

WELLS BAY REGIONAL BEACH MANAGEMENT PLAN:

Wells and Kennebunk

EXECUTIVE SUMMARY



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WELLS BAY PLANNING COMMITTEE
February 2002

A. INTRODUCTION

Residents and tourists use southern Maine's beach areas for recreation, tourism and housing needs. These same beaches also provide habitat for various birds, fishes, clams and other species, including some that are endangered or threatened. Erosion from storms and sea-level rise often threatens coastal areas, including damage to homes, businesses, beaches and dunes. In particular, the federal jetties located at mouth of the Webhannet River have had a profound effect on the sand flow in the town of Wells, capturing sand that has eroded off beaches and settled adjacent to the jetties. The complex array of variables involved in beach management requires local, regional, state and federal coordination.

Beaches and sand dunes in Maine are currently managed by state agency rules administered by the Maine Department of Environmental Protection (DEP) that regulate all coastal dune areas in order to maintain adequate protection of the natural movement of sand within dune systems. Under the current regulatory structure, local and regional beach management interests are not involved in the day-to-day development and administration of coastal sand dune rules, although local code enforcement officers often require applicants to obtain a Natural Resources Protection Act (NRPA) permit from the DEP prior to issuing local permits.

The focus of this plan is to identify beach management issues at the local and regional levels in order to provide solutions that alleviate inconsistencies or misunderstandings between local, state and federal policy makers. If local, state and federal interests are managing beach resources from a common understanding of the issues at hand, all parties will benefit from the results of a cohesive management plan for southern Maine's beaches. Improving the quality of the region's beaches will provide buffer protection against storms, recreational opportunities for locals and visitors, habitat for wildlife, and economic development opportunities. See the mission statement and vision on page 3 below.

The Wells Bay Planning Committee (hereafter the "Committee") was assembled in October of 1999. The Committee consists of stakeholders representing beach interests in the Wells Bay region, including homeowners, businesses, local government, state agencies and environmental advocates. The planning region considered by the Committee includes the coastal areas within the towns of Wells and Kennebunk. Although from a geologic, economic and social perspective the towns of Kennebunkport and Ogunquit are also an integral part of the beach system in Wells Bay, these two towns opted not to participate in regional beach planning efforts and therefore are not fully represented in the Plan. However, municipal officials in Ogunquit provided assistance with compiling municipal valuation data for the town, which is incorporated into the Wells Bay Regional Beach Management Plan (hereafter the "Plan"). Also, due to the integral connection between Ogunquit, Wells and Kennebunk, additional natural resources, regulatory and economic impact data for Ogunquit is included in the Plan.

In following the spirit of the recommendations in the state's Southern Maine Beach Stakeholder Group report titled *Improving Maine's Beaches* (and endorsed by the Land and Water Resources Council), the Committee adopted a consensus based approach to beach planning. Committee members agreed that all recommendations would have the support of each member of the committee before final acceptance. While this approach to decision making resulted in lengthy discussions among Committee members and others, all the recommendations in the report are

acceptable to all members. However, despite considerable progress developing recommendations for improved beach management in Wells Bay, the Committee did not agree on some important issues that remain unresolved due to a lack of consensus on the issues. The Committee agrees that the unresolved issues are central to future beach planning discussions, and therefore the Committee's discussions of each issue are described in the report for informational purposes. It is the hope of the Committee that the unresolved discussions outlined in the Plan will set the stage for future planning efforts.

B. EXECUTIVE SUMMARY

Mission

The mission of the Wells Bay Planning Committee is to fulfill the recommendations of the Southern Maine Beach Stakeholder Group and to provide public education and information regarding the development of regional beach management plans for southern Maine's beaches, considering ecological, social and economic issues.

Vision

The Committee's vision is to protect coastal resources in southern Maine while at the same time ensuring continued housing, recreation, and economic opportunities for residents of the State.

Guiding Principles

- Maine's beaches are of significant importance to all residents in the State, providing ecological, social and economic benefits
- Regional beach management plans should adequately address the impacts to *all* parties in the Wells Bay region
- Beach planning activities should identify both *short-* and *long-term* goals, objectives and strategies for the regional systems
- Recommendations should target *local, state* and *federal* coastal management interests
- Multiple funding sources should be identified for any strategies requiring a financial commitment
- Committee members should be adequately educated regarding coastal processes

Findings:

Natural Resources

- Ø The Wells Bay region represents **10** miles of the **23** miles (roughly 43%) of sand beaches located in southern Maine, including three barrier beach/salt marsh systems.
- Ø Wells Bay is currently a productive and important feeding and nesting habitat for piping plovers and least terns. Both of these species are classified as endangered under Maine's Endangered Species Act. In 2000, **20** plover pairs nested (representing nearly 38% of Maine's total plover population) on Wells Bay beaches, with 40 fledglings. **One hundred and twenty-two** pairs of least terns nested in Wells Bay during 2000, with 79 fledglings, accounting for most of the birds in the state. The US Fish and Wildlife Service listings include threatened status for piping plovers.
- Ø Soft-shell clam landings in Wells Bay totaled **56,850 pounds** in **1997**, **19,669 pounds** in **1998**, and **3,876 pounds** in **1999**.

Geological Processes and Sand Management

- Ø The primary source of sand to the Wells Bay Region is from offshore **glacial deposits**. Roughly **10%** of the sand within the coastal sand dune system is located on land, with **4.2 million** cubic yards in the frontal dunes and **9 million** cubic yards in the back dunes. The remaining sand (**135 million** cubic yards) is within the submerged shore face. Thinly dispersed offshore is another 42 million cubic yards. A deposit of roughly **15 million** cubic yards of sand is located offshore of Bald Head and the Ogunquit River.
- Ø The Wells jetties have had a considerable impact on the sand budget within Wells Bay. Over **1 million** cubic yards of sand has been displaced from the beach system. Between **200,000-300,000** cubic yards of sand has accreted adjacent to the south jetty, and between **100,000-200,000** cubic yards adjacent to the north jetty. The accretion equals about **5 acres** of "new" land. The fillets of sand adjacent to each jetty appears to have stabilized and reached equilibrium with surrounding beaches. About 400,000 cubic yards of sand and gravel from harbor dredging rests on salt marsh adjacent to the harbor. Open water disposal of dredged harbor sand removed about 400,000 cubic yards from the system in the early 1960s.

Sand Dune Regulation

- Ø Maine's sand dunes are regulated by rules promulgated in 1988 under the state's **Natural Resources Protection Act**. The rules, administered by DEP, discourage development of dune areas that are prone to coastal storm damage or that have state-wide habitat value. The rules currently do not include provisions that recognize the local and/or regional circumstances unique to some of the state's beach areas.

DEP received **236 standard permit applications** for activities in sand dunes in the Wells Bay region (Ogunquit, Wells and Kennebunk) between 1989 and 1999. The department also received **71 permit-by-rule** applications in the region between 1995 and 1999.

Economic Impact and Tourism

- Ø In 1997 U.S. overnight travelers took an estimated **3.5** million trips to southern Maine's coast. Of these **2.1** million travelers stayed overnight in the region and **1.4** million passed through the area.
- Ø Marketable pleasure trips in southern Maine, excluding visits to friends and relatives, totaled **1.1** million in 1997, representing about **30%** of total pleasure trips in Maine. Of these trips, **45%** of visitors came to tour the region and **27%** came to enjoy area beaches.
- Ø The seasonal variation in **retail and services employment** in Wells Bay indicates the economic importance of beaches in southern Maine. The average increase due to seasonal variation for the retail employment sector between 1993 and 1999 averages **84%** higher during August when compared to March. The average increase for the services employment sector between 1993 and 1999 averages **37%** higher during August when compared to March.
- Ø The seasonal variation in the **Other Retail** (includes items not found in department stores such as jewelry/leather, sporting goods, bookstores, gift shops, toys, crafts, etc.) and **Restaurant/Lodging** taxable sales categories shows the impact of beach communities. The average annual taxable sales for the other retail category in the Wells Bay region between 1993 and 1999 was **355%** higher during the third quarter (July-Sept) when compared to the first quarter (Jan-Mar), ranging from **\$1.9** million to **\$8.8** million respectively. Average annual taxable sales for restaurant/lodging for the region during the same period was **615%** higher during the third quarter when compared to the first quarter, ranging from **\$7.5** million to **\$61.6** million respectively. A local option sales taxes accruing to municipalities in Wells Bay would generate roughly **\$98,000 and \$197,000 annually**, based on 1% and 2% of total annual average restaurant and lodging sales during the first and third quarters.
- Ø The total municipal valuation of the Wells Bay region (Ogunquit, Wells, and Kennebunk) is over **\$2.2** billion, of which a considerable portion is estimated to be attributable to beach-related properties.

Committee Recommendations:

The Wells Bay Beach Management Plan is the second of three regional management plans under development for southern Maine beaches between 1999 and 2001. The Wells Bay Planning Committee, consisting of 12 coastal stakeholders, was organized to address beach management needs within the region. The Plan addresses earlier recommendations of the state-level Southern Maine Beach Stakeholder Group.

Members of the Wells Bay Planning Committee have agreed on important recommendations to improve the management of beaches in the Wells Bay region (*see page 8 for a full listing of recommendations*). In developing its recommendations, the committee focused on the following topic areas with the assistance of four subcommittees:

- Natural / Geological processes
- Regulatory issues
- Economic impact of beaches
- Public access and outreach

Recommendation 1 -- *The single most important issue identified by the Committee is the need to maintain existing beaches in Wells Bay. All members agree that beaches with functioning dune systems are better for all interests, as they provide storm protection, wildlife habitat, recreational opportunities, and greater economic sustainability and growth.*

Recommendation 2 -- *A clear policy on beach nourishment practices from Maine's state agencies will help clarify the feasibility of using this strategy as an alternative to so-called "hard" engineering structures such as concrete or wood seawalls and jetties. All Committee members, however, agree that the impact of the jetties at the mouth of Wells Harbor need additional study in order to determine their impact on the sand budget within Wells Bay.*

Recommendation 3 -- *The most obvious regulatory reform identified by the Committee is the need to clarify conflicts that exist between municipal shoreland zoning ordinances and the state's sand dune rules.*

Recommendation 4 -- *Another action identified by the Committee to assist with the goal of nourishing beaches is the clarification of existing rules regarding the movement of sand within the beach system from accreting areas to eroding areas.*

Recommendation 5 -- *If beach and dune resources are to be maintained and possibly expanded via nourishment and dune reconstruction, the sand dune rules must ensure that existing dune areas are protected during permitted construction activities.*

Recommendation 6 -- *The Committee also endorses the concept of a beach management fund to create a reserve of monies that would be used to implement the recommendations of the Plan.*

Unresolved Issues Among Committee Members:

The Planning Committee has left two issues unresolved as a result of not reaching consensus among all Committee members. These topics will require future discussions with coastal stakeholders in order for agreeable recommendations to be reached. The following issues remain unresolved:

Unresolved 1 – *Consensus could not be reached by all Committee members regarding the necessity of current sand dune regulations that require retreat from coastal areas due to the threat or actual occurrence of erosion.*

Unresolved 2 – *Consensus could not be reached by all Committee members regarding the effectiveness of creating a Sand Dune District that would attempt to regulate developed and undeveloped dune areas according to different development standards based upon existing patterns of development.*

Table 1
Summary of Recommendations for Beaches in Wells Bay

Recommend. #	Category	Action	Implemented by	Cost	Possible Funding
1.1	Natural/Geological Resources	GIS database of coastal resources in Wells Bay—habitat, erosion rates, public access	IF&W, DMR, MGS, SMRPC	\$30,000	State agencies in contract with ME Office of Geographic Information Systems
1.2	Natural/Geological Resources	Cooperative management agreement for bird habitat in Kennebunk	Wells Bay Advisory Committee	\$5,000	Wells Bay municipalities
1.3	Natural/Geological Resources	Increase shellfish habitat	Conservation and shellfish management committees	\$3,000	DEP; Maine Coastal Program
1.4	Natural/Geological Resources	Study impact of modifications to the Wells jetties	Private engineering firm; US Army Corps of Engineers	\$250,000 for study; alteration to be determined	Study: State of Maine/Wells Bay municipalities Modifications: USACOE
1.5	Natural/Geological Resources	Nourish Wells Bay beaches	Wells Bay municipalities; Maine Geological Survey	\$120,000 per year (See section 3.7 beach nourishment cost estimates)	USACOE; Wells Bay municipalities—local option sales tax; State funding
Subtotal				\$553,000	
2.1	Sand Dune Regulation	Create the Wells Bay Advisory Committee	Wells Bay municipalities	\$5,000 per year	Wells Bay municipalities; Maine Coastal Program matching grant
2.2	Sand Dune Regulation	Develop consistent standards for shoreland zoning	DEP; Wells Bay Advisory Committee	\$5,000	DEP current programs operating budget; Wells Bay municipalities
2.3	Sand Dune Regulation	Amend Sand Dune Rules to protect resources during construction activities	DEP	Minimal	Current programs operating budgets
2.4	Sand Dune	Develop a	DEP with	\$10,000	DEP; Maine Coastal

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Summary of Recommendations for Beaches in Wells Bay

Recommend. #	Category	Action	Implemented by	Cost	Possible Funding
	Regulation	GIS capacity for assessing sand dune permits	guidance from MGS		Program
Subtotal				\$20,000 w/ \$5,000 per year	
3.1	Economic Impact	Economic impact study of Wells Bay beaches	Muskie School of Public Service; Margaret Chase Smith Center	\$50,000	Maine Sea Grant Program grant; local option sales tax
3.2	Economic Impact	Develop economic indicators for Wells Bay beach region	SPO	\$3,000	Maine Coastal Program
3.3	Economic Impact	Develop and administer a Regional Beach management fund	SMRPC	\$1,000 per year	Wells Bay municipalities
Subtotal				\$54,000	
Total				\$627,000 w/ \$126,000 per year	