

City of Newburyport

Plum Island

Beach Management Plan

Presented by:



PLAN PURPOSE

- To establish appropriate public policy pertaining to the operation, maintenance and preservation of Plum Island including facilities and resource areas.
- To establish recommendations and guidelines for coastal resource protection through appropriate management practices in order to establish a framework that the City can conduct sustainable recreation planning, facility improvements and maintenance activities.

Recommendations & guidelines presented in the Plan will be adopted under an Order of Conditions for the following:

- **Public Use, Access & Safety**
- **Resource Area Management & Protection**
- **Rare Species & Wildlife Management**
- **Storm-Related Maintenance & Damage Protection**
- **Public Outreach & Education**

PLAN IMPLEMENTATION

Establish Beach Management Committee:

- Dept. of Public Services (DPS)
- Harbormaster's Office
- Dept. of Public Safety (Police or Fire)
- Planning Office
- Conservation Administrator
- Mayor's Office
- Dept. of Conservation & Recreation (DCR)
- Plum Island Tax Payer's Assoc. (PITA)

Committee Responsibilities:

- Prioritize Plan Recommendations
- Create Project Plans for Priority Projects
- Pursue Funding for Plan Implementation

LIMITS OF BEACH MANAGEMENT PLAN



PUBLIC USE – FACILITIES



PUBLIC USE - RECREATION

Typical Recreational Activities:

- Swimming, beach walking, wildlife observation, bird watching, kite flying & fishing, etc.

Prohibited Activities:

- Hunting, camping & fires, fireworks and off-road vehicles

Limited Activities:

- Horseback riding, pets (dogs allowed on beach only during off-season), watercraft usage (regulated by Harbormaster)

PUBLIC ACCESS



CITY OF NEWBURYPORT
PLUM ISLAND BEACH MANAGEMENT PLAN
NEWBURYPORT, MASSACHUSETTS

FIGURE 4

APRIL 2002

Vine Associates, Inc.
SCALE: 1" = 500'

PUBLIC SAFETY

**Lifeguards
Emergency Response
Beach Patrols – ATVs
Water Quality Testing**

PUBLIC USE, ACCESS & SAFETY RECOMMENDATIONS

Public Use

Facilities – maintenance of parking lot (pavement repairs/line striping), painting of buildings, trash removal, sand sweeping etc.

Recreation - Continue bans on hunting, fires, camping, and off-road vehicle use; dogs ban beginning April 1st (plover); erect applicable signage; provide bio-bags for handling/removal of animal waste; provide units for recycling fishing gear; coordinate watercraft management through Harbormaster's office.

PUBLIC USE, ACCESS & SAFETY RECOMMENDATIONS

Public Access - Verify existing access ways and assess current impacts to dunes, beach, habitat; identify/prioritize access locations for City to maintain; installation of on-grade mats, elevated boardwalks, snow fencing; symbolic fencing (plovers); develop maintenance protocol, plan and schedule; provide signage; identify points of access with signage; inspection of access ways (seasonal, post-storm conditions).

PUBLIC USE, ACCESS & SAFETY RECOMMENDATIONS

Public Safety – Mark areas of special conditions with buoys/signage, determine if special use areas for swimming, surfing, fishing should be adopted by City; evaluate need for additional emergency vehicle/response access points.

RESOURCE AREA MANAGEMENT & PROTECTION

- Coastal Beach**
- Coastal Dune**
- Land Subject to Coastal Storm Flowage**
- Riverfront Area**

COASTAL BEACH

- **Extends 4,200 LF from Newburyport/Newbury town line to Northern tip of Plum Island**
- **90 to 1,000 feet wide**
- **Eroded areas presently visible along beach**

COASTAL BEACH

CURRENT BEACH CLEANING/MAINTENANCE PRACTICES

- > Debris & Trash Removal**
- > Annual Beach Cleaning (mid-May)**
includes raking (shoreline to vegetated dune);
large debris removed; wrack removed/disposed

BEACH NOURISHMENT

- > Placement of compatible material along eroded/ starved areas**
- > Compatible material available from off-site, dredging, stockpile areas, etc.**
- > No immediate plans for beach nourishment**

COASTAL DUNES

- **Severe Dune Erosion (predominantly at south end)**
- **Erosion Rate – Varies; 50 to 100 feet of dune retreat over last 5 to 10 years observed in some areas.**

COASTAL DUNES

- The City is currently not implementing conventional practices of dune management/protection such as snow fencing, dune grass plantings, pedestrian access control and signage**
- There are no immediate plans for dune nourishment from stockpiled material, off-site sand sources, dredge sediments etc.**

LAND SUBJECT TO COASTAL STORM FLOWAGE (LSCSF)

- LSCSF – extends to edge of 100-yr. Flood plain and includes coastal beach and much of the coastal dune areas of Plum Island.**
- New FEMA Maps under review and will reassess current flood zones and location of the primary frontal dune.**
- No work performed within LSCSF shall increase coastal flooding by re-directing floodwaters or by decreasing resource areas to provide natural storm damage protection functions.**

RIVERFRONT AREA

- Sandy Beach and coastal dune area extending from the northern tip of Plum Island (the Point) to the South Jetty
- Existing condition of Riverfront Area provides a good recreational environment and also provides nesting habitat from Piping Plover.



RIVERFRONT AREA
PLUM ISLAND BEACH MANAGEMENT PLAN
NEWBURYPORT, MASSACHUSETTS

Figure
9



PLOVER NESTING AREAS
PLUM ISLAND BEACH MANAGEMENT PLAN
NEWBURYPORT, MASSACHUSETTS

Figure
10

RESOURCE AREA MANAGEMENT RECOMMENDATIONS

- Identify/inspect all existing public property, access ways for beach management activities.
- Review/reassess current land management agreement with DCR.
- Establish a program for beach/dune nourishment.
- Create/maintain sand stockpile area at the Point parking lot for use in emergency response, restoration at critical areas, repair/maintenance of access ways etc.
- Establish dune maintenance practices for installation of snow fence, plantings, signage, etc. Coordinate with USFWS/NHESP. Notify residents of importance of such practices through local paper, public meetings, workshops etc.
- Restructure current beach cleaning practices to be conducted prior to start of shorebird nesting season (April 1) and to re-use wrack for dune stabilization and shorebird foraging. Coordinate with USFW/NHESP.
- Inspect/videotape dune and beach area conditions spring/fall. Monitor snow fence, plantings etc.
- Prohibit privacy fencing, latticework around decks and foundation pilings that act as barriers against lateral drift of sand for dune building.

RARE SPECIES & WILDLIFE MANAGEMENT

- Priority Habitat for Rare Species (PH1321) and Estimated Habitat for Rare Wildlife (EH65)**
- Beach Management Area Under Jurisdiction of MA Endangered Species Act (MESA)**
- Primary Species of Concern – Piping Plover & Least Tern**
- Memorandum of Understanding (MOU) with Parker River National Wildlife Refuge (PRNWR) for monitoring/protection of Piping Plover and Least Tern Habitat.**
- PRNWR will provide annual training to City staff and guidance on use of ATVs, beach raking equipment, trucks along the beach.**

RARE SPECIES & WILDLIFE MANAGEMENT RECOMMENDATIONS

- **Adhere to MOU with PRNWR.**
- **Avoid vehicle use in vicinity of Piping Plover.**
- **Portions of overwashed primary dune system shall be left untouched following storm events to enhance nesting habitat**
- **Beach raking/debris removal should take place prior to April 1st (i.e. start of nesting season)**
- **Wrack shall be cleaned of debris/reused along upper beach areas/near toe of dunes for food for foraging birds**
- **Post signage to instruct public on stranded/injured wildlife**
- **Work with homeowners to minimize attraction of wildlife**
- **Obtain maps and lists of rare species plants existing within management area and use this information for planning of upcoming construction activities and for creating maintenance plans.**

STORM-RELATED MAINTENANCE & DAMAGE PROTECTION

- **Debris Removal**
- **Access Way Repairs**
- **Storm-Related Beach & Dune Maintenance**
 - > Use sand from stockpile area to fill in voids prior to snow fence installation and planting of beach grass**

STORM-RELATED MAINTENANCE & DAMAGE PROTECTION RECOMMENDATIONS

Following actions may be taken as Emergency Measures, with approval of the Conservation Commission:

- Temporary repair of coastal engineering structures.**
- Sediment may be replaced in areas where storm has caused erosion in order to temporarily stabilize the area.**
- Public structures, buildings and foundations may be stabilized/shored up only to the extent that such work is required to prevent imminent harm to the structure.**

PUBLIC OUTREACH & EDUCATION

- Inform & educate visitors and local residents of the vital issues affecting the barrier beach system**
- Formation of a Beach Advisory Committee made up of volunteer residents whose charter would be to promote stewardship of Plum Island through education, outreach and special projects, such as dune grass planting, signage installation, erection of snow fencing, lectures on environmental issues.**

PUBLIC OUTREACH & EDUCATION RECOMMENDATIONS

- Prepare educational materials and make available to the general public – including lectures, brochures, curriculum materials, signs and exhibits, videos/slide shows, books, pamphlets, maps etc. and bulletin boards.
- Develop a public awareness program, including school outreach, to help reduce the amount of litter on the beach. Place trash receptacles at strategic, easily-seen and convenient locations.
- Determine appropriate locations and standard templates for each combination of rules and regulations at Rights of Way (ROW) and Plum Island Point.
- Place standard-sized signs specific to rights of way (ROWs), beach access, lifeguards (or lack thereof), dogs, dune protection/restoration and alcohol prohibition.
- Erect a bulletin board, placed at Plum Island Point for the purpose of educating and informing the public about City of Newburyport Beach Management actions, conservation information, projects, with schedules of planned activities, and educational data.
- Establish a maintenance program whereby routine, scheduled inspections would monitor the condition of signage and lead to actions which would prolong the visibility and effectiveness of the signage in place.
- Maintain vigilance regarding any changes (location and/or information) necessary to retain or upgrade effectiveness.
- Partner with merchants to limit the amount of take-out food wrappers and containers.