For specific examples of the judicial remand see Plater, 583-588, and Farber, 516-517 and 543-544.

18 Farber, 543.

hands of the parties who, collectively, clearly have the technical and institutional expertise and knowledge to make sound remedial decisions.

Deference to the parties during remedy formulation may not be successful, or a judge may decide that deference is not an appropriate option given the circumstances. In either situation, the court inevitably must take on the task of remedy formulation. The two cases show that in doing so, the court has the capacity to make sound remedial decisions. In the state court case, Garrity successfully used the special master as a means of supplementing the court's capacity to gather relevant information and develop remedies. While Mazzone opted not to rely on a court adjunct to assist him, he nonetheless showed himself capable of successfully taking on the task of remedy formulation.

The state case shows how the historical record and expertise developed prior to the initiation of litigation can facilitate the task of remedy formulation when undertaken by the court. Rather than having to develop data pertaining to violations and alternative remedies himself, Haar was able to gather such information from numerous studies, reports, EPA administrative orders, and the expertise of individuals familiar with the area's sewage situation. This body of information enabled Haar to be more synthesizer of information than creator, undoubtedly making his task easier than it would have been in the absence of such data. Similarly, when Mazzone had to decide among the three long-term schedules, he had the benefit of relying on the expertise and knowledge of the parties as well as the vast written record. There is strong reason to believe that in most cases of environmental institution, remedial adjudication the courts, if put in the position of having to formulate a remedy, will be able to draw upon a substantial body of data and expertise, as did Haar and Mazzone. These cases will most often be brought only after other enforcement options have failed and the nature of the pollution problems and potential solutions has been extensively debated and studied.

Capacity to Implement

Remedy implementation takes place within a dynamic environment that is constantly changing. The court's capacity to ensure the implementation of its orders in such an environment depends on its ability to monitor implementation, respond flexibly to changing circumstances, and overcome obstacles to implementation.

Monitoring

In order to effectively monitor implementation, the court must have a means of gathering information about the institution's progress in meeting court-ordered deadlines. The cases provide evidence of the efficacy of using either a special master to gather this information and then transmit it to the court, or requiring the institution to periodically report on their progress. In either case, the court is aided in its monitoring task by the nature of the remedial steps that are likely to attend environmental institution cases. The development of reports, facility plans, environmental reviews, and construction are all very public activities and, as such, it is relatively easy to determine whether or not they have been performed. This is especially true when the other parties to the case, besides the institution, are given the opportunity to submit comments to the court. Through their comments, those parties can provide the court with an independent source of information that can be used to verify what is, and what is not, transpiring at the ground level where implementation is taking place. Mazzone's and, to a lesser extent, Garrity's success in monitoring the implementation process contradicts the perception that courts don't have the personnel or the time to effectively monitor the many activities which are being carried out, or not carried out, as a result of their decrees.[19]

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19 "The judges do not have at their disposal, among other things, the independent investigatory and fact-finding capabilities of the efficient administrative apparatus. Indeed, they do not really have the time to function simultaneously as administrators and judges -- except on occasion." Scheingold, 123. Shapiro claims that courts "rarely have the administrative resources to follow-up on their resolutions." M. Shapiro, Courts 13 (1981), quoted on page 63 of Mnookin. According to Birkby, "The judge has no means

The monitoring function is not only important as a means of keeping track of whether the institution is meeting court-ordered deadlines, but also of identifying both changing circumstances that might require the reformulation of the remedy and obstacles to implementation so that they can be addressed by the court. The federal case shows that in creating a context in which the parties, especially the environmental institution, are encouraged and expected to be responsible for informing the court about changing circumstances and obstacles, through the use of reporting requirements, occasional hearings, and the submissions of motions to amend the remedy, the court is able to keep up to date on the way in which the implementation situation is evolving and whether any court actions should be considered, e.g., amending the remedy or using the court's coercive powers to deal with an obstacle to implementation.

Responding

Identifying changing circumstances is of little value unless the court is able to respond flexibly to those circumstances by reformulating the remedy when appropriate. Such flexibility enables the court to ensure that the schedule is realistic and that it takes advantage of opportunities to save time and/or money while still achieving remedial goals. The federal case indicates that the court certainly has the capacity to respond in a flexible manner, when confronted with persuasive arguments that remedy reformulation is appropriate. There is, however, the potential for the court to be too flexible. If, for example, instead of seriously evaluating the merits of proposed remedial reformulations, courts were to repeatedly extend remedial deadlines without strong justification for doing so, the remedial schedule itself would run the risk of becoming a tool for indefinite delay, with the prospect for compliance being put off further into the future.

Overcoming Obstacles

Identifying obstacles to implementation is of little value unless the court has a means to overcome them. One way in which the court can overcome such

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for systematically following up on his or her orders. Typically, a court issues an decree or order and assumes that everyone affected by it will do what they are supposed to." 6.

obstacles is by keeping them from arising in the first place. The ability of the courts to do this is an outgrowth of both their legitimacy as an institution and their potential to apply tangible sanctions. The most fundamental sanction, already alluded to above, is the courts' moral sanction which provides a strong incentive for the relevant parties to take the actions necessary to implement a court order.

A moral sanction alone, however, would not get the court very far. If there were not the implied threat of the court enforcing the implementation of its orders with the use of tangible sanctions, e.g., levying fines or placing a public official in contempt of court, the relevant parties would likely have little incentive to comply with court orders, for there would be no repercussions for not complying.

Furthermore, for an implied threat to be effective, the parties must believe not only that the threat is credible, in that the court will use its tangible sanctions if its orders are violated, but also that those sanctions are severe enough to make the alternative of not complying unattractive.[20] Comments by the parties in the federal case indicate that a combination of the courts' moral sanction and the potential for the court to apply tangible sanctions has positively influenced the parties' efforts to comply with the court-ordered schedule and, as a result, has kept one of the most serious obstacles to implementation -- delays in decisionmaking -- from becoming a problem. In the state case, by contrast, without the credible threat of sanctions to back up the procedural order, the parties had less incentive to comply despite the court's support of the order.

When implementation obstacles do arise, the court is far from powerless to overcome them. As the Winthrop water line example from the federal case indicates, the mere threat of court intervention to overcome an obstacle may be enough to get the parties to resolve the impasse themselves. And, the fire

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20 "The utility of sanctions depends upon their severity and credibility." Diver, 100. The importance of credibility in maintaining the effectiveness of threats is indicated by Schelling's work on conflict; see Thomas C. Schelling, The Strategy of Conflict (Cambridge, MA: Harvard University Press, 1960): 40.

example in the federal case shows how a court order, backed by an implied threat of sanctions if the order is not obeyed, can indeed be an effective force in overcoming an obstacle to implementation, in this case the shutdown of the sludge processing facility.

Another way in which the courts can overcome obstacles to implementation is by actually threatening to apply tangible sanctions. This can be seen in Garrity's use of the receivership threat to coerce the legislature into passing an authority bill. Here, both elements of an effective threat were in evidence. The legislature viewed the threat as credible. Garrity's placement of the BHA into receivership was a clear indication that he was willing to use this drastic form of sanction as a means to an end. And the haunting specter of receivership was a threat severe enough to make the legislature, as well as the administration, take steps to avoid it.

As long as the threat, either implied or clearly stated, of judicially imposed sanctions remains credible and severe enough, the court can overcome obstacles to implementation of its orders without actually having to place its power on the line through the application of tangible sanctions. The ability to influence implementation in this way is especially important in light of the traditional reluctance on the part of the courts to apply sanctions against public facilities or public officials that are impeding the implementation of court orders.

For example, fines are often seen as counterproductive because they take money away from the task of achieving compliance with the law.[21] Holding officials in contempt may only create martyrs to the cause and harden the resolve of those officials to continue opposing judicial decrees.[22] Receivership is seen as

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21 Gelpe, 94.

22 "In practice, courts seldom exercise their contempt power against governmental defendants. This reluctance probably reflects a fear of polarizing the dispute by creating a martyr around whom disaffected groups can rally." Diver, 100. For example, in the South Boston school desegregation case, a three-man majority of the school committee voted to disobey a court order to submit an acceptable desegregation plan. The Judge, W. Arthur Garrity, Jr., held the three men in contempt and considered sending them to jail, "[b]ut fearing that would only make martyrs of them, he let them purge themselves

an extraordinary remedy, not lightly employed, and it is not clear that by taking over the day-to-day operations of a facility the court will be in any better position to overcome the obstacles to implementation that led to receivership.[23]

Nevertheless, the court cannot always rely on the threat of sanctions to produce action. The use of the moratorium in the federal case shows the potential value of applying sanctions in order to further the implementation of court orders. The effectiveness of the moratorium was due to the severity of the sanction. The political costs of transferring the landfill site to the MWRA were far less than the political and economic costs of allowing the moratorium to continue. The moratorium's effectiveness was also due to its ability to mobilize a powerful constituency, in this case the development and real-estate community, to become, in effect, an ally of the court in the latter's efforts to spur action. This ability to mobilize the development and real-estate community was also in evidence during the short-lived moratorium in the state case.

While the cases don't offer evidence to support this point, there is little doubt that there is a potential cost to the court associated with threatening and using sanctions to overcome obstacles to implementation. Repeated threats without actual follow-through when the threats go unheeded could diminish the value of the threat in the long run. If the threat is not credible, it will not have the intended effect. There is also the possibility that if the judge imposed sanctions for every violation of a schedule, it would diminish the court's ability to further the implementation of its orders. Such actions might lead the parties to perceive the judge as acting in an unfair and illegitimate manner and cause them to oppose the court's actions. It seems that the most prudent course for the court to take is to husband its enforcement resources by threatening and applying sanctions only in the most serious instances in which the integrity of the court order is in jeopardy, as was the case in the Walpole landfill situation.

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of contempt by submitting a palpably unacceptable . . . plan." J. Anthony Lukas, Common Ground (New York: Alfred A. Knopf, 1985): 243.

23 Columbia Law Review, 835-836.

Effectiveness

The two cases provide a limited opportunity to evaluate the effectiveness of remedial adjudication. Nevertheless, they do offer some lessons on this issue. The state case presents a cautionary tale of judicial intervention and effectiveness. While the court's actions were clearly effective in leading to the creation of the authority, some of those actions were also illegitimate. As noted earlier, such an ends justifies the means approach to remedial adjudication, while successful in this case, is not likely to be a sustainable judicial strategy over time.

In the federal case to date, the courts' actions have been highly effective, not only from the perspective of leading to a cessation of violations, but also in doing so within a reasonable amount of time and at a reasonable cost. By encouraging the parties to explore ways to save money and time, Mazzone has helped to spur such exploration. But as is likely to be the case with any environmental institution case, judicial encouragement will not be the only factor that will contribute to effectiveness. The institution itself, by virtue of its public nature and responsiveness to local concerns, will undoubtedly have strong incentives to pursue time and cost savings where possible, and to urge the court to alter the remedial scheme in order to take advantage of such savings.

The federal court has also helped to ensure effectiveness by being willing to take advantage of potential cost savings presented in the form of remedial reformulations. Without such receptivity, the effectiveness of court intervention would be diminished.

The Role of the Judge

The judge is the single most important actor in remedial adjudication. His perspective on the proper role of the court, and the actions he takes as a result, will have the greatest impact in determining the legitimacy, capacity, and effectiveness of court intervention. Because the formulation and implementation of remedies is not simply a reflexive process in which the judge can follow a

clearly prescribed set of actions that are delineated in advance by legal requirements and the canons of appropriate judicial behavior, the judge must exercise considerable discretion during all phases of remedial adjudication. The way in which the judge chooses to exercise that discretion structures the remedial process. He makes the decisions about whether deference is appropriate, who to include in negotiations, when to take on the remedial role, how to resolve disputes over proposed remedial actions, when and how to use the courts' power to overcome obstacles to implementation, whether to encourage time and cost savings, and how to respond to proposals for remedy reformulation. This is why the judicial philosophy of the judge is such an important element in remedial adjudication. As a representative of one of the parties in the federal case noted, "you can't take the person out of the judge."[24]

The central importance of the judge is clear in the two cases. In the state case, the importance of the judge became apparent even before the case began. The lawyers for the city of Quincy waited until Garrity rotated into the city's district before filing suit because they believed that an "activist" judge was important because he would "prod the agency into action." The strategy proved to be successful. It was Garrity's "activist" bent, combined with his desire to step down from the bench, that led him to take a variety of actions that were either illegitimate or of questionable legitimacy. Mazzone, on the other hand, possesses a much more conservative judicial philosophy than Garrity which has been reflected in his actions to date.

It is not only the approach that the judge decides to take that is important, but also the manner in which he pursues the chosen path. For example, in commenting on Mazzone, a representative of one of the parties stated that "a different judge might not have been as skillful in playing the negotiation role --

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24 Shelly interview, 16 November 1994. In his comments on the ability of judges to analyze technical, non-legal issues, Judge Oakes indicates the importance of the human component. "In the end, much depends on the conscientiousness or ability of the individual judge, just as much depends, at other levels in the system, upon individual traits of agency officials or laboratory scientists." James L. Oakes, "The Judicial Role in Environmental Law," New York University Law Review, Vol. 52 (June 1977): 512.

pushing people to reach agreement and consensus without having to choose himself."[25]

Lessons Learned

The two cases presented in this dissertation illustrate the complexity of remedial adjudication in environmental institution cases. The parties involved in such cases can be seen as working within a system in which the shared goal is the creation of a remedial process that exhibits the characteristics of legitimacy, capacity, and effectiveness. This dissertation's analysis of the state and federal case has revealed nine key lessons of which such parties, particularly the judge, should be aware, so that the shared goal can be achieved.

1). Perhaps the most fundamental lesson is the importance of the judge taking on the role of facilitator of the remedial regime. By successfully deferring to the parties during remedy formulation, the judge can enhance both the legitimacy and capacity of judicial intervention. Deference allows the politically responsible entities to make the relevant policy and administrative decisions. And, it leaves the resolution of the scientific and technical issues that inevitably attend remedy formulation in the hands of those most capable of undertaking that task. Deference also is likely to contribute to the establishment of a working relationship among the parties that enables them, and not the court, to take the lead in determining whether circumstances warrant reformulating the remedy and, if so, what type of reformulation is most appropriate. A good working relationship among the parties and the opportunity for them to structure the scope of the evolving remedy will, in turn, tend to increase the parties' commitment to seeing the remedy implemented.

2). Unlimited deference to the parties is not an option that the courts can exercise. The main goal of remedial adjudication, to bring the violating institution into compliance, cannot be achieved if remedial indecision is let stand.

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25 Shelley interview, 16 November 1994.

Establishing deadlines for the parties to make remedial decisions, after which time the court will step in if a decision has not been reached, appears to be a particularly useful technique not only to spur the negotiations among the parties, but also to help the judge determine when his direct intervention is appropriate.

3). The courts can have the capacity to formulate remedies. In making remedial decisions, courts need to get the best information available on the causes of the violations and the remedial alternatives. This involves using the data that was developed prior to the litigation, e.g., agency reports, and seeking out the perspectives of those who are most familiar with the law's requirements and the peculiar circumstances surrounding the institution. The role of the court is not to come up with the "right" remedy but to formulate a remedy that is reasonable and likely to bring the institution into compliance with the law.

4). Legitimate remedies must strive to bring the institution into compliance with the law's requirements, regardless of whether or not the judge believes that doing so is in the public interest. If the application of a general law in a specific situation leads to a politically unacceptable outcome, it should be up to the legislators to change the law, thereby forcing the court to modify the remedy. While the court can use its discretion to determine the means of reaching compliance, it should not have the power to, in effect, replace legislative goals with ones that are judicially crafted.

5). The greater the courts' capacity to monitor remedy implementation and respond flexibly to changing circumstances, the greater the chances that the implementation process will run smoothly. Monitoring is made easier given the very public, highly visible, and readily verifiable nature of the types of remedial actions that attend environmental institution cases, e.g., the development and regulatory review of plans and the construction of new facilities. A court's ability to flexibly respond to changing circumstances is likely to be enhanced by the degree to which the court can successfully defer to the parties to not only identify the need to reformulate the remedy, but also to present a remedial option or options for the court to review.

6). One of the best ways for the courts to deal with obstacles to implementation is to keep them from arising in the first place. Monitoring and flexibly responding to changing circumstances alone, is not enough to ensure the remedy will be implemented. By carrying out the tasks of remedy formulation and implementation in a manner that is perceived as legitimate by the relevant political actors, the courts can generate strong incentives for those actors to see to it that court orders are complied with, and that traditional obstacles to implementation, e.g., delays in decisionmaking, are avoided. The impact of such incentives is increased by the degree to which the parties believe that, should they impede implementation of court orders, the court will employ severe, tangible sanctions intended to keep the implementation process on track.

7). The courts can overcome implementation obstacles, once they do arise, in two ways. First, they can threaten to impose a tangible sanction on the party that is causing the problem. The effectiveness of such a threat will depend on that party's perception of whether the threat is credible and severe enough to warrant taking action to avoid the imposition of the sanction. Second, the court can actually apply a tangible sanction. The effectiveness of this approach depends on severity of the sanction. For the sanction to work, it must impose a cost on the party that is greater than the cost of continuing to refuse to comply.

8). The courts' capacity to implement is enhanced when the relevant actors percieve the court to be behaving in a legitimate manner. As an inherently weak institution, courts depend on the support of the other branches to further their remedial goals. By acting illegitimately, courts may only serve to turn needed allies into foes.

9). The effectiveness of judicial intervention is inextricably linked to the courts' legitimacy and capacity. If the court acts illegitimately, it risks losing its capacity to implement its orders, and if the court doesn't have the capacity to formulate sound remedies, remedial implementation will not lead to the cessation of violations. Furthermore, while judicial encouragement of the search for remedial time and cost savings is an important element in ensuring effectiveness, the search itself is useless unless the courts are capable of flexibly

responding to new information and taking advantage of those time and cost savings opportunities when they appear.

Suggestions for Further Study

This analysis of legitimacy, capacity, and effectiveness suggests several other questions for further study on the topic of remedial adjudication in environmental institution cases.

The Use of Adjuncts

The state case offered some perspective on how a special master may be used to aid the court in carrying out its remedial adjudication duties. This is hardly the only type of adjunct that the court could use, nor is it the only way a special master's services could be employed. As noted earlier, assisted negotiation holds out the potential promise helping parties resolve differences. In light of this, it would be interesting to further explore how the use of court adjuncts, trained in negotiation techniques, might help the parties in remedial adjudication reach consensus on remedial design so that the court can maintain the role of facilitator, thereby helping to ensure the legitimacy, capacity, and effectiveness of judicial intervention.[26]

An adjunct might also provide useful assistance during implementation. The federal case indicates that the hands-on style of Mazzone requires a significant investment of one of the judiciary's scarcest resources -- time. Mazzone spends ten to fifteen hours a week on this case.[27] Given the fact that the judiciary is already stretched to the limit in terms of caseload, the potential for such environmental institution cases to further overburden the judiciary is very real. In light of this, the potential for a special master, or some other court

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26 For an excellent discussion of how adjuncts might be used to enhance the legitimacy, capacity and effectiveness of remedial adjudication in public law cases (both constitutional and statutory cases), see Sturm, "A Normative Theory of Public Law Remedies."

27 Mazzone interview, 4 May 1993.

adjunct, to take over some of the responsibility for managing the implementation process should be studied more closely.

Termination of Judicial Intervention

One of the most difficult issues in constitutional cases of remedial adjudication is determining when judicial intervention should end.[28] The issue of termination can be problematic for a variety of reasons. For example, in cases where the violations are partly, but not wholly resolved, the judge may feel the need to remain involved in the hopes of achieving more complete relief. The judge, or some of the parties, may believe that despite improvements in the institutional capacity of the violating institution and its ability to behave in a constitutionally acceptable manner, such gains might be lost if the court is no longer, in effect, looking over the institution's shoulder. And, if the goals of judicial intervention, in terms of the remedial requirements, are not clear, the court may stay involved because it lacks cues to help it determine when termination is appropriate.

In light of these concerns, it would be interesting to inquire into how the issue of termination plays out in the context of environmental institution cases. For example, is there anything in the nature of environmental statutes that facilitates the establishment of clear remedial goals, with associated schedules for completion, thereby making it easier to identify when judicial intervention should end? Does the presence of regulatory agencies and the integral role they play in enforcement of environmental law provide some assurance that the gains achieved as a result of judicial intervention will be sustained once the court leaves the scene? Does the development of a good working relationship between the institution and the regulatory agency, during the time when the court is involved, lay the groundwork for a continuing relationship after the court terminates its involvement, and will such a continuing relationship improve the chances of the institution avoiding a slide back towards non-compliance?

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28 Wood, 76-96.

Consent Decrees

This analysis focused on cases in which the courts are involved in both remedy formulation and reformulation. Given the fact that litigation is much more likely to end in the signing of a consent decree, it might be interesting to explore how the issues of legitimacy, capacity, and effectiveness play out in that context. For example, the issue of the courts' legitimacy and capacity with respect to remedy formulation will undoubtedly present itself quite differently, because it is the parties who must devise the remedy, and any reformulations of the remedy, which the court, in turn, evaluates and accepts or rejects. It may be that the issues of capacity to implement and effectiveness will have to be considered in a different light as well.

Looking to the Future

The likely future course of remedial adjudication in environmental institution cases is difficult to discern. It may be that the number of such cases will continue to be relatively few and that environmental institutions that are violating the law will be brought back into compliance via the use of other enforcement techniques that fall lower down on the hierarchy of enforcement options than the full-blown involvement of the courts in both remedy formulation and implementation, e.g., consent decrees or administrative orders. Or, such cases might become more common as towns, cities, and regional districts refuse to implement environmental mandates without receiving the funding for the latter from federal and/or state coffers.[29] In those situations, the

29 The problems posed by unfunded or underfunded government mandates has been a hot topic of debate for years. See, for example, Michael Fix and Daphne A. Kenyon, Coping with Mandates: What are the Alernatives (Washington, D.C.: The Urban Institute Press, 1990); John W. Moore, "Mandates Without Money," National Journal (October 4, 1986): 2366; and Enviromental Law Review Committee to the Mayor and City Council of The City of Columbus, Environmental Legislation: The Increasing Costs of Regulatory Compliance to the City of Columbus (May 13, 1991). With the recent takeover of Congress by a Republican majority, this issue is likely to take conter stage in a national debate over regulation of all types, not just environmental. Indeed, a bill to bar the federal government from imposing mandates without providing adequate funds is the top priority on the 1995 Senate agenda. And insiders believe that early passage of such a

court may be increasingly brought into the fray and put into the position of enforcing the laws through the formulation and implementation of remedies. Either way, it is hoped that the lessons drawn from the two Boston Harbor court cases will provide insights that can be used to enhance the legitimacy, capacity, and effectiveness of the courts in cases of environmental institution, remedial adjudication that do arise.

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bill by Congress is likely. See David S. Broder, "States makning bid for more power," The Boston Globe, 12 December 1994, 15.

Appendix

List of Interviewees

Steve Angelo (D), Representative, Massachusetts House of Representatives, Saugus, Massachusetts (8/93)

Noel Barrata, Chief Engineer, MDC (3/7/89, 4/14/89, and 10/7/93)

Hugh Barroll, Assistant Regional Counsel, U.S. EPA, Region IX (11/29/94)

Tom Bean, Assistant Attorney General, Massachusetts (11/15/94)

Abram Chayes, Felix Frankfurter Professor of Law, Harvard Law School (Fall 1993)

Ron DeCeasare, former 301(h) Task Force Manager (1/14/93)

Harlan Doliner, lawyer representing Wintrhop, Massachusetts (11/8/94 and 11/9/94

Jeffrey Fowley, Chief of the Water Office, Office of Regional Counsel, U.S. EPA, Region 1 (11/23/93 and 9/20/94)

Dick Fox, former head of Construction, MWRA (Fall 1992)

Paul Garrity, former Superior Court Judge, Massachusetts (12/14/93)

Charles V. Gibbs, fomer head of Seattle Metro Sewage District and past President of the Association of Metropolitan Sewerage Agencies (2/8/93)

Charles M. Haar, Louis D. Brandeis Professor of Law, Harvard University (11/8/93)

Eric Hall, Water Quality Standards Coordinator, U.S. EPA, Region 1 (11/8/94)

Donald R.F. Harleman, Ford Professor of Civil Engineering, Massachusetts Institute of Technology (Fall 1993)

William Kane, former CSO Program Manager, MWRA (3/3/89)

Peter Koff, lawyer representing Quincy, Massachusetts (5/12/93 and 11/1/94)

Madeleine Kolb, former analsyst at the Massachusetts Department of Environmental Quality Engineering (10/18/93)

Paul Levy, former Executive Director, MWRA (9/14/93)

Steven Lipman, Boston Harbor Coordinator, Massachusetts Department of Environmental Protection (11/15/94)

John Lishman, former member of the 301(h) Task Force (1/14/93)

A. D. Mazzone, District Court Judge, District of Massachusetts (5/4/93 and 12/6/93)

Joe G. Moore, Jr., former head of the Federal Water Pollution Control Administration (1/5/93 and 1/21/93)

Kenneth Moraff, Assistant Regional Counsel, Water Office, U.S. EPA, Region 1 (Fall 1993)

Neil O'Brien, Director of Research, House Committee on Natural Resources, Massachusetts House of Representatives (10/8/93 and 11/11/94)

Brian Pitt, Environmental Engineer, Management Division, U.S. EPA, Region 1 (4/12/89)

Zygmunt Plater, Professor of Law, Boston College (Fall 1993)

Virginia Renick, Associate General Counsel, MWRA (5/9/93, 11/3/93, 8/25/94, and 11/8/94)

Peter Shelley, Senior Attorney, Conservation Law Foundation of New England (5/10/93, 8/5/94, and 11/16/94)

Michael Sloman, former Assistant Attorney General, Massachusetts (11/16/94)

John Snedecker, former Commissioner of MDC (4/7/89)

Elizabeth Steele, Legal Assistant, MWRA (11/2/94)

Laura Steinberg, lawyer representing the Boston Water and Sewer Commission (11/8/94)

Jekabs Vittands, a consultant with Metcalf & Eddy and Project Manager for the MDC's waiver application (4/12/89)

Douglas Wilkins, Assistant Attorney General, Massachusetts (11/2/94)

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