1996 MANAGEMENT PLAN FOR SOUTH BEACH, EDGARTOWN, MASSACHUSETTS

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MARTHA'S VINEYARD COMMISSION

Jo-Ann Taylor, Coastal Planner Cindy Tyminski, Cartographer

EDGARTOWN CONSERVATION COMMISSION

Jane Varkonda, Agent

EDGARTOWN PARK DEPARTMENT

Pam Dolby, Assistant

MANUEL F. CORRELLUS STATE FOREST (DEM)

John Varkonda, Supervisor

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

Richard Thibedeau Sandi Wolchansky Richard Zingarelli Jack Lash

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DESCRIPTION OF THE PROPERTY

SETTING

Edgartown South Beach has been a popular recreational area for well over 100 years. In 1873, the Mattakesett Lodge described the beach in its brochure:

"On the south the ocean beats its ever reverberating surges on the famed SOUTH BEACH of Martha's Vineyard, beyond which there is no land for thousands of miles. The constant rolling surf fascinates all beholders, and after a storm is inexpressibly grand. Daniel Webster declared it superior to Niagara.".

The white sand beach facing the open Atlantic Ocean and the majestic surf have combined with easy access to make this the most popular beach on the south side of Martha's Vineyard, indeed the only beach on the south side which is so readily accessible to the Most of the south shore is privately owned. The beach which abuts the DEM property on the east, Norton Point Beach, is owned and managed by the County of Dukes County and open to the public, but is more difficult to access, because Norton Point Beach, unlike the DEM property, is a baymouth barrier beach with limited access at either end. The DEM property is truly open and accessible to all. Although parking of private automobiles is limited, there is a public shuttle bus which runs back and forth to Edgartown village, with public shuttle service connecting to a large, Town-owned free parking facility and to the ferry ports. An extensive bike path network also connects the property with the village and with the ferry ports, with quite generous bike rack availability at the beach.

Edgartown South Beach is a sandy beach approximately one mile in length. The beach is exposed to the storm waves of the open Atlantic Ocean. It is subject to strong longshore currents, with velocities up to 1.2 mps¹. The prevailing littoral forces erode sand from the western shores of the Island and move it and additional eroded sand eastward. Along the Massachusetts coast, sea level is rising at the rate of approximately one foot per hundred years. Combined with storm wave activity and longshore currents, sea level rise contributes to the landward retreat of the shoreline. Average erosion rates for the south shore are in the

¹J. Gordon Ogden III, <u>Shoreline Changes Along the Southeastern</u> <u>Coast of Martha's Vineyard, Massachusetts for the Past 200 Years</u>, 1974

range of 7 to 12 feet per year². For the period from 1938 to 1969 the annual shoreline lost at the east end of Atlantic Drive was 11.1 feet per year³. Baymouth barrier beaches on either side of the DEM property retreat into Crackatuxet Pond and Katama Bay respectively. The DEM property, not a barrier beach with room to migrate, simply erodes away under the same influences.

Edgartown South Beach is composed of Udipsamment soils. These are sandy rolling soils, generally known as sand dunes. The dune systems are dynamic and flex before the wind and the sea, although the cover of sea-grasses and shrubs act to partially stabilize The soil types landward of Edgartown South Udipsamment soils. Beach are Katama-Carver, as described in the Soil Conservation Service publication Soil Survey of Dukes County4. Carver soil series formed as glacial outwash during the last ice They are very well suited for These soils are loamy. cropland or pasturage; a large dairy farm operated on these lands in Edgartown for many decades. A grass airfield, the Katama Air Park, is situated landward of the western part of the beach, its sandplain grassland habitat protected by the Katama Air Park District of Critical Planning Concern. Just west of the airfield is property owned by Mass. Division of Fisheries, Wildlife & Environmental Law Enforcement (MDFWELE) and managed as sandplain grassland habitat, known as the South Beach property. permeability of the soils also makes them suitable for housing sites and in fact, a series of condominiums and summer homes have appeared in the area. Predominant existing land uses in the area are residential and dedicated open space. In the town's 1979 Open Space Plan, 49.5 percent of the entire town was found to be vacant land; this was due in part to the large tracts still held by separate families. However, the percent change in building permits issued in the town from 1976 to 1986, 820 percent, indicates rapid eradication of the remaining open or vacant lands in the town and particularly around Katama Bay5. Between 1983 and 1986, building permits increased by 80.6 percent.

²Clifford A. Kaye, <u>Map Showing Shoreline Changes in Shoreline of Martha's Vineyard</u>, <u>Massachusetts</u>, <u>During the Past 200 Years</u>, 1973

³ibid

⁴USDA Soil Conservation Service, <u>Soil Survey of Dukes County</u>, <u>Massachusetts</u>, 1986

⁵The Martha's Vineyard Commission, <u>1987 Data Report Dukes</u> <u>County, Massachusetts</u>

ACQUISITION HISTORY

In the early 1970's, there was formal interest in acquisition of South Beach for the public. Long held privately and used publicly, the beach suffered from lack of management of trash, swimmer safety and conflicts between bathers and 4 wheel drive In the Spring of 1977, the Town began leasing the western half of the beach from the Successors of the Mattakesett Creek Co. That summer, the Edgartown Parks Department successfully managed the leased portion of the beach with lifeguards, trash restriction of over-sand arrangements and parking cleanup, Growing concerns over the public's ability to continue vehicles. to access the beach prompted the legislature to pass H4021, a bill to authorize its purchase by the Department of Environmental Management "to acquire...by purchase or otherwise land...known as South Beach bounded on the east by South Beach road (Katama Road), on the south by the Atlantic Ocean, on the west by land of the Crackatuxet Trust and on the north by Atlantic Drive and an extension of the northerly line of said Drive to the west In 1983, the Department of Environmental Management boundary...". purchased approximately 24 acres of the 70 acre beach, the lots between parcel 63 and Katama Road, from three different owners. Two purchases were made through the power of eminent domain (approved by the Town in 1981) and one by negotiated purchase6. The Department, on advise of the Attorney General's Office, did not purchase 3 parcels which were the subject of a private suit in Land Court for determination and resolution of several title issues. The parties settled out of court in 1985, without clear resolution of the title issues. By 1985 the 1979 bond money was insufficient in amount and the account had expired, all of which factors combined to discourage further work on the acquisition by DEM7. Shock and dismay greeted the 1987 announcement that the 3 remaining parcels had been sold to private developers. There was great concern that the public would be excluded from its traditional use DEM renewed its commitment to of that portion of the beach. acquisition and in June, 1988 acquired the remainder of the beach, as well as a large section of upland sandplain grassland habitat, by eminent domain taking8. At last, the public was assured of continued access in keeping with the traditional use of the beach.

 $^{^6\}mathrm{Land}$ Court records at the Dukes County Registry of Deeds, LC29244B, LC35306B

⁷correspondence, July 23, 1987, DEM Commissioner John Gutensohn to Edgartown Board of Selectmen

Order of Taking, recorded at Dukes County Registry of Deeds, Book 502, Page 693, June 30, 1988, CF 488

MANAGEMENT ISSUES

RESOURCE PROTECTION

COASTAL RESOURCE FUNCTIONS: significance of South Beach State Park to the interests of the Wetlands Protection Act and the Edgartown Wetlands Bylaw:

The natural wetlands resources of South Beach State Park are as follows: coastal beach, coastal dunes, and vegetated wetlands.

1. Flood Control and Storm Damage Prevention: critical characteristics of the beach are the ability of the coastal beach to respond to wave action, the natural erosional and depositional cycles, the size of the beach and the slope of the beach; critical characteristics of the dunes are the ability of the dunes to erode in response to the beach conditions, thus providing sediment to the beach; the height and width of the dunes; the vegetated cover of the dunes; the ability of the dunes to move landward; the ability of the dunes to serve as wildlife habitat.

Critical characteristics of the bordering vegetated wetlands are plant community composition and structure, and soil composition and structure. Bordering vegetated wetlands vegetation acts to slow down and reduce the passage of flood waters during periods of peak flows by providing temporary flood water storage and by facilitating water removal through evaporation and transpiration.

The coastal beach and coastal dunes of South Beach serve as a buffer to storm events and to dissipate wave energy. They protect the roadway, private and public properties which are landward of the beach.

2. Wildlife Habitat: critical characteristics are: the plant community, composition and structure; hydrologic regime; the ability to provide food, shelter, resting areas and breeding areas; the distribution of sediment grain size, water circulation, water level, water quality, and relief and elevation; degree of isolation from human caused disturbances.

South Beach State Park serves as a resting and feeding area for various shorebirds, and as a stopover area for migratory shorebirds. The inland beach areas support specimens of sandplain grassland plant species. The beach may support various rare plants and or animals in its coastal beach, dune and interdunal areas (see rare species and habitats). The upland area north of the herring creek includes sandplain grasslands habitat. The bordering vegetated wetlands and adjacent uplands support nesting northern harriers, and the possibility of sea level fen exists (see rare species and habitats).

3. Recreation: critical characteristics are topography, sediment grain size, water quality, water circulation rate and patterns, unobstructed access along the shore, wildlife, fisheries, shellfisheries, natural erosional and depositional cycles and wave intensity.

South Beach State Park is the only publicly owned south shore ocean beach, aside from the adjacent County-owned Norton Point Beach to which access is limited. The majority of the beaches on the Island are private or for Town residents only. Presently there are no entrance fees. The beach is accessible by foot, bike, private car or by public transportation.

4. Natural and historic views and vistas: critical characteristics are natural erosional and deposition cycles, beach relief and elevation, a sense of openness and solitude, dune form and slope, proportion and scale of the dunes and scale of dunes in relation to other land forms.

South Beach State Park is the southern most extent of the preserved vista known as the Katama plains. The beach is one of the few public vistas of the south shore of the Island.

DUNE STABILIZATION AND EROSION CONTROL:

South Beach State Park is composed of beach sediments underlain by the glacial deposits known as the Katama layer. This layer is frequently exposed in the winter during periods of heavy erosion. As stated earlier in this plan, the beach is not a barrier beach. The form and appearance of the beach change with storms, extreme tidal cycles and the influence of littoral drift.

The uses of the beach, and the results of the use of the beach over the decades, have greatly influenced the appearance of the area. In the 1920's, a series of elevated fishing shacks were built along The Dinsmore and Donnelly shacks were the only structures at this site to survive the Hurricane of 1938. early 1940's, during World War II, the Navy built the Normandie pipeline experimental base on the beach. Later the beach was the Quonset Point Machine Gun Range. The area was used as a target range. The structures included a bunker and an oval shaped track. The bunker is now visible in the water a few hundred yards offshore. Available aerial photos from the late 1940's and early 1950's show the bunker, the track, existing access roads and the existing camp buildings. The theory is that over the years the coastal dune ecosystem evolved over the former target range with accumulation of sand and development of a diversified vegetational community.

Due to the ever present erosion processes at the south shore, during the Summer of 1988 unexploded ordnance was exposed on the shoreline. Fearing for public safety, as it was not known whether

any live ammunition had been used on the site, it was determined by the appropriate agencies that the ordnance should be removed. The Army Corps was in charge of the landward removal and the Navy for After searching the area landward of the dunes for the seaward. ordnance and removal of some 600 pieces during the Fall of 1988, it was determined that the deposition of pieces had been concentrated on the first 1,000 feet of the eastern and western ends of the Therefore, removal of the dunes and excavation of ordnance from the glacial till was limited to those areas. The area seaward of the dunes was similarly cleared of any detected ordnance. dunes were rebuilt, a row of snow fence was installed and the beach grass was replanted during the Spring of 1989. Pedestrian access to the affected areas was severely limited to allow for recovery of The success of the grass was monitored and reports filed the area. for a number of years. Certain sections of dunes were replanted in the Spring of 1990. The area had recovered substantially prior to the arrival of Hurricane Bob in 1991. (A set of slides of the preordnance removal condition of the entire beach and dune system is available at the Edgartown Conservation Commission office.)

In the period the beach was used as a machine gun range, the large manmade dune in the middle of the beach was erected to shield the driver of the target vehicle from machine gun spray. In 1980, the proposed development of lots in the area resulted in removal of the top six feet of the World War II era dune as a means to achieve an The Town took the matter to Court, the ocean view from said lots. This area is end result being that the area was restored. sometimes called the "bread loaf" dune. It is composed of glacial materials, colonized by upland species and most definitely has the appearance of being man made. Since the occurrence of Hurricane Bob in 1991 and subsequent smaller storms, the area has accumulated wind-blown sand, hosts increasing numbers of native grasses, and thus has taken on a more natural appearance.

After the purchase of the property by the Department of Environmental Management (DEM) in 1988, DEM and the Town began making plans for long term improvements to the beach, using a light hand. At that time, they also began plans for eliminating all vehicle parking on the beach itself (south of Atlantic Drive), in order to preserve the vegetation and to reduce the rate of erosion of the beach.

The question of how and when to phase out parking on the beach was answered with the erection of the chain link fence around the perimeter of the beach during the ordnance removal project, beginning in the Fall of 1988. The fence remained in place until 1991, when it was replace with a rail fence installed by DEM personnel with wood milled from the State Forest. Thus, parking on the beach was eliminated and the more direct control of pedestrian access could begin.

Hurricane Bob in 1991 flattened much of the restored dunes at the

South Beach. The eastern end of the beach was especially hard hit, as were the dunes at the mid section of the beach. The force of the hurricane rearranged the location of the Donnelly house which is used as the lifeguard station and equipment storage area during Subsequent to the hurricane, the dune system at the the summer. western and eastern ends of the beach received additional snowfence funded by DEM. Pedestrian access was severely limited to specific DEM applied to FEMA and received funds to purchase Those funds have been entirely boardwalks and snowfencing. expended for the project. With a little luck and much effort put control, the beach has pedestrian access substantially since the storm.

Just prior to the summer season 1995, the DEM/FEMA funded and Edgartown Highway Department constructed boardwalks were installed In consultation with Park at the beach in key locations. Department and Conservation Commission staff, the remainder of the pedestrian trails were delineated by DEM staff with snowfencing. In addition, DEM staff erected symbolic fencing at the point where the beach and dune system meets at both the left and right forks. This is the area of heaviest concentration of beach visitors. symbolic fencing was accompanied by signage explaining the fragile nature of the dunes. This discouraged beach visitors from walking into the dunes in a positive manner and, thus dramatically helped The area of symbolic fencing will be with dune stabilization. The locations and extent of expanded in the coming summers. boardwalks may also expand and change over time.

The Town maintains signage explaining the fragile nature of the area and signs indicating beach access trails and the presence of rip tides and strong ocean currents. DEM has installed kiosks explaining piping plover concerns and beach and dune dynamics.

In the future, there are plans to repair and maintain the snowfence already installed, and to erect a second line landward of the existing snowfence. In addition, the main beach entrances at the ends of Herring Creek Road and Katama Road, have recently been permitted for the installation of snowfence and planting of beach grass. This will hopefully stabilize the sands, preventing windblown sand from accumulating in the adjacent parking lots and around the restroom/changing facilities. Creation of a stable dune area will help prevent washover of the areas during storms.

The Department of Environmental Management should take active measures to address the rapid rate of erosion, including undertaking a study to determine the rate and path of erosion and development of recommendations for addressing this issue. Other than the dune stabilization efforts in place, there don't appear to be many options regarding the impacts of erosion in the face of the rising of sea level world-wide. Exposed as it is to the full force of the open Atlantic Ocean, the beach is not an appropriate site for coastal engineering structures such as seawalls and groins.

MANAGEMENT RECOMMENDATIONS:

No vehicular access on the beach

Manage pedestrian access with some trails delineated with boardwalks and some delineated with snowfencing

Symbolic fencing along areas of beach to prevent pedestrian access into the dunes, with signage explaining the fragile nature of the dunes

Repair and maintain snowfence already installed, and erect a second line landward of the existing snowfence

Main entrances have been permitted for installation of snowfence and planting of beach grass

DEM should take active measures to address the rapid rate of erosion, including undertaking a study to determine rate and path of erosion and development of recommendations for addressing this issue

RARE SPECIES AND HABITATS:

The habitats at South Beach State Park vary from beach and dune to bordering vegetated wetland and sandplain grasslands. The dominant beach vegetation is beach grass. Other vegetation present or likely to be present includes, but is not limited to, poison ivy, salt spray rose, bayberry, beach plum, seaside goldenrod, sea rocket, beach pea, dusty miller, beach heath, seaside spurge, Queen Anne's lace, Japanese knotweed, common saltwort and seabeach orach.

The landward portion of the beach transitions to sandplain grassland habitat/coastal heathlands, with the dominant grass being little bluestem. Specimens of Nantucket Shadbush (listed as a species of special concern under the Mass. Endangered Species Act {MESA} regulations), butterfly weed, pitch pines, and bayberry are also present. The portion of the property north of the herring creek can also be classified under this category. This parcel of land also borders Crackatuxet Cove which is a strangulated cove of Edgartown Great Pond. The end of the cove is composed of bordering vegetated wetlands ranging from emergent grasslands to shrub swamp. The possibility of a sea level fen exists here.

An inventory of the vegetation at South Beach State Park has not been completed and should be done.

Bird species which have been seen hunting over the beach include short eared owl (listed as endangered in MESA regulations), northern harrier (listed as threatened in MESA regulations), American kestrel, and red tailed hawk. Other bird species which may be expected to utilize the upland portion of the beach include,

but are not limited to; savannah sparrows, horned larks, upland sandpipers and grasshopper sparrows.

The coastal beach may be utilized for nesting and feeding by piping plovers (listed as threatened in MESA regulations and US Fish & During a site visit by US Fish & Wildlife biologist Susi Von Oettigen during the application process for FEMA funding for beach restoration projects, she noted that the washover area at the eastern end of the beach is potential plover habitat. noted that the far eastern area of the beach should not be subject to restoration efforts which may adversely affect the habitat. The beach is located within a large area identified as "High Priority Site of Rare Species Habitats and Exemplary Natural Communities" by the Natural Heritage & Endangered Species Program (not equivalent to SIGNIFICANT HABITATS as designated under Ma Endangered Species Act, NOT for use with MA Wetlands Protection Act)9. In the January 31, 1996 Conservation Plan for Piping Plovers in Massachusetts, prepared by the Massachusetts Division of Fisheries and Wildlife, South Beach is among those properties listed in table F-3. table lists habitat rank and provisional abundance objective. South Beach is listed as having .8 mile of B-/C+ and .5 mile of C habitat in a rating system of A+ to D. The provisional abundance objective is listed as four (4) pairs. The preferred habitat for piping plovers is the barrier beach, with feeding opportunities on both sides. Rather than being a barrier beach, the DEM property has shore on only one side, the open Atlantic Ocean, and is not as attractive a piping plover nesting area as are the vast expanses of barrier beach nearby. Should piping plovers never-the-less appear the property, appropriate measures, as required by the Massachusetts Endangered Species Act, will be implemented in accordance with the pedestrian section of the Massachusetts Division of Fisheries and Wildlife's "Piping Plover and Tern Management Guidelines", which is appendixed to this document. quidelines recommend such implementation measures as; delineation of a refuge area of at least 50 yard radius around nests with warning signs and symbolic fencing, and prohibition of kite flying within 200 yards of nesting or territorial adult or unfledged juvenile piping plovers from April 1 to August 31. An exception is that the recommended measure to leash pets will not be implemented. Pets, leashed or otherwise, are prohibited from the beach.

The beach may also be used for nesting by least, common and arctic terns (listed as special concern in MESA regulations). Various other shorebirds may utilize the beach for resting and feeding during their migrations or at other times during the summer, including but not limited to gulls and sandpipers.

⁹Natural Heritage & Endangered Species Program, 1994, "High Priority Sites of Rare Species Habitats and Exemplary Natural Communities"

Mammals which may commonly be found on the property include, but are not limited to; striped skunk, muskrat, raccoon, meadow vole, white tailed deer and feral cats.

Insects which may utilize the site include the northeastern beach tiger beetle (listed as endangered by MESA regulations and threatened by US Fish & Wildlife).

MANAGEMENT RECOMMENDATIONS

Should piping plovers nest at the beach, initiate management measures from DFW Piping Plover and Tern Guidelines (appendixed to plan)

Initiate inventories of vegetation and wildlife, with periodic updates

RECREATIONAL USES

VISITOR ACTIVITIES/LIFEGUARD PROGRAM

extremely popular South Beach is an Edgartown recreational area. Approximately 20,000 people use the beach daily in season. Visitors come from a range of ages and lifestyles. eastern end of the beach, known as "Left Fork", tends to be used by families with young children. The western end, known as "Right Fork", is frequented by young adults and teens. The middle portion of the beach tends to be less densely peopled. Visitor activities include typical beach activities such as swimming and volleyball. All visitor activities are permitted only at the discretion of the lifequards, depending on crowd and other conditions. Kite flying is allowed, at the discretion of the lifeguards, in restricted Pets are prohibited. A complete listing of the Edgartown Park and Recreation Department Rules and Regulations is appended to this document. Should piping plovers nest at the beach, additional restrictions on recreational activities, such as prohibition of kite flying within 200 yards of nesting or territorial adult or unfledged juvenile piping plovers, and delineation of a refuge area of at least 50 yard radius around nests with warning signs and fencing, will be implemented as required by symbolic Massachusetts Endangered Species Act and in accordance with the pedestrian section of the Massachusetts Division of Fisheries and Wildlife's "Piping Plover and Tern Guidelines", which is appendixed to this document.

The lifeguards maintain five towers. Two are located in the "Left Fork" vicinity, two at "Right Fork" and one near the middle portion of the beach. The towers are not fixed to their locations and may be moved in response to changing beach and use conditions. The lifeguards may perform 10-12 rescues per day on a typical day with rough surf conditions, particularly at "Right Fork", where rip conditions are often formed 10. The lifeguards may close the beach to swimming, at their discretion. Daily logs are kept.

Interpretative programs are important. The Department of Environmental Management and/or the Edgartown Park Department should consider staffing an Interpreter/Fire Educator for Martha's Vineyard or to cooperate with the many environmental agencies on the Island to do monthly interpretive sessions.

¹⁰Pamela Dolby, Edgartown Park & Recreation Department Assistant, 1995, personal communication

MANAGEMENT RECOMMENDATIONS

Visitor activities permitted at discretion of lifeguards

Kite flying, at the discretion of the lifeguards, in restricted areas (Should piping plovers nest, kite flying will be further restricted)

No pets

Should piping plovers nest at the beach, initiate management measures from DFW Piping Plover and Tern Guidelines (appendixed to plan)

DEM and/or the Edgartown Park Department should consider staffing an Interpreter/Fire Educator or to cooperate with the many environmental agencies on the Island to do interpretive sessions

VISITOR ACCESS/PARKING

The public needs for access to the beach must be addressed within the context of protection of the physical resources of the beach and dune systems. In order to minimize the erosional impacts of beach use, the pedestrian access is restricted to several boardwalks and some trails bounded on each side with snow fencing. In the event that piping plovers nest at the beach, appropriate management measures may include signage directing visitors to other access points, if necessary. Another important consideration for beach management involves the question of vehicular access on the beach. Vehicular access on the beach is prohibited by both D.E.M. policy and by the Town of Edgartown by-laws. The property is abutted at both ends by barrier beach properties where vehicles are To the East, the County of Dukes County owns and manages Norton Point Beach. The County restricts vehicles from the ocean beach adjacent to the pedestrian beach, in order to maintain compatibility of use with the pedestrian use of the adjacent Vehicles entering Norton Point Beach travel through an inland corridor for approximately the first .1 mile before using the ocean beach. Due to the presence of hatched plover chicks, vehicular access is routinely restricted severely throughout most of the summer. That lack of access to the adjacent property places an added burden of visitor use on the portion of South Beach which abuts Norton Point Beach. At the western end or "Right Fork", the property abuts a barrier beach which is in private ownership and has no vehicle restrictions of any kind. The Commonwealth has no mechanism or known plans to restrict or manage vehicular use on private barrier beaches.

Handicapped access is an important component of the access plan. In addition to providing parking for handicapped use near both the "Left Fork" and "Right Fork" entrances, special "surf

chairs" are available. The Town currently owns two such chairs which are available at the lifeguard towers. The pedestrian boardwalks also provide handicapped access across the sand and onto the beach. The pedestrian boardwalks are flat to the ground, in accordance with the Americans with Disabilities Act, which provides that such structures must be handicapped-accessible; less than 12' from the ground or raised with rails.

Public transportation is of great importance to the accessibility by the general public. The Martha's Vineyard Transit Authority provides shuttle service from the downtown area to the beach, with connections available from the Town's Dark Woods lot and from other Island towns. In 1995, a total of 24,269 people rode the shuttle; 1,879 in June, 11,196 in July, 9,547 in August and 1,648 in September; compared with totals of 23,924 in 1994, 23,759 in 1993 and 21,729 in 1992¹¹. From the monthly totals may be extrapolated averages of 63/day in June, 361/day in July, 308/day in August and 55/day.

The beach is readily accessible by bicycle. A popular bike path runs from downtown along Katama Road to the beach, with extensive connections across Oak Bluffs, Tisbury and West Tisbury. Upon arrival at the beach, the bicyclist finds ample bike rack parking at the end of Katama Road. A small number of people access the beach from the adjacent grass airfield. A number of residences and vacation lodgings are also within walking distance of the beach.

In 1991, the Martha's Vineyard Commission recorded bike counts near the lower end of Katama Road, near the South Beach bike racks. The counts produced an average figure of 77 bicycles per hour, and a total of 308 bicycles in 4 afternoon hours. The 1991 counts were recorded for 1/2 hour intervals for 2 hours on two separate days, as follows¹²:

June 27, 1991		July 11, 1991		
1:00-1:30	20	3:00-3:30	61	
1:30-2:00	23	3:30-4:00	50	
2:30-3:00	36	4:00-4:30	36	
3:30-4:00	62	4:30-5:00	20	
71 bicycles/hour 568 bicycles/day		84 bicycles/hour 672 bicycles/day		

¹¹Martha's Vineyard Transit Authority, 1995, South Beach ridership figures

¹²Martha's Vineyard Commission, 1991, unpublished bicycle counts

The use of bicycles should be monitored on an annual or biannual basis to ensure that adequate bike racks are provided. The absence of adequate bike parking could potentially result in damage to the vegetation and dune ares due to bikes in the dunes, locked to snowfencing, etc.

MANAGEMENT RECOMMENDATIONS

No vehicular access on the beach

Pedestrian access restricted to delineated trails, which may be relocated should piping plovers nest at the beach

Maintain handicapped parking, boardwalks and surf chairs for disabled visitors

Encourage public transportation system

Extensive bike path/rack system should be monitored to ensure that bike rack availability is adequate

VEHICULAR ACCESS

In order to protect beach and dune resources from erosional impacts, vehicular access on the beach itself is prohibited by both DEM policy and by the Town of Edgartown by-laws, although vehicles may use the adjacent barrier beaches at the western and eastern ends of the property, one of which, Norton Point Beach, is managed to restrict vehicles from the ocean beach adjacent to the pedestrian area at South Beach, and the other of which has no vehicular restrictions.

Vehicular access to reach the beach by private automobile is also an option, although extensive public transportation and bike paths are available. There is general parking available for an approximate maximum of 818 vehicles, and overflow parking for approximately 300 vehicles at Katama Farm. Restricted parking is also provided for special purposes such as emergency vehicles and handicapped parking, for approximately 35 vehicles at "Left Fork", 25 vehicles at "Right Fork" and 28 vehicles on one side of Herring Creek Road south of Atlantic Drive. Parking staff is available for coordination.

The general, overflow and restricted parking may be broken down as follows

"Mudhole" off Herring Creek Road	131
Herring Creek Rd. north of Atlantic Dr. (1500', 2 sides)	156
Grass lot off Herring Creek Rd. (on D.E.M. property)	200
3600' parallel parking on north side of Atlantic Dr.	189
400' angle parking on north side of Atlantic Dr.	38
1000' on both sides of Katama Road	<u> 104</u>
total general parking	818
Katama Farm (overflow parking only)	300
"Left Fork" emergency vehicles and handicapped	35
"Right Fork" emergency vehicles and handicapped	25
Herring Creek Rd. south, emergency vehicles & handicapped	<u> 28</u>
grand total - general, overflow & restricted parking	1,206

The 1995 season was the first time that the Town-owned Katama Farm was used for overflow parking. The maximum potential parking capacity at the farm is approximately 300 vehicles. On July 4, 1995, 180 vehicles were parked at the farm. On average weekdays during the summer, the farm was used by two to thirty vehicles per Other than concerns of some neighbors, overflow parking at the farm was successful in 1995 and is likely to be repeated. Massachusetts Director of Conservation Services Joel Lerner reviewed the use for overflow parking and found it to be "not contrary to overall management of the farm". The Katama Farm overflow area is not available or intended for general parking; it is a working farm owned by the Town and leased to a tenant farmer. Parking staff direct drivers to park there only when all the general parking areas are full.

There is potential to reorganize the parking at "Right Fork", to relieve congestion there.

There is arguably a need for additional parking spaces. There is often congestion and illegal parking, particularly in the vicinity of "Left Fork", where beachgoers are often encumbered with small children and are reluctant to park too far away from the beach. The Town and DEM should determine together the need for and parking, providing additional advisability of alternatives regarding any additional parking. Should the need be determined for additional parking, there are a number of options to There is a 600' stretch of road on the north side of consider. Atlantic Drive where parking is not permissible because the terrain slopes steeply toward the Herring Creek. That 600' length of road may be claimed for parking if physical modifications are made to the slope, to provide parallel parking for 32 additional vehicles. On paper, there is an additional 35' of property north of the edge of the pavement, within the road layout. North of the road layout, there is private property in the vicinity of the 600' "No Parking" area, and D.E.M. property elsewhere. Currently, the parking

capacity on the north side of Atlantic Drive is 227 vehicles. With modifications to the 600' "No Parking" area, the parking capacity would be 259.

One option which has been examined and which is not favored by the Department of Environmental Management is the potential to modify the parallel parking plan for the 4600' length of the north side of Atlantic Drive, to utilize angle parking for increased capacity (300 vehicles at an angle of 45 degrees, 441 vehicles at an angle of 60 degrees and 511 vehicles at an angle of 90 degrees). The Department of Environmental Management has registered strong In addition to the available space, opposition to this option. safety considerations must also be weighed. Angle parking would involve backing into the oncoming traffic, creating an increased safety risk over that associated with parallel parking. reason, the Department of Environmental Management has rejected this option in favor of recommendation to use the overflow lot and encouragement of use of bicycles and public transportation.

MANAGEMENT RECOMMENDATIONS

No vehicular access on the beach

Parking staff available to coordinate parking

Option to modify 600' "No Parking" area on north side of Atlantic Drive to provide parallel parking for 32 additional vehicles

Parking staff direct drivers to use Katama Farm for overflow in the event that all other parking is taken

Reorganize parking at "Right Fork"

The Town and DEM should determine together the need and advisability for providing additional parking, and select alternatives regarding any additional parking

MAINTENANCE/OPERATIONS

ENFORCEMENT

The full text of the <u>Edgartown Park and Recreation Department Rules and Regulations</u> is appended to this document. The beach rules and regulations are primarily enforced by the lifeguards, with backup from the Edgartown Park Patrol and Edgartown Police. The lifeguards are authorized to restrict most beach activities, including swimming, at their discretion, in response to crowd and other conditions. Specifically, alcohol is prohibited at public beach areas in Edgartown. However, enforcement has been difficult in the past. There is a proposal to enforce zero tolerance for alcohol, beginning in 1996. Enforcement would require increased police presence, possibly State Police patrol on weekends. The Department of Environmental Management also prohibits alcohol at its properties and should support the Town in staffing and equipment needs.

MANAGEMENT RECOMMENDATIONS:

Lifeguards enforce Edgartown Park and Recreation Department Rules and Regulations

Zero tolerance for alcohol (alcohol is prohibited but enforcement is a problem), DEM should support the Town in staffing and equipment needs

FACILITIES

Temporary restroom and changing facilities were provided for the first time in 1995. They are located at three sites; Fork", central location and "Right Fork". Each site includes 3 male and 3 female restrooms with off-site disposal. The "Left Fork" and "Right Fork" facilities each include a male and a female handicapped accessible section. Facilities were funded by DEM and DEM partially funds rental of portable toilets. These facilities are seasonal in nature and are to be in place at the beach from the end of June to the week following Labor Day. In the event that the National Weather Service issues a Hurricane Watch for the area, the contract for the private contractor who maintains the portable toilets calls for them to be pumped and removed. Staff from the Manuel F. Correllus State Forest (DEM) dismantle and remove the wooden facilities in turn as time allows (8 hours for 2 persons to dismantle each wooden structure). The wooden structures at "Left Fork" and "Right Fork", being more exposed to the ocean, are to be removed prior to removal of the structure in the middle, which is protected by dunes. Storm specifics, such as speed of storm track, vary from storm to storm and will elicit varying evacuation For example, for Hurricane Bob in 1991, a Hurricane responses. Watch was issued for Martha's Vineyard at 8 P.M., followed quickly by issuance of a Hurricane Warning at 11 P.M.. The fast-moving storm struck at 1:00 P.M. the following afternoon, leaving only a few daylight hours for preparation.

Benches have been installed at the trolley stops, funded by Rotary Club donation.

Potential additional facilities include: a shade shelter for the trolley stop, water. A proposal for allowing 2 refreshment concession stands was rejected by the voters of Edgartown by a ballot vote of 601-327 at the Annual Town Election of 1996.

MANAGEMENT RECOMMENDATIONS:

Maintain temporary restroom and changing facilities

Potential shade shelter for trolley stop, water

TRASH/LITTER

Approximately 9-10 trash barrels are available, 2 of which are for recycling. Litter is picked up by the lifeguards and deposited in the dumpster at the guardhouse. Trash in the dumpster is picked up 2-3 times per week. The Edgartown Highway Department picks up large items such as broken beach chairs.

MANAGEMENT RECOMMENDATION:

Provide trash barrels and pickup

APPENDIX I SUMMARY OF MANAGEMENT RECOMMENDATIONS

RESOURCE PROTECTION

DUNE STABILIZATION AND EROSION CONTROL

No vehicular access on the beach

Manage pedestrian access with some trails delineated with boardwalks and some delineated with snowfencing

Symbolic fencing at points along the beach to prevent pedestrian access into the dunes, with signage explaining the fragile nature of the dunes

Repair and maintain snowfence already installed, and erect a second line landward of the existing snowfence

Main entrances have been permitted for installation of snowfence and planting of beach grass

DEM should take active measures to address the rapid rate of erosion, including undertaking a study to determine rate and path of erosion and development of recommendations for addressing this issue

RARE SPECIES AND HABITATS

Should piping plovers nest at the beach, initiate management measures from DFW Piping Plover and Tern Guidelines (appendixed to plan)

Initiate inventories of flora and fauna, with periodic updates.

RECREATIONAL USES

VISITOR ACTIVITIES/LIFEGUARD PROGRAM

Visitor activities permitted at discretion of lifequards

Kite flying, at the discretion of the lifeguards, in restricted areas (Should piping plovers nest, kite flying will be further restricted)

No pets

Should piping plovers nest at the beach, initiate management measures from DFW Piping Plover and Tern Guidelines (appendixed to plan)

DEM and/or Park Department should consider staffing an Interpreter/Fire Educator or to cooperate with agencies on the Island to do interpretive sessions

VISITOR ACCESS/PARKING

No vehicular access on the beach

Pedestrian access restricted to delineated trails, which may be relocated should piping plovers nest at the beach

Maintain handicapped parking, boardwalks and surf chairs

Encourage use of extensive public transportation system

Extensive bike path/rack system should be monitored to ensure that bike rack availability is adequate

VEHICULAR ACCESS

No vehicular access on the beach

Parking staff available to coordinate parking

Option to modify 600' "No Parking" area on north side of Atlantic Drive to provide parallel parking for 32 additional vehicles

Parking staff to direct drivers to use Katama Farm for overflow after all general parking is taken

Reorganize parking at "Right Fork"

The Town and DEM should determine together the need and advisability for providing additional parking, and select alternatives regarding any additional parking

MAINTENANCE/OPERATIONS

ENFORCEMENT

Lifeguards, Park Patrol and Edgartown Police enforce Edgartown Park and Recreation Department Rules and Regulations

Zero tolerance for alcohol (alcohol is prohibited but enforcement is a problem), DEM should support the Town in staffing and equipment needs

FACILITIES

Maintain temporary restroom and changing facilities

Explore potential shade shelter for trolley stop, water

TRASH/LITTER

Provide trash barrels and regular pickup

APPENDIX II

EDGARTOWN PARK AND RECREATION DEPARTMENT

RULES AND REGULATIONS

Under the authority granted by Chapter 45 Sections 2-11 of the Massachusetts General Laws, the Edgartown Park Commissioners do hereby publish the rules and regulations for all public park and beach areas under their jurisdiction.

- 1. No wood, paper, or fibrous fires are permitted.
- 2. No child under the age of twelve (12) may use the beach unless accompanied by a person sixteen (16) years or older who will be responsible.
- 3. Surfing and sailing shall be permitted in designated areas. Surfers and sailors are obligated to check with the lifequards before entering an area.
- 4. Two-wheel vehicles, motorcycles, minibikes, mopeds, A.T.V. and A.T.C.s are absolutely prohibited on all beach and park areas. No towing of paragliders is permitted.
- 5. The consumption of alcoholic beverages in any park or beach area under the direction of Edgartown Park Commission is prohibited.
- 6. Fishing or surfcasting in patrolled beach areas is permitted only in those sections of beach so designated.
 - 7. Dogs or other pets are not allowed on beach areas.
- 8. Interfering with the duties of any Park employee is not permitted.
- 9. The landing and launching of boats within swimming areas is prohibited.
- 10. Kite flying, ball playing, are related activities will be permitted in designated areas only.
 - 11. All Park Department properties close at 12 midnight.
 - 12. All appropriate Town Bylaws will be enforced.

Massachusetts General Laws also prohibit the following on public park and beach areas: Profane or obscene language, sleeping in public, public nudity, discharge of firearms or explosives and littering.

Penalties for violation of the above Rules and Regulations will be not less than \$25.00 nor more than \$50.00 for each offense, with the exception of littering which carries a \$100.00 penalty for each offense.

APPENDIX III

COMMONWEALTH OF MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL MANAGEMENT DIVISION OF FORESTS AND PARKS

MANAGEMENT AGREEMENT

Agreement made this 5th day of June in the year 1985 by and between the Commonwealth of Massachusetts acting by and through its Department of Environmental Management (DEPARTMENT) and the Town of Edgartown (TOWN) acting by and through its Board of Selectmen.

WHEREAS: The DEPARTMENT proposes to acquire title, pursuant to its authority under Chapter 132A, Section 3, to an area known as South Beach (BEACH) in the Town of Edgartown more particularly described in a plan

on file with the DEPARTMENT, and,

WHEREAS: The TOWN is desirous of operating and maintaining said BEACH for public use and enjoyment.

NOW THEREFORE in consideration of mutual covenants herein contained, the parties contract and agree as follows:

I. Responsibilities of the Town

The TOWN agrees, at its own expense:

- (a) to assume complete responsibility for the year round management, operation and maintenance of the BEACH:
- (b) to provide, subject to appropriation, all equipment, (including vehicles and beach cleaning equipment) materials, and supplies necessary for the proper management, operation and maintenance of the BEACH: and to replace said equipment according to a schedule reflecting norman wear and tear;
- (c) The Town will endeavor to provide, subject to Town budget appropriation, qualified personnel. Lifeguard salaries will be at a level no less than the equivalent of the Department's Division of Forests and Parks. The Town shall have two years from the commencement of this agreement to increase its salaries to this level. Salaries higher than the DEPARTMENT's Division of Forests and Parks shall be in accordance with the TOWN Personnel Board's salary schedule.

Title and Function
Beach Director - responsible
for the operation and maintenance
of the BEACH; supervision of
lifeguards; implementing
water safety systems; etc.

Ouantity
1

Maintenance workers, year round - responsibility for the maintenance, repair and cleaning of land structures.

as provided by the Town

Activity Specialists, seasonal - responsible for the interpretation of the BEACH's natural and historical features to include guided walks, exhibits preparation and maintenance, recreational activities, etc.

(Note: this title and and function contingent on implementation of a parking fee.)

Parking attendants, seasonal - collect fees, control parking and perform maintenance tasks.

2 (Note: this title contingent on implementation of a parking fee.

Lifeguards, seasonal - responsible for the supervision of bathers and beach users, rescue and first aid and maintenance. The number and qualifications of lifeguards, types of rescue equipment, etc., shall, at a minimum, be in accordance with the Commonwealth Environmental Code.

The TOWN shall provide at least one lifeguard station per 500 feet of supervised beach. Unsupervised portions of beach shall be adequately posted to warn bathers.

- (d) to provide for adequate police and fire protection;
- (e) to operate the BEACH for the convenience of the general public and to permit only those uses and activities that are compatible with the BEACH's natural environment. The TOWN shall make the BEACH accessible for use by the general public in accordance with the following minimum schedule of operation;

Swimming

From second Saturday in June through Labor Day. 7 days a week, 10 A.M. to 5 P.M..

General Use

Year round, 7 days a week, 1/2 hour after

sunrise to 1/2 hour before sunset; use at other hours is subject to special conditions imposed by the TOWN.

- (f) to uniform those personnel who are visible to BEACH users (such as lifeguards, parking attendants, etc.);
- (g) to comply with, and to enforce public compliance with the public regulations of the DEPARTMENT's Division of Forests and Parks; (304 Code of Massachusetts Regulations);
- (h) to submit its annual (July 1 June 30) operating budget request to the DEPARTMENT for review and approval during each year of this agreement (submission 30 days prior to Town Meeting);
- (i) to assist the DEPARTMENT's Division of Forests and Parks with the preparation of a MANAGEMENT PLAN which shall consist of

Land use zones for the BEACH
Natural Resources Inventory
Recreation Resources Inventory
Required equipment and supplies
Staffing Plan
Beach Improvement projects (future)
Resource protection plans for law
enforcement, fire, insect pests, soil
protection, water, rare and endangered plants
and animals, dunes, etc.;

(j) provide public toilet facilities during the swimming season.

The TOWN further understands that it shall be permitted to impose a daily parking fee in an amount not to exceed those charges currently imposed in day use areas of the DEPARTMENT's Division of Forests and Parks. If a separate fee for non-residents of the TOWN is imposed, it shall be subject to the approval of the Division of Forests and Parks. Revenues collected each year that are in excess of the TOWNS's annual operating expenses for the BEACH shall be paid to the COMMONWEALTH'S General Fund by the TOWN no later than 30 calendar days after the end of the TOWN's fiscal year. A financial statement shall be sent to the DEPARTMENT by the TOWN, at the same time, showing the revenues received of the year and annual operating expenses for the BEACH.

- II. Responsibilities of the DEPARTMENT
 The DEPARTMENT agrees, at its own expense:
 - (a) to provide essential capital improvements.

such as, but not limited to; well defined parking areas, rest room facilities and first aid stations, to the BEACH before and during its opening as may be provided by appropriation;

- (b) to provide staff consulting services to the TOWN, when requested, in the areas of management, maintenance, interpretive programming, planning and design;
- (c) to provide the TOWN with the current salary schedule of the Division of Forests and Parks, the current rules and regulations of the Division of Forests and Parks and the current user fee schedule.

III. Management Committee

Within three months of the execution of this agreement, the TOWN shall formulate a South Beach Advisory Committee which shall advise the TOWN in the area of BEACH management and development. The committee shall be appointed by the Commissioner of the Department of Environmental Management and shall include all members of the Park Commission, representatives from the Department of Environmental Management and individuals recommended to the Commissioner by the Board of Selectmen. The Committee shall meet at least four times per year and additional meetings shall be at the direction of the Committee Chairperson, DEPARTMENT or TOWN.

- IV. Upon the termination of this agreement, any building or other structure of a permanent nature, pipes, drains and all improvements made on the premises shall become the property of the DEPARTMENT.
- V. All signs posted in public view shall be subject to the approval of the DEPARTMENT.
- VI. The BEACH shall be open to entry and use by all persons regardless of race, color, religion, sex, national origin or place of domicile, except that the fees specified in Section I. above may be imposed by the TOWN for non-residents of the TOWN.
- VII. This agreement shall take effect upon execution by both parties and shall be self-renewing from year to year unless terminated by either party upon thirty (30) days written notice.
- VIII The TOWN, by acceptance of this Agreement, assumes all liability for any cause of action arising out of its management of the BEACH. The TOWN hereby agrees to

hold and save the DEPARTMENT harmless and indemnified from any and all claims or demands for damages, either in law or equity arising out of or by virtue of its management of the BEACH.

- IX. It is hereby understood and agreed that the Agreement dated December 9, 1980, between the two parties, pertaining to the management of the BEACH is hereby null and void upon execution of this Agreement.
- X. The TOWN agrees to obtain all necessary permits, licenses and approvals required by Federal, State and local laws, statutes or regulations relative to the operation, construction or physical alteration of the BEACH.

IN WITNESS WHEREOF, we have hereunto set our hands on the date first above written.

Commonwealth of Massachusetts Department of Environmental Management

BY: <u>James Gutensohn</u> Commissioner

TOWN OF EDGARTOWN BOARD OF SELECTMEN

BY: <u>Fred B. Morgan, Jr.</u> Chairperson

> Edith W. Potter Selectman

Thomas A. Durawa Selectman

PARK DEPARTMENT

BY: <u>Nancy E. Shemeth</u> Chairperson

Marilyn R. Scheerbaum Commissioner

Susan Gamble Commissioner

APPENDIX IV

MASSACHUSETTS DIVISION OF FISHERIES AND WILDLIFE PIPING PLOVER AND TERN GUIDELINES 21 APRIL 1993

...MANAGEMENT OF OTHER RECREATIONAL USES

The activities discussed in this section are not subject to the jurisdiction of the Wetlands Protection Act because they are not considered to be alterations of wetland resource areas. The following guidelines should only be applied in reference to the Massachusetts Endangered Species Act.

On beaches where pedestrians, joggers, sun-bathers, picnickers, fishermen, boaters, horseback riders or other recreational users will be present in numbers that could harm or disturb incubating plovers or terns, their eggs, or chicks, refuge areas of at least 50 yard radius around nests and above the high tide line should be delineated with warning signs and symbolic fencing. Only persons engaged in rare species monitoring, management, or research activities should enter refuge areas. Refuge areas should remain fenced as long as viable eggs or unfledged chicks are present.

Refuge areas around nests should be expanded if a 50 yard radius is deemed inadequate to protect incubating adults or unfledged chicks from harm or disturbance. This may include situations where plovers or terns are especially intolerant of human presence, or where a 50 yard radius refuge provides insufficient escape cover or alternative foraging opportunities for plover If nests are discovered outside fenced areas, fencing should be extended to create a sufficient buffer to prevent harm or disturbance to incubating adults, eggs, or unfledged chicks. On some beaches where plovers and terns have traditionally nested or where suitable habitat occurs, it may be necessary to symbolically fence portions of habitat during March or April, prior to plover nesting, or during May, prior to tern nesting, if, in the opinion of the Division, failure to do so could discourage plovers or terns from nesting as a result of disturbance from human use.

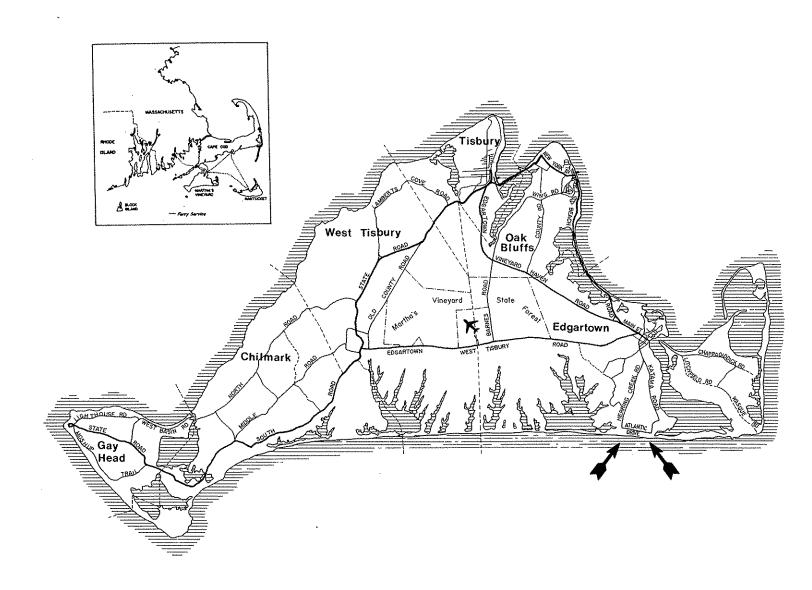
Rearing or nursery areas used by unfledged or recently fledged tern chicks, as identified by the Division, should be delineated with posts, warning signs, or symbolic fencing not later than June 21. Only persons engaged in rare species monitoring, management, or research should enter posted or fenced tern nursery areas while unfledged tern chicks or tern chicks being fed by adult terns are present, although individuals may pass by outside these areas. Such nursery areas may be re-opened when all tern chicks have fledged and are not being fed by adult

terns.

Pets should be leashed and under control of their owners at all times from April 1 to August 31 on beaches where piping plovers or terns are present or have traditionally nested. pets should be prohibited on these beaches from April 1 through August 31 if, based on observations and experiences, pet owners fail to keep pets leashed and under control.

Kite flying should be prohibited within 200 yards of nesting or territorial adult or unfledged juvenile piping plovers or terns from April 1 to August 31.

Fireworks should be prohibited on beaches where plovers or terns nest from April 1 to August 31.



SOUTH BEACH

EDGARTOWN, MASSACHUSETTS