

5. Implementation

This section recommends ways of achieving the Joint Commission's first, and primary goal: to ensure that the Harbor Beaches are maintained and enhanced to the standards identified in this Plan, adequate and reliable resources will be a continuing need. To achieve this goal will require improved management of the Harbor Beaches as a regional and local resource. The Joint Commission has explored avenues to reinforce and assist existing efforts by the Metropolitan District Commission (MDC), the State's Department of Environmental Management (DEM), and local municipalities to improve their beaches. To that end, the Joint Commission proposes creation of a non-profit corporation, the **Boston Harbor Beaches Fund**, establishing a reliable and adequate source of funding to meet the capital and operating needs as required to fulfill quality standards for each beach type (presented in Chapter 4); and developing communications and education programs which will make the region's population aware of the resources which the beaches represent. Each of these items is discussed in the following sections.

Management Structure

THE BOSTON HARBOR BEACHES FUND -- A NEW INSTITUTION

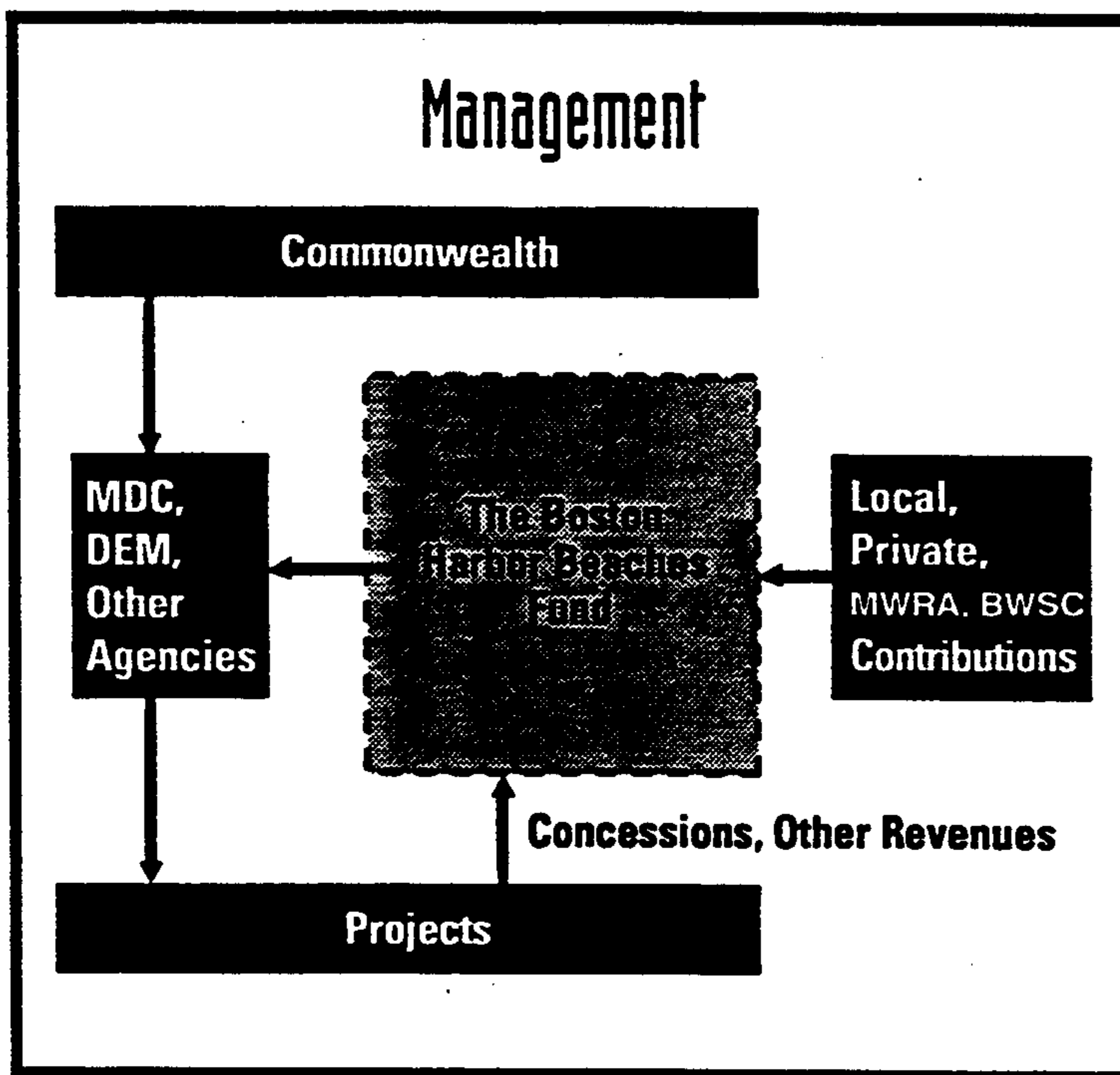
A key finding of the Joint Commission on the Future of the Boston Harbor Beaches is the need for continuing need for advocacy and coordination of Beach improvement and maintenance efforts. It is recommended to form, by act of legislature, a newly constituted Boston Harbor Beaches Fund. The Fund would be a section 501(c)(3) Massachusetts non-profit corporation. In general, its charge would be to:

- o **Advocate for additional expenditures** by the legislature to improve, maintain and operate the beaches;
- o **Serve as a conduit** for the generation, distribution, and use of extraordinary funding and/or resources beyond state appropriations which have been targeted for beach improvements and programs;
- o **Support ongoing beach enhancement work** being done by the responsible agencies, encourage them to adopt the Plan's recommended standards, and issue an independent annual report card;
- o **Seek to bring together interested parties** like the National Park Service, other government agencies, private interests, and Friends groups to encourage creative partnerships;
- o **Advocate for the creation of additional communication and education programs** to encourage the public to increase their use of the beaches;
- o **Initiate special purpose public/private development projects** designed to revitalize key beaches and potentially to generate revenue.

Figure 44 illustrates the proposed operation of the Fund. It is expected that in the process of carrying out this charge, the Fund will take on an advocacy function for the beaches of Boston Harbor. Today, advocacy groups are either localized, protecting the interests of a particular beach or beach system, or have concerns which incorporate the entire Harbor and/or Bay. The Fund would encourage and assist these advocacy groups to speak improvements to the beaches of Boston Harbor as a whole, to endorse their particular concerns to the extent possible, and to consider their recommendations in allocating available extraordinary funds and initiating new projects and programs.

In addition, the Fund would seek to generate contributions from public and private entities to assist the agencies responsible for maintaining and improving the beaches of Boston Harbor. The Fund would function as a special purpose entity to receive such funds and earmark them for beach improvements. In this role, it would principally be a facilitating entity, receiving contributions which might include concession or development revenues generated from beach related activities, and/or funds from entities such as the MWRA or BWSC. The Fund would strive to be entrepreneurial, seeking out ways to capitalize on the value of the Boston Harbor Beaches as unique recreational and educational resources, mobilizing public support to generate new sources of funds.

Figure 44: Management Structure



CAPITAL DEVELOPMENT PROGRAM

Table 15 presents a summary of the proposed capital costs for the recommended beach improvement program, developed by estimating the cost of each element identified in Tables 10-14 in Chapter 4. Costs have been estimated at a level of detail commensurate with the concept level of this Opportunities Plan. Note that costs do not include contingency or design service costs. Table D-1 in Appendix D presents itemized estimates for each element. The total estimated cost of the program is approximately \$30,000,000. Including other items programmed as part of parallel master plans and related agency efforts, the total is approximately \$50,000,000. The Plan recommends a seven (7) year effort, targeted to completing the improvement program by the Year 2000. A breakdown of costs across the seven year effort is provided in Table D-2 in Appendix D, although additional consideration may be required to ensure that individual items are coordinated with the capital planning and construction schedules of other local and state initiatives and improvements.

**Table 15: Capital Costs Summary
Seven Year Beach Improvement Program (in 1993 dollars)**

		SUBTOTAL COST BY ELEMENT	TOTAL COST BY SYSTEM
NORTH	1. SHORT	745,700	
	2. WINTHROP	824,750	
	3. YIRRELL	412,500	
	4. DONOVANS	142,500	
	5. CONSTITUTION SUBTOTAL	5,509,500	7,634,950
S.BOSTON	6. L&M	1,524,500	
	7. CARSON	6,823,500	
	8. PLEAS. BAY/CASTLE I. SUBTOTAL	2,430,200	10,778,200
DORCHESTER	9. SAVIN HILL/IN. MALIBU	2,481,150	
	10. MALIBU	7,500	
	11. TENEAN SUBTOTAL	2,188,860	4,677,510
SOUTH	12. NICKERSON	76,000	
	13. WOLLASTON SUBTOTAL	3,320,300	3,396,300
ISLANDS	14. SPECTACLE ISLAND	157,500	
	15. LONG	298,700	
	16. LOVELLS	250,000	
	17. GEORGES	48,750	
	18. PEDDOCKS	87,500	
	19. GALLOPS	80,300	
	20. RAINSFORD SUBTOTAL	125,000	1,047,750
TOTAL		27,534,710	

SOURCES OF FUNDS

This Plan recommends substantial capital improvements in the physical infrastructure of the Beaches to enhance their use and appearance. The Joint Commission recommends that these funds be provided through several concurrent processes. The Commonwealth of Massachusetts should authorize a Bond Issue targeted specifically for improvement of Boston Harbor beaches, in amounts sufficient to meet the capital costs defined in this plan. Of equal importance, the proposed Boston Harbor Beaches Fund should attempt to maximize the participation of local, federal, and private partners in the Beach improvement effort, so as to reduce total reliance on state bonds as the sole source of financing. We recognize that obtaining funds from non-traditional sources is difficult. However, given the limited dollars available at all levels of government creative solutions to funding problems need to be attempted. Such other sources could include the following:

- o **Increase Appropriations** -- to traditional agencies who are charged with maintaining the beaches including the MDC and local governments. Also, special purpose state appropriations should be sought to make "emergency improvements" and provide development capital for special projects of region-wide importance.
- o **Federal Funds** -- should be targeted to beach improvement where appropriate. Potential sources include FEMA funds for repair of storm damaged areas where reconstruction projects such as repairing sea walls and infrastructure should be designed to achieve multiple goals, such as enhancing access to the beaches. Funds available under the Intermodal Surface Transportation Efficiency Act (ISTEA) may be used for beach enhancement and could be targeted for acquisition of key properties to extend public shorefront access.
- o **Beach Partnership Programs** -- linking beaches with entities that have a vested interest in them. Potential partners include authorities, and state, federal, and local agencies, as well as corporations and other private partners whose activities impact the beaches. Partners may also include public interest groups and agencies concerned with preserving recreational and historical resources. Partners may be matched with specific beaches or associated open spaces, adding to resources available through the MDC and other traditional sources.
- o **Boston Harbor Islands National Recreation Area** -- The Plan supports the ongoing Congressional efforts to support the National Park Service investigation for the creation of a National Park System unit with federal, state and local partners. The proposed Boston Harbor Beaches Fund supports the active involvement of the National Park Service in helping to plan for, manage and maintain the Harbor Island beaches in partnership with state, municipalities, and public advocacy groups.
- o **Revenue from development opportunities** -- Several opportunities may exist for revenue generating development on the waterfront which should be investigated further. Among those which have been suggested are redevelopment of the Carson Beach Bath House for restaurants, entertainment and private functions and the potential development of a Harbor Islands ferry terminal with associated concessions and parking at Columbia Point. Excess revenue from these operations, as well as from new concessions, could be channeled to provide additional support for beach improvements and maintenance.

OPERATIONS AND MAINTENANCE

The current levels of maintenance at the beaches is a primary concern of the Joint Commission. Funding cuts over the last three years have adversely affected beach maintenance and the programs which have been offered at the beaches. The state agencies involved with operating and maintaining the beaches have had to adjust the level of support and attention, and the staffing and maintenance levels at certain beaches has diminished dramatically. Staffing that used to be a given at all beaches -- including site managers, lifeguards, rangers who were involved in interpretive and school programs -- have all been cut. Lifeguards have been cut by 50% in recent years. Site supervisors now find themselves responsible for multiple sites and multiple duties. Agencies are in a position of crisis management -- posting "swim at your own risk" at many beaches -- while they juggle insufficient staff to cover crowded public pools during the summer season.

Table 16 presents recommendations for staffing and maintenance levels for the beaches, including current seasonal costs and the desired levels for the various categories of staffing, cleaning, and maintenance. In regard to operations, the Plan recommends that renewed staffing and maintenance efforts will entail an increased presence of lifeguards, waterfront managers, rangers and interpreters; beach cleaning and maintenance crews; and, a capital expenditure for beach sanitizers. Increasing the annual operating funds to state agencies involved in the ownership, management and maintenance of the beaches by 50% in order to operate the beaches for an extended season is recommended.

In order to model recommendations for increased operations and maintenance funding, the MDC's current operations and maintenance program were evaluated in order to project potential needs. Currently, the MDC has two two divisions -- Reservations and Recreation -- which manage and operate the beaches. The MDC's Central Services division provides simple maintenance and beach sanitation services, such as trash pick up, grass cutting and sand cleaning. The Engineering Division provides larger scale maintenance and construction support, such as seawall and facilities repair. Engineering also provides Water Quality testing and then the Divisions distribute the data to the sites, where on site personnel post the results. Reservations division organize their properties in districts, generally North, South and Harbor districts, though Recreation and Maintenance divide into four districts, Mystic, Neponset, Charles and Harbor. It is important to note that the operations and maintenance activities for the beaches are not performed in a vacuum. All three MDC Divisions pursue these operations and maintenance activities in the context of multiple properties, such as parkways, associated parks and pools within the districts.

Staffing

In considering staffing requirements for the beaches, it is important to note that the Boston Harbor beaches are considered seasonal resources, with the high use season running July 4 through Labor Day. However, funding for staffing should be in place prior to the end of the fiscal year, preferably April, so that the divisions can plan for the season. In addition, there is a need to address the post Labor Day staffing situation, as often the New England fall weather remains good well into the Fall. Training of staff is also an issue. Currently, it costs approximately \$300 for a lifeguard to become certified. Cooperative programs with local Y's have eased this cost, but with lower pay scales in recent years, the attractiveness of seasonal positions is diminished. State subsidized training could be considered to make these positions as coveted as they once were by area youth.

Table 16: Recommended Levels of Operations and Maintenance Funding

	Estimated Seasonal Cost(1)	Desired Levels
Seasonal Beach Staffing (1)		
Lifeguards(2)	\$4,185	One every 150'(56 total)
Waterfront Manager(3)	\$6750	One per beach or Island (20)
Rangers/Interpreter(4)	\$8100	One per beach or Island (20)
Beach Cleaning and Maintenance		
Full Time Maintenance Crew	\$50,000/crew	Two crews for North District Two crews for South District
Capital Costs		
Sanitizers	\$80,00	Minimum of Two(6)

Notes

- (1) Beach Season is assumed at 10 weeks, though an extended season of 16 to 24 weeks would be the ultimate goal; staffing levels may vary by Beach Type;
- (2) \$310/week plus 35% benefits, beaches must have a minimum of 2 lifeguards;
- (3) \$500/week plus 35% benefits;
- (4) \$600/week plus 35% benefits;
- (5) Full-time crew includes one foreman, 2 heavy equipment operators, 1 skilled laborer and 2 unskilled laborers.
- (6) Beach sanitizers are composed of a Tractor @ \$30,000 and Sanitizer @ \$50,000. Before additional beach sanitizers are purchased, additional manpower and storage facilities need to be addressed.

Maintenance

The MDC landside beaches are maintained with full-time maintenance crews which cover all of the properties in a particular district. For instance, the crew which covers Revere Beach also handles Constitution and Winthrop, as well as the other MDC properties in the geographic area. Revere Beach program was presented as a "model" example, as it receives daily maintenance. In general, the North District currently receives higher levels of maintenance, due to full time crews. Last year was the first year that the South District beaches, such as Carson, receive regular beach sanitation. Beach sanitation involves multiple activities, mechanized beach cleaning with Beach Sanitizers -- tractors which pull a specialized rake which can sift debris as small as a half dollar -- and hand pick-up, which is conducted by on-site personnel. It takes one full week to sanitize Revere beach. A separate crew on Barrel Trucks picks up trash -- 450 barrels at Revere Beach alone! Comprehensive beach maintenance can generally only take place from 5 - 10 am when the beach users begin to arrive.

In addition to increased maintenance and operations support budgets, long term improvement of the beaches may also be facilitated by expanding responsibilities for their care and supervision. The care of public spaces is increasingly being shared by neighbors, including private property owners -- for example the development of Post Office Square Park and the Friends of the Public Garden -- who have the most to gain from attractive public amenities. Such opportunities might include:

- o **Establish "Beach Watches"** -- where appropriate, which would draw friends of the beaches into the long term process of supervision, care and maintenance. The "watch" concept might include minimal seed money or incentive funding to support a network of volunteers who would contribute efforts to clean up, maintain, interpret the beaches in their neighborhoods, extending the reach of the MDC; many national parks have programs of this sort. Involvement of youth and service organizations would be possible.
- o **Increase Revenue from Private Leases** -- The MDC is currently conducting an appraisal of the properties which make use of publicly held land through private lease agreements. It is possible that in the future an increased revenue stream could come from increasing lease fees for long standing uses such as private yacht and boat clubs. As an alternative, in-kind services, such as the provision of boating and swimming lessons for disadvantaged children, could be made a condition of continued lease agreements. Leases for the provision of concessions and other services such as food, towels, umbrellas and boats, should also be reviewed to determine if quality and revenues may be increased.
- o **Take Advantage of Summer Work Programs For Youth** -- to support the maintenance and programming of the beaches. This may include existing programs such as City Year or a new MDC sponsored service corps providing summer jobs to area youth. Jobs would include lifeguarding, interpretive and educational programs, and general maintenance which are eligible for funding through federal jobs programs.
- o **Privatize Beach Maintenance** -- at selected beaches in an effort to make maintenance more efficient and responsive to neighborhood concerns. This is a national trend, but the concept needs further study with respect to the Boston Harbor beaches and would probably not be appropriate at Regional Beaches. Entrepreneurial opportunities may exist, for example, that would allow a private company to offset the purchase of major capital equipment required for beach cleaning.

Communications and Education

The discussion below deals with ways of achieving the Joint Commission's goal to communicate progress towards a revitalized urban beach system. Principles associated with the goal include:

- o Disseminate public information;
- o Develop educational materials and programs;
- o Monitor progress in revitalizing the Harbor beaches.

Opportunities to achieve these principles include proposals to communicate the good news that the water in the harbor is cleaner than it has been for decades and that beaches are being improved for public use. Opportunities address the range of activities that the beaches offer to the broad public, as well as ways to interpret the history and culture of the beaches, and their important role as a part of the region's natural environment.

DISSEMINATE PUBLIC INFORMATION

As the Beaches are reclaimed, mechanisms should be created to convey the progress being made and to provide information on what the Beaches offer to the public. Recommended mechanisms fall into three broad categories, in order of priority: **Public Relations, Daily Information, and Guidance to Users.** Specific ideas for each category follow:

Daily Information

The most effective source of daily information about the condition of the water, weather, and programmed activities are **Beach Staff** and personnel, such as lifeguards, located directly on the Beach. The number of lifeguards and the amount of time they spend on the beaches has declined in recent years due to budget restraints. Immediate efforts are needed to increase the presence of lifeguards and other personnel on the beaches. This may require a new system of budgeting for the MDC, since lifeguards must be hired at the very end of the fiscal year when funds are most limited, and then trained quickly in order to service the July 4th beach rush.

Local Communications about beach conditions are also important. A **Beach Hot Line** to reinforce the existing MDC telephone call-in system. The hot line would provide up to date information on wave conditions, water quality, and programs for each beach in the harbor. This information would also be posted and regularly updated at each beach.

An additional communication measure would be the establishment of a system of colorful flags on tall poles is proposed to mark each beach, communicating water quality (swimming or no swimming), weather conditions, and the management entity responsible for the beach. One of the flags might also carry a small marker which identifies the local "friends" group for the beach. With the flags, a sign system would record daily information on weather, water conditions, and tides. Finally, the flag system would be coordinated with the hot line, with the recorded message proclaiming "the swimming flag is up at Wollaston!"

Public Relations

This effort should include a **Promotional Campaign**. A poster system is proposed, suitable for display and use in MBTA cars and buses. A set of posters would deal with potentials at each of the Beach Systems, and could be developed as the final product of the current planning effort. The posters could parallel a promotional campaign entitled "Back to the Beach!", which may include public service radio announcements and television spots, etc. Financial support for the campaign may be enlisted through local private sector sponsors, etc.

Beach Programs should be scheduled for this spring and summer to focus on providing community activities at the beaches. Programs should involve the citizens of the area and might include swimming lessons, sailing lessons, interpretive and educational events for various groups. The Boston Harbor Beaches Fund could coordinate events and programs with local celebrities in order to gain publicity for the Beaches. Part of this effort might include a **Beachmobile** which could travel from beach to beach and neighborhood to neighborhood with more detailed technical information on the beaches. The Beach mobile would be focused on providing information to existing visitors and constituencies of the Beaches. The program could be bilingual and could feature various travelling exhibits, such as a salt water tank with various species of harbor marine life.

User Guidance

With the reemergence of the beaches, it will be important to communicate to potential users what is available at the Beaches and how to use them. Several means of communication might include:

- o **Discovery Guide** -- to the Boston Harbor Beaches, including maps, stories, old photographs; explaining natural systems and the harbor clean up; walking and bicycle trail routes and a summary of interpretive themes; activities available, such as sailing and swimming classes and schedule; getting to the beaches, including the harbor ferry system. Orient the guide to school children, as part of a classroom curriculum.
- o **Cassette Tours** -- for driving, walking, hiking and biking. Such tours have been successful, such as the MDC's Georges Island tours, but would have to be developed with specific audiences in mind and made available at regional facilities. Tours could be prepared and narrated by notable beach authorities or advocate groups (such as the Friends of Boston Harbor Islands), would have high production values, with music and sound effects.

EDUCATIONAL MATERIALS AND PROGRAMS

It is recommended that programs be initiated to explain the natural and cultural history of the beaches, their environment, how they are being reclaimed, and the public's role in these programs. Opportunities have been identified for **Environmental Interpretation and Education**. The following are specific opportunities in each of these subcategories:

Environmental Interpretation

The purpose behind the interpretive program is convey information about the beaches to the general public. The organizing interpretive principles include emphasis on the **Beaches as Natural Systems** to promote understanding and appreciation of ecology, and to communicate their role as part of the region's **Cultural History**. Stories associated with the beaches need to be organized into a set of themes, and a determination made about how themes will be represented at which beaches, and how associated stories would be told. The objective should be not just to organize information, but to provide the framework for a set of experiences which utilize and enrich the beach environment. The approach would utilize various interpretive elements which would be applied selectively to each beach.

The development of themes is a key element of the interpretive effort. Four primary themes are recommended to guide informational and interpretive programs at the beaches:

- o **Natural History and Ecology** -- would promote understanding the beaches as natural systems. This would be of particular importance at regional beaches which which are more easily accessible to lower income, urban populations. Topics would include explanations of natural habitats and harbor species, from waterfowl to clams, and all variety of marine life, which could easily be interpreted at Constitution, Tenean, Nickerson, and the Harbor Islands; the landside natural environment, commonly occurring flora such as salt marshes, and varying bottom conditions which could be interpreted at Short, which is in close proximity to the MDC's Belle Isle Marsh, Nickerson and the Harbor Islands; environmental impacts to the natural systems from waste systems and other sources could be interpreted at Carson and the Harbor Islands, including the landfill which created Spectacle Island and MWRA clean-up efforts at Deer Island; harbor geography could be interpreted in a compelling way at the Harbor Islands, particularly Gallops, where an overlook would provide views of all of the Beach systems and the entire harbor shoreline.
- o **The Physics of the Harbor** -- would promote understanding of the atmospheric forces which effect the beaches. Topics would include the concept of tidal action, which should be explained at all regional beaches; the action of the wind and the waves and the the effects of weather conditions and storms on the beaches and the adjacent man-made environment, which could be interpreted in a dramatic way at Winthrop and Wollaston Beaches.
- o **The Culture of the Beach** -- would promote understanding of the beaches as a cultural resource. Topics would include historic evolution of the use and meaning of the beaches to the residents and visitors of the city; the cottage culture which grew up around the harbor beaches could be interpreted in Winthrop at Yirrell and Donovan's Beach; the role of the beaches as a source of neighborhood folklore could be interpreted in Dorchester at Savin Hill and Tenean Beaches; the unique *Wall Culture* of Wollaston Beach could also be interpreted.

- o **The Urban Context** -- would promote the understanding of the larger urban and regional context of the harbor beaches. Topics might include the evolution of the harbor and the land area, focusing on existing programs of Harbor Defense at Georges and Castle Islands; the development of Logan Airport, which could be interpreted at Constitution Beach; the cultural and architectural phenomenon of the South Boston bathhouses, and the important social and entertainment roles that they played in the late 19th century immigrant experience could be interpreted at City Point as *The Golden Days at the South Boston Shore*;

Educational Programs

The Joint Commission recommends that educational programs be developed to integrate information about the beaches into school curricula. The educational programs would have to address varying levels of involvement from elementary school children to college students. The beaches provide a wide array of subject matter and on-site educational opportunities. **School Curricula** might be developed for elementary and high school students, organized by the four primary themes established for the beaches. This could be modelled on curriculum that the MDC developed for Wollaston Beach. **Informal walks and talks** could be presented at Beach facilities by management personnel or "friends" of the beaches.

Beach Learning Facilities might include classrooms, workshops and other space for formal and community education, sponsored by agencies or institutions, perhaps in conjunction with rehabilitation of Bathhouses to incorporate community uses. For example, U Mass Boston might be involved in establishing one or more laboratories where environmental quality is monitored by college students of environmental science programs in a series of field stations at the beaches. In addition, exhibit/educational information should be incorporated into the program of each regional bathhouse and beach facility. Exhibits could range from simple outdoor panels to structures specifically designed to house artifacts and information. Initial programs could be placed where facilities currently exist, such as the MDC contact stations on the Harbor Islands.

Staff and capital improvement will both play a role in the interpretive experience. **Interpretive Staff** is generally the most successful way in which to convey interpretive information. The MDC has experienced greater success with interpretive programs which feature an interpreter, or guide. **Signage** for each beach should be developed, with photos and information on each beach. Beach signage might carry the name of the beach along with its locality (e.g. *Tenean Beach, Dorchester*). Some beaches would have outdoor exhibit panels for the general public to convey information on the story of the beaches, others would incorporate exhibits as part of indoor facilities. **Trails** should be developed, where appropriate, with an expanded network along the shoreline and connecting inland open spaces. Interpretive signage and exhibits for these trails will be an important aspect of the program. **Special Features**, such as overlooks, environmental art, and sculptures should be explored to help visitors learn about the beaches and their environment.

MONITOR PROGRESS IN REVITALIZING THE HARBOR BEACHES

The Joint Commission recommends that a regular and comprehensive documentation of the planning and development work for the beaches be established. This information should be in the form of an **annual report card** which should be developed to monitor and report to the public on the progress of maintenance and capital improvements.