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# The Tide is High for the Boston Beaches

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In 1993, Massachusetts Governor William Weld and Boston Mayor Thomas Menino approved the "Back to the Beaches" project, a seven-year, \$30.5 million public project to restore nineteen Boston Harbor beaches. Today, these sites have new, cleaner sand, improved access, and new amenities and facilities now ready to offer additional opportunities for recreation. People are coming back to the Boston Harbor beaches in numbers significantly higher than a decade ago. This study concludes that the implementation and success of the "Back to the Beaches" project can be attributed to several factors — an increased public awareness of the value of open spaces and environmental resources, the Boston Harbor Clean-Up Project, the project's political support, the Metropolitan District Commission's receipt of funds over its capital spending ceiling, and the interactive community process and strategy used to bring about these changes.

This study presents policymakers with three general areas of consideration for future public works projects. First, this project demonstrates how public projects can benefit from nonprofit organizations in an oversight and management function. Second, this project highlights the necessity of special environmental regulations for man-made urban environments in order to facilitate their management and use and also save government time and resources. Finally, the "Back to the Beaches" project posits the need for performance measures to truly assess public works projects and their use of public dollars.

Until the turn of the twentieth century, the beaches of Boston Harbor provided city dwellers with means of sanitation, socialization, and recreation, but by the end of the 1980s, these once well-utilized, valued areas of the city were trash-ridden, unhealthy, and often unsafe places. With the clean-up of Boston Harbor underway, Massachusetts Governor William Weld and Boston Mayor Raymond Flynn signed an Executive Order on July 26, 1991, establishing the Joint Commission on the Future of the Boston Harbor Beaches with a mandate "to coordinate, develop, and recommend to the Governor and Mayor a plan for the restoration of the beaches of Boston Harbor." This commission examined the existing beach sites, assessed their prospects for improvement, and developed a plan to renovate and re-establish the Boston Harbor beaches.

In 1993, Governor William Weld and Mayor Thomas Menino approved the "Back to the Beaches" project, a seven-year, \$30.5 million public project to restore nineteen Boston Harbor beaches, a majority of which fell under the jurisdiction of the Metropolitan District Commission (MDC), which owned, operated, and managed the

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sites. The Boston Harbor Association (TBHA), a nonprofit organization, was asked by the state to oversee the project and act as a watchdog group over its implementation. In 1994, the MDC, with the help of TBHA, began implementing "Back to the Beaches."

A National Perspective. In 1981, Pat Choate and Susan Walter published America in Ruins: Beyond the Public Works Pork Barrel, a critique of America's failing infrastructure. This publication precipitated a national debate on the subject of public works, its policies and principles. But despite the debate, national public spending on infrastructure accounted for a mere 2.6 percent of gross national product in 1985, down from 3.6 percent in 1960.<sup>2</sup> And still, in the past decade, news stories have reported bridges collapsing and water mains rupturing. It is clear that the United States needs to invest in its infrastructure.

From roadways and dams to sewer systems and parks, public goods, for which government is responsible, play an important role in everyday life. Government spending on these public goods is essential to ensure public safety, quality of life, and a healthy economy.

## Overview and Background of the Boston Harbor Beaches

The coastline of Massachusetts is comprised of diverse natural resources from beaches and rocky shores to many inlets and harbors. Massachusetts is probably best known for the sandy beaches of Cape Cod, yet roughly 275 beaches exist along its 1,500-mile coastline, running from New Hampshire to Rhode Island.<sup>3</sup> Boston Harbor alone contains approximately twenty public urban beaches along its 180-mile shoreline.

To the north of Boston Harbor, Revere Beach, Winthrop Beach, Yirrell Beach, and Constitution Beach dot the coastline. On the south side of the harbor, one finds the shores of South Boston, Dorchester, and Quincy including Pleasure Bay and Castle Island, Savin Hill/Malibu Beach, and Wollaston Beach. An often forgotten resource, the Boston Harbor Islands, are also filled with beaches and recreation areas.

#### History of the Boston Harbor Beaches

The beaches of Boston Harbor developed in response to the urban climate of nineteenth-century Boston. The city was growing rapidly. Immigrants were flooding in, and the harbor beaches came to fill many purposes. Without autos, people had no means to travel long distances. Therefore, the beaches surrounding Boston Harbor — easily accessible by rail and foot — provided an escape from the city as well as a link to nature.<sup>4</sup>

These urban beaches served as important recreational and social resources for Bostonians. Families spent their summer days and nights at the beach, enjoying the water and socializing with their neighbors. The Boston shores were filled with boating clubs, pavilions, restaurants, and amusements. In South Boston, "people would stroll to City Point at night for fried clams, and on Thursday night open air dances were held." In Quincy, small concessions and restaurants such as The Anchor Inn and Nostalgia lined Wollaston Beach during its peak in the late 1930s.

Elaborate public bathhouses were constructed at many of the urban beaches in the 1860s. Beach bathhouses such as that at L Street provide examples of the earliest



Courtesy of the Boston Public Library, Print Department

Pleasure Bay, 1928

efforts by city officials to improve the physical health of the neighborhood and remedy inadequate plumbing.<sup>6</sup>

The beaches of Winthrop, Dorchester, and Quincy served as vacation spots for city dwellers. In the late nineteenth century, real estate entrepreneurs built up several flourishing summer cottage communities near the beaches. These popular vacation spots included "Ocean Spray" along Winthrop Beach and the Highlands between Short Beach and Winthrop Beach. Beginning in 1882, hotels were built along Winthrop's shore, which grew to number sixty-one at one point. To the south of Boston, Dorchester's Tuttle House on Savin Hill was a popular summer hotel.

The Boston Harbor Islands, first inhabited by Native American Indians, in later years, served a military purpose, defending the harbor in many battles.

#### The Metropolitan Park System

In response to Boston's rapid development throughout the late nineteenth century, the state formed a series of special commissions to deal with regional issues: In 1892, the Metropolitan Sewage Board was created, followed by the Metropolitan Park Commission (MPC) in 1893, and the Metropolitan Water Board in 1895. These special boards were rare; state government was very small and undeveloped at this time.<sup>8</sup>

The MPC's mission was to manage and maintain the Metropolitan Park System, an idea promoted by the efforts of Sylvester Baxter, a journalist and amateur planner, and Charles Elliot, a landscape architect. In the face of nineteenth-century development, these two visionaries sought to preserve open such space as beaches, marshes, and woods, and connect the ring of hills around Boston to the seashore principally along three rivers — the Charles, the Neponset, and the Mystic. <sup>9</sup> From

its beginnings, the MPC acquired lands for the sole purpose of open space preservation; some of its early acquisitions, including Blue Hills, the Middlesex Fells, and the lands along the Mystic River, became some of the first metropolitan reservations in America. <sup>10</sup> The Metropolitan Park System was the first regional organization of public open space in the nation, and it is internationally recognized as a model for multi-jurisdictional park systems. <sup>11</sup>

In 1901, the Metropolitan Water Board and the Metropolitan Sewage Board combined to form the Metropolitan Water and Sewage Board, which merged with the Metropolitan Park Commission in 1919 to form the Metropolitan District Commission (MDC). <sup>12</sup> After World War II, the Boston parkways were linked to the MDC's parkways, and the Boston Harbor beaches in East Boston, South Boston, and Dorchester all came under MDC control.

The MDC, a state agency under the Executive Office of Environmental Affairs, currently manages the Metropolitan Park System as well as the watershed lands. Today, the park system encompasses nearly 20,000 acres of woodlands, wetlands, and parklands, stretching across thirty-four cities and towns, from King's Beach in northern Massachusetts to Blue Hills Reservation in southern Massachusetts to Elm Bank Reservation in western Massachusetts.<sup>13</sup>

#### The Boston Harbor Beaches in the Twentieth Century

In the twentieth century, the role and use of the Boston Harbor beaches changed dramatically. The automobile made the beaches of Cape Cod and Maine more accessible. Often beach pathways and promenades became busy roads. <sup>14</sup> Additionally, the harbor beaches became less accessible with the decline of Boston's old trolley system. These sites that had been used by people from all over the city became primarily neighborhood resources for recreation. <sup>15</sup>

In reaction to the changing beach culture, Boston's Department of Public Works developed Constitution Beach in East Boston in 1953, "a suburban beach in the city." This site boasted twenty-eight acres of sandy beach, a new bathhouse, accessibility, and, importantly, ample parking.

Over time, the recreational pavilions and bathhouses of the Boston Harbor beaches were neglected. Though they were still being used through the 1950s and 1960s, the beaches were losing their character and suffered several physical changes. Development such as the Southeast Expressway, as well as natural erosion, altered the state of the harbor beaches. In addition to these physical degradations, people's standards for beach and water quality changed as they became more aware of the beaches of Florida and the Caribbean through travel and television. <sup>17</sup>

The passage of the Clean Water Act in 1972 led to a greater consciousness of the quality of the water in Boston Harbor and the extent of its pollution, described as horrendous by the local press: The harbor water was brown and murky. Dead fish, grease balls, and trash floated up onto the harbor beaches. By the early 1980s, shellfishing in Boston Harbor was banned and marine life was scarce or sick from the pollution. It was a recipe for the abandonment of the Boston Harbor beaches.

At the same time that public use and public spending were declining, costs were rising. In the recession of the early eighties, when only scarce resources were available to the MDC to maintain the Boston Harbor beaches, the MDC cut 75 percent of its seasonal workers at beaches and pools. As a result, maintenance and upkeep of the beaches and their facilities declined rapidly. Characterized by

trash-littered sand and dilapidated bathhouses, by the late 1980s and early 1990s the Boston Harbor beaches were no longer recognizable as the beaches once so well used and valued by the city.

The beaches and their facilities were in very poor condition. Winthrop Beach was severely eroded and covered with salt marsh grass. In East Boston, commuters took over the beach parking lot and the bathhouse was abandoned. The Carson Beach bathhouse in South Boston, abandoned and decrepit with missing and broken windows, was surrounded by a big fence with a sign reading "Hazardous Area Do Not Disturb." Savin Hill Beach had become a deserted strip of broken glass, running dogs, and overgrown salt marsh grass, with an old, dirty bathhouse. In addition, twenty-seven drains from the Southeast Expressway ran into Savin Hill Bay, and the septic tank of the Dorchester Yacht Club had been leeching into the bay for years. In Quincy, the seawall at Wollaston Beach became popular for sunning and lounging, but people did not dare to venture onto the neglected beach.

#### The Boston Harbor Clean-Up Project

While the beaches of Boston Harbor lay empty and ignored during the 1980s and early 1990s, the Massachusetts Water Resources Authority (MWRA) cleaned up the water washing onto Boston's seashores. In 1981, William Golden, a Quincy city solicitor, found chunks of fat and grease on Wollaston Beach that had washed up from the Nut Island sewage plant. The city of Quincy proceeded to sue the MDC, and the revolution called the Boston Harbor Clean-Up Project began.

Beginning in the 1850s, Massachusetts developed large, regional sewer systems that transported local sewage to Boston Harbor for discharge.<sup>21</sup> By 1968, two primary treatment plants, the Nut Island Plant and the Deer Island Plant, located in the towns of Quincy and Winthrop, respectively, received, processed, and treated the sewage for roughly two million people in forty-three communities around the state.<sup>22</sup> Technically, the primary, chemical treatment of sewage should remove about 85 percent of the solid waste. With secondary treatment, 95 percent removal can be achieved.<sup>23</sup> But Massachusetts's system was so old and deteriorated that their primary treatment plants removed about only about half the solid wastes. After further chemical treatments, the remaining wastewater material, called sludge, was discharged into Boston Harbor. The thinking was that the tide would carry the sludge away, yet it is estimated that at least 20 percent of the sludge returned in the next tide.<sup>24</sup>

In 1985, a federal court found Massachusetts in violation of both state and federal Clean Water Act laws and ordered the state to 1) construct a new treatment plant for wastewater, 2) plan for combined sewer overflow (CSO) facilities,<sup>25</sup> and 3) renovate the sewer system. In response, then Governor Michael Dukakis and the State Legislature created the Massachusetts Water Resources Authority (MWRA) to take control of water and sewer systems from the MDC. Lorraine Downey, a former member of the Board, describes the establishment of the MWRA.

We took over the water and sewer works from the MDC in July of 1985, so we had to figure out how to run a water and sewer agency in less than six months. We started meeting, we had no staff or personnel department to hire staff. We started with nothing ... we had to hire an executive director and develop a court schedule that was agreed upon by the judge and EPA and other parties that were suing us on how we could clean up Boston Harbor.<sup>26</sup>

Since that landmark court ruling, Massachusetts, through the efforts of the MWRA, has implemented the Boston Harbor Clean-Up Project, the eleven-year

construction of the new sewage treatment system for Boston and its surrounding communities. Many of the goals set by the federal court mandate have been fulfilled, greatly improving the water quality of Boston Harbor. In 1989, the MWRA ceased dumping floating debris into Boston Harbor. Also, both Deer Island and Nut Island treatment plants began screening water for pollution, grease, and other items. Significantly, in 1991 when an interim sludge treatment facility came online, the MWRA stopped dumping untreated sewage sludge into the harbor. The sludge was redirected to the Fore River facility located in Quincy, where it was recycled into fertilizer. Water quality improvements were evident shortly after the termination of sludge dumping.

The new Deer Island facility for treating wastewater opened in 1995 and commenced secondary biological treatment in 1997. In 1998, sludge from Nut Island began to flow through an inter-island sewage tunnel to Deer Island for treatment. The Nut Island Plant was closed for treatment and replaced by a new screening facility, ending the discharge of wastewater into Quincy Bay. During this period, the MWRA also completed combined sewer outflow (CSO) treatment facilities in Dorchester Bay and repaired inadequate and therefore illegal sewer connections to storm drains. In 2000, as a last piece of the nearly \$4 billion Boston Harbor Clean-Up Project, the MWRA completed a new outfall tunnel, which runs nine and a half miles out into Boston Harbor diffusing the release of wastewater along the last 1.2 miles of the tunnel into 125 feet of water.

Once dubbed America's dirtiest harbor, Boston Harbor is now one of the cleanest. "As pollution discharges to the harbor decrease, numerous indicators document the recovery of the harbor's natural systems." Marine life such as striped bass and harbor seals can once again be seen in Boston Harbor. Contamination levels in flounders, mussels, and lobsters have decreased drastically. Bacteria levels in the beach water samples have also declined significantly.

As Alan Lupo of the *Boston Globe* put it, "It is now old news that the Massachusetts Water Resources Authority has done a good job cleaning up the guck that used to pass for water. For too long, healthful swimming had become the luxury of those who could live near or travel to the far North and South shores and the Cape." The Boston Harbor Clean-Up Project and the improved water quality was the motivating factor for the "Back to the Beaches" project. Boston Harbor's cleaner waters paved the way for the return of the Boston Harbor beaches.

#### The Joint Commission on the Future of the Boston Harbor Beaches

The water quality was noticeably improved. But the infamy of and existing conditions at the Boston Harbor beaches prevented the public from gaining access to and appreciating the cleaned-up waters. As Lorraine Downey, currently of the MWRA, points out

the whole idea of Back to the Beaches [Project] came out of us realizing that we could spend a lot of money on Deer Island, but if it didn't get people back to the beaches and see the usefulness of what we had done, then we wouldn't have really succeeded, we wouldn't have given people an ability to see the value.<sup>29</sup>

With Boston Harbor cleaner, the time was right for the harbor beaches to once again become used, valued areas of the city.

Folklore has it that former Governor William Weld and former Mayor Raymond Flynn were walking along one of the harbor beaches remembering the importance of the beaches for them growing up. Weld was thinking back to the beaches of Long Island and Flynn was recalling his days on the beaches of South Boston.<sup>30</sup> Although they had two different views and histories, they both shared a love of the ocean. The two men agreed to see what could be done about the Boston Harbor beaches.

On July 26, 1991, the Joint Commission on the Future of the Boston Harbor Beaches was established by an Executive Order signed by Governor Weld and Mayor Flynn with a mandate "to coordinate, develop, and recommend to the Governor and Mayor a plan for the restoration of the beaches of Boston Harbor." The Joint Commission brought together much experience and knowledge about the environment, open spaces, and Boston Harbor. Comprised of eighteen members and chaired by South Boston real estate developer, John Drew, the Commission included delegates from various state agencies and elected officials as well as citizens from each of the participating communities. All of the members of the task force were appointed by Governor Weld and Mayor Flynn with the exception of representatives from Quincy and Winthrop.

Collaborating with consultants and supported by a budget of \$50,000, the Joint Commission met monthly over a period of a year and a half. During this time, it gathered information on the work of various agencies and groups, assessed existing

conditions of the beaches, raised funds for its work, and developed a policy plan to reclaim the beaches.<sup>32</sup>

The Joint Commission focused on the shoreline from Winthrop to Quincy and seven harbor islands. Roughly twenty beaches were included in the study: Short Beach, Winthrop Beach, Donovan's Beach, Yirrell Beach (all in Winthrop); Constitution Beach (East Boston); Pleasure Bay/ Castle Island; L and M Street beaches and Carson Beach (all in South Boston), Savin Hill/Malibu beaches and Tenean Beach (Dorchester); Nickerson and Wollaston beaches (Ouincy); and the beaches on seven Boston Harbor Islands — Spectacle, Long, Lovells, Rainsford, Gallops, Georges, and Peddocks.



#### The Commission embraced five goals,

- to ensure that the harbor beaches receive continued and reliable funding and resources to achieve and maintain clean beaches,
- to protect environmental quality,
- to expand accessibility to the beaches and the harbor islands,
- to accommodate diverse uses and user groups, and
- to convey a message of a revitalized urban beach system.<sup>33</sup>

The Commission first met with citizens and community groups at the New England Aquarium on May 13, 1992. It held public meetings in each of the affected communities — Winthrop, East Boston, South Boston, Dorchester, and Quincy — in collaboration with local public and community groups. Lorraine Downey, member of the Joint Commission and Environmental Director of the City of Boston at the time, recalls "we went out and asked the public what it would take for them to come back to the beaches. If we cleaned the water, what else did they need to have happen at the beaches for them to use them." Requests included everything from volleyball nets, bathrooms, and snack stands, to clean sand on the beaches.

The community of Savin Hill formed its own action group in March 1993 to address the specific issues facing Savin Hill Bay and its beaches. Included in the group were residents of the Savin Hill neighborhood, city and state officials, educators from the Urban Harbors Institute of the University of Massachusetts, and boaters. The Savin Hill Focus Group, as it was called, offered suggestions for maximizing the recreational uses of the bay, while also making improvements and protecting the natural environment. Their recommendations included staffing the Savin Hill bathhouse from 10 am to 6 pm regardless of weather, training the MDC lifeguards, clarifying boundaries with the Dorchester Yacht Club, and improving the walkway, lighting, and maintenance at the beach. The Commission took these recommendations into account and incorporated them into the action plan as an appendix.

In April of 1993, the Commission completed its recommendations, presented them to the respective communities, and sought feedback. The final Plan for the Future of Boston Harbor Beaches was released on June 15, 1993.

#### Plan for the Future of Boston Harbor Beaches

The Plan for the Future of Boston Harbor Beaches outlined the history of the beaches, the existing resources, and opportunities for improvements and renovations. The recommendations of the Joint Commission followed from their overarching goals and principles. The plan proposed connecting the beaches to each other, creating continuous shoreline access, as well as linking the beaches to inland resources like parks, where possible, forming a regional recreational framework. Broadly, the commission recommended general restorations for all the beaches, such as the addition of replenished beach sand, the celebration of unusual and historic features, the improvement of the beach edges with benches and better sidewalks, the introduction of a wide range of uses from picnics to swimming lessons, and the communication and education of the cleaner harbor and beaches. The Joint Commission categorized the harbor beaches into four types and used this classification as a guide for recommendations of appropriate and consistent improvements.

Table 1

#### Beach Types, Planned and Future Use

Beach Type	Planned Future Use	Beach Sites
Regional Beaches	Support high year-round usage and offer amenities and recreational programs	Winthrop, Constitution, Pleasure Bay/Castle Island, L & M Street*, Wollaston*, Spectacle, Long, Lovells
Community Beaches	Serve neighborhood and community residents and offer some amenities and recreational programs	Yirrell, Short, L & M Street, Carson, Tenean, Savin Hill/Inner Malibu
Urban Edge Beaches	Predominatly used for walking, running and viewing purposes	Donovan's, Outer Malibu, Wollaston
Natural Beaches	Are in the process of returning to a natural state and offer limited access	Nickerson, Georges, Peddocks, Gallops, Rainsford

Source: "Plan for the Future of Boston Harbor Beaches," 4.5-4.17

In addition to site improvements, the plan proposed new guidelines for safety, sanitation, and maintenance based on beach type.

Table 2

#### **Beach Types and Standards**

Beach Type	Safety	Sanitation	Maintenance
Regional Beaches	Designate swim areas; life guard patrols; boat control; lighting; patrols	Display water quality info; "no dogs"; regular sediment quality testing	Maintain physical plant; remove litter daily; sand cleaning regularly; sand replenishment regularly; remove vegetation
Community Beaches	Create limited swim areas; life guards; boat control; lighting; patrols	Display water quality info; "no dogs" below high tide line; limited sediment quality testing	Maintain sanitaries, walkways, seating, stairs; remove litter daily; sand cleaning regularly; sand replenishment as environmental conditions permit; limit vegetation
Urban Edge Beaches	Post swim at your own risk; lighting; patrols	Display water quality info	Maintain seawalls, walkways, seating, planting, stairs; remove litter as needed
Natural Beaches	Post swim at own risk; patrols	Display water quality info	Allow "natural" state; protect vegetation; prevent erosion; remove litter as needed; maintain pedestrian paths

 $\it Source$ : "Plan for the Future of Boston Harbor Beaches," 4–6

Additionally, the plan detailed specific improvements and restorations for each site.

<sup>\*</sup> L and M Street beaches were categorized as a mix of regional and community beaches, while Wollaston Beach was considered to be both a regional and urban edge beach.

#### Sand Quality at the Beaches

Given the history of the beaches and Boston Harbor, the Joint Commission examined the beaches to discern what, if any, actions needed to be taken and whether sand needed to be added. In order to asses both the sand quality and texture, the Commission collected sand samples from eleven beaches — Short, Yirrell, Constitution, Pleasure Bay, L & M Street, Carson, Savin Hill/Malibu, Tenean, and Wollaston. The Winthrop beaches and the Harbor Islands were not tested because they are exposed to the open ocean and are not located near any combined sewer overflows (CSOs). Only the sediment in Dorchester and South Boston were rated "poor." <sup>38</sup> (Harmful contaminants were detected only at M Street Beach, but were determined to be a very low risk to beach users.) <sup>39</sup> The sediment texture varied across the beaches.

#### Management and Costs of the Plan

The Commission recommended that the legislature create a nonprofit corporation under section 501 (c)(3) of the Massachusetts laws, to be called the Boston Harbor Beaches Fund.<sup>40</sup> This entity would be responsible for advocating for additional funds from the legislature; coordinating the generation, distribution, and use of extra monies and/or resources; supporting agencies in their work on the project; facilitating partnerships between interested parties; promoting additional communication and educational programs; and encouraging special purpose development projects.<sup>41</sup> The projected costs for the estimated seven-year plan proposed by the Commission in June 1993 totaled \$27.5 million.<sup>42</sup> (See Table 3.)

In addition to the necessary bond issue, the Commission suggested several methods of funding this restoration project, which included increasing appropriations to involved state agencies, seeking federal funds, and developing revenue generating opportunities.<sup>43</sup>

#### The "Back to the Beaches" Project

#### **Implementation**

The seven-year, \$30.5 million public project to restore nineteen Boston Harbor beaches came under the jurisdiction of the Metropolitan District Commission (MDC), which owned, operated, and managed all of the sites contained in this project with the exception of Yirrell Beach, Donovan's Beach, Nickerson Beach, and the beaches on Spectacle Island, Longs Island, Rainsford Island and Gallops Island. In the early days of the "Back to the Beaches" project, M. Ilyas Bhatti was the commissioner of the MDC. In the spring of 1995, David Balfour replaced him as commissioner. Within the MDC, Samantha Overton Bussell, Deputy Commissioner for Policy, and Joe Orfant, Boston Harbor Beaches Program Planner, were the primary project managers.

The Commission's plan recommended the formation of a nonprofit organization to advocate for and to oversee the project. John Drew, chairman of the Commission, suggested using an existing organization instead of creating a new one. The state followed his recommendation and asked the Boston Harbor Association (noted as TBHA from here forward), a public interest nonprofit group, to take on the project and assist the MDC with its implementation.<sup>44</sup> At a press conference held at Carson Beach on July 26, 1994, Governor Weld, Mayor Menino, and representatives from the MDC and TBHA kicked off the campaign with a "Back to the Beaches" week of events at the harbor beaches.

Table 3

Estimated Capital Costs Summary (in 1993 dollars)

	Estimated Cost	Estimated Total
Beach Site	Per Beach Site	Cost Per System
Short Beach	\$745,700	
Winthrop Beach	\$824,750	
Yirrell Beach	\$412,500	
Donovan's Beach	\$142,500	
Constitution Beach	\$5,509,500	
North Beaches Total		\$7,634,950
Pleasure Bay/Castle Island Beaches	\$2,430,200	
L & M Street Beaches	\$1,524,500	
Carson Beach	\$6,823,500	
South Boston Beaches Total		\$10,778,200
Savin Hill/Inner Malibu Beaches	\$2,481,150	
Malibu Beach	\$7,500	
Tenean Beach	\$2,188,860	
Dorchester Beaches Total		\$4,677,510
Nickerson Beach	\$76,000	
Wollaston Beach	\$3,320,300	
South Beaches Total		\$3,396,300
Spectacle Island	\$157,500	
Long Island	\$298,700	
Lovells Island	\$250,000	
Georges Island	\$48,750	
Peddocks Island	\$87,500	
Gallops Island	\$80,300	
Rainsford Island	\$125,000	
Harbor Island Beaches Total		\$1,047,750
<b>Total Estimated Program Costs</b>		\$27,534,710

These estimates do not include contingency or design costs. Source: "Plan for the Future of Boston Harbor Beaches," 5.3

In addition to Governor Weld and Mayor Menino, the project had the support of the legislature, notably, Senate President William Bulger, who had grown up on the beaches of South Boston.<sup>45</sup> The "Back to the Beaches" legislation and capital bond authorization for \$30 million passed the Massachusetts legislature and was signed by Governor Weld on August 5, 1994. Samantha Overton Bussell, deputy commissioner of the MDC, noted it as "the first special bond authorization of this magnitude for the beaches, probably the largest beach restoration in New England."

The MDC and TBHA realized they needed to show results early to attract attention. Former Project Director, Joan LeBlanc, talks about the early planning:

the discussion at the time was, well, we'll spend about 5-6 years in the planning and design....Well, as an advocacy organization, we realized that would not work; not the best approach. If you want to have people interested and involved, and you want to

continue to have the legislative support you'll need to get the money in the budget every year, there has to be physical improvements.<sup>47</sup>

They planned the projects in terms of short-, mid-, and long-term improvements. The larger projects involved design time, permits, and community feedback, so smaller projects such as hiring more year-round staff, adding benches, and purchasing more lifesaving equipment were started without delay. An awareness campaign calling people back to the beaches was also initiated immediately. Colorful banners flew from the beaches, and posters went up on the subway. In December 1994, TBHA initiated a series of organizational meetings with the communities in order to present the project's progress and plans, and to receive feedback. To encourage attendance, a beach event series was launched for the summer of 1995 that featured music concerts, sand castle contests, and dunk tanks.

For the mid- and long-term projects, the MDC and TBHA used a community design process. Beach area by beach area, they worked with each community to design renovations and improvements that satisfied their needs and objectives. South Boston was the first area where the long-term projects were implemented, followed by East Boston and Dorchester.



Calesthentics at Carson Beach, 1940

#### Role of The Boston Harbor Association

Founded by the League of Women Voters and the Boston Shipping Association in 1973, the Boston Harbor Association (TBHA), a nonprofit public interest organization that advocates a clean, accessible Boston Harbor,<sup>48</sup> acted as a watchdog group over the "Back to the Beaches" project and its implementation. TBHA's functions encompassed advocacy, marketing, facilitating planning, and involving the public.

TBHA advocated for the monies to fund the project: They knew when funding decisions were going to be made by the lawmakers and, accordingly, they disseminated information about the project and called the appropriate senators and state representatives to ensure that the project was not forgotten and its legislative support did not disappear. With TBHA's advocacy, the project received capital funds over the spending cap in the early years, which was essential for beginning this project, making noticeable changes, and maintaining its momentum.

In the area of public education and awareness, TBHA worked with the MDC to create "Back to the Beaches" banners for all of the beaches, to implement the "Take the T to the Sea" marketing campaign, to display a series of exhibits at the State House and various libraries, to print and distribute informational brochures, to coordinate the event series, and to create the water quality flag system for the beaches. Some of the informational literature included: a bilingual "Back to the Beaches" bookmark, "Have You Seen Your Beaches Lately?" brochures informing the public of the water testing and flag system, and brochures on each of the event series.

As an organization outside the government, TBHA played a crucial role in working with various government agencies to garner their assistance as well as to facilitate negotiations. TBHA involved parties, like the MWRA, who were not primarily engaged in the project. According to Joan LeBlanc, "If we [TBHA] hadn't been involved, I'm not sure what role the MWRA would have played." TBHA also facilitated resolutions regarding environmental permit issues. For example, the MDC was required to apply for additional environmental permits in order to perform resanding below the high water line at some of the beaches. TBHA urged the MDC to negotiate on the sand and not delay the projects. As a result, the MDC and the environmental regulators compromised, spreading new sand across the beaches except at the water's edge. This compromise resulted in the re-sanding being completed in the first few years of the project, advancing its efficiency and timeliness.

As a public interest group, TBHA has experience in dealing with the public. Joan LeBlanc states,

I think one the important reasons for having a group like the Boston Harbor Association involved is that what this group does for a living is to try to work with the public, with the community; we're very much in tune to making sure that when things happen they reflect what people want.<sup>51</sup>

TBHA was instrumental in involving the affected communities and garnering their feedback. TBHA found locations for public meetings, helped organize mailing lists, and ensured that community leaders attended the meetings. Bilingual meetings were often hosted by TBHA and much of the literature was available in several different languages.

#### The Communities

The MDC and TBHA community-based design process has involved conducting community meetings, talking with people, assessing a community's needs and wants, reviewing site plans with the community, and receiving that community's input. Winthrop provides an example of the interactive process.

Initially, community involvement and interest regarding Winthrop Beach was minimal. Then, one summer, the MDC conducted a demonstration transforming Shore Drive, a two-way road along the beach with high volumes of fast traffic, into a single lane, one-way roadway. Since pedestrian circulation was an important issue at this site, the MDC hoped to get support for widened sidewalks and better

pedestrian space. Although the design worked well from a transportation standpoint, the community rejected the idea and attendance at the next "Back to the Beaches" community meeting reflected the increased interest in the project. The community became engaged in the project and provided the MDC with meaningful feedback. The MDC, in turn, was very attentive to Winthrop's ideas and concerns.

#### Water Quality Testing

The MDC has been testing the water quality at its beaches for the past twenty-five years. With the "Back to the Beaches" project, the MDC and TBHA began posting colored flags at the beaches in 1995 to inform the public of the water quality test results. The MDC tests for two types of bacteria and uses the higher of the two bacteria test scores as their threshold for water contamination. Water samples are collected Thursday morning to provide test results on Friday for the weekend. If a test indicates high bacteria levels, the MDC will post the red warning flag and will continue testing until the water quality returns to safe, normal levels. The MDC posts a blue flag to indicate that it is safe to swim.

Beaches with multiple water sample sites are only closed for swimming when two or more of the sites exceed safe levels of bacteria. Wollaston beach is closed when any one of its four sample sites record high bacteria levels.<sup>52</sup> If it rains between the testing and the weekend, the MDC recommends swimmers stay out of the water.

About five years ago, the agencies and organizations involved in the beaches project realized that the water was still testing high for bacteria at some beaches. Despite the significant improvements in water quality resulting from Boston Harbor Clean-Up Project, a problem still existed. Because the MDC did not have the funds to test water quality daily, the MWRA agreed to conduct a pilot study with the MDC to investigate the relationship between rainfall and bacteria levels in the water. In 1996, the MWRA began testing water quality at several of the urban beaches where known CSOs and storm drains were located — Constitution, Carson, Pleasure Bay, and Wollaston; Tenean Beach was added to the study in 1997. From mid-June to early September, the MDC collects seawater samples at thirteen sites on these five beaches and delivers them to the Deer Island Treatment Plant for testing by the MWRA. This testing procedure occurs every day except Thursday when the MDC and its contractors, G&L Laboratory, perform their weekly testing.

#### **Environmental Permits**

In addition to the MWRA, various federal, state, and local environmental agencies and departments have been involved in the project. Originally, the Joint Commission filed an ENF (Environmental Notification Form) with the state for the "Back to the Beaches" project. In August 1994, the environmental secretary deemed the project "major and complicated," which resulted in a special environmental review procedure. Environmental regulators would determine which types of and/or aspects of the projects could move forward without delay, and which would be subjected to a more in-depth review.<sup>53</sup> In addition to the special procedure, the MDC filed an "Interim Assessment" with the Massachusetts Environmental Protection Agency (MEPA) for each of the six major projects.<sup>54</sup> A Technical Advisory Committee was also established and reviewed the MDC's project plans and provided them with feedback prior to permit filings.

Many of the project improvements affected resources and land areas protected by the Wetlands Protection Act of 1970. Local conservation commission reviews were required and special permits were often needed. For most projects, the MDC supplied Conservation Commissions with a Determination of Applicability or an Abbreviated Notice of Resource Area Delineation (ANRAD).<sup>55</sup> "Generally, all projects have required Water Quality Certificates [401], Chapter 91 filings, as well as 404 and Section 10 permits."<sup>56</sup> For any work planned below the annual high tide line, the MDC dealt with the Army Corps of Engineers (permits Section 10 & 404), while for any project below the mean high tide line (the average high tide line), they worked with the state waterways division.<sup>57</sup> Most of the projects have required a regulatory review by the Office of Coastal Zone Management (CZM), an environmental policy and regulatory agency under the Massachusetts Executive Office of Environmental Affairs. Some of the projects like Carson Beach bathhouse required the MDC to file a Project Notification Form (PNF) with the Massachusetts Historical Commission. Several construction permits also were required to be filed with the MWRA and Boston Water & Sewer.

#### Challenges Faced

The Plan for the Future of Boston Harbor Beaches, which formed the basis of the beaches legislation, did not adequately address the environmental and logistical complexities of this project, as such "Back to the Beaches" and its improvements have been more involved, more detailed, and more significant, than one would think a beaches restoration project would be.

Environmental Challenges. South Boston and Dorchester were two areas where planned improvements conflicted with environmental protection. The Carson Beach bathhouse presents one example. One objective of the CZM is the protection of such coastal features as coastal dunes, and it has a policy of no new structures on sand dunes, beaches, or barrier beaches, consistent with the Wetlands Protection Act. 58 The old Carson Beach bathhouse was located on sand, the entire site was questionably a coastal dune, and the new bathhouse was planned for the same historic spot. The involved parties — environmental regulators, MDC, and TBHA — debated what constituted a coastal dune under Massachusetts regulations, where the flood zone ended, and, in the end, what would be constructed at that site. Rebecca Haney of CZM points out:

I think they [MDC] were looking at it in a different way as urban beaches not a [environmental] resource function. We helped them see the function, that there were actually dunes there, not huge dunes, but there is a resource there...still ways to do the project in the ways they wanted to and what they wanted to, but just designing a different way.<sup>59</sup>

In Dorchester, sea grass, which had overtaken Savin Hill beach, became another controversial, challenging issue for the MDC and TBHA. The sea grass had become overgrown. Only an 8-foot-wide stretch of sandy beach remained for public use. To make the beach a usable and better environment, the MDC needed to cut back the sea grass, if not remove it all together, but this action was in violation of the Wetlands Protection Act. The environmental regulators were opposed to changing the natural environment and removing the sea grass. Eventually, a compromise resulted; about 100,000 square feet of salt marsh grass was removed from part of the Savin Hill Beach and replanted along the Neponset River, blade of grass for blade of grass.

Logistical Complexities. These sites were essentially equivalent to nineteen individual projects, each with disparate resources and issues. In Winthrop, shore

protection has been the most important issue, but East Boston, on the other hand, struggled with pedestrian access. As Joe Orfant points out, "East Boston is a good example when we started to look comprehensively at the site, the issues and problems were much deeper and much more complex, like the issue of the bridge [pedestrian overpass bridge]. It wasn't just falling down but it had to meet new MBTA clearance requirements." Conflicts among the users was the challenge in South Boston, while Dorchester has faced environmental issues regarding the encroachment of sea grass. Wollaston's main concerns have been water quality and traffic circulation. Winthrop and Wollaston beaches have been the most technically difficult, requiring more planning and engineering than the others. Before these beach sites could become successful, improved environments, the complex issues had to be addressed.

#### **Assessing What Has Been Accomplished**

The Boston Harbor beach sites have been reconstructed into cleaner, nicer, and overall better environments, which look drastically different than they did in the early 1990s. Many of the beaches in the project — formerly covered with gravel or mud — have received new, clean sand that has greatly improved the look and feel of the beaches. The most prominent renovation of the project has been the new Carson Beach bathhouse, renamed the Edward J. McCormick, Jr., Bathhouse. In the words of Lorraine Downey, "I knew that the biggest change, the biggest symbolic thing that people would realize that the beaches were back, was when the Carson Beach bathhouse was completed. It is beautiful now."62 The new bathhouse includes three pavilions, food and recreation concessions, MDC management offices, first-aid facilities, and year-round bathrooms.<sup>63</sup> Numerous new amenities and facilities have been added at these sites including new drinking fountains, new foot showers, picnic tables, shade shelters, bike racks, and benches. New walkways and boardwalks and seawalls, sidewalk and roadway repairs, drainage and plumbing improvements, handicap access, additional traffic lights, as well as new and better lighting have improved the beaches and provided safer and better access.

The addition and/or improvement of educational and recreational activities such as volleyball and swimming lessons have enhanced the beaches of Boston Harbor, creating new opportunities and better environments. Each beach hosts at least one big beach event each summer featuring music and activities.

Increased public awareness has been an important accomplishment of the "Back to the Beaches" project. Informing people of the water conditions with the colored flag system has been essential for bringing them back. The MDC runs a Water Quality Hot Line, and water quality conditions have been published weekly in the *Boston Globe* and *TAB* newspapers since the summer of 1998. In its Eighth Annual Report on the State of Beaches, the National Defense Council cited the Boston Harbor beaches as having the most comprehensive water quality monitoring and public information program in the country.<sup>64</sup>

Despite the fact that no data on the quantity of people coming back to the Boston Harbor beaches exist, it is apparent that the public is returning. In 1999, the *Boston Globe* reported, "A city-state 'Back to the Beaches' campaign has led to thousands more people swimming at sites such as Carson Beach and Shays Beach [Constitution Beach] in East Boston in the summer." According to the MDC, the numbers of people visiting the beaches has increased exponentially since the project's beginning.

People are venturing back to the beaches and into the water, thanks to the Boston Harbor Clean-Up Project and the Back to the Beaches Project.

#### **Project Costs**

The original bond bill for the "Back to the Beaches" project passed for the amount of \$30 million, but the MDC estimates the actual costs will total approximately \$45 million. Much of this overrun can be attributed to design costs, which were not included in the Joint Commission's plan, and cost estimates. In some cases, the MDC has been able to use money allotted to it for use in a broad range of areas. For example, in East Boston, where the MDC implemented some road alterations and rebuilt the MBTA overpass, it used some funds budgeted for general transportation, as these are transportation elements. The bathhouses and renovations such as drainage improvements and road repairs, which are not readily apparent to users, have been the most costly items in the project. (See Table 4 for a breakdown of costs to date.)

Table 4

Estimated Capital Costs Summary (as of Winter 2001)

		Total Amount
	Amount Spent	Spent Per
Beach Site	Per Beach Site	System
Short Beach	N/A	
Winthrop Beach	N/A	
Yirrell Beach	\$350,000	
Donovan's Beach	\$350,000	
Constitution Beach	\$5,500,000	
North Beaches Total		\$6,200,000
Pleasure Bay/Castle Island Beaches	N/A	
L & M Street Beaches	N/A	
Carson Beach	\$12,000,000	
South Boston Beaches Total		\$12,000,000
Savin Hill/Inner Malibu Beaches	\$3,500,000	
Malibu Beach	N/A	
Tenean Beach	\$1,200,000	
<b>Dorchester Beaches Total</b>		\$4,700,000
Nickerson Beach	N/A	
Wollaston Beach	\$1,000,000	
South Beaches Total		\$1,000,000
Harbor Island Beaches Total	N/A	N/A
<b>Total Program Costs</b>		\$29,900,000

N/A: not available

Sources: TBHA's Newsletters, TBHA's files, and interview with Joe Orfant

#### **Project Status**

The "Back to the Beaches" project is not yet completed; several of the major elements are yet to be realized. The MDC estimates the project will be complete in two to three years. In Winthrop, improvements and renovations of Yirrell and Donovan's beaches are complete. The Winthrop Beach site, its bathhouse, and amenities are currently in the design phase. East Boston's major renovations are finished, with the

exception of the new bathhouse, currently under construction. Restorations and improvements in South Boston are completed. The restored Savin Hill Beach will be open this summer with its new boardwalk and amenities; construction of its bathhouse has just started. The bathhouse for Tenean Beach is currently in the design phase and all other renovations at that site are finished. In Quincy, water quality is still being addressed at Wollaston Beach, and major road improvements are in the planning stage.

# **Concerns for the Future of the Boston Harbor Beaches**

The parties and citizens that have been involved with the "Back to the Beaches" project have three primary concerns for the future of beaches: water quality, maintenance, and funding.

Despite the immense success of the Boston Harbor Clean-Up Project, the quality of the water washing onto the harbor beaches remains a concern. This past summer of 2001, many of the beaches struggled with high bacteria levels in the water and an increased number of beach closings. The cause of the elevated bacteria counts is believed to be CSOs and city storm drains which end at and/or overflow onto the harbor beaches during times of heavy rainfall, but a direct correlation has not been established.

Water quality is a major problem at Wollaston Beach, which was closed for swimming approximately twenty-five days during 2001. 55 Stormwater from the neighborhoods adjacent to Wollaston Beach drains directly onto the beach through eight storm drain outfalls located along the beach. 66 The MDC and TBHA have focused most of their efforts in Quincy in assessing and assisting with the water quality issues. To address the water problems, the Wollaston Beach Task Force, an offshoot of the "Back to the Beaches" project, was established by Quincy Mayor James Sheets in April 1998. In April 1999, the task force completed a report identifying sources of the problem and making recommendations. The City itself has invested \$14 million in storm water improvements thus far, 67 yet still further improvements need to be made. As the Wollaston Beach Task Force made clear in their executive summary: "Resolving water quality problems at Wollaston will require significant resources and coordination from state and federal environmental agencies to supplement local efforts." 68

Some like Bruce Berman of Save the Harbor/Save the Bay, a nonprofit environmental advocacy group, believe that the project was greatly needed, but implemented too soon.<sup>69</sup> According to him, "investment in the infrastructure preceded necessary water quality improvements." The water quality was supposed to be improved, yet storm drains and CSOs still overflow onto the harbor beaches in most communities.<sup>70</sup> If water quality remains an issue, the use of the beaches and the success of the project will be threatened.

Virginia Wilder, Executive Secretary/Chief Administrative Officer of Winthrop and Bob O'Sullivan, Beach Liaison for the Savin Hill community, both named maintenance as one of their biggest concerns for the future. The MDC maintains all of its beaches, picking up trash daily during the summer. The Town of Winthrop is responsible for maintenance and trash pick-up at its town-owned beaches, and the City of Quincy is responsible for Nickerson Beach. If the beaches and their sites are not properly maintained, the beaches improvements and renovations will have been futile.

Unfortunately, in planning the project, no additional maintenance funds were included, only funds for capital improvements. Therefore, the MDC receives the same allotment of maintenance funds for its beaches as it did before the beaches project, yet



City Point, 1947

it has assumed additional responsibilities and costs, such as the water quality flags, additional lifeguards, and an increased number of items to maintain. In response, the MDC has tried to design smarter in order to make maintenance easier and more frugal. They are choosing materials that are easy to maintain, more resistant, and simpler.<sup>71</sup> "The challenge for the next ten to fifteen years is for people to understand that these are new resources that need new funding and maintenance of them," points out Samantha Overton Bussell. Maintenance and upkeep are crucial for continued success.

Participants and citizens are also concerned with the continuance of funding for the project. At a time when the state budget is being cut and needy programs are fighting for funds, it is uncertain what will happen to the beaches projects not yet completed. The nonprofit TBHA and other advocacy groups really have their work cut out for them this year and in the years ahead. Without funding, the MDC will not be able to properly attend to the return of sea grass, and will not be able to pick up trash, nor pay lifeguards. Continued funding will be essential to complete the planned projects, as well as to manage, staff, and maintain these areas at a level appropriate subsequent to this project. Any loss in funding threatens the accomplishments of the beaches project and its potential for the future.

#### **Conclusions and Lessons Learned**

#### The Environment

This project signifies an increased awareness of the importance of open spaces and environmental resources, such as beaches, among society. This increased awareness influenced the occurrence of the "Back to the Beaches" project. These areas might have continued to be neglected and underutilized. Instead, legislation was passed to clean up, renovate, and restore the harbor beaches.

#### The Timing

Both the clean-up of Boston Harbor and the political leadership at the time were important in the development and the success of the "Back to the Beaches" project.

In the late 1980s, Massachusetts stopped dumping sludge into Boston Harbor, built a new wastewater treatment plant and outflow tunnel, and cleaner waters resulted. With this improvement came a demand to realize the value and benefits of the clean-up project. "Back to the Beaches" resulted.

Additionally, the political leaders at the time all identified with the beaches; this project was personal for many of the legislators. Governor Weld and Mayor Flynn loved the water and favored beaches. Without their support, the project would not have been funded and embraced in the way it was. Many of the lawmakers at the time, like William Bulger, had grown up in Boston and spent time at the harbor beaches. They recalled what these beaches had once been and could identify what they hoped these sites could be again and they supported this project.

#### The Spending Cap

The MDC's ability to use funds over its spending cap was also an important factor in the success of "Back to the Beaches." Although the legislature passed a \$30 million capital bond authorization for the project, the MDC was not given that amount outright. Massachusetts state government has a capital spending ceiling on the amount of its bond money an agency can spend each year. Through TBHA's advocacy, the MDC was consistently able to expend dollars over its spending cap, which was crucial to early improvements as well as to building the bathhouses. According to Lorraine Downey, "if we were under the cap then we never probably would have been able to get this project done as well as we did. We were outside the cap and the MDC was able to spend the money."<sup>72</sup>

#### Community Involvement

The community design process used by the MDC and TBHA also played a role in the project's success. Not only have the beaches been greatly improved, but the communities' needs and opinions have also been taken into account. For example, the Dorchester community communicated their concern with vandalism and graffiti at Savin Hill Beach to the MDC. Taking that input into account, the MDC worked with Bob O'Sullivan, their beach liaison, in designing and building the new Savin Hill bathhouse, incorporating graffiti-proof materials, a fence and gates that could be locked, as well as other anti-vandal amenities. This interactive process has increased community buy-in of the restoration projects, creating a sense of ownership and respect for these renovated areas. The MDC and TBHA successfully involved the communities, learning their needs and ideas. As a result, it is more likely these areas will become and remain respected, celebrated, and used community resources.

#### Use of Nonprofit Organizations

This project demonstrates the benefits of using a nonprofit organization in the oversight and management of a public project, and argues for a similar involvement in the future. TBHA's involvement was crucial in many ways. Nonprofit organizations have experience with advocacy, with informing people of issues, and with working with legislators and communities. They also have relationships with lawmakers, agencies, and businesses, which are helpful for communicating and advocating projects as well as for involving businesses and organizations. TBHA was especially helpful in advocating for capital funds over the MDC's spending cap. Billboards and subway space were also donated as a result of TBHA's relationships and status as a nonprofit organization. The project clearly demonstrates that nonprofit organizations are valuable resources that government should use in advancing public works projects.

#### The Need for Special Urban Environmental Regulations

"Back to the Beaches" suggests that engineered urban environments need their own sets of environmental protection and management regulations. The parties involved here were challenged by the conflict between environmental preservation and usage of urban environmental resources. In many areas, such as Savin Hill, the regulations protecting the natural sea grass prohibited its removal in efforts to restore the beach. Given the Wetlands Protection Act and similar regulations, the MDC and TBHA were faced with a policy paradox, and were subsequently challenged to find an appropriate mix between preservation and usage.

Large areas of Boston are artificial man-made landscapes, which have been altered by various forms of earthmoving development throughout the nineteenth century. Where do they fit into the realm of environmental protection? The Boston harbor beaches are not natural; unlike the beaches of Cape Cod or Cape Ann. They have long urban histories. Should the same preservation regulations apply to these man-made resources as to natural beaches? The application of the state's regulations to the urban beach sites within the project cost the government valuable time and money. This project and its conflicts clearly point to the need for a reexamination of environmental regulations for urban man-made environments.

#### Measuring the Value of Public Projects

This project clearly illustrates the absence of and underscores the need for performance measures so that public projects may be truly assessed and their worthiness for public dollars determined. How does one measure the value of a beach or a roadway? Quantifying the value of this project is very subjective: Yes, people are returning to the harbor beaches; Yes, these areas are greatly improved; Yes, the amenities and facilities at these sites are new, wonderful improvements. Yes, this project has been successful. But what is its value to the public? Were the dollars spent worth it?

Placing value on public projects, especially open spaces and recreational areas, is a difficult task. Cost-benefit analysis (CBA) is a decision-making evaluation tool commonly used to ensure efficient resource allocation and to maximize gains to social welfare in public projects. Although this method of analysis is generally used prior to project implementation, CBA could also be used afterwards to determine and to assess costs and benefits. Costs for the beaches project are readily available, but determining the benefits of the beaches project to society is more difficult. The number of beach users is needed. A price for beach use, or rather beach users' willingness to pay, needs to be determined in order to be able to estimate a dollar value for the benefits of this project. Whether through CBA, or another valuation tool, it is evident from this study that policymakers need to put in place and use valuation measures for public projects in order to be able to assess their performance and their worthiness of public funds. \*\*

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