

Provincetown Harbor Plan

Update
2012

Provincetown Harbor Committee

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Introduction

"Provincetown Harbor is an attractive focus of activity for the entire community that surrounds it. The Harbor area is a complex place that requires public attention to ensure appropriate use and a clean environment. The Provincetown Harbor Plan establishes practical steps to meet these goals. This Plan values the present character and activities within the Harbor area. Rather than seeking dramatic changes, the objective of the Plan is to enhance the Harbor through better management and by accomplishing a list of coordinated improvements. The Plan envisions a future Provincetown Harbor with substantially greater access and a more pleasant character along the waterfront for all of its users."

The introduction to the Provincetown Harbor Plan quoted above speaks to its use as a planning tool to consolidate the variety of interests and needs of private property owners, public recreational and commercial uses with regulatory and planning agencies and is as valid today as when the original Harbor Planning Committee completed it in November of 1998. Its effect as a planning tool should not be underestimated. The Plan allows the Town access to grant funds for improvements and protection of the harbor, provides guidance to the Massachusetts Department of Environmental Protection with respect to Chapter 91 licensing of waterfront properties and coordinates multiple committees and departments to the recommendations of the Plan.

The Provincetown Harbor Plan is comprised of a series of both general and specific planning recommendations. The recommendations reflect the strengths of the planning alternatives studied and respond to current conditions at Provincetown Harbor as well as the directions of the town's citizens as expressed in public meetings and through the Harbor Planning Committee. The recommendations address issues of Land Use, such as use patterns, environmental impacts of various land uses, and the Harbor beaches. Under a general heading of Water Use, the recommendations discuss different kinds of fishing, boating and navigation, as well as water quality. A discussion of Public Facilities focuses on the publicly owned land and facilities, such as MacMillan Wharf. An entire section is also devoted to recommendations concerning M.G.L. Chapter 91 and its regulations.

The original Plan was approved on May 4, 1999 and had a five-year effective period before a required amendment process. Prior to expiration of the Plan in 2004, the Harbor Committee requested a one-year extension to continue their work on amendments. While thorough, the original Plan was difficult for laymen to use and had a number of contentious issues, primarily around Chapter 91.

Throughout the two year review process, the Harbor Committee has endeavored to find consensus with the affected parties and to create a workbook or manual that could be used by our citizens, Town volunteers and Provincetown Administrators as a guide to the resource protections, planning and development embodied in Provincetown Harbor Plan.

Sections I-IV of the original Harbor Plan were illustrative of the process used to create Section

V- *Planning Recommendations* and have been removed from this package. The original Plan will still be available to people interested in the process, planning maps and the background

information it contained. The original Plan and amended Plan are available at the Town Clerks office, the Harbormasters Office on MacMillan Pier or on-line at www.provincetown-ma.gov

Section V of the original Plan contained the *Planning Recommendations* and that section along with the appendices is updated in this package. The appendices immediately follow the Chapter 91 section that relates to them. Also included is a matrix of progress Provincetown has made in relation to the recommendations in the Plan. The Amended Plan follows the layout of the original section V and the sections are summarized below.

Land Use

Land Use Patterns

In general, the Provincetown Harbor Plan accepts the existing land use patterns along the water's edge as appropriate for the future of the community. The Plan acknowledges that the mixture of retail, commercial, residential and civic uses that fill most of the waterfront properties should be retained as a vital and appropriate mix. The Plan seeks to protect and extend the role of water-dependent uses along the waterfront and enhance views and access to the waterfront where possible.

Because the pattern and density of development of the downtown was established prior to current zoning regulations, much of the waterfront area is legally non-conforming in terms of the dimensional and, to a lesser extent, the use requirements of the Zoning By-Law. Under Massachusetts statutes and the municipal by-law, non-conforming structures and uses can be maintained and, under certain circumstances, expanded, altered, and changed either by right or by special permit of the Board of Appeals. As a result, there is a strong interest on the part of property owners to retain the existing improvements and to modify them incrementally, often resorting to variances or special permits to allow expansion or reconfiguration of improvements. These modifications lead to a steady expansion of development towards the water's edge, building within zoning setback limits and other small but gradual changes that often are not in keeping with the spirit of the underlying zoning regulations, nor with the goals and objectives of this Plan.

To reinforce the underlying goals of the existing zoning and the conclusions of this Plan, its goals, objectives, and recommendations should be incorporated into the criteria for special permit applications and be stringently applied along the waterfront. This should improve consistency of regulatory decisions and simplify the development approval process.

The Provincetown Harbor Plan has several recommendations in regard to water-dependent uses. The first is to protect and maintain existing water-dependent uses. This objective is a primary concern in the area of the waterfront that retains the greatest concentration of water-dependent uses, in an area that has been designated as "Chapter 91 Region B" as discussed below. The second recommendation is to ensure that new non water-dependent development does not impede or interfere with the operations or viability of water-dependent uses. Likewise, this Plan seeks to balance the needs of commercial and recreational boaters with the rights of bathers and strollers to enjoy clean beaches and clean water. The third is to encourage new water-dependent facilities whenever appropriate in response to expressed need. The fourth recommendation is to

increase public access to the waterfront wherever possible. The final recommendation is to assist the maintenance and revitalization of water dependent commercial properties. This Plan supports the use of substitutions and offsets to help keep existing water dependent commercial properties in good condition and financially viable.

This Plan includes a detailed local approach to the review and licensing of properties within Chapter 91 jurisdiction. This is an important land use tool, and has been described in detail in a separate discussion below. In addition, the Plan includes detailed recommendations for direct public improvements through investments, enhancements, and expenditures through the Harbor Access Gift Fund, a dedicated fund for water access improvements that is also detailed below. The town may wish to pursue additional proactive measures regarding water-dependent uses along the waterfront.

- Keep the existing zoning but include criteria to protect and promote water-dependent uses from new development, changes of uses, or modification of uses.
- Prevent interference with existing water-dependent uses. An example of interference would be a use that diminishes public and working access to the beach. In another case, the development of certain types of non water-dependent uses, such as a new residence on an adjacent property, might create a conflict with a boat repair facility. The zoning regulations could include a provision recognizing such a potential incompatibility and prohibit a particular type of use from being established near existing water-dependent uses.
- Prevent reduction of waterfront capacity to accommodate present and future water-dependent uses. Long-term impacts of new development on water-dependent uses should be considered when reviewing permit applications.
- Increase public access whenever appropriate. The local by-laws should reflect the objectives for the waterfront articulated in this Harbor Plan.
- Explore the potential of economic development areas utilizing special tax and other advantages, in part by utilizing mechanisms and potential resources from state programs.

FEMA Velocity Zones

As noted in the existing conditions evaluation, there are numerous properties along the Provincetown waterfront that include improvements within "velocity zones" as designated by the Federal Emergency Management Administration. These improvements are at risk in the event of extreme storm conditions. This affects the ability to insure properties, including the availability and the cost of insurance.

It is recommended that the town seek funds from FEMA and/or its Massachusetts equivalent (MEMA) to undertake a study of measures to reduce storm damage risks to existing improvements in FEMA velocity zones. This study should be administered by the Harbor Committee, and should investigate the potential for:

- Providing an information program and potential loan or grant programs that would assist property owners in undertaking improvements to their sites or buildings to decrease the chance for damage.
- Providing engineered improvements such as beach extensions associated with dredging program, sacrificial dunes, or other measures to remove the velocity zone designation from affected properties.

Environmental Impacts of Land Use and Storm water Management in Provincetown Harbor

With the new sewer system now in place, a significant source of land based pollutants in the harbor has been reduced. As of the date of this Amended plan not all waterfront properties have connected to the sewer. A goal is to have all waterfront properties connected. The problem of storm water still needs to be addressed. There needs to be a scheduled ongoing program of testing and monitoring harbor water quality, using multiple indicators of the overall health of the water. Funding for these projects also needs to be on a continual basis. A 1996 application for a state grant to investigate the character and impact of storm water was turned down. Our first priority should be to re-assess and re-submit this application, as well as investigate other sources of grants and/or funding. There are 25 outfalls along the waterfront and the town, at DEP request, is committed to their elimination. Three have been completed to date. As a result of the installation of the public sewer system, Commercial Street needs to be repaved. It is suggested that it be repaved with porous paving material to allow storm water to percolate through and reduce runoff into the harbor. The town did receive a grant to install a storm drain filter system at the West Vine St. Landing, but neither the state nor the town made any provision for the funding of maintenance.

A program should be established to eliminate storm sewer out-falls from the harbor, and the planning effort should include representatives from the Harbor Committee (see below). Limiting the flow from out-fall pipes is a complex and costly issue. However, cleaning and installing a filter on the catch basin system would be a cost-effective strategy to reduce the flow of debris from out-fall pipes on the short run. However, before a catch-basin filter system can be recommended, selected, or installed, more data is required to resolve the types and the sources of pollution into the harbor. Groundwater, out-fall pipes and their receiving waters need be tested for bacteria, nutrients, residual trace metals, and petroleum products from automobiles. Such a sampling regime would enable the town to determine the most significant source of pollution and to make the most appropriate and cost-effective pollution abatement decisions.

A significant conclusion of the Stearns and Wheler 1997 Assessment Report is the determination that "minimal positive effects to stormwater quality can be expected from a wastewater management plan that removes subsurface disposal systems from the waterfront." The report found that wastewater and stormwater are mutually exclusive sources of pollution, and that the high concentrations of fecal coliform measured in the storm sewer system likely emanate from sources other than septic system leachate.

Stearns and Wheler (1997) recommend sampling of storm sewer systems using the same suite of indicators as Normandeau (1988) a sampling regime referred to as 'water quality pollutant

constituent monitoring.' In addition, they recommend using inorganic leachate indicators to indicate the presence of septic tank effluent (i.e., groundwater intrusion).

Water quality constituent monitoring is only one type of water quality indicator which, in turn, is only one type of indicator of environmental health--there are many others. Other water quality indicators that should be included in a stormwater management plan include toxicity testing, non point source loadings, exceedence frequency monitoring, (which is sometimes done in Provincetown), sediment contamination, and human health criteria. Similarly, other types of environmental indicators that should be considered in the design of Provincetown's stormwater management program include physical and hydrological indicators (e.g., physical habitat monitoring), biological indicators (e.g., marine phytoplankton and macro-invertebrate monitoring), social indicators (e.g., public attitude surveys), programmatic indicators (e.g., number of best management practices in use), and site indicators (e.g., growth and development of the drainage area).

A comprehensive storm water management program should include multiple indicators, as listed above, selected on the basis that they can (1) provide a realistic assessment of the overall health of the aquatic system, (2) track general improvements or deteriorations in overall aquatic health, (3) assess and evaluate which components of the program work and which do not, and (4) assess the overall success--or failure--of management efforts. Moreover, the storm water program has to be based on what is realistically achievable for Provincetown Harbor, as well as for its underlying aquifer.

Harbor Beaches

The beach along Provincetown Harbor has a greater recreational potential than is currently being enjoyed. This Public stretch of sand, with its protected swimming and boating, along with the views to be enjoyed from its shores, offers both residents and visitors all the pleasures of the seaside along the entire length of the main street. Currently 13 of our Town Landings have new signs indicating Public Access. There are more town owned and public rights-of-ways still to be reclaimed. This is a tremendous asset. All that needs to be done to create the most unique and friendly Harbor of any Town on the Cape is to make these many public paths to the shore more inviting, more welcoming and more interesting. Access points are generally limited and ill defined, supporting facilities and amenities are lacking, and a significant amount of debris and dog feces is allowed to accumulate which detracts from its attractiveness and utility as a recreational beach.

One of the harbor issues identified during the planning process is the concern regarding beach stability and erosion patterns. These factors are relevant to the Harbor Plan and its recommendations in several ways: the siting of potential future dredge material disposal for beach nourishment, degree of threat to structures and property from coastal storm erosion, and the effect on public access.

Beach Nourishment

Studies show that the shoreline of Provincetown Harbor has been relatively stable for over 150 years. Historical shoreline changes in Provincetown Harbor are primarily the result of:

(1) The direct placement of dredged material on the beach and (2) alteration of wave induced erosion caused by the construction of seawalls along the shore and the U.S. Army Corps of Engineers breakwater off shore. Beach nourishment guidelines have been developed which include standards for judging suitability and compatibility of source material for various site-specific uses. Since beach nourishment is a highly sensitive area, the Harbor Committee recommends that all such projects be well researched and that public input be taken into consideration.

One final issue connected with the placement of fill or dredged material along the shoreline is that of ownership and control of the land thus created. The Corps of Engineers and the Commonwealth of Massachusetts hold that the placement of material in areas where there are public rights, i.e., areas below the existing or historic high tide line, in no way restricts or extinguishes those public rights. Licenses issued by the MDEP to conduct such activity contain a provision that specifically conditions approval on that basis. The Corps of Engineers expects similar assurances. In the recent maintenance dredging of Provincetown Harbor in which the dredged material was placed on the beach, waivers were obtained from affected property owners acknowledging that any extension of beach would be public and open to all on an equal basis.

General Strategy for Beach Maintenance

The following strategies are proposed as part of the Harbor Plan to address the problems of beach maintenance. In 1994, the Provincetown Marine Debris Task Force thoroughly studied the issue of marine debris in Provincetown Harbor and issued the report Strategies to Reduce Marine Debris in Provincetown, Massachusetts. That report contains numerous recommendations that should be implemented as part of this Harbor Plan.

The general strategy for improving the conditions of the beaches is to decrease the sources of debris and increase its removal from the beach. The major sources of debris are land-generated debris, marine debris and out-fall pipes. Land-generated debris is caused by improper disposal of garbage on the beach or by the action of the wind blowing trash onto the beach. Marine debris originating in Provincetown Harbor comes from MacMillan Pier, restaurants and bars located adjacent to the beach and the boat berthing areas; tide and current move the debris onto the beach. After heavy rain or storm a quantity of debris is carried with the flow from outfall pipes and ends up on the beach. Seaweed is another issue that needs to be addressed. It is also likely that significant debris originates outside of the harbor. Such sources should be studied as part of an ongoing maintenance program.

Removal of beach debris should be accomplished through a variety or combination of approaches such as increasing the municipal commitment of public works staff and resources, organizing citizens to take on the responsibilities on a voluntary basis, and utilizing Sheriff's Department and or AmeriCorps workers.

Decreasing Input from Sources

The major sources of land-generated debris are humans. In addition to a public awareness campaign and providing more trash barrels with automatically closing lids, the beautification of

our Town Landings and the availability of various amenities will do a great deal to encourage people to pick up after themselves.

Large accumulations of seaweed left to decompose on the beach can be unattractive, have an unpleasant smell, and otherwise limit recreational uses. On the other hand, some people find none of the above to be the case and seaweed does play a role in beach and dune stabilization. Most beach maintenance programs do, however, include periodic removal of seaweed from the beach. This committee strongly suggests the DPW acquire and use a beach cleaning machine. Public education directed at visitors to, and users of the harbor and beachfront areas is a key element in making these strategies work.

Summary of Land Use Actions

- Incorporate Harbor Plan recommendations into all applicable special permits, variances, and similar town permits and licenses, to encourage the protection of water dependent uses and the goals stated in this Plan, consistent with the Chapter 91 guidelines.
- Provide for representation of the Harbor Committee and other relevant harbor interests in the sewer out fall removal program.
- Provide for continuation and improvement of the water quality monitoring program.
- Enhance the removal of beach debris by providing additional assignment of maintenance responsibility and funding to the DPW and additional trash receptacles.
- Dog poop post and bags must be provided and maintained year round.
- Enhance the removal of beach debris by increasing volunteer activities and increasing public awareness.

Town Landings

The following goals form the basis for the public access and landing recommendations and actions proposed in the Provincetown Harbor Plan:

- The term "Public Access" should be understood as referring to: The free access from the street to the shoreline for pedestrians and for water-dependent vehicles where appropriate. Public Access also refers to pedestrian passage along the length of the shoreline as it currently exists, or should exist according to Public Record. Public Access also refers to the visual access of what are called "historic view corridors".
- One of the most unique and charming assets of Provincetown is the view of the harbor that can be continually glimpsed between each building on Commercial Street. These view corridors are being compromised by individual property owners; much to the detriment of the town.
- To reclaim, maintain and protect all Town Landings and Public Access Ways as well as protect the public's foot passage and water dependent vehicle access from obstructions

and construction from Commercial Street to the shore line including pedestrian passage along the length of the shoreline to the maximum extent possible.

- To encourage the public to safely enjoy our waterfront by providing attractive and well marked "Public Access" signs. By creating and maintaining an inviting approach to our shoreline at Town Landings. By using more of the town owned areas outside of the portion for vehicular access, a series of "Pocket Parks" should be created. Amenities to be provided as appropriate should include: Bicycle Racks, Benches, Picnic Tables, Fishing Piers, Rest Rooms, and Educational Tools and Displays.
- To take legal steps to perforate the barrier between Commercial Street and the waterfront by reducing visual obstructions and to request the Historical Committee's approval for all new "landscaping", fencing, and other sight-line obstructions, thus improving and increasing access between the two. This goal reflects a concern expressed by the Provincetown Historical Commission over the loss of view corridors to the harbor.
- To increase substantially the dry sand area of the beach dedicated to public use by removing undue encroachments that exist as accessories to non water-dependent uses.
- To make the beach more attractive and suitable for all water-dependent uses.

The Harbor Plan includes a list of projects and improvements that will serve to upgrade the public access areas to the waterfront. The list of proposed improvements is included on the following pages:

Steps to improve and restore views must be made; including the immediate enforcement of building/zoning/Chapter 91 rules in the harbor area by a coordinated effort of all involved Boards and Committees or Commissions that pass on or issue permits for all waterfront construction including "repairs and replacements". As part of this process, the historic and existing town rights to waterfront access ways needs to be confirmed in some cases. There are instances where historic rights-of-way may be useful to establish potential restoration of access. In other cases, private development has intruded significantly onto the public landings. As a result, this Plan recommends that after preliminary research of Town Landings by the Harbor Committee, a lawyer and surveyor could be hired to legally re-establish true boundary lines. This could be paid for (if determined) out of the existing Harbor Access Gift Fund monies already collected. Without proof of Town ownership or rights, we stand little chance of reclaiming town owned properties.

For all Public Landings and publicly owned lands, the current signage system should be properly installed and maintained in a place that indicates public access and amenities on both the beach, as well as Commercial Street.

Trash receptacles and dog poop-bags and posts should be placed at all town landings and town-owned access points, and maintained on a year round basis. Bike racks and benches should be located wherever feasible. Paved portions of town landings should be maintained. Sand portions of public access ways should be refreshed each spring as needed.

Funding for improvements and maintenance of our Public Landings can be financed primarily through the Harbor Access Gift Fund, a dedicated fund used solely to directly benefit the

Provincetown harbor-front, as well as from other sources, such as grants, etc.

Recommendations for Public Landings and Publicly Owned Lands

Location #1 Kendall Lane

- This area serves anchorages in the harbor, and dinghy storage is required. This is the only usable Public Landing in the East End. The addition of a small area of fill to the environs of the landing to create a larger area above high tide that does not restrict the public landing, and a simple post created to facilitate tie-ups.
- A bicycle rack should be provided in this location.
- A search of Town and Registry of Deeds records should be done to establish the extent of public ownership and public rights to this land.

Location #2 Washington Avenue

- View corridor should be improved.
- The extent of public ownership and public rights to the land should be confirmed. There have been many incursions into the town landing by private development.
- Benches, dog poop bags & post, and trash receptacles should be provided.
- Simple post improvement to allow for dinghy tie-ups should be provided.

Location #3 Pearl Street (also known as Town Landing #1)

- The storm drain cover should be used as a location for a small deck with benches and other improvements such as a bicycle rack.
- Private parking and landscaping by abutters in this area should be regulated so as to not interfere with public access to the waterfront.
- Dog poop bags & post should be provided
- Simple post improvement to allow for dinghy tie-ups should be provided.

Location #4 Johnson Street

- This location is no longer considered a viable area for a boat ramp.
- A bicycle rack should be provided in this location.
- Simple post improvement to allow for dinghy tie-ups should be provided.
- Access to beach provided for tractor and beach rake.

Location #5 Freeman Street (also known as Town Landing #2)

- Encroachment onto Public Lands here needs to be investigated. Discrepancies should be resolved in a manner that restores original Town ownership and removes all obstacles to Public Access. Adjoining properties should be in compliance with Chapter 91.
- Special paving that is attractive for pedestrians and supports heavy vehicles should be provided for the paved areas of the landing connecting to Commercial Street.
- Landscaping and benches should be provided in areas not required for vehicle access or other uses.
- Simple post improvement to allow for dinghy tie-ups should be provided.
- This area requires the attention of the Police Dept. due to numerous private vehicles parked and stored along Town owned lands as well as directly on the beach.

Location #6 Municipal Parking Lot

- Continue Public access and open space improvements should be undertaken as listed in the Provincetown Transportation Center Plan that has been adopted by the town. The improvements already undertaken are additional walkways along the entire perimeter of the pier, landscape improvements, and increased and inviting open space along the water's edge. The waterfront park will need additional lighting along the boardwalk.
- Additional expansion of the courtesy float.

Location #7 Gosnold Street (also known as Town Landing #3)

- There appears to be room for many amenities at this location.
- Dog poop bags & post should be provided
- A bicycle rack should be provided in this location.
- Simple post improvement to allow for dinghy tie-ups should be provided.
- Picnic Tables and benches should be provided.

Location #8 Court Street (also known as Town Landing #4)

- The Court Street landing should continue to serve as a landing and have paved access for trucks and vehicles requiring access to boats and equipment.
- The remaining area at Court Street not required for water-dependent access should be converted to a park with landscaping, paving, benches, bike racks and other amenities.
- Simple post improvement to allow for dinghy tie-ups should be provided.

Location #9 Atlantic Avenue (also known as Town Landing #5)

- Special paving that is attractive for pedestrians and supports vehicle access should be provided for the paved areas of the landing connecting to Commercial Street.
- The legality of a large fence extending out on to the beach should be investigated.

- The legal boundaries of this Public Landing should be restored. Adjoining properties should be in compliance with Chapter 91 conditions.
- Dog poop bags & post should be provided

Location #10 **Good Templar Place** (also known as Town Landing #6)

- This access way is very uninviting. Paving that is attractive for pedestrians and supports vehicle access should be provided for the paved areas of the landing connecting to Commercial Street. The area for boat launching needs to be graded to correct a dangerous drop-off.
- The existence of a marine business adjoining this Town Landing should not prevent the town from improving and maintaining this Public Access.

Location #11 **Franklin Street** (also known as Town Landing #7)

- This area serves anchorages in the harbor, and dinghy storage is required. The Coast Guard sea-wall appears to impinge on an area that may have served as dinghy storage before the building of the Coast Guard Station. Subject to negotiation and approval by the Coast Guard, a small area of fill should be added to the environs of the landing on land controlled by the Coast Guard seaward of the existing bulkhead to create a larger area above high tide that does not restrict the public landing and a simple post improvement created to facilitate dinghy tie-up.

Location #12 **West Vine Street** (also known as Town Landing #8)

- This wide landing adjoins the historic Captain Jack's Wharf, the last "authentic" looking fishing wharf on Provincetown Harbor.
- Appropriate gravel that is attractive for pedestrians and supports vehicle access should be provided for the paved areas of the landing connecting to Commercial Street. Heavy rains and storm tides wash out this landing. This problem needs to be addressed.
- The storm drain needs to be maintained properly, most of the time it is buried in the sand. The two filters installed are also buried and need to be restored and cleaned on a regular schedule.
- Dog poop bags & post should be provided
- A bicycle rack should be provided in this location.

Location #13 **West End Boat Ramp**

- The boat ramp needs to be enlarged to accommodate two (2) boats at any given time. During times of pending bad weather, numerous boat owners are attempting to remove their vessels at the same time.

- Floats should be added to assist arriving and departing boaters. Limited expansion of the parking lot seaward including some fill and re-grading of the beach in this area should be studied, and if feasible, implemented to accommodate increased trailer parking.
- The area for parking boat trailers should be metered like the rest of the parking spaces to prevent those limited spaces from being used as long term storage.
- Unregistered and abandoned dinghies need to be removed.
- This area has a serious need for Public Rest Room facilities.
- Sidewalk improvements for the sake of safety should be considered to connect the waterfront to Commercial Street without losing any existing parking spaces.
- A bicycle rack should be provided in this location.
- A banister on one side of the stairs going to the beach is needed here to prevent potential slip & fall accidents.

This list of 13 Town Landings is not all-inclusive. Other landings apparently exist, as well as rights of way and cart roads. These original grants and their legal boundaries need to be researched and reclaimed. Some of the Provincetown East End accesses are: sand road next to 749 Commercial St., Mermaid Avenue, Dewey Ave, Winston Ave., and Cleveland St. Further research into these potential access ways and others will be necessary.

Town Landing Goals

The Harbor Committee recommends the following priorities:

1. Mitigate storm water run-off damage and pollution at all Town Landings. Work is to be done by the Provincetown D.P.W. in concert with Coastal Zone Management (C.Z.M.) grants with partial funding from the Harbor Access Fund. The D.P.W. will prioritize the work.
2. Provide for public amenities at appropriate Town Landings to include: trash barrels, dog poop bags and posts. Also, where possible to include: benches, bicycle racks, and lighting, in that order.
3. Work with Town and State to mitigate encroachment and to remove obstacles from abutting private properties.
4. The non-paved portion of access from Commercial Street of all Town Landings should get clean sand and gravel where indicated.
5. Request that owners of abutting properties remove any obstacles that limit or inhibit free Public Access to areas beyond their legal property lines.

Water Use

The future use of the harbor should be accommodated through a planned process that reduces existing or potential conflicts and protects economic, ecological, and scenic value. The Plan recognizes areas of the harbor that have different physical characteristics, attributes, and natural resources that present opportunities and constraints for uses. Among the relevant characteristics are water depth, (including tidal variation), water quality, exposure (degree of protection from severe winds and waves), benthic resources (such as crustaceans, bivalve mollusks and eelgrass), distances from shore and to navigable waters, obstructions, and holding ground. In addition, the use and character of upland adjacent to the harbor waters influence the possible and appropriate uses of the water area.

As discussed earlier in the Plan, the water area of Provincetown Harbor accommodates a number of activities and uses. These include piers and wharves, berthing and moorage space for commercial and recreational boats, navigation channels and fairways for vessels, lobstering, recreational shell fishing, shellfish aquaculture, sport fishing, swimming, jet skiing, and water skiing. Many of these uses can share the resource compatibly, but others are inherently exclusive or conflicting. Multiple use of the resource is possible because uses vary in terms of spatial and temporal requirements, that is, the degree to which they commit the resource (e.g., seasonal, temporary, intermittent, permanent).

The demand from a variety of uses and the importance of the harbor to the economy and life style of Provincetown justifies planning to manage and optimize the utility of the harbor (see Figure 8- Original Plan. Proposed Water Use Plan (2 pages). In general, there are relatively few conflicts in the use of the harbor by the existing users. These conflicts are generally already regulated, and simply require ongoing management and enforcement of the existing Harbor Regulations by the Harbor Master.

The following principles should guide the future use of the water area of the harbor:

- Mooring areas should be designated only in those areas where benthic resources will not be damaged.
- Areas requiring protection of water quality to protect plant (eelgrass) and animal (shellfish) resources should be off-limits for overnight transient anchorage and moorings.
- Anchorage areas should be designated more precisely so as to reduce conflicts with other uses in the harbor such as sailing, swimming, shellfishing and aquaculture.
- To the extent that these principles are not reflected in the Town's Harbor Regulations, appropriate amendments to those regulations should be adopted.

Benthic living resources such as eelgrass and areas of shellfish concentration should be protected through all available means. Maintaining harbor water quality is an important fundamental condition for the health of these resources. The three designated shellfishing areas, the two areas of private hard shell clam grants, and the oyster spat fall resource area should be adequately

marked and moorings and anchoring controlled in accordance with the recommendations of this Plan. Once eelgrass mapping is finalized, the extent of the resource should be assessed against the mooring plan and adjustments made as appropriate to protect the eelgrass.

It should be noted that the National Park Service has ownership and jurisdiction over land and waters immediately adjacent to the planning area. It is the recommendation of this Plan that no action be taken by the National Park Service that would reduce or alter the activities recommended by this Water Use Plan.

Commercial Fishing

The Plan reinforces the ongoing importance of commercial fishing in the economic and cultural life of Provincetown. In the short term, the finfish industry is experiencing substantial stress due to resource supplies and an emerging regulatory structure. As a result, there are shifts in the requirements for both waterside and shore-side facilities. In the longer term, requirements remain difficult to predict. As a result, the Plan recommends that commercial fishing facilities be maintained and supported when economically feasible. In support of small boat commercial fishing, the original Harbor Plan called for an off-loading dock designed and dedicated for use by small-boat fishermen. The dock has been constructed to remain in the water year-round and has electricity, water, winch, lights as well as ice (for a fee).

As part of the operation of MacMillan Pier, the Harbor Plan supports the creation of support facilities for fishermen and other visitors that would provide fresh water, restroom facilities, staging area, small lift for off-loading catch and for the exchange of equipment and supplies

Aquaculture

Aquaculture of types that will not harm the ecology of the harbor should be one of the priority uses of the harbor, reflecting both its considerable potential and role in sustaining and revitalizing the commercial fishing industry. Aquaculture will be supported by and benefit from the improved small boat support facilities as shell fisher/farmers need access to storage floats and the ability to offload their product.

Specific recommended actions include:

- Encourage studies and programs to grow other types of shellfish such as steamers, oysters, mussels, or sea urchins, as well as one or more species of finfish if ecologically safe.
- Continue to cooperate with the Massachusetts Division of Marine Fisheries, Woods Hole Oceanographic Institute and others to investigate and solve the QPX problem. Investigate the possibility of a different species of quahog that may not be genetically susceptible to the parasite.
- Identify and mark areas of the harbor naturally suited for shellfish and reserve areas and control use of the areas for boat mooring and anchorage.

- Coordinate funding for investments made in improving waterfront facilities with the needs of the shellfishers and the shellfish aquaculture program.
- Continue to investigate the potential utility of the natural oyster spat fall area offshore of the Johnson Street parking lot. Actions should be considered that better mark the perimeter; manage/prohibit incompatible competing uses (e.g., mooring in the area), maximize yield of the area and create a program for grant holders to transplant oyster to habitat suitable for grow-out.
- Monitor water quality closely for different types of pollution such as differentiation between human and animal fecal matter and coliform bacteria, and implement programs to ensure clean harbor water.

In general, sufficient financial resources should be directed at shellfish propagation (seed and equipment) for recreational shell fishing. At the same time, the seeding program of the public shellfish areas should be continued.

Other Commercial Boating

Other commercial boating in Provincetown Harbor consists of cruise ship and passenger boat operations and the operation of excursion boats, including the whale watch fleet, party fishing and sightseeing boat operations. The economic benefit of these activities to the town is positive and substantial attention and adequate resources should be dedicated to improvements. While it is possible that small-scale freight operations could be in demand in the future, accommodation of this use does not warrant current action.

As the waterways in the harbor become more congested, the Harbormaster will need additional resources to maintain order and safety. Adequate patrol boats and properly trained personnel should be a priority as the need occurs.

Recreational Boating

Provincetown should take advantage of the opportunity to increase the attractiveness, hospitality and safety of Provincetown Harbor for recreational boaters. This effort should particularly focus on increasing amenities and services that bring economic benefits with minimal impacts. Recommendations may include replacing bottom tackle and reorganization of moorage for vessels according to draft. The Harbor Committee would hold hearings on this subject.

Other measures are generally discussed in more detail as part of the proposed improvements to public facilities and include:

- Provision of appropriately located dinghy docks, showers, laundry facilities, lockers, and other facilities available to the transient boater.
- Provision of a boat ramp available at all tides and provision for parking within a reasonable distance of the ramp.

- Improvements to West End boat ramp including the provision of floats and widening while being sensitive to the environment.
- Provision of improved dinghy tie-ups at various town landings.
- Provision of marina facilities for transient and seasonal docking of recreational boats.

The Harbor Committee believes that marina facilities for recreational boating could be best located at Fishermen's Wharf, although other locations may become available in future. In the event that a redevelopment of Fishermen's Wharf is proposed, the Harbor Committee would seek to include services for recreational boaters including retail and public entertainment areas. The recommendation to provide adequate public landing facilities could necessitate both dredging and the construction of new ramps and float structures, as well as parking facilities. Based on current economic factors of cost and probable revenues, state or federal aid would be necessary for development. Funding for recreational facilities is often available through those sources.

Town Moorings

During the development of the original Harbor Plan, a study of the mooring system indicated that the layout of moorings was generally efficient because of both location and density. However, in the past seven years, because of the proliferation of moorings and the demand for new growth, it has become apparent that a newly organized mooring system covering the entire harbor must be established.

A goal of the Harbormaster over the next few years is to establish a uniform mooring and anchorage system that can be readily inspected and managed. Care will be taken to protect such elements as the sailing areas near the West End Sailing Club, shellfish and aquaculture areas, eelgrass meadows, fairways and navigation channels, swimming and fishing areas. Enforcement must be possible to insure the maximum use of the harbor resource without damaging the scenic or ecological environment.

A number of town moorings will be set aside for emergency and storm usage. The actual details of regulations will be developed through the usual process and will appear in then current Harbor Regulations.

Navigation and Dredging

Provincetown Harbor is a natural harbor that nevertheless is subject to shifting bottom conditions in certain areas that are necessary for navigation. The maintenance of the Federal Channel is a responsibility that is managed for access by the Coast Guard. However, a regular maintenance program should be established by the town for areas outside the Federal channel. Some dredging and beach improvement has been accomplished, however, a sustained program should be maintained as part of the responsibilities of the Harbor Committee and appropriate Town officers. The Town and State Coastal Zone Management will determine priorities and where dredged material is placed.

The dredging program should provide for regular studies of bottom conditions, seek outside funding to support the program, make recommendations concerning the creation of a dedicated local fund as a match for outside funding, schedule permitting, and generally provide advice and recommendations to the Board of Selectmen on a regular basis. A County dredge is available at a reasonable cost. The Harbormaster should be responsible for all dredge permit applications and coordination of harbor operations when dredging occurs.

The Plan also reinforces the responsibility of the Harbormaster to move or remove any bottom-held boat moorings that encroach into or allow encroachment by a vessel into the harbor navigation fairways and channels and the continued monitoring of placement of these moorings by the Harbormaster. In addition, wrecks and other hazards should be marked and removed if necessary to ensure the safety of divers and transient boaters wishing to anchor.

Water Quality

Water quality is an area of significant importance with regard to Provincetown Harbor. A key concern in this regard is the proper treatment and disposal of boat sewage. Consequently, the Harbor Plan calls for the continued maintenance and enforcement of the current pump out program.

Boat sewage contains water pollutants such as fecal coliform, alcohol, formaldehyde, zinc, ammonium salts, and chlorine. Boat sewage as well as chemicals used to deodorize and disinfect the sewage degrades water quality. Resource uses most likely to be affected by sewage dumping in Provincetown Harbor are shellfishing, aquaculture, and swimming as well as aesthetics.

Article 5 of the Provincetown Harbor Regulations makes it illegal to discharge sewage, gray water or holding tank wastes into Provincetown Harbor. The practice known as "bucket dumping" is illegal. The regulation may require the use of dye tablets in vessel MSDs to ensure compliance and encourages use of the boat pump-out facilities. Cape Cod Bay has been recently declared a no discharge zone.

Provincetown Harbor's pump-out facility consists of a 300-gallon pump-out boat that serves all moored boats in the harbor. The town received a Clean Vessel Act (CVA) grant from the state to purchase the boat and to subsidize the costs of operation and maintenance. Annual O & M funds have been provided by the state and will likely continue at some level as long as CVA funds are available. There is also a land-side pumpout station at the public courtesy float that is connected to the Town sewer system.

According to the State, the number of boats pumped and the volume of effluent removed are relatively high. The Harbormaster reports that compliance with the discharge regulations is high. An education effort that includes informational brochures distributed to boaters and a sign on a buoy advertising the free pump-out service contribute to this success. However, a modern solution to human waste in the harbor from all sorts of boats must be pursued. A connection on the pier to the town sewer system has been established with a pumpout system on the courtesy float. This system is capable of serving some commercial vessels as well. An expansion of the system is needed for the larger commercial vessels operating on tight time schedules, i.e. whale watch and ferries. This would be a major step forward for the health of the harbor.

In addition to overboard discharge, another serious source of harbor pollution is street and beach runoff from the oils and fuels of motor vehicles, dog and other animal feces, and building discharges such as paints, asbestos, cleaning compounds, etc. This problem can be addressed by specially designed street runoff water discharge systems.

An improved ongoing water quality testing system, starting with baseline studies, will be necessary to improve and maintain our harbor water quality. Action to implement this project is under way.

Summary of Water Use Actions

- Maintain an active program of ecologically sound aquaculture and shell-fishing improvements.
- Improve the Town mooring and anchorage system.
- Areas requiring protection for water quality, sailing, swimming, and shellfish resource protection should be marked as off-limits for moorage or anchorage. Anchorage areas should be designated, promoted and clearly marked to reduce conflicts with other uses in the harbor. Set aside a sufficient number of town-owned moorings for emergency and storm usage.
- Mark wrecks and other hazards to ensure safety. For example, use the Harbor Access Gift Funds to purchase "headstones" for the ends of existing beach groins.
- Continue the process to develop a plan for short-term and long-term maintenance dredging and beach nourishment.
- Expanded connection to the pier to the town sewer treatment plant for public facilities and boating effluent.
- Refine the safety regulations for personal watercraft and other vessels.
- Support the water-testing program for the harbor including monitoring storm drain and street runoff.
- Encourage facilities and services to meet the needs of recreational boaters including dinghy moorings, launch services and dockside amenities.
- Improve and widen the West End Ramp. Investigate the development of a new boat launching area in the cove at the west end of Commercial Street.
- Review the Harbor Regulations yearly and update if necessary.

- Communicate to the National Park Service the recommendation that no action be taken by the National Park Service that would reduce or alter the activities recommended by this Water Use portion of the Harbor Plan.
- Maintain commercial fishing facilities as economically feasible. Provide for improvements for other commercial boating as part of the MacMillan Pier operation.
- Maintain an off-loading dock designed and dedicated for use by small-boat fishermen with appropriate facilities including off-loading parking.
- Increase the number of skiff and dingy dock floats near several public landings.
- Public must be notified (via flags, signs or some other means) if any beach is closed due to high coliform bacteria count.

Public Facilities Recommendations

The Provincetown Harbor Plan recommendations for public facilities in large part address the reconstruction of MacMillan Pier. The redevelopment of MacMillan Pier continues as needs are addressed and funding becomes available.

The areas that still need attention on the pier are:

- There must be a permanent year round adequately protected slip provided for the Harbormaster patrol craft Search and Rescue (SAR), and seasonal sheltered slip for pump out boat.
- Continue expansion of the courtesy float to allow for longer tie-up time and more vessels.
- Improvements for commercial fishing need to be carefully planned and executed considering the changes to fishing permits and quotas being adopted by National Marine Fisheries. Their needs can be expected to change over the next five years as the regulations take effect. Enhanced electrical and water service is needed on the finger piers.
- The floating docks on the east end of the pier need to be redesigned and/or protected from adverse weather.

Additional amenities for public recreation and education should be added to MacMillan Pier where they will not interfere with traditional water dependent uses. Any buildings added to the pier should be open to the public and any income generated from these buildings should be dedicated to the continued maintenance of the pier. For example, an off-loading building serving the commercial fishing fleet could also contain offices, café, artist studios, chandlery or other rental space as long the business serves a public interest. The rent from these other spaces offsets the operating costs of the building and thereby helps to ensure the continuation of the water dependent uses.

Additional amenities for public recreation and education should be added to MacMillan Pier provided that such amenities do not interfere with traditional water-dependent uses. Any buildings added to MacMillan Pier should be open to the public and any rental income derived from these buildings should be dedicated to the continued maintenance of the buildings and MacMillan Pier. For example, an off-loading building serving the commercial fishing fleet could include offices for maritime businesses or non-profits, a café for the public, ship chandlery or other uses serving a public interest. New development of trap sheds and other uses should not unduly constrain public pedestrian access.

Other Piers and Wharves of Public Accommodation

- As discussed under water use- recreational boating, as presently used, Fishermen's Wharf is the predominate recreational facility in town. In the near-term, the Plan supports the continuation of public parking at this location but with a modification to the layout that allows for a 10' wide walkway along the western side of the Wharf that may be provided outside of the existing deck by use of cantilevered or pile supported public construction (see Appendix B, "Other Physical Improvements for Pedestrian Access and/or Water-Dependent Use"). In the future, this facility should be expanded to provide additional slips and services for the recreational boater such as fuel dock, chandlery, shower, laundry and restroom facilities. The pier should also be redeveloped to include attractions for the general public such as retail space and artist galleries as well as space for public events and entertainment that would reinforce the public connection to Commonwealth Tidelands, as long as existing water-dependent uses are not disrupted.
- For all commercial water dependent properties, the Plan encourages the development of nonwater dependent uses in conjunction with the continuation and expansion of water dependent uses, to the extent currently allowed by the waterways regulations. Among the reasons for promoting such mixed use are the following: providing financial support for long-term maintenance of piers, wharves and water front open spaces with other public uses; increasing general public use of commonwealth tidelands; presenting educational or artistic performances; or supportive of emerging water dependent uses. To restate, this is not meant to be an exhaustive or exclusive list. The goal is to provide facilities of public accommodation that can provide real value and real access to the community and Commonwealth far into the future. To encourage such public uses, the Plan prohibits the inclusion of residential uses and other facilities of private tenancy in a mixed use project. A further requirement is that non water-dependent uses shall be displaced on a commercial water dependent property as a result of developing non-water dependent uses over Commonwealth tidelands.
- Other Public Facilities in Provincetown
- Other improvements to public facilities throughout the town should be considered. A small gangway and pile held float should be provided at the West End Boat Ramp or any other boat ramp under consideration.
- Should Water Taxis be considered as alternative transportation, they will need landing sites. Potential locations include; Snail Road on the east end, Ice House Condominium at

Howland Street, Freeman Street landing (Lands End Marine Hardware), Atlantic Street Town Landing (The Boatslip), West End Boat Ramp and Commercial Street Rotary (Provincetown Inn). These small floats would also serve as additional dinghy dock tie-ups. A public-private effort could be used to facilitate construction as the businesses and residents near these floats will gain from their use.

- The West End Ramp should be widened slightly with a centerline curb installed to facilitate simultaneous launch or recovery of two vessels on trailers. This is needed not only to reduce congestion during busy times but also to aid in removal of vessels when severe weather threatens.
- This Plan encourages the use of innovative technologies for clean energy.

Regulatory Framework for Waterways Licensing

Background

Massachusetts's principal tool for protection and promotion of water-dependent uses of its tideland and other waterways is M.G.L. Chapter 91 (Public Waterways Act, 1866). Chapter 91 and the Waterways Regulations (310 CMR 9.00) are administered by the Waterways Regulation Program of the Massachusetts Department of Environmental Protection (DEP).

The Chapter 91 statute was amended in 1984 with new substantive and procedural requirements to ensure that tidelands-both presently flowed and previously filled-are utilized only for water-dependent uses or otherwise serve a proper public purpose that provides greater public benefit than detriment to the rights of the public in tidelands. Projects involving non-water-dependent use also are required by the statute to be consistent with CZM Policies.

Major revisions of the waterways regulations followed in October 1990. Key provisions of the new regulations are designed to promote water-dependent use of the shoreline; preserve and promote public access; and encourage local involvement in Chapter 91 licensing decisions through municipal harbor plans, which provide harbor-specific guidance to the regulatory decisions of DEP under Chapter 91. A companion set of regulations (301 CMR 23.00) governing the development and approval of municipal harbor plans was also adopted that same year.

The Chapter 91 regulations stipulate that where a State-approved harbor plan exists, projects requiring a DEP license or permit and subject to the current regulations must conform to the plan (310 CMR 9.34(2)). The Municipal Harbor Plan is used by DEP for guidance which amplifies upon discretionary requirements of the waterways regulations. The regulations also provide that the municipal harbor plan may contain substitute standards for certain use limitations or numerical standards specified in the waterways regulations for non-water dependent uses. The alternatives established by the plan must achieve the objectives of Chapter 91 and the waterways regulations as effectively as the standards they replace.

There are two different Chapter 91 licensing scenarios in Massachusetts under the waterways regulations of 1990 (as further amended in 1996). There is licensing of certain existing structures and uses under the amnesty provisions (310 CMR 9.28), which apply standards from the

regulations in effect prior to 1990. All other projects are governed by a new set of requirements that are more explicit and extensive than the previous version (although based on the same general objectives and regulatory principles).

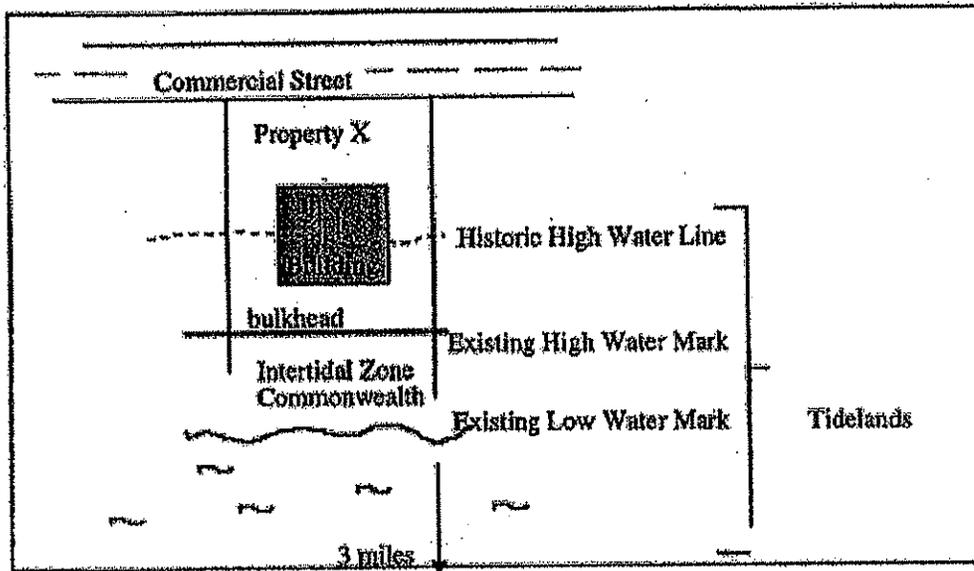
Regardless of whether DEP applies the new licensing requirements or the previous standards, the Chapter 91 licensing process on Massachusetts tidelands can be summarized in three steps. First, DEP determines on a case-by-case basis which properties need a license and whether they qualify for amnesty (assuming the property owner applied for amnesty). Second, DEP reviews the license application and considers community recommendations obtained during the public comment period, in order to determine whether all applicable requirements and standards have been met and the license should be granted. Third, DEP normally issues the license with a series of conditions, which usually require on-site public improvements to compensate the public for the private use of Commonwealth tidelands. The license also specifies a period of time during which the property owner must complete the project and meet the conditions stipulated in the license.

Properties Within (Presumptive) Chapter 91 Jurisdiction

Chapter 91 applies in tidelands, great ponds, and along certain rivers and streams. Tidelands refer to all land presently or formerly beneath the waters of the ocean, including lands that are always submerged as well as those in the intertidal area, i.e., between the mean high and low water marks. These areas are governed by a concept in property law known as the public trust doctrine, which establishes that all rights in tidelands and the water are held by the state "in trust" for the benefit of the public.

There are two types of tidelands: (1) Commonwealth tidelands which are, for most of the Massachusetts coastline, all lands below the historic low water mark extending out three miles to the limit of state jurisdiction. This area is owned by the Commonwealth or held by private persons in accordance with the trust for the benefit of the public. (2) Private tidelands are those areas between historic high and historic low water, which are usually privately owned but on which the Commonwealth reserves and protects public rights of fishing, fowling and navigation (and the natural derivatives thereof). The historic high water marks are the farthest landward tide lines which existed "prior to human alteration" by filling, dredging, impoundment or other means (310 CMR 9.02) (see Figure V-1). Thus, Chapter 91 applies to filled as well as flowed tidelands, so that any filled areas, moving inland to the point of the historic high tide line, are subject to jurisdiction.

Figure V-1. Example of property schematic illustrating location of Commonwealth tidelands on Province Lands.



In Provincetown, the distinction between private and Commonwealth tidelands is somewhat different than in other communities. The area of Provincetown east of Howland Street was formerly part of Truro. As in other coastal towns in Massachusetts, the colonial government of Truro granted owners of upland property ownership rights to the intertidal area adjacent to their property area (the private tidelands), subject to easements guaranteeing the public rights of fishing, fowling and navigation. The area to the west of Howland Street was known as the Province Lands. The Provincetown charter of 1727 did not provide the new town with authority to grant land to its settlers. St. 1893, s. 470 (presently found in M.G.L. c. 91, s.25) divided the Province Lands into two parts. The "town" is the coast west of Howland Street and the "wild lands" is the area to the northeast of Howland Street. On the "town" side of the former Province Lands, private ownership of property is limited to the area landward of the historic mean high water mark. So, west of Howland Street, land seaward of the historic mean high water mark is Commonwealth tidelands.

If a property owner's parcel of land occupies all or a portion of Commonwealth tidelands, then the owner is, in fact, occupying land in which the public has rights to use for "fishing, fowling, navigation...and all other lawful activities, including swimming, strolling, and other recreational activities". §9.35(3)(b). In particular, if this land is used for any buildings, decks, piers, bulkheads, yards, or any other type of enclosed areas that are off-limits to the public, then the property owner is effectively privatizing trust lands that would otherwise be available for public use and enjoyment.

Chapter 91 authorization is generally required for any fill, structure or use not previously authorized in areas identified above, including any changes of use and structural alterations. Types of structures include: piers, wharves, floats, retaining walls, revetments, pilings, bridges, dams, and waterfront buildings (if on filled lands or over the water). In Provincetown, there are a number of properties where structures and uses occupy filled Commonwealth tidelands without

complete and proper authorization. Moreover, most of these properties are being used for non-water dependent purposes. Owners of such properties are required by Massachusetts's law to obtain licenses to ensure that their non-water dependent structures and uses of Commonwealth tidelands meet the requirements of Chapter 91.

To inform both the planning and regulatory processes, the location of the historic high water mark as of 1848, (revised 1857) has been delineated on a map prepared under contract to the Department of Environmental Protection (see footnote ¹). The map was presented at a public information meeting in Provincetown on September 4, 1996. Six aerial photos are available electronically at www.provincetown-ma.gov (click on Harbor & Beaches, then click on Historic Mean High Water. Click on each photo to enlarge. DEP has adopted the 1848 line, (revised 1857) as the presumptive line of jurisdiction in its determinations of which structures and uses along the shoreline of Provincetown Harbor require Chapter 91 licensing. Using this map resource, the Plan identifies the existing structures and uses that appear to be located on filled Commonwealth tidelands and other tidelands lying seaward of the historic high water mark. (See Appendix A). It should be noted, however, that the 1848 line, (revised 1857) is not necessarily dispositive of jurisdiction on a site-specific basis, because the DEP presumption can be overcome upon presentation of evidence that a different historic high water mark should be established in accordance with the applicable definition provided in 310 CMR 9.02. Adjustments have occurred on a few individual properties where the qualifying high water mark mapped in 1939 extended jurisdiction farther in the landward direction than did the 1848 line, (revised 1857). Thus, consultation with the waterways program is advised for purposes of accurately delineating the extent of tidelands jurisdiction in a license application.

The revised Plan, it should be noted, includes a recommendation that Appendix A be reviewed and updated accordingly in concert with issuance of individual licenses, due to inaccuracies and omissions that need correcting in the original Plan. When complete Appendix A will contain a complete listing of all properties on the Provincetown waterfront with listings for size and type of buildings, square footage of property on Commonwealth tidelands and formulas used to calculate payments. Until the listing can be completed with up-to-date license specifications, the original Appendix A should be considered an approximation of conditions existing on the properties.

Licensing of Amnesty Projects Under Pre-1990 Waterway Standards

With the intent of bringing properties on tidelands into compliance with Chapter 91, the 1990 revisions of the waterways regulations included an amnesty provision (310 CMR 9.28) applicable to unlicensed structures or fill in existence and in use since January 1, 1984 (and without any unauthorized substantial structural alteration or change in use since that date). Amnesty license applications are subject to substantive requirements that were in effect prior to October 4, 1990 (the effective date of the 1990 revisions), which included less specific standards, lesser fees, and (for water-dependent projects) longer license terms than those now in effect. The period during which an amnesty license application could be submitted to DEP expired

¹ "Map of Present and Historic Mean High Water Lines, Provincetown Harbor" and accompanying report prepared under contract to DEP by Schofield Brothers of New England, Inc. (April 12, 1996).

October 4, 1996.

There is a significant amount of existing nonwater-dependent development along Provincetown Harbor that requires Chapter 91 licensing. It is expected that much of this licensing will be done under the amnesty provisions of the waterways regulations. Prior to the close of the amnesty period, DEP had received 196 amnesty applications, 87 of which were for properties between the Provincetown Inn and Howland Street (the zone of Commonwealth tidelands).

In order to achieve fully the goals of the Provincetown Harbor Plan regarding public use of Commonwealth tidelands, this Plan strongly encourages DEP to notify all property owners who appear to have unauthorized structures or uses on tidelands, but have not filed amnesty applications. The number of such property owners appears to be approximately 82, and the parcels in question are identified (preliminarily) in Appendix A. It should be noted that on several of these parcels the primary structures lie landward of the historic high water mark, and the filled tidelands thus are devoted to exterior uses only (e.g., private recreational activities accessory to a residential dwelling). Since many of these exterior accessory uses take place on the beach itself, it is particularly important for DEP to license such uses to ensure conformance with the public benefit recommendations of the Plan.

The Plan also calls on DEP to give priority attention to compliance and enforcement matters, in close cooperation with the Harbor Committee and other relevant town officials (harbormaster, building inspector, conservation agent, etc...). In particular, arrangements should be made (including appropriate training) to enable town personnel to effectively carry-out a monitoring and reporting function. The ongoing participation of these officials will help to ensure full compliance with applicable conditions of existing licenses and to identify new changes of use and structural alterations (including minor project modifications) that should be brought to the attention of DEP.

Applications for amnesty licenses are reviewed for compliance with the waterways standards in effect prior to 1990, which included (among other things) a basic requirement that a project... "does not interfere with or abridge any rights of the public...or the Commonwealth in tidelands [and] has public benefit which outweighs public detriment if the project is located on or over the Commonwealth tidelands." (§9.07(2)) footnote ². The special emphasis on protecting the public interest in Commonwealth tidelands was further articulated in the following provision of the regulations (310 CMR 9.22(4) dated 12/31/86):

"The Department shall protect the Commonwealth tidelands, and any project that is harmful to the public ownership of the Commonwealth tidelands or that would significantly impair the value of those tidelands to the public shall not be allowed."

In applying this standard, the regulations stipulated that the Department should consider such factors as "the extent to which the project blocks the public view of the coast and the oceans...[and] the degree to which it affects public access to the water from the shore or from the water to the shore" (§9.22(5)). Also worthy of note is the related provision stating that "the

² The citations in this section refer to provisions of the Waterways Regulations in effect between September 15, 1978 and October 3, 1990.

Department shall not license any project in or over Commonwealth tidelands if it would have a significant adverse effect on a public recreational facility" (§9.22(6)).

A review of license decisions for non-water dependent projects in Provincetown issued by DEP between 1984 and 1990 revealed that the agency interpreted these provisions in a consistent manner, and in accordance with the basic goals expressed by the legislature in the 1984 amendments to the statute. In these licensing decisions in Provincetown, as elsewhere, DEP sought continuous public access along the shoreline, physical access improvements, inclusion of some water-based amenity, and a financial contribution if it was not possible to adequately fulfill Chapter 91 goals through on-site improvements. So, DEP's decisions on non-water dependent use applications prior to 1990 were, in practice, quite similar to the review DEP now conducts on these uses under the current regulations.

Licensing of Non-Amnesty Projects Under Standards of the 1990 (Current) Waterways Regulations

Projects subject to the 1990 standards include (1) projects involving structural alteration or change of use and (2) existing development that does not qualify for amnesty either because (a) there have been substantial unauthorized changes in use or structural alterations on the site since 1984 or (b) the applicant did not file an application during the amnesty period, which closed October 4, 1996. In some cases, projects falling into the latter category may be eligible for a variance from certain dimensional restrictions and other standards that are intended primarily to govern new development. Such authorization is granted only in rare and unusual circumstances and in strict accordance with several criteria as set forth in the waterways regulations at 310 CMR 9.21. Among other things, this variance provision requires the project to include "mitigation measures to minimize interference with the public interests in waterways and...measures designed to compensate the public for any remaining detriment to such interests..."

The waterways regulations contain several core provisions that are essential to the control of non-water dependent uses of Commonwealth tidelands in Provincetown Harbor. These are:

The project shall preserve any rights held by the Commonwealth in trust for the public to use tidelands...for lawful purposes...[Specifically], the project shall not significantly interfere with public rights of navigation...public rights of free passage over and through the water...public rights associated with a common landing, public easement, or other historic legal form of public access from the land to the water that may exist on or adjacent to the project site...public rights of fishing and fowling which exist in tidelands, and the natural derivatives thereof...[and on Commonwealth tidelands] all other lawful activities including swimming, strolling, and other recreational activities...(§9.35)

A non-water dependent use project that includes fill or structures on any tidelands shall not unreasonably diminish the capacity of such lands to accommodate water-dependent use. (§9.51)

A non-water dependent use project that includes fill or structures on any tidelands shall devote a reasonable portion of such lands to water-dependent use including public access

in the exercise of public rights in such lands. (§9.52)

A non-water dependent use project that includes fill or structures on Commonwealth tidelands... must promote public use and enjoyment of such lands to a degree that is fully commensurate with the proprietary rights of the Commonwealth therein, and which ensures that private advantages of use are not primary, but merely incidental to the achievement of public purposes. (§9.53)

All non-water dependent use projects consisting of infrastructure facilities on tidelands...shall take reasonable measures to provide open spaces for active or passive recreation at or near the water's edge, wherever appropriate. (§9.55)

Associated with each of these core provisions are a number of discretionary requirements, several of which are of primary relevance to Provincetown and are thus amplified upon by the recommendations of this plan. The specific discretionary requirements on which the Plan provides guidance for DEP application are listed below:

§9.35(2)(c) Access to Town Landings. "The project shall not significantly interfere with public rights associated with a common landing, public easement, or other historic legal form of public access from the land to the water that may exist on or adjacent to the project site."

§9.35(5) Management of Areas Accessible to the Public.

(b) "Any project required to provide public access facilities...shall encourage public patronage of such facilities by placing and maintaining adequate signage at all entryways and at other appropriate locations on the project site..."

(c) "No gates, fences, or other structures may be placed on any areas open to public access in a manner that would impede or discourage the free flow of pedestrian movement..."

§9.52(1)(a) Utilization of Shoreline for Water-Dependent Purposes. "In the event that the project site includes a water-dependent use zone, the project shall include...facilities that generate water-dependent activity..."

§9.52(1)(b) Utilization of Shoreline for Water-Dependent Purposes.

(1) "In the event that the project site includes a water-dependent use zone, the project shall include...walkways and related facilities along the entire length of the water-dependent use zone..."

(2) "In the event that the project site includes a water-dependent use zone, the project shall include...appropriate connecting walkways that allow pedestrians to approach the shoreline walkways from public ways or other public access facilities to which any

tidelands on the project site are adjacent.

§9.53(2) Activation of Commonwealth Tidelands for Public Use.

(a) "...[the project shall include] at least one facility [that] promotes water-based public activity..."

(b) "...the project shall include exterior open spaces for active or passive public recreation...[which] shall be located at or near the water to the maximum reasonable extent [and shall include] related pedestrian amenities such as lighting and seating facilities, restrooms and trash receptacles..."

(d) "...the project shall include a management plan for all on-site facilities offering water-related benefits to the public..."

(e) "...in the event that water-related public benefits which can reasonably be provided onsite are not appropriate or sufficient, the Department may consider measures funded or otherwise taken by the applicant to provide such benefits elsewhere in the harbor or otherwise in the vicinity of the project site."

§9.55 Standards for Non-Water Dependent Infrastructure Facilities.

(1) "[Infrastructure facilities] shall include mitigation and/or compensation measures as deemed appropriate by the Department to ensure that all feasible measures are taken to avoid or minimize detriments to the water-related interests of the public."

(2) "[Infrastructure facilities] shall take reasonable measures to provide open spaces for active or passive recreation at or near the water's edge, wherever appropriate."

It should be noted that the Harbor Planning Committee has determined, with two relatively minor exceptions, that there is no need to recommend substitutions for the standards of the waterways regulations. A parcel-by-parcel assessment, based on extensive field work to evaluate existing conditions, indicates that in almost all cases the provisions of the Harbor Plan will not be less restrictive than the corresponding provisions of the waterways regulations. The Plan recognizes that there may be isolated cases where compliance with the applicable use limitations (e.g., ground floor facility of public accommodation requirement) of the 1990 regulations would create a substantial hardship for the continuation of a use or structure existing as of January 1, 1984. In such situations, the variance procedure set forth at 310 CMR §9.21 is considered by this plan to be an adequate forum to address the hardship issue.

Effect of Plan on Pending and Future License Applications

The following sections and the accompanying Appendices (B & C) provide specific guidance to DEP in amplification of the above referenced Chapter 91 licensing standards to achieve the goals and objectives of the Provincetown Harbor Plan. Specifically, the Plan provides guidance to DEP in applying both the pre-1990 waterway standards applicable to projects eligible for an amnesty license as well as the 1990 standards governing all other projects requiring Chapter 91 authorization from DEP. In both cases, it is the understanding of the Harbor Committee-the

municipal body with lead responsibility for plan implementation- that DEP will adhere to the greatest reasonable extent to the guidance specified in the Plan, which amplifies the discretionary requirements identified in the preceding sections. It is the further understanding of the Committee that, in accordance with 310 CMR 9.34(2), DEP will require conformance with all applicable recommendations of the approved Harbor Plan in the case of all waterways license applications submitted subsequent to May 4, 1999 (the effective date of state approval of the original harbor plan) as well as to pending applications for which the public comment period had not expired prior to that effective date.

Guidance to DEP for Chapter 91 Licensing in Provincetown Harbor

Current Objectives

A long and fruitful relationship between Provincetown's inhabitants and their harbor produced the special character of the Provincetown waterfront. Historically, Provincetown Harbor was a thriving fishing village containing numerous wharves. The natural tides were much higher than they are now, coming up to and underneath the buildings that were built on pilings. As the fishing industry dwindled, tourism took its place in the town's economy. The coast was filled with dredged sand creating artificial beaches in front of and underneath the buildings that line this harbor. Most of these buildings have since become non-water dependent.

There currently exist only a few areas devoted primarily to water-dependent use. It is important that we support the protection of these water dependent uses and promote new water dependent projects as need arises, while ensuring compatibility within their environ. This Harbor Plan honors and retains the unique historical and cultural features, which make this seaside village so attractive a tourist destination; even after time has changed the way the town uses the foreshore and the harbor. This Plan seeks to be consistent with the goals and aspirations the Provincetown community expressed in its Local Comprehensive Plan and its historic bylaws.

This revised Harbor Plan recommends how the DEP licensing program can best serve the people of Provincetown. It stands on the shoulders of previous consultations with CZM and DEP staff, and has been carefully crafted to reflect the principles and standards used consistently by DEP in licensing projects on tidelands. Its recommendations reflect the town's goals and objectives for the waterfront and comprise a comprehensive and cohesive plan for the proper and optimum use of Provincetown Harbor.

The objectives of the present Harbor Plan as it relates to Chapter 91 licensing are:

- New license Applications (including Water Dependent Use License Applicants) and amenities are to be carefully reviewed. Where there is a demonstrated need and suitable location for new license amenities, the Harbor Plan should seek to accommodate that need, where justified and provided it does not adversely impact the scenic and historic character of the shoreline and that said use will be compatible with existing uses of the impacted area. In keeping with the importance and tradition of the Provincetown Fishing Fleet, the Harbor Plan recognizes the need to preserve and protect this valuable asset that has helped to define and enrich our town for so many years. The Plan also recognizes the needs of the recreational boating community and must protect those needs while ensuring

that the harbor upon which they are used will be preserved and protected for the enjoyment and use of all. Marine related services that benefit the needs of both the Commercial and Recreational boating communities are of significant importance, thus the Harbor Plan must seek to protect and preserve these critical resources.

- Preservation and continued use of historic structures that are established features of the harbor shoreline.
- Maintenance of natural features of the shoreline such as coastal dunes, beach grass, and the natural changing contour of the beach with Conservation Commission approval.
- Enhancing public access to and along the shoreline of Provincetown Harbor by improvement of town landings and establishing perpendicular access to the beach as close as possible to the beginning and end of any section of beach that is submerged at current mean high water.
- Eliminating undue encroachments by abutters on the dry sand beach and on town landings, and minimizing visual obstructions.
- Offering property owners incentives to permit public passage to the waterfront through their property.
- Providing passage past the seaward perimeter of existing hard surface structures, when appropriate.
- Clean up of dirty, debris-ridden beaches and maintenance of high water quality, especially during the summer months.
- Encouraging the Harbor Committee to develop standards for evaluation of on-site improvements and Harbor Access Gift Fund contributions for off-site harbor improvements.

Chapter 91 General Licensing Guidelines

- In accordance with the objectives stated above, the Plan offers the following general recommendations for on-site benefits, as appropriate to the property in question (not all will apply to an individual property):
- Provide a perpendicular access-way from Commercial Street to the beach
- Provide signage on both Commercial St. and beach indicating coastal public access route
- Provide signage that indicates public use is permitted
- Improve and maintain existing access-way
- Remove "no beach access, "no trespassing" or "private property" signs

- Remove or lower fence when appropriate
- Plant beach grass and/or remove beach grass when appropriate after Conservation Commission approval.
- Survey property in disputed claims of public right of way versus private property rights
- Allow for dinghy storage along waterfront
- Increase and improve visual access when possible and appropriate
- Recognition of historically significant structures as a cultural, aesthetic contribution
- Remove septic tanks, Title V systems and leaching fields on beach
- Remove foreign material from beach such as gravel, wood and soil from owners nearby building projects
- Replace dirty sand with clean beach sand

Improvement of Town Landings:

- Make more attractive by replacing dirty sand with clean sand, paving, providing fences and landscaping with low maintenance, indigenous species.
- Clean and maintain on a regular basis.
- Provide public amenities at each landing to include benches, lights, and waste receptacles, bike racks, poop bag posts.
- Designate area for dinghy, canoe and kayak tie-ups.
- Address water runoff damage.
- Eliminate and or improve storm water drains into harbor.
- Improve upon water quality testing. Lab tests need to differentiate between human and animal fecal coliform to better address sources of pollution.
- Create better beach access route around the Municipal Parking Lot.
- Add rocks to ends of underwater groins to aid in boat navigational safety during high tides (they should not be removed as they are considered an aesthetic contribution to the harbor).

- Maintain boat ramp at West End parking lot and widen to accommodate launch and retrieval of boats side by side.

Given the distinct regions of town, the following additional recommendations should be considered for each individual license in each region. Because Provincetown's waterfront is so densely developed there is not one set of recommendations that can be applied uniformly. For this reason, the waterfront was divided into seven distinct regions for the Amended Plan.

Region A: Provincetown Inn to 111 Commercial Street

This region consists mostly of residential properties and a few Inns. This beachfront is particularly picturesque due to the close proximity of historic structures to the water and the old wharves and jetties that dot its coast. Beaches are clean and inviting for strollers and bathers although perpendicular and lateral access is difficult or impossible in some areas.

Recommendations are for property owners with wharves that jut into tidal zones at high tides to keep clear passage beneath them and for property owners who have blocked legal perpendicular access to reopen those access routes. Perpendicular access is especially needed in this area when appropriate. The West End Boat Ramp and the Franklin Street Landing are both used extensively by small boat fishermen and recreational boaters. Beach cleaning upkeep in the West End Boat Ramp area is needed. This area is also frequented by large groups of children who swim and play on these beaches. Other general improvements recommended in this region include increased visual access from Commercial Street to the beach whenever possible and appropriate.

Region B: Coast Guard Station to Flyers Boatyard

This region is devoted almost entirely to water-dependent use for boaters. As a result, the beach is inhospitable for swimming and difficult for strolling. The beach area is not clean, full of obstacles, and the water quality is poor. Recommendations for this area include cleaning of debris on the beaches, better monitoring of water quality, more dinghy tie up facilities and increased visual access from Commercial Street to the beach whenever possible and appropriate.

Region C: 135 Commercial Street to Atlantic Ave Landing

This region consists mostly of historical, residential properties bordering a small area of beachfront. It is extremely inviting for strollers and bathers, due to its picturesque nature, yet perpendicular access to and from the street is very limited. Recommendations are for property owners who have blocked legal perpendicular access to re-open access routes and general increased visual access from Commercial Street to the beach wherever possible and appropriate.

Region D: Atlantic Ave Landing to Gosnold Street Landing

This region is comprised primarily of commercial buildings; commercial inns, hotels, restaurants and retail businesses. The beachfront remains a popular stretch for swimming and strolling. Many of the large businesses decks and parking lots extend into the tidal zone. Large parking lots in this area should be asked to provide lateral access for beachgoers. The beachfront just to

the west of Gosnold Street is wide and as a result, very dirty. Regular cleaning of this area is needed. Increased visual access from Commercial Street to the beach wherever possible and appropriate.

Region E: Gosnold Street Landing to 343 Commercial Street (Lands End Marine)

This area is characterized by primarily water-dependent usage – which, combined with region B comprise Provincetown’s working waterfront. As a result of its congested boating activity – the water quality in this region make it inhospitable for swimming. Its overall congestion creates a particularly debris-ridden beachfront unpleasant to stroll. As it is one of the most widely seen beachfront areas due to MacMillan Pier and Fisherman’s Wharf, it is essential that this area be made a prime target of a major and ongoing clean-up effort. Due to the high congestion of boats in this area the water quality is particularly poor. Better monitoring of boat-related pollution is warranted. The Municipal Parking Lot adjoining MacMillan Pier is a particular eyesore and major obstruction to beach-goers. An effort needs to be made to create a waterside access so that one can continue to walk the beach without having to walk from the waters edge to the entrances on the two sides of the large parking lot. Beach nourishment, which has become trapped by the bulkhead of the Municipal Parking Lot, has kept an uncharacteristically large beach on both the east and west sides that are hard to traverse and especially prone to debris due to size and usage.

Region F: 345 Commercial Street to Howland Street

A mix of residential and commercial structures, many of which are historical, characterizes this region. A small, but ample and picturesque beach, this is a very popular stretch for beachgoers to enjoy due to its easy access from the street (although the area closer to Howland Street has need for more perpendicular access) and its relatively clean water and beach. The beach is wide enough to accommodate dinghies and kayaks and is a popular mooring area for smaller boats. The upper portions of the beaches, which the tides rarely clean, are in need of regular beach cleaning and designated areas for dinghy and kayak tie-up need improvement.

In order to improve perpendicular access in the easterly portion of this region (as noted above), an unusual opportunity exists to create a public walkway from Commercial Street to the beach across the property of an historic structure located at 463 Commercial Street, the seaward portion of which is located on Commonwealth tidelands within the jurisdiction of c. 91 and subject to a license issued in 1939. At that time, the structure was used for commercial purposes. For many years, the property was the site of the Flagship Restaurant, but the restaurant use was discontinued in 2005 and the licensed structure was subsequently converted to a private residence occupied by the current property owner. This conversion occurred without further c. 91 authorization, which is now required; however, the general rule under current waterways regulations [at 310 CMR 9.32(1)(a), 9.51(3)(b), 9.52(1)(a), and 9.53(2)] is that nonwater-dependent use of existing pile-supported structures is allowed only for facilities of public accommodation, such as restaurants, shops, passenger vessel operations, and other commercial establishments. New residential use is thus generally prohibited over the waters of Provincetown Harbor, *unless* the prohibition is waived in favor of “substitute” requirements set forth in an approved municipal harbor plan that mitigate, compensate, or otherwise offset the adverse effects on water-related public interests.

The Harbor Committee supports such a waiver in the case of 463 Commercial Street and proposes for offset purposes that the following two access-related conditions, above and beyond what would ordinarily be applied to the subject property, be stipulated in further appropriate detail in a new and/or amended c. 91 license for the existing use of the premises.

1. Public Access Easement: The licensee shall provide a perpetual easement for 24-hour public access, 3.5 feet wide and running from Commercial Street to the beach along the westerly boundary line of 463 Commercial Street as shown on plan entitled "Site Plan of Land in Provincetown Made for Peter J. Petas Showing Proposed Pedestrian Easements" dated October 22, 2010 made by Slade Associates, Inc. Within said easement area the licensee shall construct a pathway at least 3.5 feet wide running from Commercial Street to the beach, together with stairs to access the beach. Such pathway shall be constructed at the property owner's sole expense, using grades and materials sufficient to provide safe, year round, pedestrian access at all times and for all lawful purposes. The property owner and his successors and assigns shall be permanently responsible for walkway maintenance, repair and reconstruction as needed.

2. Payment to Harbor Access Gift Fund: A payment of approximately \$68,000 (to be confirmed with more exact calculation during c.91 licensing) shall be made to the Harbor Fund prior to the issuance of the new license, which payment may be made over a ten year period. This amount has been recommended by DEP based on a methodology analogous to that applicable to amnesty-eligible projects in Harbor Plan Appendix C, as modified for purposes of estimating the heightened level of compensation that would be required if the non-compliant use were to be authorized through the issuance of a waterways variance under current regulations.

3. Limitation on Residential Uses: No residential use other than a single-family residence shall be authorized in the property's new or amended license.

The planning rationale underlying the request for waiver and stipulation of offsetting measures is basically twofold: the Harbor Committee generally does not support an increase in commercial activity in this heavily residential segment of the harbor planning area, whereas it strongly supports expanded public access to the beach from the back-lying neighborhood. Each consideration is described more fully below.

First, the property is located generally within the so-called "East End" of the Provincetown waterfront -- running from Dyer Street to the Truro line and encompassing half of Region F and all of Region G -- where the prevailing land use character is almost entirely residential. According to data presented in Appendices A & B of the original Harbor Plan and associated planning reports, it appears that fewer than 10% of the approximately 142 waterfront properties in the East End are classified as commercial, and the percentage is lower still on the landward side of Commercial Street. This strong residential character is reflected in the Zoning By-Law as adopted by the Town in 1978, which included 463 Commercial Street in Residence Zone 3. Restaurant/bar use is not permitted as of right in this district and can be "grandfathered" only under narrow circumstances. Only a selected few commercial establishments can be allowed by Special Permit issued by the Zoning Board of Appeals, and only if the use was in existence as of October 1, 2006. This cut-off date has eliminated the possibility of reopening a restaurant at 463

Commercial Street in the future, and in recognition of this local land use restriction the current owner has already transferred the sewer capacity assigned to the previous restaurant use to the nearby Provincetown Art Association & Museum. Thus, necessary infrastructure is no longer available for renewed commercial use of 463 Commercial Street.

Second, as indicated above, the environs of the subject property are not well served by pedestrian facilities providing public access to the waterfront. In fact, the entire East End contains only one town landing (at Kendall Lane), despite the fact that it spans nearly two miles of shoreline. Although 463 Commercial Street is located in the segment of the East End closest to the central commercial district, there is no public access to the beach within its immediate vicinity. To the west the nearest town landing is at Washington Street, at least 1000' away; and to the east the nearest (and only) town landing is at Kendall Lane, some 2000' away. Clearly, the provision of a safe public walkway to the beach, open year-round and at all times, will provide an important community benefit at this location. Amplifying the value of this benefit is the fact that the new accessway will begin near the foot of a cross-street (Bang Street) that extends inland for a considerable distance and thus provides a strong connection to the densely populated surrounding neighborhood. Finally, the Harbor Committee is mindful of the fact that there will be limited opportunities to obtain additional on-site public access benefits elsewhere in the East End, where there is very little filled tideland subject to c.91 jurisdiction.

For these reasons, the Harbor Committee supports the approval of a waiver of the regulatory prohibition on facilities of private tenancy over flowed tidelands, in order to allow authorization in a new and/or amended license of the existing residential use throughout the entire structure at 463 Commercial Street, subject to the alternative requirements stated above.

Region G: Howland Street to Truro Town Line

This region is private property to mean low water mark, subject to the public rights of fishing, fowling and navigation.

Other General Guidance to Amplify Selected Waterways Requirements

The following amplifications are applicable to all properties, including those that fall under the amnesty program.

§9.16(2)(c) Tidewater Displacement Fee. "Except as provided in 310 CMR 9.16(4), prior to issuance of a license for any fill or structure that will displace tidewaters below the high water mark, the applicant, or his/her heirs or assignees responsible for such displacement, shall, at the discretion of [DEP]...[consider] a contribution to a special fund or other program managed by a public agency or non-profit organization in order to directly provide public harbor improvements."

The Provincetown Harbor Plan requires that tidewater displacement fees levied by DEP be paid directly to the Provincetown Harbor Access Fund, as described in Appendix C of this Plan.

§9.22(1) Maintenance and Repair of Fill and Structures. "No application for license or license amendment shall be required for [maintenance and repair] activity. Maintenance and repair include...restoration to the original license specifications of licensed fill or structures that have been damaged by catastrophic events, provided that no change in use occurs and that...in the case of flood-related damage, the cost of such restoration does not exceed 50 percent of the cost of total replacement according to the original license specifications..."

The Provincetown Harbor Plan calls for a strict enforcement of this requirement and for close coordination between DEP and the Provincetown Building Inspector, to determine when further licensing is required for structures that have been damaged beyond the 50% replacement cost limit.

Particular Guidance for Licensing of Existing Development

For the foreseeable future it is anticipated that the bulk of MGL Chapter 91 licensing activity will entail applications to "legalize" existing development, defined as the continuation only of previously unauthorized structures and uses in place as of the effective date of the 1990 regulations, with no significant changes of use or structural alterations proposed. This includes projects that can be licensed under the amnesty program as well as projects that are not amnesty-eligible for various reasons and may require a variance from certain dimensional restrictions or other standards of the 1990 regulations. For this particular class of projects, the revised Plan carries forward both the generic and site-specific recommendations of the original (1999) Plan. Those recommendations were customized to ensure that the process of issuing after-the-fact licenses for prior, unauthorized development is not only effective in meeting state and local regulatory objectives, but is also equitable in requiring benefits from the myriad of properties involved. With the achievement of such equity having been a primary motivation of the original Plan, and with the guidance developed toward that end having been applied in a sizable number of licensing decisions over the last decade, it is vital for consistency purposes for that substantive guidance to remain essentially unchanged for the remaining projects involving existing development only.

These recommendations parallel the conventional DEP approach to licensing existing development, whether under the amnesty program or otherwise, which gives first priority to on-site public benefits and considers off-site public benefits only where on-site improvements are insufficient or not feasible. Accordingly, Appendix B of the Plan identifies both general and specific on-site benefits to be provided on individual properties presumed to lie within jurisdiction (as listed in Appendix A). Then, Appendix C presents a method for determining the extent to which compensation to the public should take the form of monetary payment to a Town fund to be used for access-related improvements elsewhere in the Harbor. This methodology is a somewhat modified version of that appearing in the 1999 Plan, reflecting DEP experience over the past decade in making adjustments to the payment formula in consultation with the Harbor Committee.

Matrix of Completed or In Progress Harbor Plan Recommendations

The following matrix summarizes key actions required to implement the Harbor Plan recommendations, identifies those with responsibility in implementing the recommendations, and identifies a time frame within which implementation should be initiated.

<i>Categories and Recommendations</i>	<i>Required Actions</i>	<i>Responsibilities (Primary in bold)</i>	<i>5th year progress report</i>
Land Use Recommendations			
1. Incorporate Harbor Plan recommendations into special permit, variance, and similar reviews	Zoning ordinance amendment	Town Meeting; Harbor Committee to draft refined regulations; Planning Board review	Ongoing as needed with LCP and Planning Board
2. Establish a working committee to consider proactive measures for protecting and enhancing water-dependent uses	Establish committee charge and time-frame	Board of Selectman Planning Board Harbor Committee	
3. Seek funds and establish process to study measures to protect properties in the FEMA velocity zones	Seek funding sources and initiate studies	Harbor Committee Town Manager	See dredging
4. Establish a stormwater mitigation program	Direction from the Board of Selectmen	DPW Board of Selectman Harbor Committee	Conducted comprehensive WQ testing at all stormwater outfalls under assessment program; installed 4 new stormwater mitigation systems around MacMillan Pier; ongoing project with CZM assistance, including a Town wide assessment of prioritized needs and several other storm drains done to date.
5. Request county aid to supplement a harbor water quality monitoring program	No change from existing policy and practice	DPW Harbor Committee	DCD and DPW continue working toward a comprehensive water quality-

<i>Categories and Recommendations</i>	<i>Required Actions</i>	<i>Responsibilities (Primary in bold)</i>	<i>5th year progress report</i>
			<p>testing program. Partnered with Center for Coastal Studies. Now in third year of DEP 604b funded comprehensive water testing program.</p>
6. Construction of a site specific sewer system	Financing, Engineering Construction	Town Manager DPW Water & Sewer Board Board of Selectmen	Phase 1 & 2 sewer construction is complete. Phase 3 is under construction.
7. Removal of beach debris: Provide additional assignment of maintenance responsibility and funding to the DPW, additional trash receptacles	Work assignments and additional funding	DPW Board of Selectmen Conservation Commission	Work done as needed. Harbor Comm. working to acquire a mechanized beach rake.
8. Removal of beach debris: Increase volunteer activities and increase awareness	Sponsor larger program	Harbor Committee	HC annually in spring partners with AmeriCorps volunteers and DPW for a town wide beach cleanup. Several problem areas have been addressed with additional AmeriCorps/DPW support (cove area, abandoned boats)
9. Removal of beach debris: Permitting and licensing criteria	Include as a condition on various permits,	Harbor Committee, Zoning Board of Appeals, Planning Board	

<i>Categories and Recommendations</i>	<i>Required Actions</i>	<i>Responsibilities (Primary in bold)</i>	<i>5th year progress report</i>
	approvals	Conservation Commission	
Water Use Recommendations			
1. Initiate and maintain program of aquaculture improvements	Establish priorities and implement recommendations	Shellfish Constable Board of Selectmen Harbor Committee Shellfish Committee	Upwellers for shellfish seed stock grow out have been installed on MacMillan Pier. Shellfish Constable partners with CCNS to produce GIS-based mapping of aquaculture grants.
2. Undertake new town mooring system including allocation of five spaces for emergency and storm-related use	Establish mooring technology, contract for mooring layout plan, establish fee structure and implementation timetable	Harbormaster Board of Selectmen Harbor Committee	5 moorings are reserved for Harbormaster use. Mooring field work ongoing. Harbormaster has added a mooring barge to fleet.
3. Initiate process for short-term and long-term maintenance dredging	Fund engineering studies, seek resources, implement the plan	Harbor Committee Board of Selectman Barnstable County Dredge Committee representative State Agencies	Initial dredging for reconstructed MacMillan Pier provided for beach nourishment in FEMA velocity zone on east side of town. Ongoing maintenance dredging addressed by Marine Superintendent participation on County Board.

	<i>Categories and Recommendations</i>	<i>Required Actions</i>	<i>Responsibilities (Primary in bold)</i>	<i>5th year progress report</i>
4.	Protect water quality and shellfish resource from anchorage and mooring, and mark wrecks	Mark as off-limits for moorage or anchorage areas requiring protection	Harbormaster	Updated mooring field maps completed summer 2004. Shellfish constable pursuing habitat restoration projects.
5.	Reduce conflicts between anchorages and other uses in the harbor	Anchorage areas should be designated more precisely	Harbormaster	Plan moving through public process to coincide with mooring field map update above.
6.	Communicate to the National Park Service the recommendation that no action be taken to reduce or alter the activities recommended by this Water Use Plan	Forward plan with letter	Board of Selectmen. Town Manager	
7.	Provide for interim improvements to the dinghy dock	Provide for year-round use and expansion	Harbormaster Board of Selectmen Town Manager Harbor Committee Pier Corp.	Interim improvements were provided during pier reconstruction. Dinghy docks expansion was part of MacMillan Pier reconstruction and is available year round. Floating docks have been successfully tested at West End ramp for dinghy and launching use. Pursuing permanent gangway and pile floating dock

<i>Categories and Recommendations</i>	<i>Required Actions</i>	<i>Responsibilities (Primary in bold)</i>	<i>5th year progress report</i>
			system.
Public Facility Recommendations			
1. Undertake the engineering analysis and design of the reconstruction of MacMillan Pier	Approve funding and initiate process	Commonwealth of Massachusetts, Town Meeting	Done
2. Undertake detailed study to implement new MacMillan Pier Management entity	Establish funding, participate in the planning process	Massachusetts Development and Finance Agency, Seaport Advisory Council, Harbor Committee	Done
3. Create new MacMillan Pier Management entity	Provide for incorporation or other procedural steps, approve mechanism through Town Meeting	Town Meeting Board of Selectmen	Done
4. Fund and Construct MacMillan Pier improvements	Provide for State bond source funds, local matching funds and financing mechanisms, other sources	Commonwealth of Massachusetts; Public Pier Corporation, Town Meeting, Others	Done.

	<i>Categories and Recommendations</i>	<i>Required Actions</i>	<i>Responsibilities (Primary in bold)</i>	<i>5th year progress report</i>
5.	Undertake planned program of public access and water-dependent capital improvements including small boat commercial facilities and other specific recommendations of this Plan	Create implementation framework as recommended in the Harbor Plan	Harbor Committee Board of Selectmen Town Manager Department of Public Works	40 floating dock slips and dinghy docks created with MacMillan Pier reconstruction primarily for the use of commercial fisheries. Jib cranes and dedicated loading zones provided for fisheries. Beach access signs have been installed on Commercial St and beach to improve identification of access points. Coordinated signs layouts with Chapter 91 license and Visitor Services signs. New expanded courtesy float has self-service pumpout station connected to municipal sewer system.
6.	Establish Right-of-Way Committee	Create mission statement and establish structure	Board of Selectmen	Harbor Committee utilizing annual grant of assistance from AmeriCorps Cape Cod volunteers
7.	Establish a planning process and pursue funding for this improvement.	Establish study as task for Harbor Committee.	Harbor Committee	
	Regulatory Framework for Chapter 91			

	<i>Categories and Recommendations</i>	<i>Required Actions</i>	<i>Responsibilities (Primary in bold)</i>	<i>5th year progress report</i>
1.	Establish Harbor Committee and delegate Planning Board responsibility for local license review	Finalize procedural requirements	Town Meeting	Done
2.	Establish memorandum of understanding for specific implementation of the Chapter 91 recommendations if required in addition to the provisions of this Plan	Finalize specific review procedures and criteria, if required	Massachusetts Office of Coastal Zone Management, Town of Provincetown Harbor Committee	
	Long Term Plans			
1.	Continue planning process regarding certain long term opportunities such as major breakwater and dredging programs	Establish this as a regular agenda item of the Harbor Committee	Town Meeting Board of Selectmen Harbor Committee	

Appendix A

Insert original appendix, including any corrections supplied by the Harbor Committee

Appendix B

In licensing existing development, the primary objective of the Plan is to enhance public use and enjoyment of the shoreline of Provincetown Harbor, in one or more of the following ways:

1. provide continuous public passage along the Provincetown Harbor shoreline, to the maximum extent practicable within normally dry areas immediately landward of the high water mark;
2. create more public open space on Provincetown Harbor by eliminating undue encroachments on the dry sand beach areas by shorefront property owners, and in some cases by providing public access to the seaward perimeter of existing hard surface structures;
3. make the Provincetown shoreline more approachable for the general public by eliminating undue encroachment on town landings, and by providing more pedestrian accessways and view corridors from Commercial Street to the waterfront; and
4. provide appropriate on-site access-related or water-dependent improvements and/or contributions to the Provincetown Harbor Access Gift Fund for off-site harbor improvements.

Each of these measures is described more fully below:

Public Open Space

A fundamental goal in the licensing of existing development is to preserve and enhance the amount of public open space³ at the immediate waterfront, to the maximum reasonable extent. To achieve this goal, waterfront property owners will be required at a minimum to dedicate as public open space all unobstructed dry sand areas lying 15 feet or more from the seaward sides of all existing buildings for non-water dependent use. "Unobstructed" means not occupied at the time of original plan approval (1999) by piers, decks, bulkheads, paved surfaces, or other permanent structures. These dedicated beach areas must be kept free of debris or other objects that would significantly detract from public use and enjoyment or would present a danger to public health and safety. In addition, mounded septic systems should be allowed on the beach only as a last resort (i.e., where sewer tie-in or other waste disposal alternatives are not technically feasible), and if authorized by DEP the space occupied by such structures should not be credited as public open space.

³ For purposes of this Plan the term "public open space" generally means exterior spaces (i.e., those not within the footprint of buildings or other structures) that are dedicated to active or passive public recreation, conservation of natural resources, or public water-dependent activity, and any accessory uses thereto.

As an additional incentive to provide public open spaces of particular utility in Provincetown, any space dedicated to commercial fishermen for parking or to public accessways from the shoreline to the street will be given extra credit as a public open space benefit. Also note that additional on-site open space not identified in this plan may be required on any property as determined by DEP on a case-by-case basis, in accordance with applicable standards of the waterways regulations.

Perpendicular Accessways

Another key goal of the Plan is to make the harbor significantly more approachable from the land side. To begin with, the Plan requires that applicants for licensing whose property abuts town landings or other historic public rights of way must submit evidence (e.g., title search, survey) as part of the application to ensure that the property is not encroaching on such public accessways. In some cases, these also would be appropriate locations for providing access amenities such as benches, trash receptacles, etc.

Further, Table B-1 identifies several properties where perpendicular accessways connecting Commercial Street to the waterfront will be established for general public use⁴. Many of these accessways are located outside the central commercial area, along portions of the harbor where town landings are widely spaced or non-existent. The site-specific position and configuration of these accessways is such that public passage will not be incompatible with existing private activities occurring on the respective properties. In fact, in some cases the accessways are presently open (via limited easements or informal permission) for foot traffic by occupants of landward homes and commercial establishments, and appropriate measures (such as landscaping buffers) have already been taken to minimize intrusions on the privacy of the waterfront property owner. Although the volume of activity on these accessways may be expected to increase somewhat when opened to the public-at-large, the number of accessways is large enough that no one property seems likely to experience a disproportionately high increase in pedestrian traffic.

To further lessen the possibility of user-owner conflict, the Plan recommends that any perpendicular accessway located on a property zoned for residential use be open to the public from dawn to dusk only. Moreover, licenses issued by DEP on these properties should specifically authorize the licensee to manage public use of the accessway by adopting reasonable rules (subject to prior review and written approval by DEP) as are necessary to protect public health and safety and private property, and to discourage trespass and other unlawful activity by users of the area intended for public passage. Finally, each license should contain a statement to the effect that the exercise of free public passage within these accessways shall be considered a permitted use to which the limited liability provisions of M.G.L. C.21 Sec.17c shall apply on behalf of the property owner in question.

⁴ In order to establish meaningful connections to the harbor, these accessways must be made available to the public across the full extent of any property owned or otherwise controlled by a license applicant between Commercial Street and the waterfront. Any accessway segment not located on filled tidelands should be credited directly to the project as an open space benefit, and should be given the same weight (for purposes of computing the project's contribution to the Harbor Access Fund in accordance with Appendix C) as is given to the segment that is located on the project site as defined by DEP.

It should be noted that perpendicular accessways in addition to those identified in Table B-1 may be required on a case-by-case basis, as deemed appropriate by DEP and/or at the recommendation of the Harbor Committee.

Beachwalk

In order to establish continuous lateral passage along the Provincetown Harbor shoreline above the high water mark, the Plan establishes a designated "beachwalk" defined as the ten (10) foot wide dry sand zone running adjacent to and immediately landward of the high water mark. In many cases, this area will be entirely free of structural encroachment; but in some locations there are existing structures (piers, seawalls, bulkheads, decks, etc...) within the beachwalk that impede or prevent lateral access, forcing pedestrian passage into the intertidal zone (or blocking it entirely when the tide is in).

To enhance public use and enjoyment of the beachwalk, the Plan requires that measures be taken to ensure that people walking along the shoreline will be able to get over, under, or around any structure that extends into the beachwalk area. Specifically, the Plan requires that wherever possible pedestrians should be able to pass UNDER such structures with at least five (5) foot vertical clearance at the high water mark or AROUND the seaward edge of the structure with at least five (5) feet of unobstructed dry sand width. If neither of these criteria can be met, passage must be provided either by stairs OVER the structure or, as a last resort, by UPLAND (i.e., off-beach) ACCESSWAYS located at the shortest reasonable distance landward of the high water mark.

To ensure ongoing preservation of access within the beachwalk in erosion circumstances, licenses for both new and existing structures for non-water dependent use on the beach should include a condition that triggers a reevaluation of the situation to determine if alternative access measures are needed, should the beachwalk area migrate landward (and become obstructed as a result) subsequent to the issuance of the license.

Other Physical Improvements for Pedestrian Access and/or Water-Dependent Use

In addition to perpendicular and lateral accessways, Table B-1 identifies properties where physical improvements for public access must be provided on the project site, e.g., stairs, benches, lighting and landscaping. The Table also identifies properties where fences, snow fences, walls, defunct septic systems, and other structures affect visual or physical access to or along the waterfront and requires that such structures be modified or eliminated. In addition, the Plan identifies properties where water-dependent physical improvements should be targeted. Examples of site-specific water-dependent improvements include: construction and maintenance of public dinghy docks and dinghy tie-up posts, and the dedication of space for dinghy storage and parking for small boat fishers.

Moreover, the Plan requires development of three specific areas along the central commercial waterfront, to enhance lateral connections and further facilitate public pedestrian movement onto the beach from Commercial Street. These areas will be created by establishing interconnected walkways along the perimeter of existing hard surface structures (i.e., bulkheads, parking lots

and decks) on specific abutting properties already used as facilities of public accommodation. Foremost among these areas is one that would be created through a 10' public walkway along the western side of Fisherman's Wharf. This walkway would connect to existing walkways along the adjoining municipal parking lot leading to both MacMillan Wharf and Commercial Street. An important mini-loop connects the perimeter of the Aquarium property, US Post Office, Seaman's Bank and Old Reliable Fish House. These connecting walkways are also specified as locations for providing access amenities such as benches, trash receptacles, etc.

With respect to Fishermen's Wharf, the Plan recognizes that creation of a public walkway for enhanced pedestrian and boater access requires a reconfiguration of existing uses and must be authorized by DEP in a c. 91 license. The 1990 standards of the waterways regulations stipulate (at 310 CMR 9.51 and 9.52, respectively) that perimeter walkways be sized at a minimum width of 10' and that the amount of open space for public pedestrian use be at least equal to the area devoted to public parking on sites containing Commonwealth tidelands. Application of these 1990 waterways standards to Fishermen's Wharf would permit only 113 parking spaces on this centrally-located tourism infrastructure facility, representing a substantial loss of vehicular capacity as compared to that proposed in the Plan. In the Town's judgment, the further reduction in parking that would be required for compliance with these regulations does not satisfy the Town's goals for this section of the Harbor. On the basis of such planning considerations, it is appropriate to give somewhat greater emphasis to public parking when determining the balance between pedestrian and vehicular activity on Fishermen's Wharf.

For the foregoing reasons, the Plan proposes a waiver of the applicable 1990 standards in favor of an alternative requirement, stipulating that only a 10' wide walkway on the western side of Fishermen's Wharf be provided as a condition of obtaining a waterways license. Furthermore, the Plan provides that in order to maximize the existing footprint of the Wharf for public parking, the 10' walkway may be provided outside of the existing deck by use of cantilevered or pile supported construction. Although, pursuant to 310 CMR 9.32(1) (a) 3, DEP typically requires pedestrian facilities over flowed tidelands to be located within the footprint of an existing structure, such requirement can be waived if it is not reasonable under the circumstances. In light of the significant benefit to the Town of maintaining the existing parking spaces on Fishermen's Wharf in support of the Town's tourism based economy and to support the water-dependent uses on site, the Plan recognizes that a strict application of this requirement would not be reasonable.

Acknowledging that this proposed substitution is less restrictive than the current standard in terms of providing public benefits related to open space, the Plan stipulates that a payment of \$205,500 be made to the Harbor Access Gift Fund as an "offset" to the adverse effects on water-related public interests, as required by the plan approval regulations at 301 CMR 23.05(2) (d). This amount has been recommended by DEP, using a formula the Waterways Regulation Program has developed to compute the level of compensation that is appropriate for authorizing the exiting non-conforming use of the wharf through the MHP process. Under these circumstances, the Plan believes that its substitute provisions regarding Fishermen's Wharf will promote, with comparable or greater effectiveness, the state tidelands policy objectives pertaining to public open space, including the need to provide adequate parking facilities for users of both exterior and interior facilities of public accommodation at the waterfront.

In addition to specific improvements listed for a particular property, DEP should refer to the general types of improvements that are recommended in the body of this revised Plan on a region-by-region basis. These improvements are negotiable on a case-by-case basis, based on their merits and on their conformity to this Plan. In some cases the recommendations are unique to each region, and there are some recommendations that apply along the entire waterfront. For example, a universal problem is that points of access to the waterfront and the location of public access related facilities are difficult for residents and visitors to identify and locate in Provincetown because of inadequate signage. Accordingly, for every region the Plan proposes that the Town develop and employ a uniform signage system that clearly identifies all public access opportunities. In addition, all accessways from Commercial Street to the waterfront should be marked with adequate signage on both the landward and seaward sides of the accessway.

Off-site Public Benefit Requirements (Contributions to the Harbor Access Gift Fund)

Although the general premise for obtaining a Chapter 91 license is that a property owner will be expected to provide public open space and related physical improvements, in certain situations involving existing development the feasibility of providing such benefits on the project site is limited and may even be impossible. In such cases where the on-site public benefits are insufficient to compensate for the detriments to public rights on Commonwealth tidelands, DEP has traditionally sought alternative benefits in the form of monetary contributions to fund the provision of off-site benefits elsewhere in the harbor, preferably in a nearby location.

Since this situation is likely to occur in Provincetown, the Provincetown Board of Selectman established the Harbor Access Gift Fund on August 26, 1996. The purpose of the fund is "to receive Chapter 91 public benefit mitigation funds and other donations, the proceeds of which shall be used without further appropriation to enhance the public's access and use and enjoyment of the shoreline and waters of Provincetown Harbor, including but not limited to maintenance and improvements of town landings and other public properties for water dependent use. This includes, among other things, providing labor and machinery for regular cleaning of beaches and removal of debris during the summer months. It is important that the Harbor Access Gift Fund monies be limited to authorized improvements and not spent on commercial development- nor put into the Town's General Fund. The Harbor Access Gift Fund should report all contributions and disbursements to the public no less often than annually.

In order to determine whether a contribution to the Harbor Access Fund will be required as a condition of a license, DEP has adopted a revised version of the methodology included with the original (1999) Plan. See Appendix C for the methodology, which only applies to amnesty eligible, non-water dependent use projects.

DEP is responsible for determining the contribution in accordance with the Appendix C methodology and will require payment as a condition of licensing. The town is responsible for collecting the moneys and administering the Harbor Access Gift Fund, into which all collections will be deposited. As part of this collection program, the Town may create liens against the property for overdue accounts, so that title to the property cannot be passed until the lien is satisfied. Also, DEP's enforcement powers may be useful if the town has difficulty with overdue

payments. Licenses should include a condition stating that non-payment over a specified time period (maybe three (3) years) will be grounds for enforcement action (including penalties and possible license revocation).

APPENDIX C

Updated Calculation of Monetary Contributions to Harbor Access Fund (Applicable Only to Amnesty-Eligible, Nonwater-Dependent Use Projects)

The following methodology shall govern the determination of the extent to which monetary contributions will be required, in addition to any on-site public benefits determined necessary by DEP, to compensate for the public detriments associated with amnesty-eligible, nonwater-dependent structures and uses on Commonwealth tidelands. It is a relatively simple calculation that closely parallels the conventional DEP approach to obtaining public benefits, which typically include a mix of dedicated open space for public use together with on-site physical improvements. The basic idea is first to compute an overall "debit" to represent the minimum value that reasonably can be associated with the combination of public benefits customarily required by DEP; and then apply a "credit" to account for actual expenses that the licensee will incur for physical improvements to public spaces on the project site. A more detailed 3-step process for carrying-out the necessary computations is described below.

Step 1: Compute Physical Improvement Debit

In general, at a minimum DEP requires nonwater-dependent projects to provide a ten (10) foot wide constructed walkway along the seaward perimeter of property, except in situations where such a walkway is infeasible or inappropriate due to physical conditions or other special circumstances. Such circumstances exist in Provincetown, where the Town generally does not support the encroachment of boardwalks and other hard surface accessways on the existing sand beach lying along the seaward edge of most amnesty-eligible project sites. The Physical Improvement Debit represents the expenditures that would normally be incurred to comply with this requirement, by calculating the typical cost of providing a generic walkway facility across the entire width of the subject property, with the exception of properties containing one to three-family, owner occupied (i.e., primary) residences. This exception was deemed appropriate by the Harbor Planning Committee in 1999 as a means of avoiding any disproportionate financial impact on the smallest scale residential properties subject to Chapter 91 jurisdiction. This exception shall remain in effect upon renewal of the approved plan, but only for amnesty applications that DEP has determined to be complete, in accordance with 310 CMR 9.11(3)(c), within two years of the date of plan renewal.

The Physical Improvement Debit incorporates the cost of original construction as well as an annual maintenance factor, based on general engineering cost practices as well as prior licensing experience along the Provincetown waterfront. These combined costs were established in 1999 by DEP, in consultation with the Harbor Planning Committee, to be \$300 per linear foot for a 10' wide walkway [\$30 per square foot]. The 1999 Plan stated that this charge will have to be reviewed periodically by the Harbor Committee to ensure that it accurately reflects current construction and maintenance costs. In the intervening 11 years, construction costs have increased significantly and DEP has determined, in consultation with the Harbor Committee, that the per square foot charge should be increased accordingly, based on the overall rate of inflation (i.e. the charge will be the net present value of \$30 in 1999 dollars). At the same time,

experience has also shown that for most amnesty-eligible projects in Provincetown the as-built condition generally does not allow for the normal walkway width of ten feet, and that a four (4) foot wide walkway would be more appropriate. Thus, the revised Physical Improvement Debit for a given property is computed through the following equation:

$$\text{Physical Improvement Debit} = [\text{harbor frontage of parcel (ft)}] \times [\text{walkway width}=4 \text{ ft}] \times \$30 \text{ (in 1999 dollars)/sq ft}$$

Step 2: Compute Public Use Debit

As a general rule, since the mid-1980s DEP has required nonwater-dependent projects on Commonwealth tidelands to dedicate at least 50% of such tidelands as public open space⁵, and to reserve much if not all of the ground floor of buildings for facilities of public accommodation⁶. In their as-built condition, amnesty projects typically cannot provide ground-level public space in such amounts, either within or outside existing buildings, without substantially displacing existing uses. Accordingly, the Public Use Debit reflects this shortfall by applying a fixed rate of compensation to the amount by which ground level spaces to be dedicated to public use on the project site (both interior and exterior) fall below the level normally required. The compensation rate was established in 1999 by the Harbor Planning Committee, in consultation with DEP, to be \$10 for every square foot of the combined deficit in spaces available for public use. DEP subsequently incorporated a "credit factor" into the computation to take into account varying degrees to which public open space is provided on the project site. Again adjusting this charge for the overall inflation rate since 1999, the Public Use Debit for a given property is computed through the following equation:

$$\text{Public Use Debit} = [\text{exterior space deficit}^* + \text{interior space deficit}^{**}] \times [\text{open space credit factor}^{***}] \times \$10 \text{ (in 1999 dollars)/SF}$$

* exterior space deficit (SF) = amount by which public open space will be less than 50% of tideland area on the property

** interior space deficit (SF) = amount of ground floor building space on tidelands but not devoted to facilities of public accommodation

*** open space credit factor = 1 minus fraction of Commonwealth tidelands devoted to public open space on project site

⁵ For purposes of this Plan, the term "public open space" generally means exterior spaces (i.e., those not within the footprint of buildings and other structures) that are dedicated to active or passive public recreation, conservation of natural resources, or public water-dependent activity, and any accessory uses thereto.

⁶ As described in 310 CMR 9.02, a facility of public accommodation "means a facility at which goods or services are made available to the transient public on a regular basis ... rather than restricted to a relatively limited group of specific individuals. Facilities of public accommodation may be either water-dependent, accessory to water-dependent, or nonwater-dependent."

It should be noted that the Public Use Debit (and therefore the overall monetary contribution) can be reduced by providing more space for public use on any portion of the property (either tidelands or uplands). As an additional incentive to provide exterior public spaces of particular utility, any space dedicated for fishermen for parking, or to public accessways from the shoreline to the street, will receive extra credit in the above calculation (on a 2:1 basis). For example, if 200 SF are dedicated on a property for fishermen to use as parking, or as a street to beach accessway, then this counts as a total deduction of 400 SF of exterior public space.

Step 3: Compute Required Monetary Contribution (if any)

The required monetary contribution is computed by adding the Physical Improvement and the Public Use debits, and then subtracting any new expenditures that will be made to provide on-site physical improvements (as stipulated in Appendix B and as otherwise may be required by DEP on a case-by-case basis). Thus the Monetary Contribution for a given property, in the form of a lump sum, is computed through the following equation:

$$\text{Monetary Contribution (lump sum)} = [\text{Physical Improvement Debit} + \text{Public Use Debit}] - [\text{Credit for actual improvement expense}]$$

From this equation it is evident that if the new on-site expenditures equal or exceed the sum of the applicable debits, no monetary contribution to the Harbor Access Fund will be required.

It is important to note that credit will not be given for capital costs incurred to overcome existing obstructions that impede lateral movement along the beachwalk and/or in the intertidal zone (e.g., providing ladders over piers, paving/signing of upland "detours", removing derelict structures, etc.), because such measures are not considered to be new improvements – rather they are necessary to eliminate detriments that arise from existing structural impediments to lateral pedestrian access.

In the event the applicant chooses to amortize the monetary contribution, the annual payment will be calculated by applying an interest rate of 4% over 5 years, resulting in an amortization factor of approximately \$220 for every \$1000. Thus the annual contribution is calculated using the following equation:

$$\text{Annual payment (dollars)} = \text{Lump Sum Monetary Contribution (dollars)} \times 0.22$$