

Strathmere Natural Area Management Plan

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Introduction

This management plan for the Strathmere Natural Area will describe the resource features which this site contains and then prescribe uses and practices that will be allowed and implemented to maintain and, if practicable, enhance these features.

Creation of the Natural Areas System was mandated under the Natural Areas System Act of 1976 (N.J.S.A. 13:1B-15.12a et seq.). A "Natural Area" is defined at N.J.A.C. 7:5A-1.3 as "an area of land or water, owned in fee simple or as a conservation easement by the Department, which has retained its natural character, although not necessarily completely undisturbed, or having rare or vanishing species of plant or animal life, or having similar features of interest, which are worthy of preservation for present and future residents of the State".

Strathmere Natural Area lies within Upper Township, Cape May County and is part of the Outer Coastal Plain physiographic province of New Jersey. The natural area is approximately 98 acres in area and is located east of Ocean Drive at the north end of Commonwealth Avenue (Route 636). Figure 1 shows the general location of the natural area. The boundary of the natural area is indicated in Figure 2.

Strathmere Natural Area, which is within Corson's Inlet State Park, was acquired by the State of New Jersey from the Natural Lands Trust (Pa.) on September 23, 1969 with monies from The New Jersey Green Acres Land Acquisition Act of 1961. On May 25, 1970 the 98-acre parcel was assigned to the Division of Parks and Forestry. On August 16, 1983 the State acquired Block 866, lot 10 which was a private inholding.

The designation objectives for this natural area under the Administrative Code include "Preservation of a dune habitat, plant community associations, and rare species habitat." The Administrative Code also mandates the preparation of this management plan.

The Division of Parks and Forestry, through Belleplain State Forest, serves as the administering agency, being responsible for implementing policy and, after consultation with other Divisions, organizations and individuals, making land management decisions affecting Strathmere Natural Area. Belleplain State Forest shall implement the management policies necessary to achieve the designation objectives of this plan.

The Office of Natural Lands Management (ONLM) is responsible for overall administration of the Natural Areas System, promulgation and revision of rules governing System lands, and preparation of management plans. The ONLM also periodically monitors implementation of the management techniques outlined in management plans, and may propose amendments to plans as needed.

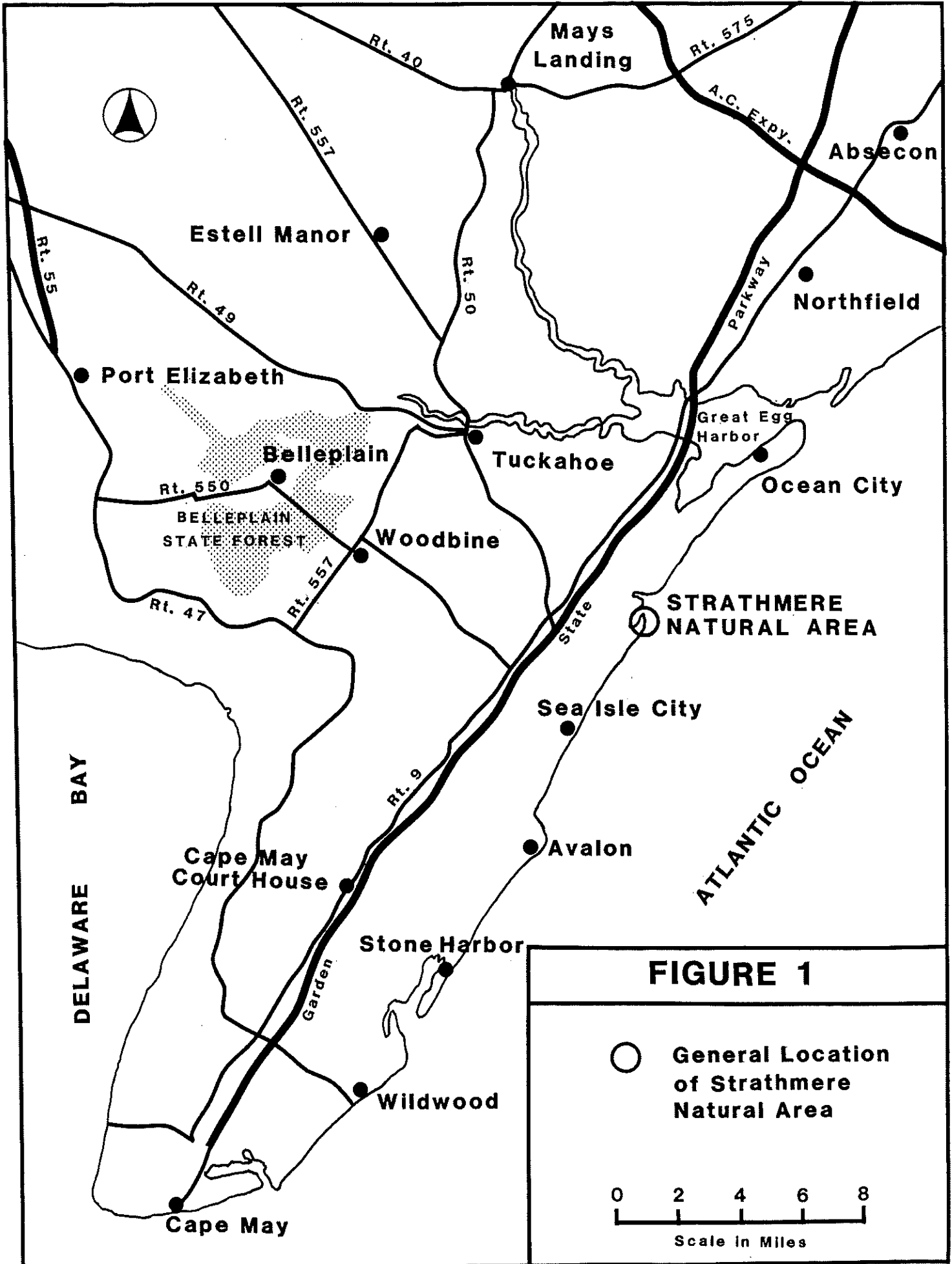
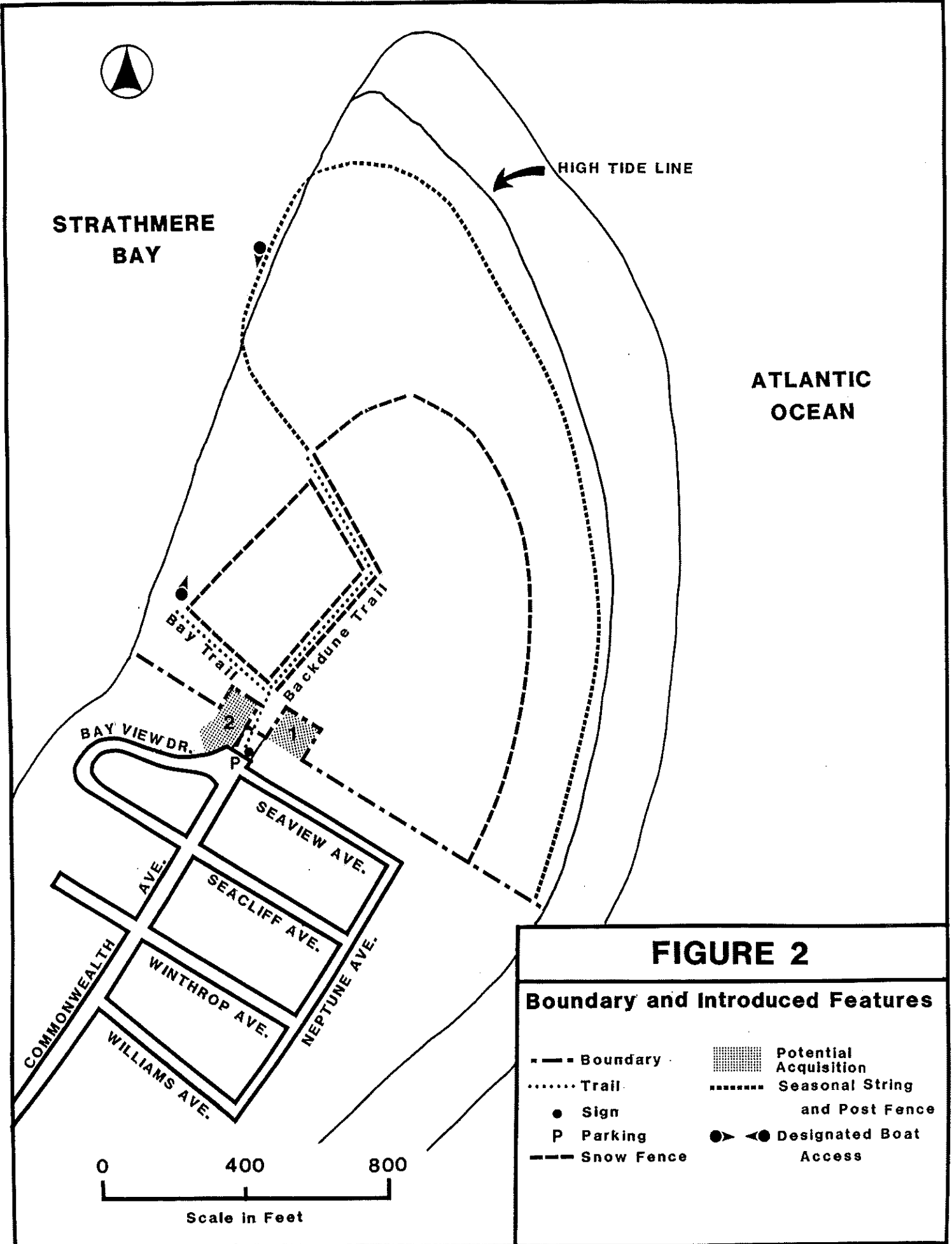


FIGURE 1

○ General Location of Strathmere Natural Area

0 2 4 6 8
Scale in Miles



Description and Management Concerns

Geology and Soils

The Outer Coastal Plain area consists geologically of Quaternary beach sand and gravel (Geologic Map of NJ, 1910-1912).

The predominant soil association within the natural area is Coastal beach-Urban land. This association includes nearly level to strongly sloping barrier beaches and areas developed for residential and commercial uses (U.S. Department of Agriculture, 1977).

Topography and Surface Hydrology

Strathmere Natural Area lies within the Outer Coastal Plain physiographic province (Wolfe, 1977). Elevation ranges from sea level to 20 feet.

The natural area is part of the Atlantic Coastal Basin and is within the Jones Creek Watershed. Three bodies of water are associated with the natural area. Strathmere Bay borders on the west, Corson's Inlet on the north and the Atlantic Ocean on the east.

Biotic Communities

The community classifications in Figure 3 were derived from information obtained in Breden (1989) and field examination by the author on July 15 and November 8, 1991. Figure 3 indicates only general locations and approximate boundaries for the various community types. Animal species likely to be found in the natural area were derived from the DEPE's Natural Heritage Database based on suitability of the habitat to support such species. The Database search was conducted in September 1991.

The entire coastal dune habitat at Strathmere is likely to support many species of birds including ruddy turnstone (*Arenaria interpres*), fish crow (*Corvus ossifragus*), herring gull (*Larus argentatus*), laughing gull (*Larus atricilla*), least sandpiper (*Calidris minutilla*), roseate tern (*Sterna dougallii*), common tern (*Sterna hirundo*) and Wilson's plover (*Charadrius wilsonia*). Reptiles that may be found within the natural area include Atlantic green turtle (*Chelonia mydas*), diamondback terrapin (*Malaclemys terrapin*), milk snake (*Lampropeltis triangulum*) and eastern fence lizard (*Sceloporus undulatus*).

Coastal Dune Grass Community

This community type occupies a large portion of the peninsula and is dominated by American beachgrass (*Ammophila breviligulata*). Other species vegetating the primary dune include seaside goldenrod (*Solidago sempervirens*), sea rocket (*Cakile edentula*), seaside spurge (*Euphorbia polygonifolia*), beach pea (*Lathyrus japonicus*) and beach pinweed (*Lechea maritima*).

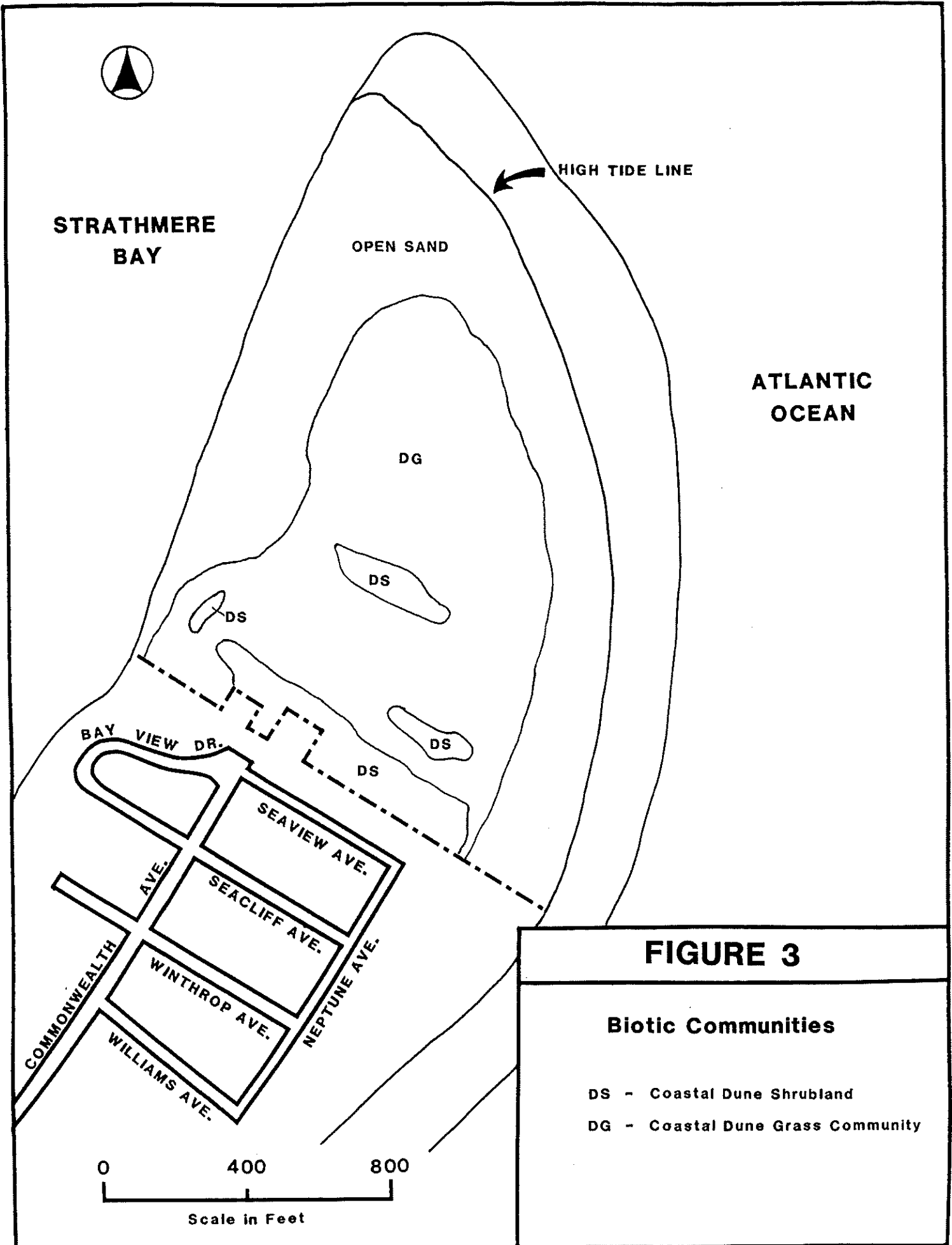


FIGURE 3

Biotic Communities

- DS - Coastal Dune Shrubland
- DG - Coastal Dune Grass Community

Coastal Dune Shrubland

The vegetation of several portions of the peninsula consists of shrubs and small trees. This shrubland vegetation is characteristic of back dunes and secondary dunes landward of the Coastal Dune Grass Community.

The dominant tree in the backdunes is eastern red cedar (*Juniperus virginiana*). Shrubs dominating the backdune include beach plum (*Prunus maritima*) and bayberry (*Myrica pensylvanica*). Virginia creeper (*Parthenocissus quinquefolia*) and poison ivy (*Toxicodendron radicans*) occur in the herbaceous layer along with beach heather (*Hudsonia tomentosa*) which dominates open patches.

Endangered Species

According to the Natural Heritage Database, there are currently three state endangered bird species which occur in Strathmere Natural Area. These include least tern (*Sterna antillarum*), piping plover (*Charadrius melodus*) and black skimmer (*Rynchops niger*). In 1986, the U.S. Fish and Wildlife Service included the Atlantic coast piping plover on the Federal Endangered Species List as a threatened species (Jenkins, 1990). Least terns and piping plovers were observed during a field visit by the author on July 15, 1991.

The following nesting data for Strathmere Natural Area was obtained from Jenkins (1990).

Species	Year last present	Avg. # of birds (n yrs.)	Trend	Average success (n yrs.)	Avg. # fledged per pair (n yrs.)
P. plover	1990	4.8 pr. (6)	stable	0.50 (3)	0.39 (3)
L. tern	1990	240.0 (6)	increasing	-----	0.37 (4)
B. skimmer	1989	23.5 (3)	sporadic	-----	0.00 (2)

Jenkins (1990) contains Site Management Plans for beaches owned and controlled by Federal and State agencies and land conservation trusts. The Site Management Plans are divided into sections including site information, nesting information, threats, management history and management recommendations.

Ideal management recommendations by Jenkins (1990) for beach-nesting birds at Strathmere include the following: seasonal string and post fencing around the entire peninsula just above high-tide line to reduce human disturbance and allow nesting to become established; seasonal nest site closure (string and post fencing specifically for piping plover nest site protection); seasonal night closure to prevent adult piping plovers from being disturbed while foraging at night; full-time patrolling on weekends and holidays and

daily part-time patrolling during the week from Memorial Day weekend to Labor Day; initiation of a feral cat removal program; use of predator exclosures; and development and posting of informational/interpretive signs on the beach, bay and main access path. Further recommendations include prohibition of the following: pets on the entire beach from April to August, picnicking, jogging, ball playing, frisbee playing, kite flying or boat landing from April 15 to September 1. In addition, the draft plan generally discourages artificial dune building and enhancement, as such techniques would negatively impact endangered beach-nesting birds by altering the habitat known to be suitable for such activity (David Jenkins, pers. comm.).

According to Jenkins (1990), the exclosures allow for entry and exit by the plovers while preventing entry by most predators. Notable exceptions include rats and blackbirds. Another limitation of exclosures is that they do not protect plover chicks since they leave the exclosure immediately following hatching (Jenkins, 1990). Currently, feral cats are suspected to be a significant threat to beach-nesting birds at Strathmere Natural Area (David Jenkins, pers. comm.). The possibility also exists that other predators, such as fox and rats, may be detrimentally affecting the beach-nesting bird population.

The staff of the Endangered and Nongame Species Program currently monitors the area and installs string and post fencing around the core dune area to protect the bird's habitat. The Endangered and Nongame Species Program indicates that the fencing is usually installed in April and removed by September each year. Signs reading "Area Closed," along with an explanation, are posted along the trails and around the upper dune area.

Boundaries

The currently accepted boundary of the Strathmere Natural Area is indicated in Figure 2. With two exceptions, the boundary is a straight line running 100' north of and parallel to Seaview Drive from the Atlantic Ocean to Strathmere Bay. Two lots along the boundary are of interest to the Division of Parks and Forestry. The Green Acres Program has determined ownership and dimensions of the property indicated as Block 862, Lot 1. Block 862, Lot 1 is 200' x 100' with the northern 100' jutting into the natural area (Figure 2, potential acquisition 1). This 100'-square back portion of the lot is surrounded on three sides by natural area and features habitat represented within the natural area. Green Acres has been authorized to acquire Block 866, Lot 8 which is adjacent to the natural area near the access at Commonwealth Drive (Figure 2, potential acquisition 2). The lot is subdivided into lot 8.01 and 8.02. Lot 8.01 has a structure on it that could be used as a contact station should the property be acquired. In a memo from Superintendent Thomas Keck to Thomas Hampton, dated April 21, 1992, Mr. Keck indicated that Block 862 Lots 8.01 and 8.02 had been purchased. The memo also states that construction had begun on a five bedroom, 3045-square foot home on lot 8.02, which was previously vacant.

Numerous paper streets currently exist within the boundary of the Strathmere Natural Area. The portion of Commonwealth Avenue north of the intersection with Seaview Avenue is a paper street. Upper Township has given Superintendent Tom Keck informal approval to use the north end of Commonwealth Drive, where the pavement ends, as the

boundary of the natural area. Five additional paper streets exist within the current boundary of the natural area.

A conflict exists over ownership rights of the piece of property, within the current boundary, which was once slated to become a residential development (Sareta Haven) but was never constructed. The Upper Township Engineer indicates that the property is in the same category as a paper street. This categorization implies that if the State was to seek vacation of the property, adjacent landowners would have rights to some portion of the property.

Public Use

Currently the area is used for walking, jogging, sunbathing, swimming, picnicking, fishing, birding and volleyball. The stretch of beach along Strathmere Bay is used by boaters to beach their craft so they can access the beach and dune areas. Boaters are known to traverse the dunes to access the ocean beach (David Jenkins, pers. comm.). Superintendent Tom Keck indicates that the number of users arriving by car is dependent upon available street parking; many users access the natural area by boat or by foot.

No contact station or information board currently exists at the natural area. Visitors park their vehicles outside of the natural area at the north end of Commonwealth Avenue. This area can accommodate approximately five cars (Figure 2).

No vehicles are allowed on the natural area except for emergency and government vehicles on official business. These vehicles can access the beach at the intersection of Williams Avenue and Neptune Avenue (Figure 2).

In June of 1991 staff of the administering agency installed two pilings with signs approximately 800 feet apart adjacent to Strathmere Bay to inform boaters that they can only land and launch their water craft in the designated area between the two pilings (Figure 2).

No seasonal staff was available to patrol the natural area during the 1991 season. Rangers patrolled the area approximately once a week, usually on the weekend. According to Superintendent Tom Keck seasonal staff is available for the 1992 season and will be patrolling the natural area daily. Clean Communities crews will also be working at the natural area this season.

The Division of Parks and Forestry cooperates with the Marine Police from North Wildwood, and together they make unannounced boat patrols of the waters around Strathmere Natural Area.

Dune Management and Introduced Features

Snow fence occurs on both sides of the two trails in the natural area, primarily to delineate the trails and also as a means of keeping users off the dunes (Figure 2). The

New Jersey Beach Buggy Association helps install snow fencing along the trails at the natural area each year. The dune building effects of snow fence in this area does not pose a threat to the endangered beach-nesting birds because this portion of the dune system is not prime endangered beach-nesting bird habitat (David Jenkins, pers. comm.). No dune building or repair has been pursued in this area in recent history, and the dunes at Strathmere have not migrated shoreward at least since 1985 (Tom Keck, pers. comm.)

The two trails in the natural area originate at the access point near the residential area (Figure 2). The Bay Trail heads westward toward Strathmere Bay and the Backdune Trail heads northeast for approximately 500 feet then bears northwest and leads to Strathmere Bay.

Currently, string and post fencing of the dune area is installed and maintained by the Endangered and Nongame Species Program staff. Posts are installed in the ground and string is tied between each set of posts. Ribbon is tied to the string for increased visibility by the public. The fencing is installed around the entire core dune area, but does not restrict access to people entering the natural area from the beach or bay (Figure 2). Signs are posted which include a drawing of each of the endangered beach-nesting birds and ask that the public stay out of the posted nesting area (David Jenkins, pers. comm.).

A minor litter problem exists at Strathmere. Trash cans are present at the entrance to the natural area near the residential area and at the oceanside beach access. Superintendent Tom Keck indicates that Clean Communities Crews are frequently active in the natural area during the summer months.

A wooden routed natural area sign exists near the boundary of the natural area at the residential area access on township owned property (paper street) just outside of the natural area (Figure 2). Currently there are no natural area signs at the ocean or bay access points.

Management Techniques

Natural Areas System Rules

Relevant sections of the rules and regulations concerning Natural Areas and the Natural Areas System (N.J.A.C. 7:5A-1.1 et seq.) appear in Appendix A. An important function of these rules is to provide general interim management guidelines for all natural areas for which management plans have not been prepared. Upon preparation of a management plan, interim management guidelines may continue or may be superseded by management techniques more appropriate to fulfill the designation objective of the natural area. The following analysis will outline management and uses contrary or supplemental to existing rules. Appendix A should be consulted by managers for guidance on issues not covered below.

Designation Objective

The designation objective for Strathmere Natural Area is "preservation of a dune habitat, plant community associations, and rare species habitat."

The following management techniques are directly related to previous sections of this plan and the interim management guidelines found in Appendix A. Techniques are based in part on consultation with appropriate agencies, individuals, and the Natural Areas Council, and are designed to adequately maintain, and, if possible, enhance the quality of the natural area.

Throughout this section, administering agency refers to the Division of Parks and Forestry, through Belleplain State Forest.

Endangered Species

1. The Division of Fish, Game and Wildlife will continue to monitor the endangered beach-nesting bird populations at Strathmere Natural Area.
2. The Division of Fish, Game and Wildlife will construct string and post fencing as needed around the peninsula just above high-tide line in April and will remove it by September 30 to reduce human disturbance and allow nesting to become established (Figure 2).
3. The administering agency may post signs in areas of anticipated foot traffic through the posted nesting area to direct the public to appropriate trails.
4. The Division of Fish, Game and Wildlife will construct seasonal nest site closure fencing on either side of a located piping plover nest immediately prior to or within one day of clutch completion (late April-early June) or when located, if the clutch is already complete, as needed. Fencing will be aligned perpendicular to the water and may extend to the high tide line on the beach side and extend into the back dune on the bay side. In the case where a nest is established near the narrow, northern tip of the natural area, the fencing may extend past the high-tide line on the bay side, but may not so extend on the ocean side. All seasonal nest site closure fencing will be removed after the chick(s) from that nest have fledged (usually by August 15).
5. The Division of Fish, Game and Wildlife will construct predator exclosures around plover nests as needed. These 10'-diameter structures will be constructed of 2" x 4" hardware wire fencing encircling the nest. The bottom of the exclosure will be buried in the sand and the top opening fitted with twine or netting.
6. The administering agency will develop and distribute a flyer by December 31, 1992 to the residents near the Strathmere Natural Area informing them of new restrictions in effect between April 1 and September 15 (pet prohibition and night closure), and the reasons for the restrictions. Additional educational materials,

developed by the administering agency or the Division of Fish, Game and Wildlife, may be distributed to residents during the summers of 1993 and 1994 in order to stress the importance of species protection and pet incompatibility.

7. The Division of Fish, Game and Wildlife, in cooperation with the administering agency, will close the Backdune Trail should a piping plover nest be located within 50 meters of the trail. This access may be reopened when chicks vacate the nest (mid-May to late July). The Bay Trail will be kept open at all times.
8. The administering agency will construct and post seasonal night closure signs by April 1 each year and replace as needed, at the beach, bay and Commonwealth Avenue access points stating "Area closed at dusk April 1 - September 15" to prevent adult piping plovers from being disturbed while foraging at night.
9. The administering agency will obtain and post a sign (available from the Division of Fish, Game and Wildlife) by December 31, 1992 indicating hazards to beach-nesting birds.

Boundaries

1. The administering agency will post State Natural Area signs along the boundary of the natural area and at the beach and bay access points by December 31, 1992. Signs will be replaced as needed.
2. The Division of Parks and Forestry and the Green Acres Program will seek vacation of the following paper streets which exist in the natural area: Seaspray Avenue, Seabreeze Avenue, Dorance Avenue, Bayview Drive, Unnamed Street and the portion of Commonwealth Drive north of its intersection with Seaspray Avenue by June 30, 1993.
3. By December 31, 1992, ONLM will seek legal advice regarding the vacation of the proposed Sareta Haven development.
4. Purchase of the undeveloped portion of Block 862, Lot 1 (Figure 2, potential acquisition 1) should be pursued by the Division of Parks and Forestry and the Green Acres Program if funding becomes available. Should this acquisition occur, it will be proposed for addition to the Strathmere Natural Area.
5. Purchase of Block 866, lots 8.01/8.02 (Figure 2, potential acquisition 2) could be an asset to the natural area and their acquisition should be pursued by the Division of Parks and Forestry and the Green Acres Program if funding becomes available. Should either or both lots (8.01/8.02) be acquired by the State, they will be proposed for addition to the Strathmere Natural Area.

Public Use

1. The administering agency will maintain the pilings and signs designating the area for landing and launching of water craft in Strathmere Bay.
2. The administering agency will construct, install and maintain an information board at the access point at Commonwealth Drive by April 1, 1993.
3. The administering agency will prohibit pets on the entire beach from April 1 to September 15. The administering agency will post a sign indicating this prohibition, along with the reason for the pet ban, at all entrance points.
4. The administering agency, in consultation with the ONLM and the Endangered and Nongame Species Program, will limit and/or restrict recreational activities if it believes that the activity is detrimental to beach-nesting birds (see Appendix A, N.J.A.C. 7:5A-1.9(e)16).
5. The administering agency will obtain all applications to conduct research or collect specimens, forward a copy to ONLM, and provide a response within 30 days of application submittal. The administering agency shall coordinate response with ONLM.
6. The Division of Fish, Game and Wildlife's Endangered and Nongame Species Program will continue to provide educational information about endangered beach-nesting birds to citizens via the Strathmere Post Office and lifeguard station.

Dune Management and Introduced Features

1. The administering agency will maintain the existing snow fence along the trails.
2. Current dune management techniques by the administering agency will be continued in the natural area. Any repair of the dune line with snow fencing should be staggered to allow for an irregular primary dune line. If a blowout or other major damage to the primary dune occurs, the administering agency, in consultation with the ONLM and the Division of Fish, Game and Wildlife, will evaluate the need for dune reconstruction. Such evaluations will be made on an individual event basis. Conflicts over dune reconstruction actions will be resolved by the Natural Areas Council.
3. Should erosion or other factors result in the exposure of cultural remains within the natural area, the administering agency will contact the Office of New Jersey Heritage to determine the potential and appropriateness for non-damaging site stabilization and/or investigation of the cultural remains exposed.

Enforcement

1. The administering agency will conduct law enforcement patrols at a minimum of four times per month and every weekend from Memorial Day through Labor Day.

Literature Cited

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Appendix A

INTERIM MANAGEMENT PRACTICES FOR NATURAL AREAS

From Natural Areas System Rules
(N.J.A.C. 7:5A-1.9 et seq.)

7:5A-1.9 INTERIM MANAGEMENT PRACTICES

- (a) Interim management practices shall be implemented by the administering agency, provided that:
 - 1. The practice will have no direct or indirect adverse impact on natural features of concern;
 - 2. The administering agency notifies the secretary of the Council, in writing, no later than 30 days after initiating the practice;
 - 3. Approval of the Commissioner is not required by provision elsewhere in this subchapter; and
 - 4. The practice is consistent with terms of any conservation easement held by the Department.
- (b) Interim management practices listed at (e) or (f) below which require the approval of the Commissioner shall first be submitted to the Council for its review and recommendation.
- (c) Upon finding that an interim management practice listed below at (e) or (f) would be detrimental to achieving a specific designation objective, the Council shall recommend to the Commissioner the substitution of a more appropriate interim management practice. Should the Commissioner concur with the recommendation of the Council, the Commissioner may approve substitution by a more appropriate interim management practice.
- (d) Where there are conflicts between general practices described below at (e) and practices specific to a natural area classification described below at (f), the latter shall apply.
- (e) The following interim management practices apply generally to all natural areas upon designation to the System and until and unless superseded by the provisions of an adopted management plan:

1. Natural area boundaries shall be made clearly evident by posting signs at a maximum density of ten signs per mile; entrance points shall be posted to indicate to users that they are entering a natural area; boundary signs shall be of a standard size and format as approved by the Commissioner and provided by the Division;
2. Boundary fences that are needed to protect the natural area may be installed provided the fence shall not have a detrimental effect on movement of wildlife, air circulation, or other natural conditions;
3. Vehicular access lanes may be maintained within a natural area but may not be enlarged in any manner except upon approval of the Commissioner.
4. Existing firebreaks within a natural area may be maintained for safety purposes; temporary firebreaks made by mowing, raking, plowing or wetting, may be used in conjunction with prescribed burning for habitat management;
5. Existing structures may be maintained in a natural area; new structures and enlargement of existing structures may be undertaken upon approval by the Commissioner, provided the structures directly or indirectly contribute to the designation objective; new structures, of a temporary nature, may be constructed for research purposes in accordance with N.J.A.C. 7:5A-1.10;
6. No measures, such as cutting of grass, brush, or other vegetation, thinning of trees, opening of scenic vistas, or planting, shall be taken to alter natural processes or features for the purpose of enhancing the beauty or neatness of a natural area;
7. Except as otherwise provided in this section, there shall be no introduction, removal or consumptive use of any material, product, or object to or from a natural area; prohibited activities include grazing by domestic animals, farming, gathering of plants or parts thereof, mining or quarrying, and dumping, burying, or spreading of garbage, trash, or other materials; structures or materials may be removed as follows:
 - i. Old interior fences may be removed, giving consideration to leaving posts to mark boundaries between former land uses;
 - ii. Rubbish or any other waste material may be removed; and
 - iii. Structures having no historic, scientific or habitat value may be demolished and removed unless such structures are deemed essential for administrative purposes;
8. Water levels within a natural area shall not be altered except to restore water levels which have been altered due to a sudden natural phenomena or man-induced conditions off-site; routine repairs to existing water control structures may be undertaken but the structures may not be enlarged;

9. All wildfires shall be brought under control as quickly as possible; after a fire within a natural area, there shall be no cleanup or replanting except as approved by the Commissioner to achieve the designation objective or for reasons of health and safety;
10. Prescribed burning, to eliminate safety hazards and to manage habitat, may be conducted upon review of a proposal for prescribed burning by the Council and approval by the Commissioner; use of vehicles and equipment shall be specified in the proposal for prescribed burning;
11. Erosion control within a natural area shall not be undertaken except to restore existing grades which have been altered due to a sudden natural phenomena or man-induced conditions within or beyond the natural area;
12. Habitat manipulation may be undertaken if preservation of a particular habitat type or species of native flora or fauna is included in the designation objective of the natural area and upon approval by the Commissioner of a specific habitat manipulation plan prepared by the Department.
13. Gypsy moth control activities may be implemented as an interim management practice after approval of a gypsy moth control plan by the Commissioner; the Commissioner shall review a gypsy moth control plan only after the State Forester has determined that egg mass counts and prior year defoliation indicates that tree mortality will be severe without intervention; to the extent practicable, biological controls, rather than chemical means, shall be used to control gypsy moths;
14. There shall be no physical manipulation of a natural area or application of chemicals known as adulticides for the purpose of controlling mosquitoes; the application of larvacides may be permitted in salt marshes only and only as follows:
 - i. The application of *Bacillus thuringiensis* var. *israelensis* (BTI) may be initiated by a mosquito control agency at any time; and
 - ii. The application of other larvacides may be initiated upon approval by the Commissioner of a specific mosquito control plan submitted by a mosquito control agency; the plan shall identify the specific area where a larvacide application will be made, the types and amount of larvacide to be applied, the need for the application, and the reason why BTI cannot be used for this application;
15. Research activities and the collection of specimens may only be conducted in accordance with N.J.A.C. 7:5A-1.10 and upon approval of the administering agency; and
16. Public use of natural areas shall be allowed only to the extent and in a manner that will not impair natural features; the administering agency may restrict access

and use as necessary to protect the natural area; the following are permissible public uses of natural areas:

- i. Hunting, trapping, and fishing are permitted in accordance with N.J.A.C. 7:25-5 and 7:25-6; except for the stocking of fish and game, habitats may not be manipulated for the purpose of enhancing hunting, trapping, or fishing;
 - ii. Occasional camping along trails, boating, and swimming may be permitted in specified locations of natural areas in accordance with N.J.A.C. 7:2-2, 7:2-5, 7:2-7, 7:2-8, and 7:25-2, and are further limited as follows:
 - (1) No permanent structures may be erected;
 - (2) No motorized methods of boating or camping are permitted;
 - (3) Trailside shelters of the type called lean-tos are permitted, but there may not be two such shelters within three miles of each other; and
 - iii. Existing trails may be maintained, but not enlarged in any manner, by the administering agency to allow public use and prevent erosion, trampling of vegetation beyond the trails, and other deterioration as follows:
 - (1) New trails or enlargement of existing trails for interpretive purposes may be initiated subsequent to review of a plan by the Council and approval of that plan by the Commissioner;
 - (2) Rare plants may not be removed for the purpose of maintaining existing or constructing new trails; and
 - (3) To the extent possible, natural materials shall be used on and along trails; and
 - iv. All pets shall be kept caged or leashed and under immediate control of the owner except that dogs used while legally hunting shall be exempt from the leashing requirement.
- (f) The following interim management practices, unless superseded by an adopted management plan, apply to the appropriate specified natural area classifications:
1. Location markers identifying interpretation points of interest may be installed except within ecological reserves;
 2. Trail blazes may be used within any natural area;
 3. Existing vehicular access lanes may not be enlarged in any manner within an ecological reserve;

4. New vehicular access lanes may be constructed only within buffer areas and upon approval by the Commissioner;
5. The alteration of natural processes or features for the purpose of enhancing public use of the natural area may be conducted by the administering agency only within buffer areas; and
6. The following management practices shall not be permitted within ecological reserves:
 - i. New, existing, or temporary firebreaks;
 - ii. Construction of new trails;
 - iii. Alteration or restoration of water levels;
 - iv. Prescribed burning;
 - v. Erosion control measures;
 - vi. Gypsy moth control activities; and
 - vii. Manipulation of vegetation and wildlife habitats.

Appendix B

NATURAL AREAS SYSTEM MANAGEMENT PLAN TASKS AND RESPONSIBILITIES

Natural Area: Strathmere

Plan Adoption Date: December 21, 1992

Name:

Date:

	<u>Date Indicated in Plan</u>	<u>Proposed Accomp. Date</u>	<u>Date Accomp.</u>
I. Belleplaine State Forest Superintendent			
1. The administering agency may post signs in areas of anticipated foot traffic through the posted nesting area to direct the public to appropriate trails. (p. 10)	As needed	As needed	As needed
2. The administering agency will develop and distribute a flyer by December 31, 1992 to the residents near the Strathmere Natural Area informing them of new restrictions in effect between April 1 and September 15 (pet prohibition and night closure), and the reasons for the restrictions. Additional educational materials, developed by the administering agency or the Division of Fish, Game and Wildlife, may be distributed to residents during the summers of 1993 and 1994 in order to stress the importance of species protection and pet incompatibility. (p. 10)	12/31/92	_____	_____
3. The administering agency will construct and post seasonal night closure signs by April 1 each year and replace as needed, at the beach, bay and Commonwealth Avenue access points stating "Area closed at dusk	Yearly	Yearly	Yearly

April 1 - September 15th to prevent adult piping plovers from being disturbed while foraging at night. (p. 11)

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| 4. | The administering agency will obtain and post a sign (available from the Division of Fish, Game and Wildlife) by December 31, 1992 indicating hazards to beach-nesting birds. (p. 11) | 12/31/92 | _____ | _____ |
| 5. | The administering agency will post State Natural Area signs along the boundary of the natural area and at the beach and bay access points by December 31, 1992. Signs will be replaced as needed. (p. 11) | 12/31/92 | _____ | _____ |
| 6. | The administering agency will maintain the pilings and signs designating the area for landing and launching of water craft in Strathmere Bay. (p. 12) | As needed | As needed | As needed |
| 7. | The administering agency will construct, install and maintain an information board at the access point at Commonwealth Drive by April 1, 1993. (p. 12) | 4/1/93 | _____ | _____ |
| 8. | The administering agency will prohibit pets on the entire beach from April 1 to September 15. The administering agency will post a sign indicating this prohibition, along with the reason for the pet ban, at all entrance points. (p. 12) | Yearly | Yearly | Yearly |
| 9. | The administering agency, in consultation with the ONLM and the Endangered and Nongame Species Program, will limit and/or restrict recreational activities if it believes that the activity is detrimental to beach-nesting birds (see Appendix A, N.J.A.C. 7:5A-1.9(e)16). (p. 12) | As needed | As needed | As needed |
| 10. | The administering agency will obtain all applications to conduct research or collect specimens, forward a copy to ONLM, and provide a response within 30 days of application submittal. The administering agency shall coordinate response with ONLM. (p. 12) | Ongoing | Ongoing | Ongoing |

11.	The administering agency will maintain the existing snow fence along the trails. (p. 12)	As needed	As needed	As needed
12.	Current dune management techniques by the administering agency will be continued in the natural area. Any repair of the dune line with snow fencing should be staggered to allow for an irregular primary dune line. If a blowout or other major damage to the primary dune occurs, the administering agency, in consultation with the ONLM and the Division of Fish, Game and Wildlife, will evaluate the need for dune reconstruction. Such evaluations will be made on an individual event basis. Conflicts over dune reconstruction actions will be resolved by the Natural Areas Council. (p. 12)	As needed	As needed	As needed
13.	Should erosion or other factors result in the exposure of cultural remains within the natural area, the administering agency will contact the Office of New Jersey Heritage to determine the potential and appropriateness for non-damaging site stabilization and/or investigation of the cultural remains exposed. (p. 12)	As needed	As needed	As needed
14.	The administering agency will conduct law enforcement patrols at a minimum of four times per month and every weekend from Memorial Day through Labor Day. (p. 13)	Ongoing	Ongoing	Ongoing
II. NJ DEPE, Division of Fish, Game & Wildlife				
1.	The Division of Fish, Game and Wildlife will continue to monitor the endangered beach-nesting bird populations at Strathmere Natural Area. (p. 10)	Ongoing	Ongoing	Ongoing
2.	The Division of Fish, Game and Wildlife will construct string and post fencing around the peninsula just above high-tide line in April and will remove it by September 30 to reduce human disturbance and allow nesting to become established. (p. 10)	As needed	As needed	As needed

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| <p>3. The Division of Fish, Game and Wildlife will construct seasonal nest site closure fencing on either side of a located piping plover nest immediately prior to or within one day of clutch completion (late April-early June) or when located, if the clutch is already complete. Fencing will be aligned perpendicular to the water and may extend to the high tide line on the beach side and extend into the back dune on the bay side. In the case where a nest is established near the narrow, northern tip of the natural area, the fencing may extend past the high-tide line on the bay side, but may not so extend on the ocean side. All seasonal nest site closure fencing will be removed after the chick(s) from that nest have fledged (usually by August 15). (p. 10)</p> | As needed | As needed | As needed |
| <p>4. The Division of Fish, Game and Wildlife will construct predator exclosures around plover nests. These 10' diameter structures will be constructed of 2" x 4" hardware wire fencing encircling the nest. The bottom of the exclosure will be buried in the sand and the top opening fitted with twine or netting. (p. 10)</p> | As needed | As needed | As needed |
| <p>5. The Division of Fish, Game and Wildlife, in cooperation with the administering agency, will close the Backdune Trail should a piping plover nest be located within 50 meters of the trail. This access may be reopened when chicks vacate the nest (mid-May to late July). The Bay Trail will be kept open at all times. (p. 11)</p> | As needed | As needed | As needed |
| <p>6. The Division of Fish, Game and Wildlife's Endangered and Nongame Species Program will continue to provide educational information about endangered beach-nesting birds to citizens via the Strathmere Post Office and lifeguard station. (p. 12)</p> | Ongoing | Ongoing | Ongoing |

III. NJ DEPE, Office of Natural Lands Management

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| 1. | By December 31, 1992 ONLM will seek legal advice regarding the vacation of the proposed Sareta Haven development. (p. 11) | 12/31/92 | _____ | _____ |
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IV. NJ DEPE, Division of Parks & Forestry and Green Acres Program

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| 1. | The Division of Parks and Forestry and the Green Acres Program will seek vacation of the following paper streets which exist in the natural area: Seaspray Avenue, Seabreeze Avenue, Dorance Avenue, Bayview Drive, Unnamed Street and the portion of Commonwealth Drive north of its intersection with Seaspray Avenue by June 30, 1993. (p. 11) | 6/30/93 | _____ | _____ |
| 2. | Purchase of the undeveloped portion of Block 862, Lot 1 (Figure 2, potential acquisition 2) should be pursued by the Division of Parks and Forestry and the Green Acres Program if funding becomes available. Should this acquisition occur, it will be proposed for addition to the Strathmere Natural Area. (p. 11) | Ongoing | Ongoing | Ongoing |
| 3. | Purchase of Block 866, lots 8.01/8.02 (Figure 2, potential acquisition 2) could be an asset to the natural area and their acquisition should be pursued by the Division of Parks and Forestry and the Green Acres Program if funding becomes available. Should either or both lots (8.01/8.02) be acquired by the State, they will be proposed for addition to the Strathmere Natural Area. (p. 11) | Ongoing | Ongoing | Ongoing |