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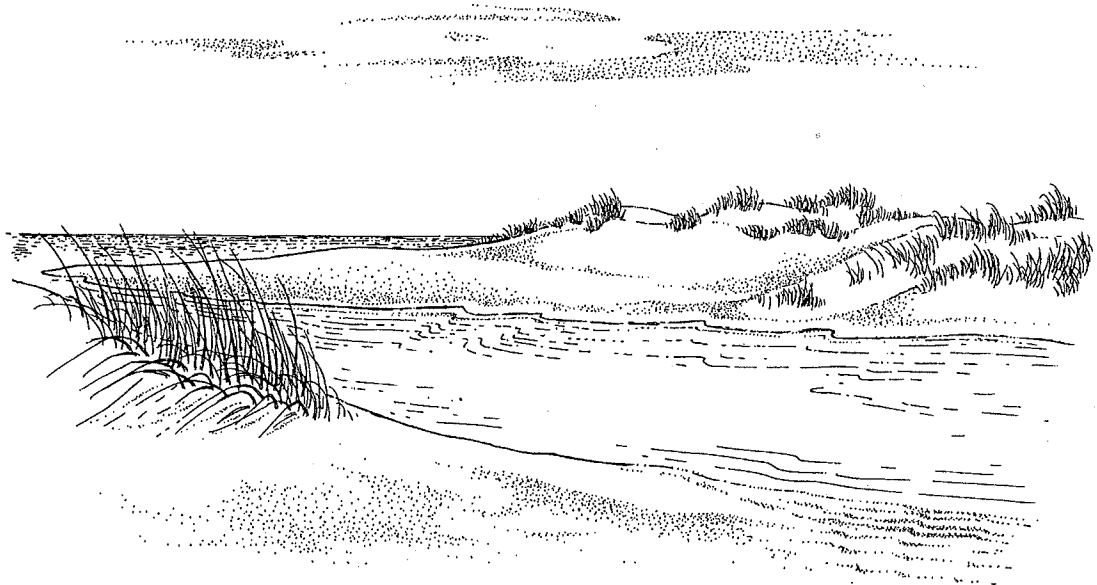


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Protecting Maine's Beaches for the Future

A Proposal to Create an Integrated Beach Management Program

Summary of Recommendations



A Report of the Beach Stakeholder's Group
to the Joint Standing Committee on Natural Resources
122nd Maine Legislature, 2nd Regular Session

February 2006

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Recommendations Concerning Beach Nourishment

1. Change Reactive and Opportunistic Nourishment Approach to Proactive Strategy

Maine realizes the positive economic impact of beaches and acknowledges that unabated shoreline recession may degrade beaches and diminish public use, and degrade facilities and private property. Beach nourishment, in certain cases, can provide vital storm protection and be a viable alternative to allowing the shoreline to migrate landward. Thus, beach nourishment, in certain settings, will be useful to help manage beach erosion by providing both shoreline protection and maintaining or creating opportunities for public recreation. To ensure that beach nourishment is used properly and in ways that maximize environmental, social and economic considerations, additional regulations and criteria are necessary to guide its use (see also Recommendation #3 in this section).

2. Amend Coastal Sand Dune Rules to Establish Standards for Beach Nourishment

As described in the Department of Environmental Protection's interim report to the Legislature on the stakeholder group's progress, the group worked together to craft a series of changes to the Coastal Sand Dune Rules (Chapter 355) while simultaneously working on other sections of this report. Recognizing the group's interest in increasing the use of beach nourishment in Maine in the future, the revised rules¹ (provisionally adopted by the Board of Environmental Protection on November 17, 2005) contain a new section on beach nourishment. Future beach nourishment projects will be regulated on a site-specific basis under Section 8 of the Coastal Sand Dune Rules (Chapter 355). This new section of the rules establishes standards for beach nourishment projects, including standards for:

- materials to be used;
- compatibility with the profile of adjacent beaches and dunes;
- time of year during which nourishment activities may take place;
- monitoring requirements;²
- consideration of sediment sources;
- no new structures in nourished areas;
- legal arrangements with private property owners for public recreational use and access on beaches nourished with public funding, or nourished projects sponsored by public agencies; and
- legal arrangements with private property owners to allow for management of significant wildlife habitat on nourished beaches.

As further discussed in Section IV.E of this report, four of the eight stakeholders objected to the final changes made to the provisionally-adopted rules after the close of the public comment period. While the stakeholder group attempted (in its final meetings and correspondence) to resolve outstanding differences such that a consensus on the new beach nourishment standards could be presented in this report, this failed to happen. Specifically, the issues that are of continued concern to four members of the stakeholder group involve

¹ Coastal Sand Dune Rules, 06-096 CMR 355, as provisionally adopted November 17, 2005.

² Appendix H of this report provides a discussion of monitoring requirements for nourishment projects.

public access requirements and habitat management requirements on private property. The Department of Environmental Protection will be submitting amended language to the Committee that attempts to resolve these issues of concern.

It should also be noted that a subset of the stakeholders group interpreted the rule changes to negatively affect privately-funded nourishment projects, municipal nourishment projects and nourishment projects associated with federal harbor management projects. Nothing in this report or the revised sand dune rules is intended to a) restrict the ability of landowners to conduct beach nourishment with private funds; b) restrict the ability of towns to create their own tests for public benefit and to create their own requirements when municipal funds are used for nourishment; or c) to create additional requirements for federally-funded projects beyond what is required by federal law, rule or policy. Again, amended language will be brought before the Natural Resources Committee to clarify these issues.

3. Create Additional Criteria for Consideration of Beach Nourishment Projects Undertaken with Public Funds

Aside from the regulatory requirements provided in the Coastal Sand Dune Rules, discussed above, the use of beach nourishment in Maine requires additional policy guidance due to its potential environmental and social impacts on beach systems and beach communities.

- Beach nourishment should be considered in conjunction with alternative strategies of: letting natural processes occur, dune restoration and hazard mitigation (including relocation of structures and/or willing-seller acquisition). Municipalities are encouraged to work together and with state agencies to create regional beach management strategies that use information produced by the Maine Geological Survey (MGS) and other sources to identify the best mix of tools suitable for specific stretches of beach.
- Beach nourishment requires a sediment source. In Maine, material dredged from navigation channels has been the main sediment source for nourishment projects. However, there are several other sources of sediment that may be acceptable for beach nourishment within Maine. Appendix E includes a discussion of these sediment sources. In general terms:
 - The continued beneficial reuse of clean³ dredged material resulting from federal projects for beach nourishment is encouraged.
 - The use of clean upland sources of material for beach nourishment is encouraged.
 - The use of nearshore or offshore sediment sources for beach nourishment warrants further investigation and is considered acceptable only under certain conditions.
 - Dredging lower portions of a beach profile is unacceptable under most circumstances.

³ As used in this context, “clean” materials or sources meet all chemical standards as determined by state and federal regulations.

4. Further Clarify Specific Mechanisms for Public Access and Public Recreational Use

- As discussed above, the provisionally adopted coastal sand dune rules⁴ contain language related to the establishment of public access and public recreational use in areas nourished using public funds. The federal government has established precedent for these types of arrangements when federal funds are used for shorefront protection projects.⁵ The mechanics of formalizing public recreational use in a low-water state⁶ such as Maine need to be further researched and documented.
- Related to the above, the stakeholder group realized the need to ensure that beaches nourished with public funds were actually accessible to the public, via parking, walkways, etc. An additional criterion that “adequate public access and services for public use of nourished beaches should be provided if public funds are used to support the nourishment project” should be created, pending resolution of public trust/private property considerations mentioned in the bulleted section above. This criterion might be best placed in future rules that would be developed to govern the administration of new sources of state funds for beach nourishment.
- As stated previously, nothing in this report or the revised sand dune rules is intended to a) restrict the ability of landowners to conduct beach nourishment with private funds, b) restrict the ability of towns to create their own tests for public benefit and to create their own requirements when municipal funds are used for nourishment; or c) to create additional requirements for federally-funded projects beyond what is required by federal law, rule or policy.

5. Clarify Opportunities for Use of Other Sediment Sources

The stakeholder group discussed situations in Maine where deposits of sand exist that might be potentially suitable for beach nourishment but the availability of such sources is questionable due to legal considerations (for example, sand that builds up adjacent to jetties and sand placed on the beach through nourishment projects that migrates elsewhere). Further clarification of the ownership and availability of these sand sources is needed.

⁴ Coastal Sand Dune Rules, 06-096 CMR 355, as provisionally adopted November 17, 2005.

⁵ For the USACE to enter into an agreement with communities for shorefront protection projects that use beach nourishment, public ownership of the nourished beach is required. See <http://www.usace.army.mil/inet/usace-docs/eng-pamphlets/ep1165-2-1/c-14.pdf>, Section 14-6, #s 8) and 9). “Shoreline protection projects” should not be confused with “federal navigational dredging projects”. The beneficial reuse of dredged material for beach nourishment as part of the USACE federal navigational dredging projects does not require public use or access. Rather, in these projects, the USACE requires perpetual easements for the placement of equipment and dredged material, so as to allow for the completion of subsequent projects in the future.

⁶ In Maine, as established in common law, most shoreline properties can claim that their ownership extends over the dry sand beach to the low water mark. Only a narrowly defined public easement provides limited public rights in the intertidal area for fishing, fowling and navigation.

6. Further Refine Priorities for Beach Nourishment

The Framework Agreement on Sand Dunes and Coastal Management in Maine directed the stakeholder group to investigate the establishment of priority areas for beach nourishment. This document outlines a proactive approach for making decisions about how to manage our beaches, including the use of beach nourishment. It provides guidelines and methodologies, agreed upon by the stakeholder group, which can be used to create a priority list of areas for beach management, including beach nourishment. This approach requires that additional information be obtained on: a) geological processes at particular beaches; b) biologic wildlife and habitat characteristics; and c) on the cost and benefits of beach management activities at specific locations. Presently available, initial information on the geologic settings of Maine beaches allows for a rough, screening-level assessment of the potential of each beach to support nourishment from a geologic perspective. The initial information below, as with the biologic and economic information presented in this report, must be further refined and integrated into the broader decision-making approach presented here.

The “Beach Scoring System”⁷ developed by the Maine Geological Survey (discussed in more detail in Section V.A of this report) was used to provide a qualitative analysis of beaches that might benefit from the use of beach nourishment. It should be stressed that this is a very preliminary, qualitative analysis. This information should not be taken as a determination of any particular beach's ultimate priority or suitability for a nourishment project.

The stakeholder group agreed that a more complete set of physical and geological criteria needs to be added to the Beach Scoring System before it can be used for a final analysis of beach nourishment priorities. Importantly, a more complete, future analysis would include an estimate of the project longevity and hence the need to renourish the beach at regular intervals. Final decisions on beach nourishment projects would include other types of data and information as discussed above.

The results of this preliminary suitability analysis are provided in Table 1. Beaches are divided into three categories and listed by municipality. A rating of H-High, indicates that the beach, based on limited evaluation, is potentially highly suitable for beach nourishment. A rating of M-Medium indicates that the beach is a possibly suitable for beach nourishment. A rating of L-Low indicates beaches that likely to exhibit low suitability for nourishment, except possibly after extreme erosion events or cycles. Other beaches not listed in this table (but further discussed in Appendix I) are also rated L-Low.

Section IV.F and Appendix J of this report provide a more detailed recommendation for the refinement of the Beach Scoring System and other evaluative criteria for use in actual selection of beach management tools and for use in decision-making for beach management funding and projects.

⁷ The current Beach Scoring System is based on an evaluation of erosion rates, dry beach width, topography, geography, and coastal engineering structures. Improvements are needed to the system to tailor its capacity for use in prioritization or project evaluation.

Table 1
Suitability of Maine Beaches for Nourishment
Based on Geological Selection Criteria Only

Municipality	Suitability for Beach Nourishment	Beach Name
Town of York	H	Long Sands Beach
	M	Short Sands Beach
Town of Wells	M	Wells Beach
	M	Drakes Island Beach
	M	Moody Beach
Town of Kennebunk	H	Goochs Beach
	M	Great Hill to Middle Beaches
City of Biddeford	H	Hills Beach
	M	Fortunes Rocks Beach
City of Saco	H	Camp Ellis Beach
	M	Ferry Beach
Town of Scarborough	M	Western Beach
	M	Scarborough Beach
	M	Higgins Beach
	L	Pine Point Beach
City of South Portland	M	Willard Beach
Town of Phippsburg	L	Hunnewell Beach

7. Estimate Funding Needs for Beach Nourishment

As stated in Recommendation 1, the stakeholder group agreed that Maine should have a proactive strategy that includes the use of beach nourishment as an acceptable management tool when evaluative criteria suggests that is a suitable technique. While private funds can support beach nourishment projects at the present time, new sources of state and local funding (in addition to enhanced federal funding) are needed to finance a proactive beach management program, including additional beach nourishment, *i.e.*, beyond what occurs at present through the beneficial reuse of dredged material and occasional privately-financed projects. Based on a very cursory estimate of the costs of funding beach nourishment (presented in more detail in Appendix F) 20-year cost estimates⁸ (in 2006 dollars) range from a low of \$1.2 million for Great Hill to Middle Beach in Kennebunk to a high of \$32 million

⁸ In order to estimate costs of projects in a uniform manner, it is necessary to look at the need over 20 years. The cost for any one project in a particular year can be generally estimated at a rate of \$2-4 million *per* mile of beach. Based on erosion rates and other factors, beaches will need to be renourished at certain intervals. For example, over 20 years a project with 10-year longevity will have 2 nourishments; a 5-year cycle will have 4 nourishments. At the end of the 20 years, the beach may need nourishment again.

for Camp Ellis beach in Saco.⁹ It is recommended that additional refinement of potential beach nourishment costs be performed as part of the development of a funding strategy for beach management. More information is also needed about the economic benefits of beach nourishment. It is recommended that detailed cost/benefit analyses be performed to inform decision-making about beach nourishment.

8. Work to Increase Federal Mitigation of Erosion Control Caused by Federal Navigation Projects

Some jetties constructed for federal navigational purposes may negatively alter the natural transport of sand in beach systems. This disruption can lead to areas of increased erosion or accretion. The Integrated Beach Management Program should consider these federal projects for the applicability of beach nourishment or some other management activity, including federal mitigation programs. There are numerous different federal authorities under which the federal government can act to address negative shoreline impacts of federal navigation projects.¹⁰

Recommendations Concerning Wildlife Habitat

9. Coordinate Beach Management Activities with Other Agencies

All proposed beach nourishment, dune restoration, sand fencing, planting and trail plans should be coordinated with USFWS, IF&W, DEP and the USACE to ensure that state and federal regulations are adhered to and that piping plovers are not adversely affected.

10. Establish Best Management Practices (BMPs) for Shorebird Habitat Protection and Enhancement Through Cooperative Agreements, Permit Conditions, or Landowner Agreements

The following recommendation calls for the institution of best management practices on nourished beaches. Since shorebird habitat occurs on private property, cooperative efforts with landowners are needed for successful habitat management. Prior to the development of this report, towns and private landowners have already entered into cooperative agreements to manage endangered and threatened species and these agreements are currently in effect. Nothing in this report is intended to suggest that these agreements should be rendered invalid or that they should be renegotiated. Rather, this section of the report calls for the establishment of standard and improved best management practices to be formalized through additional cooperative agreements and other mechanisms as part of new beach management projects. Landowner cooperation and agreement is necessary ingredient for implementation of all of these best practices.

⁹ These estimates do not include discovery, evaluation, testing, permitting, and other factors such as monitoring and wildlife management that may be required in a nourishment project.

¹⁰ These include, among others, Section 111 of the Rivers and Harbors Act (1968).

Standard BMPs should include the following:

❖ **Beach Infrastructure and Maintenance**

Movement and/or redistribution of sand, control of public access, beach cleaning, or use of any essential vehicles on the beach must not jeopardize nesting or feeding activities of endangered piping plovers or least terns. It is the responsibility of the town to ensure their activities do not threaten a listed species.

❖ **Recreational Activities**

If piping plovers or least terns are nesting on the beach, recreational activities that could interfere with nesting and brood rearing activity should be restricted to non-nesting areas through use of fencing and signs. Enforcement of restricted areas may become the responsibility of local governments.

❖ **Animal Control**

Dogs can be a significant source of disturbance and mortality for ground nesting species such as piping plovers and least terns. Ideally dogs should be leashed from April 1 through August 31 as specified in the USFWS Piping Plover Recovery Plan.

❖ **Management - Symbolic Fencing and Enclosures**

Piping plover nesting areas and least tern colonies should be fenced and signed beginning April 1. Fencing is intended to allow nesting to be initiated by territorial pairs, to prevent accidental crushing of nests and repeated flushing of incubating adults and to provide an area where chicks can rest and seek shelter when large numbers of people are on the beach. Only persons engaged in piping plover monitoring should enter the fenced areas. Fencing should be maintained on the beach until all chicks in the vicinity have fledged or territorial pairs are no longer present.

❖ **Predator Control**

Predation by crows, gulls, foxes, dogs and cats is a major source of nest failure for piping plovers. Therefore, piping plover nests should be enclosed in accordance with USFWS guidelines and authorizations issued by IF&W.

Predator management may become necessary if predation of adult plovers, eggs, or chicks is severe. Predator management is the responsibility of IF&W.

❖ **Monitoring**

On nourished or town-managed beaches¹¹ a coordinator should be employed to recruit and manage volunteers to conduct regular monitoring of nesting piping plovers and/or least terns to determine the success or failure of nesting. Regular monitoring should include: documentation of the number and location of nests,

¹¹ Some beaches in Maine, although not publicly-owned, are actively managed by municipalities, for example, Pine Point in Scarborough and Wells Beach.

nest attempts, nest success, number of chicks fledged, and causes of egg or chick mortality if known. Other duties may include maintaining temporary fencing and signs and help erect nest enclosures.

In the event that a crushed nest or dead adult or chick is found, both the USFWS and IF&W law enforcement personnel must be contacted immediately.

❖ **Education and Outreach**

Wherever the public has access to beaches with nesting endangered species, effective outreach should be conducted to educate beach users on how they can help protect piping plovers and least terns while they are at the beach. Interpretive signs, personal interactions with lifeguards or other town officials, information at the town hall for dog owners, etc. should be explored.

Recommendations Concerning Willing-Seller Acquisition of Storm-Damaged Properties

11. Establish Principles to Guide Land Acquisition in Beach Systems

The following principles are suggested to apply to any new or enhanced land acquisition initiatives associated with Maine's Integrated Beach Management Program.

- Acquisition programs must always involve willing sellers.
- The purpose of a willing-seller land acquisition program along Southern Maine beaches is for public benefit, e.g. a) to increase storm buffering capabilities by reestablishing natural beach profiles and reconstructing dunes; b) to reduce public expenditures in post storm repairs; c) to enhance public access opportunities; d) to enhance wildlife habitat. A secondary benefit of public acquisition of these properties is to assist a willing seller to move away from coastal high hazard areas.
- The purpose of a willing-seller land acquisition program is not to institute management measures (such as removal of seawalls) that would endanger adjacent properties. Active management on public properties that would affect private property should be planned, discussed and negotiated in an open, public process that allows for expression of, consideration for, and mitigation of, adjacent landowner concerns.
- The current sand dune rules allow rebuilding of storm-damaged structures, provided required standards are met. When making a decision about whether to rebuild after a storm, willing-seller acquisition is one option for homeowners to consider when making choices about their properties over the long term. The process of working with a willing seller to acquire a storm-damaged property should not be conducted in association with an application for rebuilding.¹² Brochures and handouts with

¹² The stakeholder group discussed at length the appearance of impropriety if a state agency denied an application for rebuilding of a storm damaged property and acquired the property at a late date. The stakeholder group strongly recommended a clear separation between licensing and land acquisition activities.

information about willing-seller acquisition opportunities should be made available to coastal landowners.

- Any acquisition program must be responsive to the needs of homeowners, particularly in a post-storm situation. Fairness, courtesy, respect and responsiveness need to be hallmarks of any acquisition effort.
- Acquisition projects that serve multiple objectives (e.g. hazard mitigation, wildlife habitat enhancement, dune restoration and public access) warrant greater attention by state funding programs and have better potential for successful financing by multiple partners. Existing disparate funding sources need to be creatively combined to work within this context.
- Acquisition of beach front properties in an opportunistic, case-by-case manner could potentially result in public ownership of isolated parcels up and down the shoreline, creating difficult property management challenges. To avoid this scenario, acquisition of properties from willing sellers under Maine's Integrated Beach Management Program should be based on an established regional plan or strategy that pre-identifies focal areas. The best opportunities for accruing public benefits will be gained by concentrating land acquisition efforts on regional focus areas.

12. Conduct Background Planning

- Conduct a GIS analysis, for planning purposes only, to identify a) areas of repetitive storm damage; b) areas where recreational access is or will be inadequate for residents and visitors; c) areas where there is potential for restoration/enhancement of dunes and other habitats; and d) areas where there is repeated public investment in roads and utilities.
- Using the above, create focal areas where acquisition might be a viable beach management tool.
- Monitor erosion, access and habitat characteristics to further establish priorities within identified focal areas.
- Determine whether smaller, neighborhood beach access points would complement the Department of Conservation's parks infrastructure, or boating access infrastructure.

13. Work with Existing Emergency Management and Conservation Programs to Enhance the Presence of these Programs in Beach Systems

- Maine Emergency Management Agency
 - ➔ Create partnerships between MEMA and land conservation programs for multi-objective projects.
 - ➔ Include a representative from MGS or the Maine Coastal Program on the statewide hazard mitigation team that makes decisions about FEMA funds.
 - ➔ Amend the State Hazard Mitigation Plan to include greater specificity for coastal areas.

- Land for Maine’s Future and other State Land Acquisition Programs
 - ➔ A coordinated, long term proposal could be offered by the Department of Conservation, a town or towns, or a private conservation organization for consideration by LMF using the focal area analysis described in a previous section.

14. Increase Outreach to Other Potential Partner Organizations and Towns

- Cultivate relationships with local land trusts and other private conservation organizations, towns and landowners.
- Better publicize all existing funding opportunities for homeowners. These programs benefit landowners by fairly compensating them when the growing risk and other factors related to their investment cause them to consider abandonment/relocation.
- Help towns include acquisition strategies in hazard mitigation programs to improve their eligibility for federal funds.

15. Create New Funding Sources

A new source of beach management funds needs to be created at the state level. As further described in other sections of this document, these funds would be available for multiple purposes, one of which would be land acquisition from willing sellers. To support the creation of this funding source, the following activities should take place.

- Complete the focal area analysis as described above. (The Maine Coastal Program with input from Department of Conservation, Bureau of Parks and Lands and the Maine Geological Survey and the Maine Emergency Management Agency)
- Determine range of funds needed for one or more focal areas. (SPO)
- Determine the mechanics of program (lead agency, etc.). (All)

16. Work to Clarify Outstanding Questions Concerning Land Acquisition

- Evaluate the use of “life estates” as a method to be used in the future for allowing homeowners to retain residency and contribute to conservation and hazard mitigation goals at a later date.
- Overcome difficulties associated with the timing of the preparation of an appraisal of property value, *i.e.*, in a post-storm, emergency situation, the property’s value may be diminished from its pre-storm condition.
- Clarify and resolve obstacles concerning the typical “matching requirements” of government programs, *i.e.* the provision of local funds to serve as a “match” for state and federal acquisition funds.

Recommendations Concerning Hazard Mitigation

17. Improve Interagency Coordination on Coastal Hazard Mitigation

The Maine Emergency Management Agency is responsible for working with all Maine towns on hazard mitigation. Creating increased or enhanced coastal hazard mitigation will require increased cooperation among a variety of state agencies. MEMA should be encouraged to include staff from the state's coastal zone management program (the Maine Coastal Program at SPO) in interagency efforts.

18. Enhance Educational Programs and Informational Outreach about Hazard Mitigation

The Maine Coastal Program (MCP) partners with the Wells National Estuarine Research Reserve (WNERR) on the Reserve's Coastal Training Program (CTP), an outreach program primarily serving southern Maine community officials and other residents. The MCP should be encouraged to work with the CTP to develop a targeted outreach program on hazard mitigation. The University of Maine's Sea Grant Advisory Program (which houses a staff person at the WNERR) has created a preliminary scope for this type of outreach program.

19. Provided that new sources of funding are made available for the Integrated Beach Management Program, ensure that a percentage of those beach management funds that are administered by state agencies be directed towards hazard mitigation activities at the local level.

As identified in state and county plans, there are myriad ways to reduce the risk of coastal erosion storm damage through preventative activities. There is, however, a severe shortage of funding available to towns and property owners for these purposes. For municipalities with critically important beach resources, it may be feasible to conduct a more in-depth analysis of hazard mitigation options in beachfront neighborhoods. Such an evaluation would include specific strategies for floodproofing, elevation of structures, improvement of roads, and could identify focal areas for land acquisition from willing sellers. With additional state funds, grants could be made to municipalities for projects identified in these more in-depth strategies.

Recommendations Concerning Outreach and Education

20. Once the Maine Legislature has made final decisions on changes to the Natural Resources Protection Act and the Coastal Sand Dune Rules and accepted or revised the recommendations of this Report, the Maine Coastal Program and DEP will conduct a series of meetings in the principal beach towns of southern Maine, during the summer months, designed to provide information and answer questions from local officials and the interested public.

21. *The Maine Coastal Program should coordinate the production and distribution of the following print materials, as prepared by DEP, DOC and MGS. All of these materials will be sent to town offices, local and regional planning commissions, and landowner organizations.*

- A brochure for property owners, “Managing your Beachfront Land.” This would include:
 - Regulations applying to the building, use, maintenance, and repair of beach properties and structures;
 - Suggestions for habitat and wildlife enhancement “best practices.”
- A brochure for municipal officials, highlighting town responsibilities for beach management;
- A targeted brochure, “Beach Nourishment,” directed to those likely to be interested in this subject, including information on how priorities may be set, beaches scored, etc.; and
- Once additional funding sources are created, a brochure, “Funding Options for Beach Management,” identifying sources of funding for nourishment, willing-seller acquisition, and other techniques identified in this report.

22. *The Maine Coastal Program, DEP, DOC and MGS should collaborate with the University of Maine Sea Grant Program and the Coastal Training Program at the Wells National Estuarine Research Reserve to design and conduct a strategic marketing program to increase the use of best management practices and hazard mitigation by homeowners. Strategic marketing programs involve pre-outreach surveys, focus groups and other queries to understand motivation, level of knowledge, values and concerns of the target audience. The design of the outreach products is geared toward the target audience such that measurable improvements are achieved in levels of knowledge, increased use of best management practices, etc.*

Recommendations Related to Data and Information; Priority Setting

23. *As a foundation for the establishment of state funds for beach management, a credible economic evaluation of the importance of southern Maine beaches should be completed. While beyond the scope of state budgets, the Maine Coastal Program, in collaboration with the Maine Coastal Coalition, will work with USM’s Center for Tourism Research and the Department of Economic and Community Development/ Office of Tourism to raise funds for the study, with the goal of having an analysis completed by the fall of 2007.*

24. *Coordinated beach management depends on the availability of high-quality data and information about a number of different subjects. A critical initial priority is for state agencies to collaborate to complete a proactive ranking of beach suitability for nourishment, dune restoration, acquisition and other beach enhancement techniques*

using established criteria. While this will be particularly useful in making decisions about the allocation of state funds, should these become available, its potential use is much broader.

❖ **Geologic Priorities**

The Maine Geological Survey will complete, by March 30, 2007, its scoring of all southern Maine beaches, and the identification of the four to six beaches or beach segments in need of management and most suitable for dune restoration, beach nourishment or a combination of the two approaches.

❖ **Habitat Priorities**

The Maine Department of Inland Fisheries and Wildlife in consultation with the Maine Natural Areas Program/Department of Conservation and Maine Audubon, will, by December 31, 2006, identify those beaches with the highest habitat value considered both as in need of additional protection, and potential enhancement through any of the management strategies described in this document.

❖ **Acquisition Priorities**

The Maine Coastal Program (in cooperation with the Bureau of Parks and Lands at the Department of Conservation, the Maine Geological Survey and the Maine Emergency Management Agency) will, by December 31, 2006 document one or more focal areas with willing sellers and funding agencies and guide initial discussions regarding the use of willing-seller land acquisition as a beach management strategy.

❖ **Management Priorities**

Using the above information, by December 30, 2007, the Maine Coastal Program will create a draft priority ranking for beach management projects. Similar to the method by which the Maine Department of Transportation ranks navigational dredging projects, the MCP will conduct outreach to towns to develop the list and conduct additional outreach to ensure that towns are aware of the ranking. The ranking will be subject to change based on new information and will be updated annually.

Recommendations Related to Oversight and Coordination for Implementation:
Decision-making for Funding

25. An interagency advisory group under the auspices of the Maine Coastal Program in the State Planning Office, and including the Maine Geological Survey and the Maine Department of Environmental Protection, will coordinate the implementation of this policy. The Beaches Advisory Group should make an annual report to the Legislature's Joint Standing Committee on Natural Resources on The State of Maine's Beaches. The Advisory Group should include the Commissioners of the Departments of Environmental Protection and Conservation, or their deputies; the Directors of the Maine Geological Survey and the Maine Coastal Program; the

Director of the Southern Maine Regional Planning Commission; and representatives of Maine Audubon, and from coastal property owners association. The Advisory Group may also ask for representation from other agencies and groups, such as the Department of Inland Fisheries and Wildlife, the Department of Marine Resources, the Maine Emergency Management Agency, local municipalities, etc., as it determines.

The Beaches Advisory Group should meet at least twice each year, with more frequent meetings as needed to “jumpstart” Maine’s Integrated Beach Management Program. The Advisory Group will at least annually receive reports on wildlife and habitat; geological change and any effects of storms; enforcement of regulations; activities in land acquisition or beach nourishment, etc., preparatory to the drafting of the annual report.

The Advisory Group should oversee the Maine Coastal Program’s development and maintenance of a priority list for beach management actions referenced above, including the identification of beach segments at greatest risk. It is envisioned that the Advisory Group would assist in the creation of formalized rules to guide the expenditure of any new state funds for beach management. The Group would also potentially be involved (in some aspect, such as project review) in the award of state funds for beach management projects.

Recommendations Related to Municipalities

26. During 2006 and continuing in subsequent years, Maine’s natural resource agencies will develop coordinated programs for technical assistance to towns and homeowners to assist in the development of municipal strategies for beach management. Using information provided by state agencies, municipalities will be encouraged to create local beach management plans, choosing an array of sound beach management practices (nourishment, restoration, hazard mitigation and land acquisition from willing sellers.) Provided that a source of state funds is forthcoming, municipalities can apply for state cost-sharing of beach management projects. Through participation in the priority ranking list referenced above, towns will be aware of articulated priorities for state funding. Municipalities can also work independently or with state agencies to develop beach management strategies for financing with municipal funds and private funds.

Recommendations Related to Funding

27. While this report provided a very preliminary estimate of the costs of beach nourishment for selected Maine beaches (see Appendix F), funding estimates for other elements of the Integrated Beach Management Program (dune restoration, habitat enhancement, land acquisition, and hazard mitigation) have not yet been developed. As discussed in the implementation section of this report, individual agencies have been tapped to take the lead on developing more accurate priorities for

management activities for specific beaches. This work will result in a more complete estimate of the costs of the Integrated Beach Management Program.

28. *Upon receipt of this report by the Joint Standing Committee on Natural Resources and upon approval of the concept and direction of the ideas presented in this report by the Committee, the Maine Coastal Program will host a “funders’ workshop” to introduce potential federal, state and local partners to the Integrated Beach Management Program and to further explore existing resources – grants, staff time, reallocation of existing resources, etc., that might help implement the concepts articulated in this proposal. Invitees to this workshop will include representatives of the stakeholder group, state agencies,¹³ town managers and planners from beach towns, the Maine Municipal Association, selected representatives of chambers of commerce, representatives of private landowner associations and others.*
29. *As discussed in other sections of this report, Maine beaches are a key element of the state’s natural resource infrastructure, critical to the health of local, regional and state economies. While various pieces of the picture that convey the economic importance of the beach resource have been discussed and cited in this report, a more complete evaluation is needed to help build the case for additional state support. The implementation section of this report, assigns lead responsibility to the Maine Coastal Program to oversee fundraising efforts to complete this work, and to finalize a partnership with the University of Southern Maine’s new Center for Tourism Research to complete the work.*
30. *Investment in the sustainability of Maine’s beaches is an investment in a part of our state’s critical environmental infrastructure needed to support a thriving and growing nature-based tourism industry. The beach stakeholder group has been working somewhat independently in creating this report, but several high profile state efforts are related to this work, and linkages must be further developed. Some of these related efforts include: Governor Baldacci’s Natural Resource-Based Industry Initiative, the state-funded Fermata Inc. nature-based tourism initiative, the recent report on the Washington County economy and the interest on the part of the Friends of Maine State Parks for a bond issue for parks infrastructure. Although this report has made a case for initial linkages to these efforts, the beach stakeholder group’s recommendations need to be more closely aligned with these efforts. As a first step, the State Planning Office, in collaboration with the Department of Economic and Community Development and the Natural Resource-Based Industries Steering Committee, should work together to design and carry out a workshop on methods for funding tourism infrastructure priorities. This workshop should take place in 2006 and its recommendations forwarded to the Governor’s office for consideration.*

¹³ Besides agency participants included in the stakeholder process (DEP, DOC, MGS, SPO) invitees will include the Maine Emergency Management Agency, the Maine Department of Economic and Community Development/Office of Tourism.

31. *The Maine Coastal Program is currently producing an assessment of issues and rating coastal priorities for approval by the National Oceanic and Atmospheric Administration (the funding entity for state coastal zone management programs). This assessment will be completed by June 2006 and will direct federal funding for five subsequent years. Although funds from this source to support implementation of the strategies contained in this report are limited, modest sums (to partially support data gathering and enhancement, production of state of the beach reports, etc.) and allocation of modest staff support through the Maine Coastal Program is feasible. MCP is collaborating with MGS to produce the assessment section on coastal hazards that will direct the allocation of future NOAA funds for the MCP. Implementation of the recommendations of the Integrated Beach Management Program should be reflected as priority actions for MCP.*