# GREEN SPACES BLUE EDGES

# GREEN SPACES, BLUE EDGES

# AN OPEN SPACE AND RECREATION PLAN FOR THE CITY OF PORTLAND

*December 2001 – December 2006*

# GREEN SPACES, BLUE EDGES: AN OPEN SPACE AND RECREATION PLAN FOR THE CITY OF PORTLAND


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# EXECUTIVE SUMMARY

# GREEN SPACES BLUE EDGES

# Green Spaces, Blue Edges

*2001-2006*

*Open Space and Recreational Priorities for the City of Portland*

## I. Executive Summary

The original *Green Spaces, Blue Edges*, published in 1993, was a comprehensive review of Portland's park system in the early 1990s. The neighborhood-based report reviewed the state of Portland's parks and provided guiding principles and recommendations for the future stewardship of open spaces and recreation in the city.

This updated version offers an opportunity to review and support the objectives, goals and principles of the original plan. It integrates approved master plans for parks, greenways and athletic fields into the Department's priorities, discusses trends that affect recreation and open space needs in Portland and identifies opportunities and challenges for the coming decade.

*Green Spaces, Blue Edges* is an element of the City's Comprehensive Plan. It articulates a future vision of recreation and open space in the City and details the necessary steps to achieve it. These steps or recommendations are developed to provide a systematic approach to park development and improvements.

Three overarching principles from the original *Green Spaces Blue Edges* provide guidance for Portland's Department of Parks and Recreation:

*1. Neighborhoods form the foundation of Green Spaces, Blue Edges. The plan exists to serve the health and enjoyment of neighborhood residents.*

*2. Parks and open spaces must be cared for under a sound management system driven by both environmental and human needs.*

*3. The City and regional parks, open spaces, recreation and natural features comprise an environmental whole physically connected and interdependent.*

With substantial community involvement as part of the original report, eight goals and fourteen objectives have been defined to provide a framework for the Department to prioritize their work. These are listed in Chapter one.

The initial *Green Spaces, Blue Edges* report identified and prioritized 170 specific park improvement projects within the City of Portland. Their status is outlined in Chapter 2. Changing priorities, the shift to master plans and opportunities for collaborative work changed the order in which these projects have been done. The current priority list is also found in Chapter 2.

This report also outlines physical and natural elements in Portland's landscape, with a brief description of what they are. It also identifies and describes some of the special issues for protecting and conserving these features.

Management of the City's parks is done through the Department of Parks and Recreation, established in 1993. Funding for the Department increased throughout the 1990s, translating into increased maintenance and capital improvement projects. Denise C. Albert now heads the Department and better service for constituents is one of her priorities.

A significant change in how the Department approaches upgrading parks, greenways and cemeteries is reflected in a master planning process. These are comprehensive, long-term plans that integrate a site's history, resources and community needs with a vision for the future. Eight master plans have been completed to date and another five are in progress.

The City of Portland has drawn down its funding reserves over the past three years. Departments have cut their budgets by 4.5% for FY 2002. In addition, the Capital Improvement Plan has been substantially reduced. This will affect the Department's ability to implement completed master plans.

The coming decade will provide a host of opportunities and challenges for Portland's Department of Parks and Recreation. A brief listing of these are included below.

Opportunities—

- The City has and should continue to attract private funding to enhance recreation and open space goals.
- The Department should foster partnerships with nonprofits that have similar goals. This sector is growing in Portland.
- Now that park needs and projects have been identified and articulated through master plans, the Department can build on projects done by other City Departments and organizations.

Challenges—

- Reduced funds available for the Capital Improvements Plan will hamper efforts to upgrade Portland's parks and open spaces.
- More athletic field space is needed. While Portland's population has not grown substantially in the past two decades, formal use of athletic facilities has doubled.
- Resources are needed to upgrade existing facilities and infrastructure to current standards, for health and safety as well as to support the high level of use.
- The competing demands of a more diverse community create challenges. The needs of Portland's population have changed requiring such things as off-leash areas, multi-purpose fields, and other facilities.
- The need for consolidated office space for the Department of Parks and Recreation.

The development of over 20 parks in the City is traced in later chapters of this report and the evolution of the parks system to respond to the changing needs of its residents is discussed.

Finally, profiles of the recreation and open space resources of Portland's neighborhoods are presented, along with a brief history of the neighborhood, its land use, housing and demographic characteristics.

Overall, this report documents the progress made toward enhancing Portland's park and recreation system as well as outlining new priorities and directions for the coming decade.

# CHAPTER ONE:

## INTRODUCTION

# GREEN SPACES BLUE EDGES

# CHAPTER ONE: INTRODUCTION

> *"Nature pervades the city, forging bonds between the city and the air, water, and living organisms within and around it. In themselves, the forces of nature are neither benign nor hostile to human kind. Acknowledged and harnessed, they represent a powerful resource for shaping a beneficial urban habitat; ignored or subverted, they magnify problems that have plagued cities for centuries, such as floods and landslides, poisoned air and water. Unfortunately, cities have mostly neglected and rarely exploited the natural forces within them... The social value of nature must be recognized and its power harnessed, rather than resisted. Nature in the city must be cultivated, like a garden, rather than ignored or subdued."*
>
> *From* The Granite Garden Urban Nature and Human Design, *by Anne Wiston Spirn*

## PREAMBLE

The Indians called it Machigonne. The white oak forest, the freshwater springs and swamps, the salt-water marshes, and the rocky bluffs would all be called open space today. It was fashioned by nature— continental drift, earthquakes, glaciers, evolution, wind, rain, snow, streams and the tides. And to the Indians, it was all public, since all land belonged to the tribe as a whole.

The European colonists neither retained the open space of the peninsula and the headlands surrounding the harbor, nor did they retain the Indians' public sense of it. Instead, they initiated what was to be a continuous process of development and redevelopment. That process filled and defined the future City of Portland's open space with buildings and other structures and deeded mush of it over the private hands.

Nevertheless, to reach these buildings and new developments, the newcomers retained an interconnected network of public rights-of-way. In those rights-of-way, first carriage and then automobile roads were constructed. So were pedestrian walks.

Even today these rights-of-way constitute the largest, single publicly-held tract of land in the city. Portland's 231 miles of roads translate into approximately 1,450 acres. They are considered open spaces because they are used for many of the same purposes as parks, playgrounds, and other more traditionally defined open spaces: City residents walk, ride bicycles, roller skate, and play hopscotch in and along public ways. The city and its residents plant trees and flowers there. City residents use these rights-of-way to reach other open spaces.

Cemeteries, another form of open space, also began with the colonists' arrival. The largest public open space within the city today (outside of the roadway system) remains Evergreen Cemetery. At 239 acres, the resting place was designed as much for strolling and relaxing, as for burials.

Official parks were a later occurrence, starting in Portland in 1866, with Lincoln Park. At the turn of the century, under Mayor James Phinney Baxter's inspired leadership, Portland entered its brightest era of park planning. Over 200 acres of the city's finest land was set aside and a comprehensive park system was created to connect individual open spaces. Playgrounds, schools and athletic fields were next burgeoning in the years following World War II, thanks to a baby boom. Urban vest pocket parks have come most recently, coinciding with the urban renewal efforts of the 1960s and continuing to this day.

In the 335 years since Portland's development began, we have subtracted so much from the initially open land and water that today Portland's private places seem to dominate its remaining public open spaces. But appearances can be deceiving; there is still a surprising amount of undeveloped land within the city, land that was too difficult or too expensive to build upon economically. This land—swampy meadow, steep rocky slopes, streams and their floodplains, and boulder-strewn woodlands— reveals a distinctive character and offers unique opportunities for recreation and relaxation that is missing from more manicured parkland.

The natural environment of Portland remains not only an enduring framework within which the city develops, but also a distinctive statement of the city's uniqueness. What would we be without our protected harbor, the Eastern and Western headlands, our saltwater marshes, oak forest remnants, or the Back Cove? We have built much of our remaining open space system around these distinctive places. Yet we can and need to go further in the coming years to creatively use nature's forces and special features to handle many of the city's needs.

At the same time we need to assess the condition and potential of our existing parks and open space network to ensure that they meet the recreational needs of Portland residents now and in the future. Beyond meeting recreational needs, we should also insist that the integrity of these spaces, in particular the design integrity of Portland's historic parks, be preserved to inspire and nurture the human spirit. Finally, we should be creative and aggressive in pursuing opportunities to expand our open space system.

Open spaces have long been used in cities across the country and around the world to achieve both practical ends and lofty human aims. However, if they are taken for granted or unappreciated, they are vulnerable to neglect, ill-considered alteration, or even destruction. Only with a vision, only with a plan, can we hope to preserve, cultivate and augment these precious resources.

## PORTLAND'S OPEN SPACE AND RECREATIONAL FACILITIES

Portland has almost 1,500 acres of public open space— 1,135 acres on the mainland, 120 acres on islands served by public ferry and 220 acres on Jewell Island. Over 500 acres are undeveloped. Portland's park system includes over 100 individual parks and open spaces. Cemeteries account for over 250 acres of Portland's open space. The City also offers 28 public playgrounds (DOC Data base).

The neighborhoods with the largest amount of publicly accessible open space are Deering and Riverton, both with about 300 acres. East Deering (7 acres) and Oakdale (9 acres) have the smallest amount of public open space for mainland neighborhoods. Stroudwater has only 2 ½ acres of city-owned open space but the 80-acre Fore River Sanctuary owned by the Maine Audubon Society

supplements this. On the islands, open space held by private organizations generally exceeds public open space except on Peaks Island where the City owns 110 acres of open space (GSBE, 1994). Open space on the mainland totals 18 acres per 1,000 residents. Open space on the islands increases this ratio to a citywide total of 19.9 acres. Jewell Island adds another four acres to this ratio but the island is not served by public ferry.

## DEVELOPING A VISION FOR PORTLAND'S RECREATIONAL OPEN SPACE

This plan articulates a vision of Portland's recreation and open space system that will enable the City and its residents to make informed decisions about the future stewardship of these resources. The plan intends to answer the following questions: What are the recreation needs of Portland's residents and how can these best be addressed? What is the condition of Portland's park system? What is the historic design legacy of the park system? What improvements are needed and what land acquisitions should be pursued? How can the plan be implemented? How much will it cost and how should it be paid for?

This review is part of the City's Comprehensive Plan and forms the basis for city policy decisions on land use, zoning and facility improvements. It helps the City more efficiently coordinate and focus its resources to address community needs.

*Green Spaces, Blue Edges* is divided into six chapters:

1. **Introduction**
   Outlines the need, process and underlying goals and objectives for this plan to provide context for this report.

2. **A Vision for the Future: Citywide and Neighborhood Recommendations**
   Articulates a vision for Portland's open spaces, documents progress on past priorities and establishes new priorities for Portland's parks and open spaces for the coming years.

3. **Portland's Natural Environment**
   Outlines physical and natural elements in Portland's landscape, with a brief description of what they are. This chapter also describes some of the special issues for protecting and conserving these features.

4. **Management of Open Spaces and Recreation**
   Discusses Portland's current system for managing parks and recreation programs and how it has changed over time. It identifies opportunities and challenges for the coming years.

5. **History of Open Spaces and Recreation**
   Traces the development of over 20 parks in the City and discusses how the parks system has evolved to respond to the changing needs of its residents.

6. **Review of Portland's Parks, Open Spaces and Recreation with Neighborhood Profiles**
   Profiles the recreation and open space resources of Portland's neighborhoods, with a brief history of the neighborhood, its land use, housing and demographic characteristics.

## THE NEED FOR RECREATION AND OPEN SPACE

Open spaces play an important role in sustaining the City's natural areas and fulfilling a human need for recreation. Open spaces provide homes and food sources for wildlife, stormwater storage, and filtration of stormwater runoff. Trees help filter air pollutants from automobiles and cool the air in the summer. Open spaces are a natural buffer to protect and sustain the delicate balance of our ecology from human activities.

Access to recreation and open space is a fundamental human need. In the context of an urban community such as Portland, open space provides a physical and visual opportunity to decompress from the rigors of work and city life. The need for "common grounds" or "breathing room" is as relevant today as it was in the 1890's when advocated by Mayor James Phinney Baxter.

The availability of quality recreation and open space facilities help a community attract new industry, jobs and investment. A community's quality of life, shaped in part by its park system, has been cited by many sources as an increasingly important factor in influencing the location of major job-producing industries.

Recreation is increasingly viewed as an important factor in maintaining adult and youth health— both physical and mental. The City should provide ample and affordable recreation opportunities for all of its citizens. For many, municipal facilities constitute their primary access to athletic programs and outdoor recreation.

## PUBLIC PARTICIPATION IN THE PLANNING PROCESS

Portland's residents were actively involved in developing the original *Green Spaces, Blue Edges* and the Friends of the Park Commission (FOPC) spearheaded the plan's development. Readers from several walks of life critiqued the plan and a lecture series highlighted issues important in the development of the initial plan. Public meetings also helped focus input.

This update was initially prepared by the City's Department of Parks and Recreation with help from Gro Flatebo, a consultant. The City and the Friends of the Park Commission reviewed the initial draft of the plan before it was incorporated into the final format.

The strength of the original plan was the development of goals and objectives for the management of Portland's parks and open spaces. Initially defined by the Friends of the Park Commission, they guide the City of Portland's efforts in this area. The goals in turn help articulate overriding principles to attain those goals and a vision for the future. These principles and the vision are detailed in chapter 2.

## GOALS AND OBJECTIVES

The goals and objectives of this plan are presented below. These goals are the backbone of this process in that they represent what Portland's residents want most from their parks system.

The bold-faced text represents goals. These goals describe what should be accomplished while the objectives, shown under each goal, indicate how the goals should be achieved.

## Provide a wide range of recreation and open space opportunities to address the athletic, recreation, leisure, ecological, and scenic needs of Portland's diverse population.

- Evaluate the recreation needs of City residents on a periodic basis using community surveys to insure that recreation and park services and facilities are meeting the needs of Portland's residents.
- Develop a comprehensive management plan for the City's park system that sets forth the necessary resources, management methods and practices required to sustain a high quality park system to meet the needs of Portland's residents.
- Establish and sustain adequate funding to properly maintain, improve and expand the park and recreation system with consideration of all potential funding sources.
- Rehabilitate and upgrade existing park and recreation facilities in accordance with a site master plan emphasizing high quality improvements, appropriate access under the American Disability Act, and design excellence.

## Develop a vision of the natural and landscape environment that provides for the full range of dynamic contrasts found in our City that will enrich and enliven the use of our City and its built form.

- Develop a master site plan for each of the City's recognized historic parks and landscape, which respects and builds upon the original design intent with appropriate improvements reflecting contemporary needs. Develop master site plans for other parks and sensitive urban sites with regard as necessary to local conditions and use patterns.

## Create a cohesive, unified, interconnected open space system that builds on the historic legacy of our parks, our existing open space studies, the best knowledge of our day, and the informed will of its residents.

- Implement the Portland Shoreway Access Plan including development of a comprehensive system linking together inland parks, trails, and shoreway access points.
- Interact and work with other public and private organizations to achieve this goal.
- Consider the recreation and open space planning of surrounding communities to link open space resources.

## Identify, conserve, protect and enhance recreation and open space resources in the City.

- Develop a comprehensive management plan for the City's park system that sets forth the necessary resources, management methods, and practices required to sustain a high quality park system to meet the needs of Portland's citizens.

## Foster a balance in our natural and built environment that will enhance the quality of life of Portland's residents.

- Educate the public on the City's open space and ecological resources, the opportunities they provide, and the importance that such resources play in the quality of life in the community.

## Extend the public's range of open space opportunities and the ability to pursue its choice of use without social or economic constraint, elaborate planning or community intervention.

- Acquire and improve additional facilities in neighborhoods that have been determined to have inadequate or insufficient open spaces and recreation resources.

## Maximize community involvement and participation to shape the recreation and open space plan and it's implementation.

- Evaluate the recreation needs of City residents on a periodic basis using community survey to insure that recreation and park services and facilities are meeting the needs of Portland's citizens.

**Develop an open space system that considers the natural forces of air, water, vegetation and landform to minimize foul odors, eyesores, and noise, and to maximize clean soil, clean air, and clean water in Portland.**

- Locate or undertake environmental studies identifying the most critical climate and air pollution, flooding, erosion, surface and ground water pollution problems, and threats to City water supplies, plant communities and wildlife, and their sources.
- Using scientific models and studies, determine the optimal organization of open spaces and vegetation to minimize the identified environmental problems.

# CHAPTER TWO:

## A VISION FOR THE FUTURE: CITYWIDE AND NEIGHBORHOOD RECOMMENDATIONS

# GREEN SPACES BLUE EDGES

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## CHAPTER TWO: A VISION FOR THE FUTURE; CITYWIDE AND NEIGHBORHOOD RECOMMENDATIONS

### INTRODUCTION

Eight goals and fourteen objectives were defined with considerable public input in the original *Green Spaces, Blue Edges* and are presented in chapter one. They present clear aspirations, but where to begin? And how do we translate them into a plan that can be grasped simply and comprehensively? This chapter translates the goals and objectives into three overarching principles and paints a vision of the future that achieves those goals and objectives.

### *1 Neighborhoods form the foundation of Green Spaces, Blue Edges. The plan exists to serve the health and enjoyment of neighborhood residents.*

- Neighborhoods should have open space focal points.
- Recreational opportunities should be available for all ages and genders.
- Neighborhood open space should be within walking distance.
- Portland residents appreciate their park system.

### *2 Parks and open spaces must be cared for under a sound management system driven by both environmental and human needs.*

- Management of the recreation and open space system must be coordinated, efficient and effective while addressing both current and long-range needs.
- Appropriate resources must be available for maintenance. The original report advocated an increase in operating budget resources for park and facility maintenance.
- Long-term open space and recreation needs must be defined to insure an adequate share of the ten-year capital improvement budget.
- Resources beyond the City's operating budget should be used to fund the recommendations of *Green Spaces, Blue Edges*. These include management efficiencies through effective communication and coordination, as well as tapping the resources of private groups, and state and federal grant programs.
- Integrate school facility planning and city recreation and open space planning.
- Foster public and private partnerships to increase available resources and bolster stewardship of Portland's parks.
- Foster dual purpose projects, where citywide improvement programs are managed and coordinated to develop programs within the scope of the report.

## 3 *The City and regional parks, open spaces, recreation and natural features comprise an environmental whole physically connected and interdependent.*

- *Green Spaces, Blue Edges* supports a greenbelt or linkage concept for the City's entire park system as a desirable and efficient way to organize and improve the recreational system.
- Protection of natural resources as open space has an inherent value to the community beyond its aesthetic or recreation role.

### FUTURE VISION

The *Green Spaces, Blue Edges* framework illustrates the thematic structure of the vision. It, comprises three geographic levels: the neighborhood, the City and the region. The vision addresses environmental health, recreation opportunities, and interconnections at each of the three levels. The plan envisions both physical concepts and management systems, as appropriate. The vision narratives presented below depict a future Portland predicated on successful implementation of *Green Spaces, Blue Edges*. Put on your green colored glasses, think of the coming years, and follow along.

### NEIGHBORHOODS

All of the City's neighborhoods are endowed with recreation and open space resources so that residents find ample chances for outdoor activities just minutes from home. Each neighborhood has an open space or park facility that has become a focal point. These special places, which range from schoolyards to historic parks to nature preserves, define and characterize the neighborhoods. Neighborhood residents share common experiences centered on these facilities, fostering cohesiveness within the community. Virtually every home is within walking distance to a recreational or open space resource.

The neighborhoods are interlaced with pathways, sidewalks and trails along roads, brooks and shores, utility rights-of-way, or rail corridors, connecting natural and recreational resources. Environmental appreciation and interpretation has become a strong community value reinforced within the schools and neighborhood open spaces. Every City resident has access to places to observe and experience nature within his or her neighborhood. Schoolchildren surprise their parents by pointing out the important natural features such as watershed divides, wetland habitats, and forest stands within the neighborhood. With understanding comes stewardship, and former problems such as polluting of storm sewers with waste oil and lawn chemicals entering streams and ponds have all but disappeared.

Community residents play an active role in determining the priorities for municipal programs ranging from capital investments in park improvements and acquisitions, to structured recreation, to the level of care and maintenance provided facilities and natural areas. Business and community organizations commit volunteer time to park facilities maintenance and upkeep of natural areas. In some neighborhoods, civic groups handle routine tasks so City crews can devote more time and resources to bigger improvement jobs like ballfield rehabilitation. This partnership allows neighborhoods to move priority projects ahead more quickly than with municipal resources alone.

Community involvement at the neighborhood level is largely responsible for the success of the trail-building program. School sponsored projects supported by Portland Trails has taught students the principles of trail siting, engineering, and construction, with hands on participation. Coincidentally, early fears about trail vandalism and misuse have simply not materialized.

Active recreation programs play a big role in neighborhood community life, and provide for much of the interface between residents and City Hall. The wealth of programming for structured recreation activities such as Little League, swimming, gymnastics and other athletic lessons, and summer and after school programs, reinforces the neighborhoods' reputations as desirable places to live and raise children. Programming is closely tailored to meet the needs of neighborhood residents.

## THE CITY

The health and well-being of Portland's residents is promoted by a balance of the built City with a diverse and accessible system of parks, waterways, trail networks, green spaces, and urban forest, and indoor and outdoor play spaces and athletic facilities. Conservation of important natural resources including wetlands, forest stands, streams, and marshes underlies the City's ecological health. Historically, the formal park system on the peninsula has offset the urban density there. As the off-peninsula areas have grown more urban, the brooks, river corridors, and other natural areas have gained increasing importance and appreciation for their role in the balance between buildings and green spaces.

The rivers serve as greenbelts around the outer edges of the City. Major spaces such as Baxter Woods and Evergreen Cemetery are linked as a natural corridor in the heart of the City. Streams such as Fall and Capasic Brooks provide natural stormwater retention and cleanse urban runoff before it reaches Casco Bay. A network of trails along rivers, streams, island shores, and woods provides access to nature from anywhere in the City. One can hike the City as a primarily natural experience, and almost forget that Portland is an urban center. Hiking trails, stormwater management, rail and utility corridors, wildlife habitat and corridors, and other functions coexist in many locations. Some trails are used by bicycle commuters during the week, birdwatchers on weekends, and cross country skiers in winter.

The Arborway system is transforming roadway arterials through neighborhoods into multi-use, tree-lined processional corridors. The allée establishes a visual order, and calms the rush of traffic with its noise, glint, and fumes. Where neighborhoods have been divided by ever busier arterials, the arborway reconnects each side with the other. It restores the balance between the entreating message of the commercial strip and the civic message of the tree lined street, and between the primacy of the automobile with the rights of the bicyclists and pedestrians to a portion of the street right of way, defined and protected by the rows of trees maintaining order and safe coexistence in the mix.

The trees have matured along the earliest arborway locations such as the Stevens Avenue demonstration project, while more recently planted arborways will achieve their intended strength of character in the years to come. Eventually, when the canopies join in the space above the roadways, the transformation of highways into live arborways will welcome travelers to the neighborhoods en route to the city center.

There are a number of places around the City where the landform has been little changed by development. Jewell Falls in the Audubon Sanctuary, the backshore of Peaks Island, and Rocky Hill on Canco Road are examples of places that provide visitors a chance to experience and contemplate the City's natural heritage. Here one can imagine the place the Native Americans call Machigonne,

before European settlement. The Casco Bay islands offer a retreat from urban development, and a visible example of the delicate balance of human settlement within a small and fragile environment.

The major open spaces in Portland range from the natural features discussed above, to the Olmsted Plan parks around the peninsula, to Baxter Woods and Evergreen Cemetery, to the Riverton Park and Riverside Golf Course. With the Fore River and Sanctuary, Presumpscot, and Stroudwater Rivers, these places form the physical core of the City park and open space system. The addition of the hilltop parks and open spaces has provided a popular new dimension to the system, as residents enjoy the views of the City and surrounding countryside from these points of highest elevation.

The City's greenbelts provide visual relief from intense development. These corridors serve as wildlife habitat and migration corridors. Even as urban improvements to roads and airports have taken place, created and enhanced wetlands have been added to the greenbelt area to mitigate losses elsewhere. The system as a whole has been carefully managed to ensure that development and change promotes environmental health within a sustainable ecological system.

A sound management system ensures that our varied open spaces and recreation resources are well used and benefit all. Professional management administers financial and human resources to achieve optimal stewardship of the system. Preventive care and regular maintenance sustain the health and beauty of park resources. Monitoring of park use and periodic user needs assessment help prioritize scheduling of capital investments. All historic parks and major facilities have master plans for use, design, and improvements. The landscape architectural standards for the system achieve the highest design quality for appearance, accessibility, and durability. All Portland residents enjoy access to a variety of recreation and open space resources and activities for their health, pleasure and fulfillment.

## THE REGION

With the success of the Portland Trails network within the City, connections have been forged across town lines. Portland and South Portland were the first to join trail segments, and Westbrook and Falmouth soon followed. The waterfront walk connects with Spring Point Shoreway, the Stroudwater trail with Clark's Pond trail, and the Presumpscot trail is continuous through Falmouth, Portland, Westbrook, and westward to Sebago Lake. The historic Cumberland Oxford Canal System has been partially restored, and an interpretive trail exists along most of its length.

A system of bikeways provides commuting corridors from the surrounding suburbs to the north, west, and south, taking advantage of the excess right-of-way along rail routes. A train provides service to the White Mountains. It is possible to hike from Portland to the Appalachian Trail.

Over the past decade, air and water quality of the region has improved. Industrial modernization, managed growth, and careful agricultural applications have eliminated much of the point and nonpoint sources of water pollution. Diverse travel patterns have reduced reliance on single occupant vehicles so that the air quality has improved. Most paved areas have natural buffers that break down the roadway pollution before it reaches receiving waters. As pollution sources have been eliminated, more water resources have been opened up for fishing, shellfish harvesting, and swimming.

Portland residents find year round recreation opportunities a short drive from the City. Beaches from Popham to Old Orchard provide summer pleasures. Freshwater swimming, boating, and fishing opportunities are plentiful at lakes and brooks within an hour drive from Portland. Wide open spaces are not far off, providing hunting, snowmobile trails, cross-country skiing, and other outdoor pursuits. Downhill skiing resorts of various degree of challenge are nearby. Favored fall

pursuits include hiking, leafpeeping, and apple picking. Recent additions to the public open spaces within Cumberland County include the regional high points, which have become popular daytrip hiking and picnicking spots because of their spectacular views and easy accessibility from Portland.

## FROM VISION TO REALITY

This vision presents an ambitious future for Portland's parks and recreation resources. Considerable work has been done to plan how Portland can achieve the goals and vision provided above. Two tables are presented at the end of this chapter.

- The first table identifies the status of the initial recommendations made in 1993. The original *Green Spaces, Blue Edges* identified 170 specific park improvement projects within the City of Portland. This table documents the substantial progress made toward reaching the initial goals articulated in this report. Many of the citywide recommendations have been completed or are on-going with the exception of those that involve land acquisition. Not all the neighborhood pilot projects have been completed, while some projects further down the priority list have been done. This discrepancy reflects the shift by the Department to a master plan approach, projects done by other City Departments, and changing priorities within the Department. Some projects were completed because there were opportunities to build on other projects. Other projects captured public attention and required immediate work.

- The second table consists of the current priority list. It outlines both citywide and neighborhood priorities and recommendations. This second table represents a change in approach from the original *Green Spaces, Blue Edges* in that master plan recommendations are identified rather than specific pilot projects. Master plans set out ultimate design objectives for specific properties so that parks, cemeteries, and greenways can be developed in a cohesive, systematic way. On a neighborhood-by-neighborhood basis, activities that are included in the proposed 10-year capital improvements plan (CIP) are identified based on master plans that have been adopted by the City Council. The other recommendations are not included in any master plans or the CIP, and may not be associated with a specific park, cemetery or greenway.

## AVAILABLE RESOURCES

*Green Spaces, Blue Edges* is a long-term plan for physical improvements that identifies recreation and open space resource needs. It identifies the direction and policies the Department will follow over the coming years to ensure that a reasonable proportion of investment is allocated to parks and recreation facilities within the ten year capital planning period. In addition, some neighborhoods and project categories are eligible for Housing and Community Development (HCD) funding.

Not all recommendations require city money; private and public partnerships should be encouraged. Individuals, groups and businesses may provide resources that the city is unable to muster within the constraints of the municipal budget. Partnerships can develop into neighborhood stewardship programs such as Friends of Evergreen and the Friends of Deering Oaks. Residents, schools, businesses can be involved in the design, development and maintenance of open space. A variety of state and federal programs are available to fund recreation and open space projects such as the Urban Park and Recovery Program (UPARR), Land and Water Conservation Funds (LAWCON), which the city has used in the past. Other funding sources may be available from grants as well as private foundations.

## APPENDIX B. STATUS OF 1994 CITYWIDE RECOMMENDATIONS

| Management of Open Space and Recreation | Recommendation | Status |
|---|---|---|
| Administrative | Integrate the principles and recommendations of Green Spaces, Blue Edges into all public programs and improvement projects. | Ongoing |
| | Ensure a coordinated, efficient and effective administrative system to manage parks, open spaces, and recreation programs and facilities to address current and long-range needs. | Ongoing |
| | Establish a municipal green space account to accept and dedicate money or lend contributions for parks and open spaces. | Land Bank and gift catalogue accounts |
| | Friends of the Park Commission should include one City Councilor | Implemented--Nathan Smith, Tom Kane, New appointment in Nov. |
| | Increase operating budget resource for park and facility maintenance. | Budgets have increased since 1993 but will remain level |
| Administrative/ Physical Improvements | Undertake at least one park master plan on an annual basis. Support implementation of existing and future master plans. | Ongoing |
| Physical Improvements | Address the high priority deficiencies identified in the neighborhood profiles of Green Space, Blue Edges. | See individual neighborhood comments |
| | Focus attention and resources on selected pilot projects. | See individual neighborhood comments |
| | Review the legal status of land considered to be park land and deed restrictions. | Land Bank--Ongoing for parks |

| Landscape and the Environment | Recommendation | Status |
|---|---|---|
| Administrative | Support Portland Partnership Landscape Planning and Planting Project. | Some components have been implemented |
| Administrative/ Physical Improvements | Undertake the Capisic Brook Stormwater Abatement Study to study alternative methods to treat dirty stormwater by natural means. | In process |
| Physical Improvements | Establish a system of arborways in the city along streets and boulevards. | In process |
| | Acquire and hold needed land for athletic facilities and conservation | Athletic field master plan completed |
| | Develop high point parks, open spaces located on the higher elevations of the City. | Land Bank Commission has identified as a priority |
| Research | Undertake comprehensive environmental assessment of the city; id and conserve unique natural and ecologically sensitive areas. Steward and protect these resources. | Land Bank Commission-beginning process of identifying blocks of open space |

| Recreation Programs | Recommendation | Status |
|---|---|---|
| Administrative | Ensure that recreation is available for all ages and that there is equality between girls' and boys' programs. | Done/ Ongoing |
| Administrative/ Physical Improvements | Establish recreation & open space focal points in all neighborhoods—could be school, recreation facility or significant open space. | In process |
| | Ensure access to public natural freshwater swimming. | Not addressed at this time |
| | Encourage and promote water-based recreational activities. | Sailing programs established |
| | Establish picnic and cookout facilities throughout the City. | Will begin, but not done as of yet |

| Park Planning | Recommendation | Status |
|---|---|---|
| Administrative | Define long-term open space and recreation needs to ensure that an adequate share of the 10-year CIP is achieved. | On-going |
| | Integrate alternative transportation principles into roadway and other infrastructure and open space projects | Addressed as projects done by Planning and Public Works |
| | Develop and update design and management plans for all parks on an ongoing basis. | Master plans are being developed on an ongoing basis. 1 Athletic Field MP, 2 cemeteries, 4 park MP adopted, 2 Greenway plans, 5 park MP underway |
| | Develop management plans for stream and river corridors | Capisic/Fall Brook Greenway Master Plan |
| | Improve grant writing coordination between City departments | Upon grant availability, UPARR submitted in 2001, otherwise not often done |
| | Design comprehensive sign system for Portland's Parks. | Beginning |
| | Ensure adequate park design resources to preserve and enhance parks and open spaces within the city. | Ongoing |
| | Improve the appearance of inactive neighborhood cemeteries. | In process |
| | Recognize importance of art in public spaces and balance relationships between art and the existing physical and natural environments. | Public art committee established. Funding made available through CIP |

| Partnerships and Coordination | Recommendation | Status |
|---|---|---|
| Administrative | Explore park apprenticeship program | Not done |
| | Facilitate private initiatives in recreation programs | Ripple Effect, Maine Island Trails, Portland Trails, Little League, PAYSA, Rugby League, Baseball and Softball Leagues, Ultimate Frisbee, YMCA, Little Ladd etc. |
| | Create and encourage stewardship programs | Portland Trails maintains several trails, MITA works on Jewell Island, Stewards of Western Cemetery, and Off-leash Area Committee, etc. |
| | Encourage public/private partnerships that enhance open space initiatives | Cooperative projects with Portland Trails, Friends of Evergreen, the Millennium Tree Challenge, Tree Endowment |
| | Improve communication between the Parks and Rec Department and the School Department concerning facilities and programs | Beginning |
| | Integrate school facility planning and city recreation and open space planning. | Beginning |
| | A citizen/govt. group to assess athletic and recreational facility needs for each school district | Athletic Facility Task Force report completed and phased recommendations adopted by City Council, January 2001. |
| | Improve coordination with Portland Housing Authority | Informal information exchange |

| Linking Open Spaces and Pedestrian Circulation | Recommendation | Status |
|---|---|---|
| Administrative | Facilitate public access along shore areas and open space for properties during regulatory review | Beginning and ongoing-Riverton Planning Board projects, Land Bank, Portland Trails |
| Administrative/Physical Improvements | Extend or upgrade neighborhood walkway system | In process |
| Physical Improvements | Link open spaces in Portland with open spaces in surrounding towns | Not done |
| | Inventory all pedestrian and bike trails in neighborhoods. | Portland Trails has done this and published a map |

# Neighborhood Projects Proposed by the Original Green Spaces, Blue Edges

| Neighborhood | Recommendations | Status |
|---|---|---|
| *Deering Center* | | |
| Pilot Project | Reorganize the children's play area between Deering High School and Longfellow School. Address grading issues and provide a small sitting area. Provide an outdoor basket ball court at Deering High School or Longfellow School | Relocating playground underway<br>Basketball Court in 2002 phase |
| High Priority | Implement Evergreen Cemetery Master Plan | Master plan done. Evergreen Ponds phase I beginning in summer 2001. |
| | Address gaps in the neighborhood walkway system:<br>Trail system to Back Cove, Capisic Brook Rocky Hill and Presumpscot River | Near future to coordinate with Portland Trails |
| | Stevens Ave. Traffic calming project | Done |
| Other | Address recreational needs of Lincoln School | Not done |
| | Presumpscot/Deering High fields drainage issues | Redone in mid-1990s, work not up to specs and needs to be done again. Scheduled in next phase of Deering High athletic field projects |
| | Improve Drainage at Presumpscot Park near the Little League Complex and the pond. | Will be evaluated |
| *Downtown* | | |
| Pilot Project | Renovate Tommy's Park | Money encumbered and preliminary design in process. Master plan begun |

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| **High Priority** | Acquire land bounded by Park, York, State and Commercial Streets for park space | Harborview Park In process of acquiring park from MDOT. |
| | Establish rest facilities for shoppers, tourists, festival goers | Done –Portland Downtown |
| | Connect the Shoreway Trail to the Eastern Prom | Done |
| | Reassess Congress Square Plaza | Downtown traffic and streetscape study done |
| | Develop plan for Lincoln Park | Will begin master plan |
| | Development close to Lincoln Park should complement the park | Will consider with master plan |
| | Look at opportunities presented by Franklin Street | Portland comprehensive traffic study |
| **Other** | Develop a design plan for Boothby Square | Project completed |
| | Enlarge pedestrian plaza at Portland Museum of Art | No |
| | Consider park near Shepley Street | No-private land |
| | India Street and Gorham's Corner-guide development to provide opportunities for open space and pedestrian linkages | Done— Ford statue |
| | Develop a major open space as part of redevelopment on the waterfront | Waterfront study beginning |
| | Integrate public access to city fish pier | Waterfront/transportation commercial use |
| *East Deering* | | |
| **Pilot Project** | Improve turf conditions and repair the backstop of the Presumpscot School playfield | Not done |
| **High Priority** | Address gaps in the neighborhood walkway system<br>Veranda St residences to Presumpscot school<br>Veranda St to Martin's Point<br>Railroad ROW | Not done |

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| | State land along 295 to water<br>Trails from Eastern Prom to East Deering<br>Presumpscot School to cemetery behind school | |
| Other | Picnic area, trail and signage on Martins Point | Done |
| *East End* | | |
| Pilot Project | Support the use of Jack School as a recreation center with appropriate staffing to better meet the needs of East End residents. | Done- after school program and teen activities |
| High Priority | Address gaps in the neighborhood walkway system<br>Back Cove from Eastern Prom via off ramp | Done |
| | Update management plan for the Eastern Prom | Not done |
| | Develop Eastern Prom Walkway from Commercial Street along Eastern Prom to Marginal Way | Done |
| Other | Improve hillside below Jack School | Not done |
| | Consider more vest pocket parks | Bayside Playground |
| | Work with Portland Housing Authority to better address the recreation needs of their residents | Not done |
| | Expand facilities and services at East End Beach | Done |
| | Rehabilitate the play equipment at Adams School | Done |
| | Extend size of Bayside Playfield | In progress-- preliminary design done. Included in phased-in recs. of Athletic Facilities Task Force |
| | Resurface Munjoy Hill basketball court | HCD funds for design/development-Adams School & Anderson Basketball Courts done |
| *Islands* | | |
| Pilot Project | Acquire parcel next to the Peaks Island Elementary School to | Done |

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|---|---|---|
| | enlarge playground | |
| **High Priority** | Assist island residents to articulate needs | Beginning |
| | Protect shoreway access | In process |
| | Review stewardship of city land | Done-land transferred to Peaks Island Land Preserve |
| *Nason's Corner* **Pilot Project** | Work with the Maine Audubon Society to develop a westerly entrance to the Fore River Sanctuary. Develop trail to the Jewell Falls bridge. Consider a trail from Hall School to Brighton Ave as the first leg of a greenway plan.— Rowe Avenue Trail | Portland Trails and City Land Bank in progress. Fore River Sanctuary expanded by land at Starbird Lane |
| **High Priority** | Address gaps in the neighborhood walkway system<br>Capisic Brook Trail | In progress, included in Capisic Brook Greenway Master Plan |
| | Greenway corridor along RR corridors from the MAS sanctuary to Westbrook and looping down to the Stroudwater River Trail | In progress— Capisic Brook Greenway Master Plan |
| **Other** | Outdoor basketball court at Hall School | Not done, slated for phase II |
| | Rehabilitate Hall School recreation facilities | Playground done |
| *North Deering* **Pilot Project** | Explore developing recreational facilities at Portland Regional Vocational Tech Center-trails, picnic areas, basketball courts and other amenities. | Some cooperative work done with students-basic trail development |
| **High Priority** | Evaluate needs in North Deering area | Not done |
| | Consolidate Oatnuts Park | Beginning |
| | Develop facility in outer Washington Ave-Summit St. area | Recommended in Athletic Fields Master Plan |
| | Develop basketball and tennis courts | Done at Lyman Moore |
| | Tot lot in the Maine Avenue area | Not done |

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| | Develop plan for Lyseth-Lyman Moore school<br>Assess need for a recreation center<br>Upgrade playing fields | Playground done, comprehensive study not done. Athletic Fields Report identified rehabilitation needs. |
| | Address gaps in the neighborhood walkway system<br>Fall Brook Trail<br>Presumpscot River<br>Access along interurban railway | Fall Brook Greenway Master Plan identified needs<br>Trail and open space Acquisition in process<br>Piece acquired from Water District |
| Other | Master plan for Ocean Avenue landfill | Not done |
| *Oakdale*<br>**Pilot Project** | Provide a pedestrian linkage across Forest Avenue from the neighborhood and the University of Southern Maine to Back Cove. | This proposal has been integrated into USM's expansion proposal. |
| **High Priority** | Address gaps in the neighborhood walkway system<br>Baxter Boulevard to Marginal Way<br>Improve linkages to Dougherty Field | <br>New path<br>Not done |
| | Develop Back Cove/Payson Park Master Plan | Adopted 2001. Implementation will be done in phases. First phase underway |
| | Develop recreation facilities between Brighton and Forest Avenues | Not done |
| Other | Establish a neighborhood focal point | Not done |
| | Encourage USM to preserve their open space | Not done |
| | Rehabilitate the Nathan Clifford School paved play area | Done |
| | Delineate property boundaries of Pedro Field to prevent encroachment | City and private owners are reviewing |
| *Ocean Avenue*<br>**Pilot Project** | Develop the Baxter Trail from Back Cove, Mackworth Street, and Baxter Woods to Stevens Ave. | Not done |

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| **High Priority** | Develop a master plan for Payson Park/Back Cove | Adopted in Jan 2001. Phased implementation |
| | Address gaps in the neighborhood walkway system<br>Fall Brook | Fall Brook Greenway Master Plan adopted 2001 |
| | Landscape plan for Heseltine Park | Not done |
| | Drainage improvements at the Payson Park baseball field | Addressed in Payson Park Master Plan. To be phased in. |
| **Other** | Upgrade Payson Park tot lot | Done |
| | Reclaim park land of Barrows Park | Not done |
| *Riverton* | | |
| **Pilot Project** | Consider Reed School as a play area. Review needs of the population | Not done |
| **High Priority** | Address gaps in the neighborhood walkway system | Portions in progress |
| | Riverton School and housing to Presumpscot River | |
| | Presumpscot River trail | |
| | Trail along the inter-urban railway | Evergreen Cemetery Master Plan identifies need |
| | Evergreen Cemetery | |
| | Determine legal status of Riverton Trolley Park, develop a master plan | In progress |
| **Other** | Repair Riverton School tennis courts, | Riverton done |
| | Review Little League field | Not done |
| | Protect stands of trees | Verizon is in process |
| | Develop a reclamation plan for the gravel pit behind the Quaker Meeting House | Not done |
| *Rosemount* | | |
| **Pilot Project** | Review the layout and amenities at Dougherty Field | Master plan adopted in 2001, phase I in planning and implemented |

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| **High Priority** | Develop more recreation facilities in the area | Not done |
| | Address gaps in the neighborhood walkway system<br>Capisic Brook Trail<br>Fore River Trail | In progress thanks to Portland Trails<br>Capisic Brook Greenway Master Plan |
| | Restore Capisic Pond | Capisic Brook Greenway Master Plan |
| ***Stroudwater*** **Pilot Project** | Identify needs of Stroudwater community and include in CIP and operating budget. | Beginning |
| **High Priority** | Review undeveloped land for acquisition | Portland Land Bank Commission reviewing |
| | Address gaps in the neighborhood walkway system<br>Fore River Trail<br>Fore River Sanctuary connections<br>Connect trails in Portland with So. Portland | Portland Trails—Portions of connectors |

*West End*

| | | |
|---|---|---|
| **Pilot Project** | Reset Western Cemetery gravestones | Master plan developed and dogs removed from cemetery. In progress, slated for 2001-2002 |
| **High Priority** | Implement Deering Oaks Master Plan | Ongoing |
| | Acquire water access near Casco Bay Bridge | Not done |
| | Renovate Tate-Tyng Playground | Mostly done, applied for UPARR grant for remainder |
| | Enlarge and build Harbor View Park | Done |
| | Acquire land between Harbor View Park and Veteran's Bridge for park space | Done as part of bridge project |
| | Address gaps in the neighborhood walkway system<br>Harbor View Park to Commercial St.<br>Improve safety at King Middle and Reiche Schools<br>Sidewalk from Western Prom to Western Cemetery | Done<br><br><br>Western Cemetery Master plan |
| **Other** | Design issues for Valley Street park | Done, dog park, fenced in off- leash area, community gardens |
| | Improve Western Prom based on Olmsted Plan | In progress |
| | Design plan for Bramhall Square | Not done |
| | Resurface Fitzpatrick Stadium | Currently in progress, slated for completion Sept. 2001 |
| | Repair Western Cemetery | In progress, recommendations in Western Cemetery Master Plan. |

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|---|---|---|
| *Peaks Island* | | |
| High Priority | Develop a master plan for open space on the island and expand trail access | In process by Peaks Island Land Preserve |
| Other | Reclaim City-owned gravel pit | Beginning |
| *Great Diamond Island* | | |
| High Priority | Relocate playground | Done |
| | Re-establish public access to parade ground | Not done |
| *Fort Gorges* | | |
| High Priority | Update and implement the Fort Gorges Management Plan | Not done |
| *Jewell Island* | | |
| High Priority | Assist the State of Maine and the Maine Island trail Association in stewardship of this island. | Not done |

# 2001 Priorities

CITYWIDE RECOMMENDATIONS

| Management of Open Space and Recreation | Recommendations |
|---|---|
| *Administrative* | Integrate the principles and recommendations of *Green Spaces, Blue Edges* into all public programs and improvement projects.<br>Ensure a coordinated, efficient and effective administrative system to manage parks, open spaces, and recreation programs and facilities to address current and long-range needs.<br>Develop a data base for properties and facilities. |
| | Increase operating budget resource for park and facility maintenance. |
| *Administrative/ Physical Improvements* | Undertake at least one park master plan on an annual basis. Support implementation of existing and future master plans. |
| *Physical Improvements* | Address deficiencies identified by the Department of Parks and Recreation. |
| | Review the legal status of land considered to be park land and deed restrictions. |

| Landscape and the Environment | Recommendations |
|---|---|
| *Physical Improvements* | Establish a system of arborways in the city along streets and boulevards. |
| | Acquire and hold needed land for athletic facilities and conservation. |
| | Develop high point parks, open spaces located on the higher elevations of the City. |
| *Research* | Undertake a comprehensive environmental assessment of the city; identify and conserve unique natural and ecologically sensitive areas. |

| Recreation Programs | Recommendations |
|---|---|
| *Administrative/ Physical Improvements* | Establish focal points for recreation and open space in all neighborhoods—could be school, recreation facility or significant open space. |
| | Ensure access to public natural freshwater swimming. |
| | Encourage and promote water-based recreational activities including swimming, boating and fishing.<br>Establish picnic and cookout facilities throughout the City.<br>Playground reconstruction FY01 to FY08 at various sites around the city<br>Tree Trust Endowment $250,000 over five years<br>Off-leash areas to be identified and developed |

| Park Planning | Recommendations |
|---|---|
| *Administrative* | Define long-term open space and recreation needs to ensure that an adequate share of the 10-year CIP is achieved.<br>Integrate alternative transportation principles into roadway and other infrastructure and open space projects.<br>Develop and update design and management plans for parks on an ongoing basis.<br>Develop management plans for stream and river corridors. |
| | Improve grant writing coordination between City departments |
| | Design comprehensive sign system for Portland's Parks. |
| | Ensure adequate park design resources to preserve and enhance parks and open spaces within the city. |
| | Improve the appearance of inactive neighborhood cemeteries. |
| | Recognize importance of art in public spaces and balance relationships between art and the existing physical and natural environments. |

| Partnerships and Coordination | Recommendations |
|---|---|
| | Facilitate private initiatives in recreation programs. |
| | Create and encourage stewardship programs. |
| | Encourage public/private partnerships that enhance open space initiatives. |
| | Improve communication between the Parks and Rec Department and the School Department concerning facilities and programs.<br>Integrate school facility planning and city recreation and open space planning.<br>Improve coordination with Portland Housing Authority. |

| Linking Open Spaces and Pedestrian Circulation | Recommendations |
|---|---|
| *Administrative* | Facilitate public access along shore areas and open space for properties during regulatory review. |
| *Administrative/Physical Improvements* | Extend or upgrade neighborhood walkway system. |
| *Physical Improvements* | Link open spaces in Portland with open spaces in surrounding towns. |

## 2001 Neighborhood Priorities

| Neighborhood | Recommendations |
|---|---|
| ***Deering Center*** | |
| *Master Plan Priorities and CIP* | Implement Evergreen Cemetery Master Plan.<br>Athletic Fields Master Plan— Repair 2 fields at Deering High School, install artificial turf at Memorial Stadium. |
| *Other Needs* | Deering High School tennis courts and basketball courts.<br>Address gaps in the neighborhood walkway system:<br>Trail system to Back Cove, Capisic Brook Rocky Hill and Presumpscot River being evaluated<br>Address recreational needs of Lincoln School. |
| ***Downtown*** | |
| *Master Plan Priorities* | Tommy's Park Master Plan under development.<br>Athletic Fields Master Plan— continue Fitzpatrick Stadium improvements, Reiche School field improvements.<br>Implement Deering Oaks Master Plan.<br>Complete Lincoln Park Master Plan. |
| *Other Needs* | Reassess Congress Square Plaza<br>Development close to Lincoln Park should complement the park<br>Look at opportunities presented by Franklin Street<br>Enlarge pedestrian plaza at Portland Museum of Art<br>Consider park near Shepley Street<br>Develop major open space as part of waterfront redevelopment being reviewed by Waterfront Development Task Force<br>Integrate public access to city fish pier |
| ***East Deering*** | |
| *Master Plan Priorities* | Implement Payson Park Master Plan. |
| *Other Needs* | Improve turf conditions and repair the backstop of the Presumpscot School playfield<br>Address gaps in the neighborhood walkway system<br>Veranda St residences to Presumpscot school<br>Veranda St to Martin's Point<br>Railroad ROW<br>State land along 295 to water<br>Trails from Eastern Prom to East Deering<br>Presumpscot School to cemetery behind school |

## *East End*

*Master Plan Priorities and CIP*

Rehabilitate walks on Eastern Prom.
Athletic Fields Master Plan -Reconstruct Fox Street Field
Fort Sumner Master Plan to be developed

*Other Needs*

Update management plan for the Eastern Prom
Improve hillside below Jack School
Consider more vest pocket parks
Work with Portland Housing Authority to address recreation needs of their residents
Extend size of Bayside Playfield -New playground area to be constructed spring FY 2002
Resurface Munjoy Hill basketball court

## *Islands*

*Master Plan Priorities*

No master plans for island properties

*Other Needs*

Assist island residents to articulate needs
Protect shoreway access

## *Nason's Corner*

*Master Plan Priorities*

Implement Capisic Brook Greenway Master Plan -Gone through Planning Board and City Council— CSO and trails

*Other Needs*

Work with the Maine Audubon Society to develop westerly entrance to the Fore River Sanctuary. Develop trail to Jewell Falls bridge.
Consider trail from Hall School to Brighton Ave.— Rowe Ave Trail
Address gaps in the neighborhood walkway system
Capisic Brook Trail
Greenway corridor along RR corridors from MAS sanctuary to Westbrook and looping down to the Stroudwater River Trail
Outdoor basketball court at Hall School
Rehabilitate Hall School recreation facilities

## *North Deering*

*Master Plan Priorities*

Athletic Fields-Build two Little League Fields in North Deering
Fall Brook Greenway Master Plan implementation.
Fall Brook Trail
Washington Avenue Extension-develop new fields
Reconstruct fields at Lyseth-Lyman Moore Schools

Other Needs

Explore developing recreational facilities at Portland Regional Vocational Tech Center-trails, picnic areas, basketball courts and other amenities.
Evaluate needs in North Deering area
Consolidate Oatnuts Park
Tot lot in the Maine Avenue area
Presumpscot River Preserve
Assess need for a recreation center at Lyseth-Lyman Moore school
Address gaps in the neighborhood walkway system
Presumpscot River
Access along interurban railway
Master plan for Ocean Avenue landfill

## *Oakdale*

*Master Plan Priorities*

Baxter Boulevard Master Plan

*Other Needs*

Provide pedestrian linkage across Forest Avenue from the neighborhood and USM to Back Cove.
Address gaps in the neighborhood walkway system
Improve linkages to Dougherty Field
Develop recreation facilities between Brighton and Forest Avenues
Establish a neighborhood focal point
Encourage USM to preserve their open space
Delineate property boundaries of Pedro Field to prevent encroachment

## *Ocean Avenue*

*Master Plan Priorities*

Payson Park Master Plan implementation

*Other Needs*

Develop the Baxter Trail from Back Cove, Mackworth Street, and Baxter Woods to Stevens Ave.
Landscape plan for Heseltine Park
Reclaim park land of Barrows Park

## *Riverton*

*Master Plan Priorities*

Athletic Fields Master Plan— Washington Ave Extension-develop new multipurpose fields.
Riverside Golf Course Master Plan to be done FY 2003
Riverton Trolley Park Master Plan begun. No CIP funding

*Other Needs*

Consider Reed School as a play area. Review needs of the population
Address gaps in the neighborhood walkway system
- Riverton School and housing to Presumpscot River
- Presumpscot River trail
- Trail along the inter-urban railway
- Evergreen Cemetery

Repair Riverton School tennis courts, review Little League field
Develop reclamation plan for gravel pit behind Quaker Meeting House

## *Rosemount*

*Master Plan Priorities*

Implement Dougherty Field Master Plan

*Other Needs*

Develop more recreation facilities in the area

Address gaps in the neighborhood walkway system
- Capisic Brook Trail
- Fore River Trail

Restore Capisic Pond

## *Stroudwater*

*Master Plan Priorities*

Capisic Brook Greenway Master Plan

*Other Needs*

Review undeveloped land for acquisition
Identify needs of Stroudwater community and include in CIP and operating budget.
Address gaps in the neighborhood walkway system
- Fore River Trail
- Fore River Sanctuary connections
- Connect trails in Portland with So. Portland

No developed facilities in this area

## *West End*

*Master Plan Priorities*

Implement Western Cemetery Master Plan—
Athletic Fields Master Plan -Reiche School Rec Space Improvements
Western Prom Improvements

*Other Needs*

Implement Deering Oaks Master Plan

Acquire water access near Casco Bay Bridge
Renovate Tate-Tyng Playground
Address gaps in the neighborhood walkway system
- Harbor View Park to Commercial St.
- Improve safety at King Middle and Reiche Schools
- Sidewalk from Western Prom to Western Cemetery

Improve Western Prom based on Olmsted Plan
Design plan for Bramhall Square

| | |
|---|---|
| ***Peaks Island*** | |
| *Other Needs* | Develop a master plan for open space on the island and expand trail access |
| ***Great Diamond Island*** | |
| *Other Needs* | Relocate playground<br>Re-establish public access to parade ground |
| ***Fort Gorges*** | |
| *Other Needs* | Update and implement the Fort Gorges Management Plan |
| ***Jewell Island*** | |
| *Other Needs* | Assist the State of Maine and the Maine Island trail Association in stewardship of this island. |

# CHAPTER THREE:

## PORTLAND'S NATURAL ENVIRONMENT

# GREEN SPACES BLUE EDGES

# CHAPTER THREE: PORTLAND'S NATURAL ENVIRONMENT

## Introduction

A well conceived open space plan begins with an accounting and appreciation of a community's environmental resources. Traditionally, recreational and open space resources — parks, trail systems, and preserves, among many others — have focused on natural features as their principal allure. Such resources provide an opportunity for people to both recreate and experience the many positive features of nature: its grandeur, power and beauty, to name but a few. For example, Deering Oaks Park was created, in part, to showcase the dramatic stand of mature white oaks, one of the northernmost stands of this species; the Eastern and Western Promenades both owe their appeal largely to the spectacular topography and the sweeping views they afford; and Baxter Boulevard offers an opportunity to engage in a wide range of activities in close proximity to the broad expanse of Back Cove, enjoying the aesthetic appeal of water, its wetland and arboreal edges, and the abundance of birds that visit the water body daily.

This chapter catalogs the elements of Portland's environment and describes some of the special issues of interest relating to protection and conservation of these features. It does so in part to describe the natural armature that envelops the City, and the current components of the City's open space system, but more importantly, to reveal the exciting opportunities for enhancement of this system. This chapter also is intended as a call to appreciate the many elements of the rich environment encompassed within the City's limits. As the saying goes, sometimes we "don't know what we've got 'till its gone," and we take for granted the continued existence of our favorite tree outside the office window, or the undeveloped lot next door that is awash with wildflowers and songbirds in the spring. Many of these treasured resources are all too vulnerable and it is best to take stock of them before they are threatened.

In an age of diminishing natural resources worthy of preservation and shrinking acquisition and management budgets, it is crucial to think creatively in regard to improving open space opportunities. To a large degree, gone are the days of purchasing large tracts of unspoiled, appealing land as parks. Certainly, such opportunities do exist, but they are few and far between in the built environments of areas like as Portland. Instead, it is necessary to think in less traditional approaches, to maximize the usability and quality of existing resources through limited improvements and acquisition. One important concept is to make resources serve "double duty," such as has been explored for Capisic Brook. It has been proposed that the brook and its wider corridor be modified and used to help alleviate stormwater problems and, when not used for that purpose — on any non-storm day, which is most of the year — it could also be used as a trail or simple greenway linking other resources in Portland's open space system. Another cost saving approach is that of vegetation management. By this method, a public land's trees and shrubs are actively managed according to a long term plan. The result is a desired landscape, such as a climax forest or a park like setting at minimal cost. Such approaches are not new; indeed the Olmsted plan for Baxter Boulevard was devised both to help alleviate water quality problems and to provide recreational opportunities.

Thus, this chapter is not only intended to be a catalog of resources, but also a foundation for creative thinking. It describes the environmental bounty which Portland's residents currently enjoy and it lays the stage for understanding how environmental and open space interests can further coincide in the future.

## Portland's Landscape

For the purposes of this chapter, Portland's environment is divided into three basic categories: physi-

cal, biological and cultural. The physical elements are those forces that shape the land in its most basic sense and largely define its potential uses, namely the geology, hydrology, and climate. The second level of Portland's environment consists of the biological elements, including the City's fauna and flora. The third level of Portland's environment consists of those elements that are directly related to human activity, in particular historic resources, agriculture, resource extraction, and scenic views and vistas.

The environment has been artificially compartmentalized in this way for the purposes of this chapter, to provide a sensible framework and basis for inclusion of environmental factors in the open space plan. All of these factors are interrelated; none, humans included, exists independently of the others.

## Regional Context

Just as the division of Portland's environment into distinct elements is an abstraction, so is the discussion of Portland's environment as a distinct unit; environmental elements and processes do not respect political boundaries. Thus, it is important to recognize Portland's place within a larger environmental context.

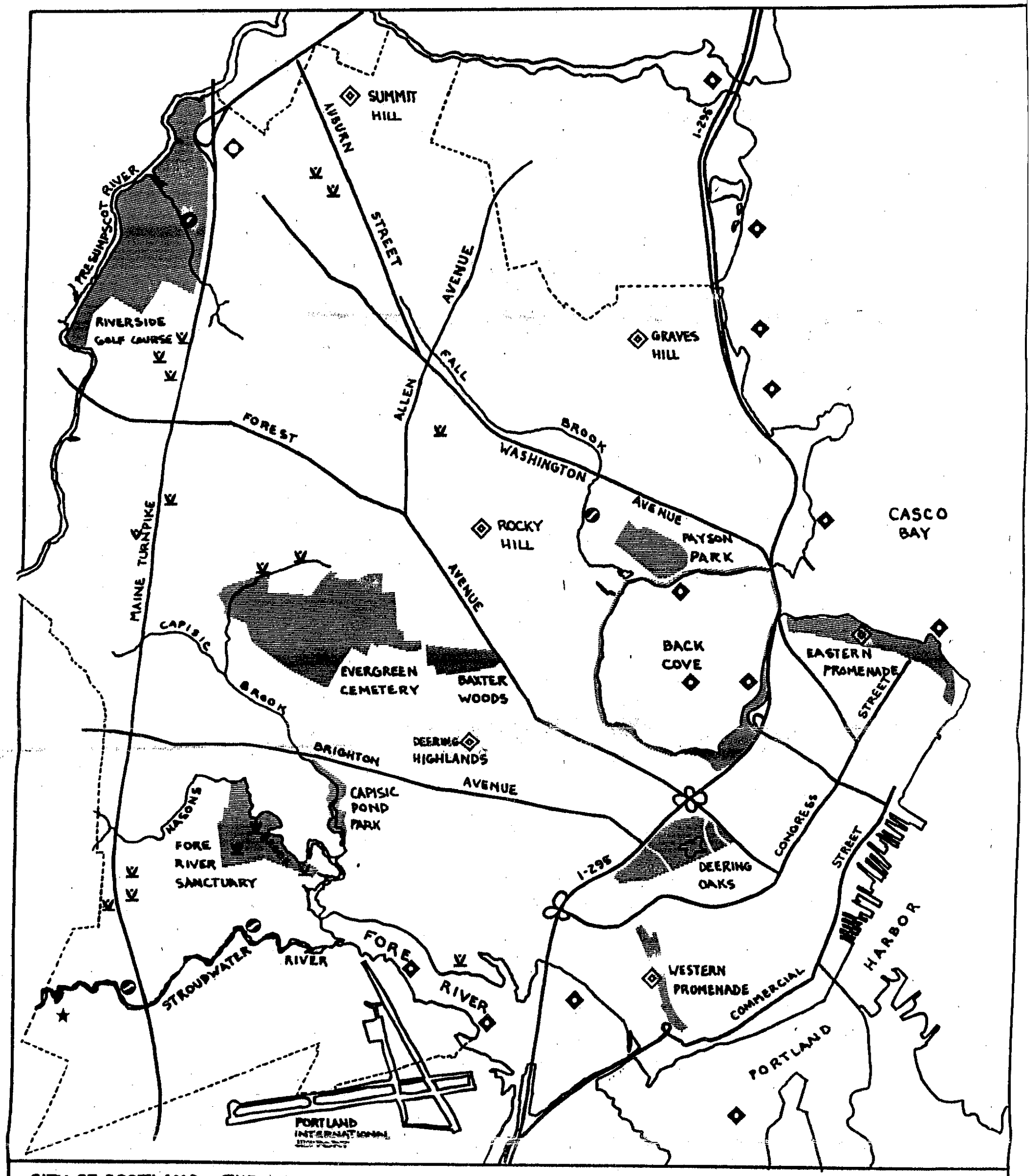
Bennett's Maine's Natural Heritage, an excellent discussion of Maine's environment, divides the state into seven basic regions, from Aroostook Limestone to the Southern Oak Forest. Portland is located within the Coastal Region, and more specifically, within the Transitional Coastal Subregion. This subregion, extending from Scarborough to Penobscot Bay, is characterized by a highly convoluted, irregular and rocky coastline. The coastal waters are dotted with numerous islands. Further, these waters with their varied temperature and salinity, and complex currents, in combination with the array of habitats with which they are associated — sandy beaches, rocky shores, mud flats, bays, inlets, riverine estuaries, wetlands and so forth — support a tremendous assortment of marine and terrestrial animals and plants. The Transitional Coastal Subregion derives its name from the changeover in forest type in this area, from the white pine and hardwoods typical of the central eastern United States to boreal forest which stretches across Canada, characterized by red and white spruce, and balsam fir. Located in the southernmost quarter of this transitional subregion, Portland is more closely aligned in terms of tree species the more temperate forests to the south; hardwood species comprise a significant portion while spruce is rare in the native forest. Portland's regional context can be defined in other ways, using climate, geology or many other environmental criteria. However, what is significant is that, although this chapter discusses Portland's environment as a distinct unit, it is interrelated with a larger region. That is, activities and environmental processes outside Portland can and do have a profound effect on the City's resources, and the converse holds true as well.

## Physical Elements

### Geologic and Glacial History

The coastal landscape we associate with Portland and its environs today was shaped through 500 million years of often violent geologic action. Volcanic activity, continental drift and collisions, erosion, sedimentation, glaciation and dramatic fluctuations in sea level all contributed to the look and feel of the land as we see it today. In geologic terms, much of the most defining activity occurred only recently, since the most recent period of glaciation 25,000 years ago.

Portland's underlying bedrock began as sediment laid down on the floor of the ancient Iapetos Ocean as early as the Late Precambrian period, roughly 600 million years ago. Those sediments were compressed, folded, heated and broken repeatedly over the next several hundred million years to form bedrock. Tectonic plate movement — the shifting of massive, continent-sized sheets of rock across the earth's mantle — and in particular, the collision of the proto-continents of Avalonia and North America, caused the characteristic folding of the bedrock seen in the Casco Bay Group, the geologic band that extends through Portland. The successive, parallel




CITY OF PORTLAND - THE MAINLAND - NATURAL FEATURES

LEGEND

- MAJOR OPEN SPACE RESOURCES
- WETLANDS
- STEEP SLOPES, CLIFFS, MAJOR HILLS
- WILDLIFE HABITAT - BIRD NESTING, FEEDING, STAGING
- -INLAND FISHERIES
- -DEER WINTERING YARDS
- STATE CRITICAL AREAS

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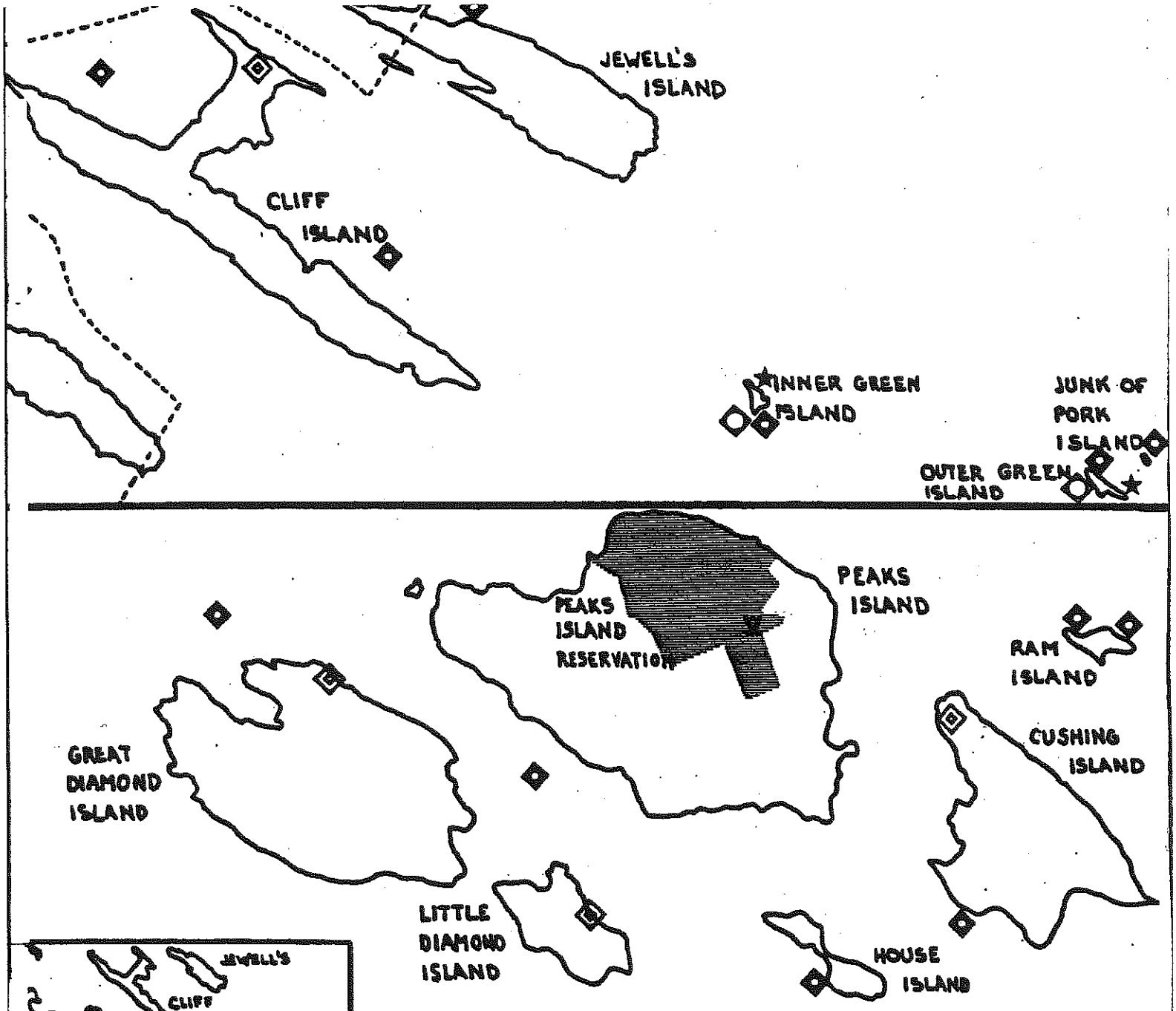


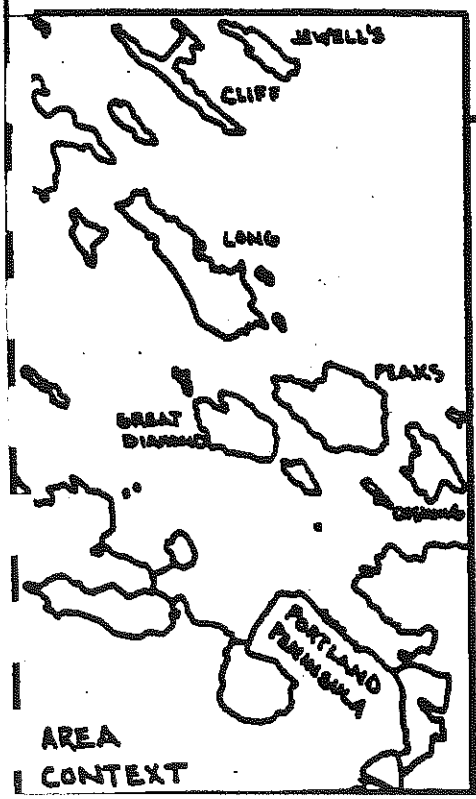


# CITY OF PORTAND-THE ISLANDS- NATURAL FEATURES

LEGEND

- MAJOR OPEN SPACE RESOURCES
- WETLANDS
- STEEP SLOPES, CLIFFS, MAJOR HILLS
- WILDLIFE HABITAT- BIRD NESTING, FEEDING, STAGING
- -SEAL HAUL-OUTS
- STATE CRITICAL AREAS

SCALE 0 FEET 6000

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folds in the bedrock in a distinctive southwest-northeast orientation is revealed in the shape and position of the islands in Casco Bay and the shape of Portland peninsula. Further, the striations in and orientations of bedrock formations both on the mainland and island portions of Portland and the surrounding area illustrate the processes that occurred millions of years ago. A bird's eye view of the Casco Bay region shows the southwest-northeast orientation of the both the coastline and the islands. If one could remove the Bay's water, one would see that these islands are essentially the crests of the folded, undulating land extending seaward from the mainland. The islands and ridges were simply the hardest, most resistant portions of the folded landscape that did not give way to the erosion and other processes that wore down other areas.

Although bedrock formation, metamorphosis and reorientation over hundreds of millions of years created the basic structure of Portland's landscape, glaciation reshaped the landscape dramatically in a relative blink of a geologic eye. Glaciers advanced and receded repeatedly over Maine, and the most recent period of glaciation, the Wisconsin Age, occurred approximately 25,000 years ago.

Glaciers develop as mean temperatures drop and annual snowfall exceeds annual rates of evaporation and melting, resulting in a net accumulation of snow each year. As the snow accumulates, under its own weight, the lower levels are compressed into ice, and with sufficient weight, that ice eventually becomes "plastic," thus flowing and moving across the landscape. As the tremendous weight of the glacier compresses the substrate, and the glaciers picks up loose material — rock, boulders, soil and sand — its movement scours the surface of the landscape. As the glacier eventually melts, the solid materials contained in its mass drop out or are distributed by the meltwater.

Although glacial action had a dramatic effect on the entire state, its impact on the coastal region, and in particular, Portland, was profound. By 20,000 years ago, the Wisconsin Age glacier was as much as three miles thick — it overtopped Mount Katahdin — and it extended out onto the continental shelf in the Gulf of Maine. Because of the tremendous amount of water tied up in the glacier, sea level was as much as 300 feet below its current level. Further, because of the weight of the ice mass, bedrock in the coastal region was depressed as much as 2,000 feet into the earth's fluid mantle. As global temperatures began to rise and the glacier began to melt and recede, the sea followed the glacier and moved landward. By 14,000 years ago, the glacier had receded to roughly the current coastline and within an additional 1,000 years had receded at least 15 miles inland of the coast in the Portland area, and even farther throughout most of state. At this point, most of the coast, Portland included, was beneath this expanding sea that followed the glaciers inland over the depressed landscape. Sediments that washed out of the melting glacier were deposited under this inland sea; these marine deposits became the soils found in Portland today.

With the continued retreat of the glacier, the previously compressed bedrock rebounded, lifting out of the inland sea. By 10,000 years ago, the glacier had completely retreated from Maine. However, the massive glacier still covered much of Canada and tied up a significant portion of the earth's water. Consequently, the combined effect of the rebounding bedrock and lower sea level resulted in the coastline's advance seaward well beyond its current position. By 8,000 years ago, sea level was 300 feet below its current level and a significant portion of the continental shelf was exposed. However, relatively quickly in geologic terms, the sea moved landward again as a result of the continued glacial melting. By 5,000 years ago, sea level was within 12 feet of its current level and, in subsequent centuries, the coastline's present configuration slowly emerged.

## Topography

Portland forms a transition from the low-lying shore areas to the higher ground of inland areas. Portland is the first step of a gradual rise in the land's contour that culminates in the White Mountains,

approximately 50 miles to the northwest. The mainland portion of the city extends over 4.9 miles, north to south, at its longest point and stretches over 6 miles, east to west, at its widest point. Including the islands, the city's length expands to 12 miles, north to south at its longest, and 15 miles west to east at its widest.

Portland's city limits encompass an area of approximately 46,100 acres (72 square miles), although only about 14,100 acres (22 square miles) are land area and the remainder are water, primarily in Casco Bay and Back Cove. The mainland section contains approximately 11,150 acres and the 17 island or parts of islands within Portland's city limits add approximately another 2,950 acres of land area.

The mainland is dominated by a 1-mile by 3-mile southwest-northeast-oriented double topped ridge, the Portland peninsula. At the eastern end of the peninsula is Munjoy Hill with an elevation of 161 feet; on the west is the 175 foot Bramhall Hill that ends abruptly in a vegetated sharp-faced cliff. The remainder of the mainland is relatively level, with an average elevation of 100 feet, except for a few relatively low hills and ridges. These highpoints include Rocky Hill (150 feet), outer Washington Avenue (168 feet) and Graves Hill (174 feet). Though of lesser elevation, Deering Highlands (126 feet) forms a transition from the low points of Back Cove and Fore River to the gradual rise in elevation inland. Several of the City's Islands, most notably Cliff, Cushing, Great Diamond and Little Diamond, exhibit significant hills and rises, with elevations as high as 80 feet.

Another significant aspect of Portland's topography is the tendency toward steep slopes along some of the City's shores and inland waterways. This is particularly evident along the Fore River, west of Thompson's Point; the Stroudwater River, west of UNUM; the Presumpscot River; and Nason's Brook. Many of the City's islands have similar steeply sloping topography. Cliff Island derives its name from the cliff found on that island. The 80-foot Whitehead Cliffs on Cushing Island and the lower steep slopes on Great Diamond and Little Diamond Islands are other notable examples.

Bedrock and Soils

Bedrock is an important element of the environment for a variety of reasons. First, it forms the fundamental skeleton of the landscape. Further, it affects hydrology, imposes limitations on development and, particularly where it is exposed — most notably the outcroppings of bedrock on many of the Portland's islands, at Rocky Hill and at the Western Promenade — it adds a defining aspect to the visual character of the land. Similarly, soils create a framework for both the appearance and potential uses of the land. For example, soils —which are greatly influenced by the underlying bedrock — largely determine the types of vegetation that can exist in an area. Vegetation, in a reciprocal fashion, affects the character of the soil, by limiting erosion, altering pH, and so forth. Soils also shape the built environment in Portland, affecting all phases of land development activities from the construction of building foundations and roadways to the appropriate method of treating domestic waste.

The City is underlain by mid-Paleozoic volcanic rocks and sediments metamorphosed into schists and phyllites. During and after metamorphism the rocks were strongly folded, as described previously, and some bodies of granite were emplaced. Also during this period, the Nonesuch River Fault was created. This fault extends from Stroudwater through the USM campus to Martins Point. There are no indications that this ancient fault has been active in modern times.

Soils are classified according to a number of characteristics. In a general sense, the Soil Conservation Service (SCS) describes and classifies soils according to:

- depth, which is the vertical distance from the surface to the underlying bedrock;

- natural drainage, which is essentially the capacity of soils to hold water. For example, sandy soils are often characterized as excessively drained because they allow water to pass through them quickly. Soils described

as very poorly drained, on the other hand, tend to be continually wet because of a variety of factors, including their high content of absorbent organic matter, the imperviousness of underlying layers of clay or bedrock, or other factors;

- slope, which is the typical contour or profile of the land surface (usually given as a range, e.g., 15 to 30 percent slope) where the soil is found; and

- soil texture, ranging from the very fine particles of clay, which comprise very smooth and dense soils, to the larger and grittier particles of sand, which comprise coarser soils.

SCS soil classifications also typically address the geologic origin of soils, depth to the water table and the frequency of bedrock outcroppings, among other characteristics. These soil characteristics are significant, as discussed previously, because they can greatly affect vegetation and uses of the land.

The Cumberland County Soil Survey (U.S. Department of Agriculture, Soil Conservation Service) divides soils in Portland into two general classes or associations. The peninsula and areas near and south of Brighton Avenue are generally classified in the Hollis-Windsor-Au Gres Association. The off-peninsula areas and areas north of Brighton Avenue are generally classified in the Suffield-Buxton-Hollis Association. However, these associations frequently overlap and elements of each association are found throughout the City especially the edges of the peninsula. Filled land also underlies significant portions of the City.

Although the characteristics of these soils vary, they generally exhibit high water tables. They tend to be highly subject to erosion, particularly along slopes and they exhibit relatively low water absorbency, primarily because of the presence of marine clays and the shallow depth to bedrock.

Hollis-Windsor-Au Gres Association Soils

As a group, these soils include shallow, somewhat excessively drained, gently sloping to steep, moderately coarse-textured soils and deep, excessively drained and somewhat poorly drained, level to steep, coarse-textured soils. Hollis soils are shallow to bedrock and typically are found on ridges and other higher elevations. Windsor soils are deep to bedrock and are the principal soils on the inland outwash plains. Au Gres soils also are deep to bedrock and they tend to have formed in coarse sandy deposits in depressed areas. Much of the Marginal Way area exhibits these characteristics.

Other minor soils in this class are tidal marshes (Fore River Sanctuary); coastal beaches; several soils, such as Scantic, that exhibit high water tables; and the Suffield group which is frequently located on the terraces adjacent to marshes and waterways.

The principal limitations of the major soils of this association are shallowness to bedrock, a high water table, and rapid permeability in the subsurface layer.

Suffield-Buxton-Hollis Association Soils

This association includes deep, well-drained to somewhat poorly drained, gently sloping to steep, medium-textured soils, marine deposited silts and clays and ridges of shallow, somewhat excessively drained, moderately coarse-textured soils.

Minor soils in this association are the Belgrade, Biddeford, Elmwood, Hartland, Melrose, Scantic and Swanton soils.

Suffield soils are found mainly on ridges or naturally eroded drainageways. These soils are deep, well-drained, and sloping to steep. At a depth of 24 inches, they are underlain by clay. This soil group is found along portions of the edge of Baxter Boulevard. Buxton soils are deep, moderately well drained to somewhat poorly drained, and gently sloping to

rolling soils that occur in areas near Suffield soils. Buxton soils are evident along most of Capisic Brook north of Brighton Avenue as well as between Ocean Avenue and Baxter Boulevard. Hollis soils are shallow to bedrock and somewhat excessively drained. They are found on crests of ridges that protrude through many areas of Suffield and Buxton soils. The Hollis soils are found extensively on Portland's islands.

The principal limitation of the major soils of this association is a slow and very slow permeability, and shallowness to bedrock. Other limitations are low shear strength and poor trafficability, particularly in the clayey soils.

Fill

The peninsula has been subject to extensive filling. Because of the variability of material used for fill, it is not possible to characterize the soil and its limitations without on-site investigation.

A swath of the waterfront, at points up to 200 feet in width, which currently contains the entire length of Commercial Street, was wrested through extensive filling from the Fore River to enhance the City's role as a shipping center. Similarly, the existing northern bank of the Fore River, extending northwest from the Million Dollar Bridge to Thompson Point, was created with fill. Back Cove's southeastern bank was filled, facilitating the construction of the southern portion (approximately two-thirds of a mile) of Marginal Way, and the commercial uses along that portion of the road, as well as the construction of a comparable length of I-295.

Surface Waters and Wetlands

Water resources are important for a number of reasons. First, as noted previously for the Casco Bay Watershed, water is one environmental factor that ties together broad geographic areas because it moves from one place to another, from higher elevations to lower ones. Further, of particular relevance to the open space plan, surface waters and wetlands provide countless recreational and aesthetic opportunities, including swimming, boating, fishing, and natural science education and appreciation.

Mainland Portland is virtually surrounded by water. Casco Bay, Back Cove, and the Fore, Stroudwater and Presumpscot Rivers surround over 80 percent of the City. The City of Portland includes the water areas between the mainland and the islands, and thus Portland has more acreage of water than land, approximately 32,000 and 14,100 acres, respectively. Major streams, including Fall Brook and Capisic Brook, slice through the City, in some places in culverts. There are also a number of marshes and other wetlands of varying sizes throughout the City. Many of these areas are subject to periodic flooding.

Principal Surface Waters

The principal surface waters in Portland are Casco Bay, Back Cove, Presumpscot River, Stroudwater and the Fore River. All of the rivers and streams discussed below are part of the larger Casco Bay Watershed.

In total Casco Bay covers more than 200 square miles. The Bay's entrance is 18 miles wide, its average width is 12 miles and it is dotted with more than 200 islands — propounded by some to be the largest number of islands in any U.S. water body. Closer to Portland, the Hussey and Luckse Sounds are sheltered and sufficiently deep and spacious to provide anchorages for dozens of ocean-going vessels.

Portland occupies a prominent location within the Casco Bay Watershed. The watershed is defined as the entire land area that drains by overland flow and through streams and rivers into a given body of water, in this case, Casco Bay. Casco Bay itself extends from Two Lights in Cape Elizabeth to the west to Cape Small in Phippsburg to the east. The bay covers an area of 229 square miles with 578 miles of irregular shoreline. Four major rivers, the Fore, Stroudwater, Royal and Presumpscot, and many lesser ones, drain into Casco Bay. All of these major rivers except the Royal pass through or abut Portland and empty into the bay here. The water-

shed, covering 985 square miles, extends approximately 60 miles to the north, reaching its northern terminus in Bethel at the Crooked River's northernmost extent. The watershed includes forty municipalities, and several major bodies of water including Sebago, Little Sebago, Long and Highland Lakes. Most notable among these lakes, Sebago is Maine's second largest lake and serves as the principal water supply for the City of Portland. The flow of water from this entire broad region into Casco Bay is what gives it its significance as a unit. Because of the hydrological relationship of this area, activities — industry, agriculture, development and waste water treatment, to name but a few — in communities as far away as Bethel and Albany can ultimately have an impact on the quality and character of resources in Portland — through both the drinking water supply and surface waters passing through the City — and Casco Bay.

Portland Harbor, the westernmost portion of Casco Bay, is a deep-water, year-round, sheltered harbor, only 3 1/2 miles from open ocean. Its main channel entrance is 1,100 feet wide with a depth of 45 feet at mean low tide. Within the inner harbor, the channel is 35 feet deep. Portland is the closest U.S. harbor to Europe and was for many years used as a major port for shipping and receiving of Canadian goods because it was an ideal year-round harbor. Currently, it is the largest fishing port north of Gloucester, MA. During World War II, it served as the headquarters of the North Atlantic Fleet. Until 1976, it also served as the second largest oil handling port on the east coast because it was the southern terminus of the TransCanada Pipeline, from Portland to Montreal. Although the volume of oil passing through that pipeline is less than it was during the mid-1970's, it has gradually increased through the present and Portland is still a major oil handling port.

Back Cove is a semi-enclosed tidal cove covering approximately 660 acres. Its narrow, bottle-neck opening empties into Portland Harbor. Today, its use is primarily recreational, with its water serving as an ideal location for windsurfing and its shoreline ringed with a walking/jogging/biking path.

The Fore River serves as the inner portion of Portland Harbor. It runs from the Stroudwater River and empties into Casco Bay. While the Fore River has an important water transportation function, it is also an estuary — an aquatic region where fresh and salt water mix, characterized by fluctuations in salinity, tidal action, and, typically, high biological diversity and productivity. The primary sources of this productivity are the tidal salt marshes associated with estuaries. Near Stroudwater, west of Thompson's Point, there is an extensive area of salt marsh cord grass and salt marsh hay along the river, including the Fore River Sanctuary, which contributes substantially to the productivity of the estuary.

The Stroudwater River, which runs through Westbrook and Gorham, empties into the Fore River in the Stroudwater section of Portland. This river's watershed includes sections of seven communities: Buxton, Cape Elizabeth, Gorham, Portland, Scarborough, South Portland and Westbrook.

The longest river traversing Portland, the Presumpscot, extends well beyond the City to the northwest and has the largest watershed. Its watershed comprises the northern reaches of the Casco Bay watershed, described previously, beginning with the Crooked River in Bethel, through Standish, Windham, Gorham, Westbrook, Falmouth and, ultimately, Portland. The river is also an estuary at its outlet in Falmouth.

Major Streams

There are four major stream corridors in Portland: Capisic, Fall, and Nasons Brooks, and one unnamed stream.

Capisic Brook begins with two branches. One originates north of Morrills Corner and runs west just north of Evergreen Cemetery. The second branch begins near the Westbrook/Portland border, just north of Exit 8 of the Maine Turnpike, and runs under that roadway to connect with the other branch just north of the Hall School. From there, it flows south, eventually crossing Brighton Avenue to Capi-

sic Pond, then under Capisic Street into the Fore River Sanctuary and empties into the Fore River. The highly developed section of Westbrook near Exit 8 is included within this brook's watershed.

Fall Brook starts in North Deering near Lyseth-Lyman Moore School and runs parallel to Washington Avenue. It passes under that avenue near Andover College and flows in a southerly direction, emptying into Back Cove.

Nasons Brook begins in Westbrook and runs under the Maine Turnpike south of Brighton Avenue, to the Pine Tree Industrial Park, under Rowe and Rand Avenues, and flows over Jewell Falls. It also enters the Fore River Sanctuary and ultimately empties into the Fore River.

The fourth, unnamed stream, runs in a south-north orientation through Riverside Golf Course, emptying into the Presumpscot River.

Inland Wetlands

The City's wetlands are extremely valuable because they help purify surface water, filtering water through their permeable soils and dense vegetation; limit the extent of flooding by acting as a massive sponge; visually and physically buffer developed areas; and provide crucial habitat for nesting, breeding and feeding of wildlife.

In addition to the saltwater wetlands associated with the Fore River estuary, there are a number of freshwater wetlands scattered on the mainland. Most of Portland's freshwater wetlands have been altered and encroached upon by development, but many small pockets still exist. Typically, they are found in the low-lying areas of the City that are frequently inundated with water or other land that has remained vacant because of poor soils or other factors. There is only one freshwater wetland on the mainland of Portland of sufficient size to be designated for protection under shoreland zoning regulations, on Allen Avenue near Northfield Green (discussed in Section III, "Areas and Issues of Conservation Interest"). There also are several wetlands on Peaks Island that are afforded this protected status. Although not of sufficient size to included with this program, several other wetlands are scattered throughout the City. Although small, these wetlands like the larger protected ones serve important environmental functions.

Groundwater Resources

Drinking water for the mainland is piped from Sebago Lake by the Portland Water District which serves nine other area communities. The islands, on the other hand, are served by a combination of well water and Sebago Lake water piped from the mainland. Cliff Island is totally dependent on well water. Great Diamond and Little Diamond have public water but some of the lines are seasonal. Peaks Island has year-round and seasonal water lines but there are a number of private wells.

Groundwater on the islands and the mainland originates from rain and snow that falls on the land surface. That water then filters down into the underground aquifers through aquifer recharge zones. On the mainland, the two principal aquifer recharge zones are located in fairly broad swaths along the Presumpscot River at the City's northwest border roughly from Rankin Street in the south to the Maine Turnpike in the north, and along St. John Street roughly from Danforth Street in the south to Congress Street in the north. On the islands, on average only about eight percent of the precipitation falling on the islands moves through the substrate to recharge the groundwater supply.

Climate

Climate is very important in the discussion of Portland's environment for several reasons. In large part, climate determines what vegetation can grow, and in turn what wildlife the City can support. In terms of open space planning issues, it largely determines recreational opportunities and needs. On a more basic level, climate affects day-to-day activities like transportation, mode of dress, household maintenance and so forth.

According to the National Weather Service, "Portland has very pleasant summers and falls; winters are cold and vigorous with frequent thaws; and (springs tend to be) disagreeable." The Atlantic Ocean is a moderating influence on Portland's climate. The marine influence is most distinctly felt during the warmer months when frequent southerly winds — sea breezes — have a moderating effect on temperature. Similarly, significant amounts of fog in the summer keep Portland cool compared to the inland environs. In winter, northerly or northwesterly winds are more predominant, and the ocean has a less significant influence on weather, although certainly temperatures are consistently higher throughout Maine's coastal region than they are inland, again because of the moderating influence of the Atlantic Ocean. The ocean also significantly delays the arrival of spring because of the slower thermal response of water than land to the lengthening and warming days. The temperature varies greatly from winter to summer, day to night. Day-to-day variations can also be substantial, largely because the southern Maine area is near the favored paths of weather systems that alternately bring in warmer air from southerly directions and colder air from northerly directions.

Elevation and local topography also affect weather and climate. The principal ridge of the White Mountains is over 50 miles northwest of Portland and serves as a climatic barrier that, to some extent, buffers Portland, and the larger southern Maine region, from harsher weather systems originating in the northwest.

Temperatures generally are lower and precipitation greater at higher elevations. Portland's topography ranges from sea level to a high point at Summit Hill of 192 feet and thus, climatic gradients are not an appreciable factor within the City. However, elevation is a more significant factor when comparing Portland to higher elevations elsewhere in Cumberland County and Maine.

Portland's annual mean temperature is about 46 degrees Fahrenheit, which is four degrees lower than New York City. Average humidity is 71 percent. However, with west, west-northwest, or west-southwest winds, a genuine chinook effect — a warm and dry wind from the mountains — occurs frequently and humidities of 15 to 25 percent are not uncommon. The monthly sunshine ratio varies little from the annual rule of 57 percent. Hot and cold spells are not of long duration; 90 degrees is reached only about three times each year and the zero mark is reached typically about 14 times each year. Rapid changes in temperature are infrequent.

Portland is a moderately windy city. The average wind speed is 8.8 miles per hour and wind speed has not exceeded 70 miles per hour.

There are approximately six to twelve heavy rainfalls each year, but moisture is ample and droughts are rare. The normal annual precipitation is 43.5 inches, averaging approximately four inches each month. Few violent storms hit the City, though many severe gales blow off the coast along the Gulf Stream and pass down the St. Lawrence Valley. Fog occurs frequently in the summer months, but because it most frequently occurs during predawn and dawn hours, the actual loss of sunlight due to these sieges is relatively small. Snow usually covers the ground in the city between December 15 and March 15 and the winters are cold and vigorous, though relatively mild compared with the harsher winters experienced further inland in Maine. True blizzards are rare. A striking feature is the extraordinary visibility which follows most storms, affording a clear view of the White Mountains, 80 miles distant.

### Biological Elements

Biological elements provide some of the most tangible and intriguing elements of the natural environment. Vegetation — the trees, shrubs and herbaceous plants — adds both soothing background and beauty, from the simple to the spectacular, to our experiences out of doors. Animals, on the other hand, frequently offer a more dynamic element to the landscape. From the quirky actions of a neighborhood squirrel to the majestic allure of a soaring

hawk, animals bring the stillness of natural settings to life. Aside from their simple appeal to man, these biological elements help in envisioning an improved open space system.

Vegetation

Portland is known as the "Forest City," owing to the historic profusion of trees and shrubs within the City. It is estimated that there are 20,000 street trees in the City today, not to mention the many stands of trees in parks and public lands. In addition, trees along drainage ways and streams, and on undeveloped lots are also part of Portland's community forests. These trees are an important resource that cool the streets and neighborhoods in the summer; help alleviate air quality problems by producing oxygen and absorbing pollutants; act as a buffers to screen views; delineate and define spaces; and add identity.

Forests in the Portland area were considered to be a valuable resource by early settlers. The native old growth tree stands included red and white oak, beach, hickory, hemlock, spruce, pine fir and American chestnut. Lumber was an early export product that helped establish Portland as a major trading area in the 1700's. The King of England was so impressed with the long and straight oak trees that thousands of trees were marked with the kings "broad arrow,"' an old symbol of Royal Navy property. Such trees were cut and sent back to England by the Royal Navy for their ship masts.

Portland's native forest was largely intact until the early 1800's. Around that time, settlers cleared the land for farming and turned much of Portland into pastures and meadows. Although the waterfront was a hub for trading activity, early Portland was primarily an agricultural community. A map of the 1850's shows Munjoy Hill as an open meadow, cleared of trees for grazing, dotted with very few residences.

Deering Woods was purchased by the City from the Deering Family in 1879 as a park. Later known as Deering Oaks, the "crowning glory" of the park was the magnificent, ecologically-significant stand of white oaks. Today, there are 1,000 trees in Deering Oaks. Baxter Woods was purchased by then-former Governor Percival Baxter and given to the City as a nature preserve in 1946. Today, Deering Oaks and Baxter Woods represent the best examples of Portland's original forest. Another old-growth stand is a small pocket of pine and hemlocks on Davis Farm Road at the New England Telephone facility. These trees are among the tallest in the City.

Deering Center has several old-growth oaks that were preserved in private yards when houses were built at the turn of the century. These remnants of the original forest are prized trees that contribute substantially to the neighborhood's character.

The first documented tree planting in the City took place in 1793 on Washington Avenue. More substantive tree planting was initiated on the peninsula as early as the 1850's. In the early 1900's, City tree planting continued in the off-peninsula neighborhoods. Most of the trees planted were maples. Although there were a few streets — including Carlyle, Gleckler and Wellington Roads and Riggs, Warwick and Wessex Streets — planted with silver maples, the norway maple became the dominant street tree.

Tree planting along Baxter Boulevard was initiated in 1921. Four hundred lindens were planted and they remain an essential element of one of Portland's most enduring designed landscapes. In 1905, the Olmsted Brothers Landscape firm proposed a tree-lined green belt, connecting the Eastern Prom with Deering Oaks, Baxter Boulevard and the Eastern Prom. Baxter Boulevard, as the only connecting element of that plan that was completed, illustrates the strength and vision of the Olmsted plan.

In the 1960's, Portland, like the rest of the Northeast, was devastated by Dutch Elm disease. Elm trees on the peninsula were hit the worst and 20,000 were lost. Portland learned a hard lesson about the need to diversify the tree stock. Only about 100 elm trees are left today. During the 1970's, a massive tree planting program was begun using a mix of tree species. Up to 2,000 trees a year were planted at one point.

The islands were and are more rural, thus tending to have more substantial tree cover than the mainland. When settlers first came to the islands, they typically cleared the land for grazing. When agricultural uses were abandoned for cottages, trees grew back. In Peaks Island's Pond Cove Cemetery, remnants of the original forest persist. Little Diamond has a 350- to 400-year-old stand of hickory, maple and oak trees.

Portland's park spaces preserve important forestry resources that have dwindled over time as development has occurred in the community. A summary of the most significant forestry resources follows:

Deering Oaks - The Oaks has 1,000 trees including old growth White, Scarlet, and Red Oaks.

Evergreen Cemetery - Evergreen features the largest stand of Sugar Maples in Greater Portland, with ages of approximately 100 to 150 years. The cemetery has over 1,000 trees.

Baxter Woods - This park, donated by Governor Baxter, has 32 acres of forest. It is the largest undisturbed forest in the City and contains valuable stands of White Oak and groves of Hemlock. An important section of this "old growth" forest is on land owned by the Sisters of Mercy (Catherine McAuley High School) and the Deering Pavilion. This part of the forest was likely cut at one point over 150 years ago. A plantation of Red Pines was planted in 1947 by Governor Baxter at the same time as Deering Pines.

Baxter Boulevard - The boulevard was planted with 400 Linden trees that were dedicated in 1921 as a memorial to World War I Veterans. They remain an essential element of one of Portland's most enduring designed landscapes. The boulevard demonstrates the landscaped arborway proposed by the Olmsted Brothers Landscape from in the 1905 plan for Portland's park system. The boulevard is a difficult environment due to the permeability of soils and the resultant salt water intrusion from Back Cove, coupled with the relative saline intolerance of the Linden Trees. Concern has been expressed about the lack of tree diversity at this location.

Riverton Park - Former Trolley Park contains mature stands of White Pine, Red Maple, Oak and Beech. The stand has been colonized by invasive Norway Maples once planted near View Street which have now become the dominant tree in some areas.

Capisic Pond Park - This area includes fields and some woods with Alders, Elms and White Pines.

Forest Avenue near Castine Avenue - A small stand of mature pine trees exist in this area. The trees are clustered very close to Forest Avenue and are a delight for passersby.

The Presumpscot and Stroudwater Rivers also have a variety of trees along their corridors including Red Oak, Red Maple, White Pine, Black Willow, Alders, Shadblow or Anelanchier. Vegetation along stream corridors includes large Black Willows (Salix nigra, not to be confused with Asian or Weeping Willows) that grow in the bottomlands of many drainageways. This tree helps slow floodwaters and its vast root system helps minimize erosion.

## Wildlife

The Maine Department of Inland Fisheries and Wildlife has evaluated significant fish and wildlife habitat resources in Portland. Perhaps the most significant wildlife habitat in the City is Casco Bay. The open waters, shores and islands of Casco Bay constitute a vast open space providing food, shelter and nesting for many species of marine wildlife. On the mainland, the Fore River Sanctuary is designated as the highest category for wildlife habitat.

Portland is part of a larger regional coastal habitat. Many of the shoreland resources on the mainland and the islands are significant components of this larger coastal habitat, extending from Cape Elizabeth to Harpswell. It has been characterized as follows:

> The abundance and quality of the intertidal habitat make the marine and estuarine environment of this region important. The presence of many large shallow bays with intertidal flats, mussel reefs, and eelgrass beds provide large acreages of many habitats. Similarly, the occurrence of many nearshore islands (approx. 400) provide additionally intertidal areas, as well as habitats for nesting waterbirds and rocky ledges for seals.
>
> (An Ecological Characterization of Coastal Maine, Vol. 1, Department of the Interior, U.S. Fish and Wildlife Service)

A table showing Maine Department of Inland Fisheries and Wildlife's (IFW) inventory of wildlife habitat in Portland is included on the following pages. While the findings are considered to represent "significant" wildlife habitat resources, they do not include numerous other open spaces in Portland such as public parks and green spaces that may contribute shelter and food to a diverse wildlife population. Although not highlighted through the inventory's specific rating criteria, these other resources are of great importance.

## INVENTORY OF WILDLIFE HABITAT IN PORTLAND

| | RATING | | | |
|---|---|---|---|---|
| | High | Moderate | Low | Indeterminate |
| **FISHERIES HABITAT** | | | | |
| Brooks and Streams | | | | |
| Fall Brook | | | * | |
| Capisic Pond Inlet | | | * | |
| Presumpscot River | | | | * |
| Stroudwater River | * | | | |
| WILDLIFE HABITAT | | | | |
| Deer Wintering Areas | | | | |
| Stroudwater | * | | | |
| Wetlands | | | | |
| Capisic Pond | | | * | |
| Fore River (West End) | * | | | |
| Samuel Road Area | | | | * |
| Riverton Bridge Wetland | | | | * |

| MARINE WILDLIFE HABITATS | CLASSIFICATION A | B | C |
|---|---|---|---|
| Back Cove | * | | |
| Presumpscot River | * | | |
| Jewell Island (East) | * | | |
| Green Island (Reef) | * | | |
| Outer Green Island | * | | |
| Stroudwater River | | * | |
| Diamond Island Ledge | | * | |
| Peaks Island (East) | | * | |
| Cliff Island (North) | | * | |
| Inner Green Island | | * | |
| East Deering | | | * |
| Great Diamond Island | | | * |
| Diamond Pass | | | |
| House Island | | | * |
| Cushing Island (West) | | | * |
| Cushing Island (East) | | | * |
| Cliff Island (South) | | | * |
| Jewell Island (West) | | | |

Special Wildlife Features (No ratings or classification performed)

Colonial Nesting Seabird Islands:

- House Island
- Ram Island
- Inner Green Island
- Junk of Pork
- Crow Island
- Pumpkin Knob
- Outer Green Island

Shorebird Feeding and Roosting Areas:

- Presumpscot River
- Back Cove
- Fore River

Seal Haul-Outs:

- Halfway Rock
- Inner Green Island

Casco Bay and Islands

The islands and open waters of Casco Bay represents the City's most significant habitat. There are more than 150 species of marine-related birds that have been reported along Maine's coastal waters that could be expected to visit or reside near Casco Bay. Fifty of these species comprise 99 percent of the total regional marine bird population. These species fall into seven groups: loons and grubs, cormorants, wading birds, water fowl, raptors, shorebirds, and true seabirds. Avian population estimates for Casco Bay vary seasonally from 4,600 to 32,200. Many of these birds are migratory and depend on the Casco Bay island and shore area habitats for feeding and resting during their migration from as far as the Arctic to South America. Many species also breed in and around the Bay.

It is significant to note that on the IFW inventory of wildlife habitat, shown on the preceding pages, a substantial proportion of the classified and unclassified resources are concentrated on or around the relatively small area of the City's islands. Portland's islands are particularly significant habitat because they are traditional nesting sites for 20 species of colonial nesting sea birds. Many of these birds are at the northern or southern extent of their migratory range. For certain species — common eider, black guillemot and atlantic puffin — Maine is the only state within the contiguous 48 states with breeding populations.

Maine has the largest population of harbor seals of any Atlantic state and supports the only significant breeding population in the eastern United States. It is estimated that the winter population of seals in Casco Bay is about 400 and the summer population approaches 700. Seals use half-tide ledges and island beaches for resting and "whelping," and these sites are crucial to the survival of both adults and their young.

Although the islands provide important habitat for birds, the deer population on the islands has been increasing in recent years. Although hunting is generally not permitted within the City's limits, limited deer hunts have been allowed over the last two years on Great Diamond and Little Diamond Islands, ostensibly to alleviate overpopulation.

Portland's Mainland

The urban forest of mainland Portland is also home to a substantial wildlife population. Although the City has been molded to meet the needs of humans, a patchwork of parks, private yards, trees, vacant land, streams and waterbodies provide valuable food, shelter and comfort for a diverse and remarkably resilient wildlife community. Even the urban peninsula harbors a wide variety of wildlife. For instance, birds recently spotted on the Eastern and Western Promenades and along west Commercial Street include the snowy owl, barn owl, sparrow hawk, peregrine falcon and woodcock. Off the peninsula, private yards are larger and open land is more abundant, thus providing a larger area for wildlife habitat.

Portland's 1,400 acres of parkland and other open spaces serve as important wildlife habitat. Large land areas such as the waters and mudflats of Back Cove (600 acres), Evergreen Cemetery, Fore River Sanctuary, Baxter Woods, and the Capisic Brook corridor provide significant sanctuary for wildlife.

One vitally significant aspect of wildlife habitat is its interconnected nature; isolated pockets of habitat are not capable of supporting animal populations as diverse and large as are areas of habitat connected to other similar resources by undeveloped corridors, or "wildlife highways." These "wildlife highways" might include stream or river corridors, utility easements or other linear strips of green. Portland's outer reaches and the neighboring communities of Falmouth and Westbrook are generally more rural than much of the City and support significant wildlife populations. Indeed, the outer Congress Street area near the Stroudwater River is home to a deer wintering yard. Thus, given such connecting corridors, wildlife may visit the more inner sections of the City from green spaces in the less developed sections of Portland and beyond.

An environmental report by Woodlot Alternatives on Capisic Pond, entitled Natural and Cultural Resources of Capisic Pond and conducted in 1989, identified 20 mammalian species confirmed or suspected of breeding within the 18-acre park. A total of 36 species of birds were also observed in the area. Specifically, these birds include several species of ducks, cardinals, and a green-backed heron. Resident or visiting mammals included moose, deer, river otters and mice.

Evergreen Cemetery, because of its vast size, may represent the City's most hospitable and diverse terrestrial habitat. Located near the Presumpscot River, Baxter Woods and Capisic Brook, it is ideally situated relative to other open spaces. Wildlife observed in Evergreen includes geese, ducks, squirrels, skunks, pheasants, swans, turtles, woodchucks, blue herons, fox, mink, deer, and moose, among others.

## Cultural Elements

Cultural resources represent human's most direct interaction with the environment. Whether it is the things people build on the land or takes from it, or simply experiencing the land, for the purposes of devising an effective open space plan, the cultural aspects of the environment are inseparable from the more fundamental, natural elements. Because they have a strong defining influence on the way the City looks today, cultural elements of the environment must be addressed.

### Historic Resources

Portland has a rich heritage of historically significant buildings, neighborhoods and landscapes. There are 57 landmarked buildings scattered throughout the City. Ten historic districts have also been designated by the City because of the number and concentration of historic structures within them. This designation mandates special review under the City's Historic Preservation Ordinance for exterior alterations to the 1,500 historic structures located in these districts. The districts include:

Spring Street Historic District - roughly bounded by Danforth, High, Brackett, and Pine Streets;

Stroudwater Historic District - a residential area at the confluence of Stroudwater and Fore Rivers;

Portland Waterfront Historic District - the waterfront area roughly bounded by Commercial, Exchange, Pearl and Federal Streets;

Westbrook College Historic District - Stevens Avenue;

How Houses - Danforth and Pleasant Streets;

Deering Street Historic District - Congress, Deering, Mellen and State Streets;

Western Promenade Historic District - roughly bounded by Western Promenade, Bramhall, Brackett, Emery, and Danforth Streets; and

Fort McKinley Historic District - Great Diamond Island.

Several parks have also been recognized by the City as historic resources. Under the Historic Landscape category of Portland's Historic Preservation Ordinance, Deering Oaks Park, Back Cove/Baxter Boulevard, Lincoln Park, Eastern Promenade and Western Promenade have been designated as historic resources.

The Cumberland Oxford Canal System has not been designated as an historic landmark but it is a resource that does have historic and recreational importance. Remnants of the canal system extend from the Thompson's Point property on the Fore River west through the Fore River Sanctuary and Stroudwater. Just as the canal provided a transportation route from Sebago Lake to Portland during the 19th century, it could serve a similar function in the future as a pedestrian trail linking communities along its route.

### Agricultural and Resource Extraction Activities

Agriculture had a significant presence in Portland up until the first half of the twentieth century. Portland historically had an active agriculture base. Forest trees were cut for the British Royal Navy in the eighteenth century and the King's original mast agent was located in Stroudwater. During the nineteenth century, the islands were used extensively for grazing and farming was a prominent use on the mainland. The 1914 Richards Atlas indicated vast tracts of open land in North Deering, Riverton and Stroudwater that presumably were at one point used for farming. As late as 1921, there were 80 registered dairy farms in the City. However, with the off-peninsula housing boom after World War II, the few remaining farms gradually disappeared. The City's

last active farm, the McAllister horse farm located on Warren Avenue, was converted to other uses in the mid-1980's. Today, the only remnants of Portland's commercial agricultural past are the several nurseries scattered throughout the City and the Farmer's Markets held twice a week in Portland during the warmer months, offering local produce by area farmers.

Community gardens were popular in an earlier era. When Payson Park was initially established in 1917, 20 acres were devoted to such use. After a prolonged period of diminished interest in community plots, interest has recently been revived by several groups to establish gardens on underutilized city-owned land.

There are no known working forests or timber harvesting activities in the city although several property owners participate in the Maine Tree Growth Law for managed wood lots. These include a 31 acre parcel on Cliff Island owned by Herbert Vortisch and a 125 acre parcel on outer Westbrook Street owned by S.A. Snyder.

Resource extraction is still practiced in Portland. Past quarrying at Rocky Hill is readily apparent from the scarred and angular appearance of that bedrock formation today. Blue Rock Industries processes crushed rock on the Portland/Westbrook line. Dragon Products mines rock for concrete on outer Ocean Avenue. There are no other active mining activities in the City although previously there were a number of brickyards and gravel pits.

Scenic View and Vistas

To begin, it is crucial to recognize the subtle notion of the basic visual identity of the City as a unit, represented through the concept of Gateways. Gateways to the City — the avenues of access, whether physical or visual — are zones of transition, from one environment to another, in this instance the City of Portland. Passing through these gateways, we know we have come to a different place. Dominated by the visual character of the transition, they are the means by which first-time visitors develop their initial impression and long-term residents maintain their connection to the City. Thus, they are or tremendous importance and Portland is fortunate to have a profusion of appealing and exciting gateways. The most obvious gateways are the major transportation routes into the City, from the water or along major roadways from the north or south. Of comparable importance, however, are the smaller gateways into the City along the roads threading into the city from the surrounding towns and the yet smaller ones within the City, from one neighborhood or block to the next. Once through these gateways, Portland offers a rich panorama of striking scenic views and vistas. The views and vistas enjoyed by Portland's residents and visitors are framed by a variety of elements; water, vegetation, topography, structures and other features. In combination, these elements help define Portland's unique character.

Being virtually encircled by water, Portland owes much of its beauty to this vast and remarkable resource. These water bodies, including freshwater rivers, the ocean, a working harbor and an enclosed cove provide a dramatic sensory experience: "the sight and sound of water stirs the most elemental and basic roots of our human natures." Portland's waters were recognized early in the City's history as scenic resources. Property along the Eastern Promenade was purchased by the City in the 19th century to provide open space and to protect the majestic view of the islands and Casco Bay. Baxter Boulevard was planned by the Mayor Baxter and the Olmsted Brothers as a parkway because of the unique views of Back Cove.

River corridors offer picturesque and contrasting views of the City and its natural features. The upper reaches of the Fore River include freshwater and salt water marshes, nestled in the dense surrounding transitional vegetation. Many of the areas directly adjacent to these river corridors have retained their natural features and vegetation. For example, large stretches of the Presumpscot River and Stroudwater River, are heavily wooded with dramatic steep slopes and ravines. These features can be seen at the site of

the former Riverton Trolley Park where "one can experience drastic drops of topography, breathtaking views of the river and the Westbrook landscape beyond, and pastoral, peaceful open fields." The natural character of this site was deemed so outstanding that its features were integrated into the design of the park at the turn of the century. The Fore River corridor along the central waterfront area offers views from Commercial Street that are urban in character, though still of high scenic value.

The topography of the City plays an important part in shaping views. More significantly, the bluffs of the Western and the Eastern Promenades are the high points of the peninsula. City parks were established at these locations precisely because of the scenic views they afforded visitors. While the Eastern Promenade offered views of Casco Bay, the Western Promenade provides views of the Fore River, the surrounding countryside and, on a clear day, the White Mountains. These bluffs are also significant because they serve as defining elements of the City for people coming to Portland. The Western Prom, in particular, rising abruptly from low riverside, delineates and accentuates the sense of Portland as a unit, a city of stature, for any traveler approaching from the south.

The graduated topography of the peninsula maximizes opportunities for scenic views from even inland sections of the City. While the promenades offer sweeping panoramic, picture-window views, the many gently and not so gently sloping public street that traverse the peninsula also offer numerous public views of the harbor and other areas of scenic interest. Further, the elevated peninsula provides a virtual stage for the most urban portion of the City, facilitating dramatic views of the built environment from the lower western reaches of the City, the islands, and beyond.

Off the peninsula, the topography of the City includes several high points that provide scenic vistas or are appealing objects for viewing themselves. For example, Graves Hill offers a majestic view of the Presumpscot River Sanctuary and the islands. Rocky Hill (near Canco Road), Deering Highlands and Summit Hill (North Deering) also provide pleasant vista opportunities.

The changing elevations of the islands define a unique scenic resource. The transition from rocky, often heavily vegetated shores rising to the lush, forested crowns of the islands' interiors provides an interesting contrast to the waters of Casco Bay. The rural character of the islands provides splendid views of water and vegetation either on or off the island.

In an urban context, Portland has a number of scenic roadways and boulevards. Baxter Boulevard, and the Eastern and Western Promenades have been recognized on national and local levels for their scenic qualities. Interstate 295 and the Franklin Arterial are scenic roads by virtue of their green medians, landscaping and their views of water and the City skyline. Other major streets, including portions of Park Avenue, State Street, Forest Avenue, Capisic Street and Stevens Avenue, among others, offer scenic views of adjacent parks and woodlands. Minor residential streets often provide scenic resources of high quality because of adjacent open space or their heavily tree-lined borders.

Within individual park spaces there are countless invaluable scenic resources. Evergreen Cemetery, Baxter Woods and Fore River Sanctuary are prime examples of individual open spaces that have outstanding visual attributes.

## Areas and Issues of Conservation Interest

The previous section describes Portland's environment, addressing the basic building blocks of the City's landscape. Within that context, there are many specific areas or environmental issues that warrant a focussed discussion. Generally, these areas and issues of conservation interest are concerned with the protection or preservation of resources. These include surface waters, wetlands, shoreland areas, wildlife habitats, unique natural

areas, and air quality. Some of these resources are regulated through federal, state or local programs but many are not.

Addressing these areas and issues of conservation interest provides yet another level of context and information to be used in creative open space planning. This discussion can expose needs and opportunities in an open space planning context.

Shoreland Zones

Shoreland Zones are designated in the city zoning ordinance as areas 250 feet inland from the normal high water line of rivers and Casco Bay. Shoreland areas are important because they are the edge or buffer that protects surface waters. Vegetated buffers play critical roles in protecting water quality by filtering out toxins and excess nutrients from stormwater run-off. Under the provisions of the zoning ordinance, land development activities within this area are not prohibited, but must meet certain standards. For example, all new structures must be set back a minimum 75 feet from the high-water line. Tree clearance is limited within 75 feet of the high-water line as well.

Along the Presumpscot River and certain areas of the Stroudwater River, soils and topography have limited development potential over a substantial distance from the rivers' edges, creating a natural greenbelt much wider than the 75 foot development buffer described above. In areas closest to the peninsula, shoreland areas have been more intensively developed.

The Capisic Brook, Fall Brook and Nasons Brook are subject to a Stream Protection Zone ordinance. A Stream Protection Zone is similar to a Shoreland Zone but the zone extends only 75 feet from the normal high water mark on each side of the waterway. The ordinance parallels many of the shoreland zoning requirements. These areas were largely developed prior to the enactment of this ordinance although most existing houses do meet the 75-foot setback.

Under the state shoreland zoning program, only non-forested wetlands of 10 acres or greater in size are protected under its provisions. Few wetlands in Portland meet these criteria. On Peaks Island, a number of freshwater wetlands have been afforded shoreland zoning protection exceeding the state's minimum protection requirements. There is only one wetland on the mainland section of Portland, at Allen Avenue near Northfield Green, designated for shoreland zoning protection.

Floodplain Zones

All of the river and coastal corridors, Fall Brook and Capisic Brook are subject to periodic flooding, and have been designated as flood plain areas. A flood plain area is defined as the region periodically inundated with flood waters during the largest flood event that can be expected within a span of 100 years. (This is somewhat misleading because 100-year floods occur more frequently than once each century.) Flooding during this type of storm swells the banks of these waterways as well as the lower elevation of surrounding areas. Therefore, the actual flood plain path is much wider than the actual area covered with surface water. Flood plain areas help store excess water during these major floods so that other areas may remain unflooded.

Surface Water Quality

The water quality of Portland's harbor, rivers and wetlands is affected by a combination of pollutant sources within and outside the City. A major source of pollution in earlier times was the flow of raw sewage into Portland's waters. At one point, the water was so polluted that the East End Beach was closed for bathing in 1963. With the construction of a modern sewage treatment plant on the Eastern Prom in 1979 and the subsequent expansion of the public sewer system, the quality of Portland's surface waters improved remarkably.

Numerous other communities in the Casco Bay watershed also built or upgraded their sewage treat-

ment facilities. By 1979, Portland Harbor was clean enough for the East End Beach to re-open.

While great progress has been made, other factors continue to negatively affect Portland's surface waters. A major concern is the release of untreated sewage and stormwater into the bay when the sewage treatment plant's capacity is overwhelmed by high volumes of storm water generated during large storm events — combined sewer overflows (CSO). Because of these problems, the East End Beach is still closed or posted with water quality warnings after major storm events. The City has undertaken a major study of approaches to alleviating the problems associated with CSO. The major elements investigated through this study include: optimization of the existing sewer system; control of pollutants at their sources; control of stormwater inflow into the sewer system; storage of CSO for treatment at the existing treatment plant when demand decreases after storm events; and development of new facilities for treatment and discharge of combined sewage.

Portland remains a major port for oil tankers and the potential for spills is another major concern. The automotive age brings with it more roads and parking lots coated with the residue from fuel and lubricants that washes into City sewers or drainage channels during rainstorms. Nutrients from fertilized lawns and failed septic systems are also a constant source of water pollution. Erosion and sedimentation of soil from construction sites and agriculture may also enter rivers and streams.

While certain land activities in Portland degrade water resources, pollutant sources are also introduced upstream by land activities in other communities. These upstream pollutant sources affect the water quality of downstream communities, and Portland is the last in this cumulative chain.

The Maine Department of Environmental Protection has classified surface water bodies in Portland regarding water quality. Marine and freshwater bodies have separate classifications, as follows:

Portland Harbor

Portland Harbor is divided into two classification zones. The outer portion of the harbor, outside the waters of Cushing, Peaks, Little Diamond and Great Diamond Islands, is classified as SA, the highest rating for marine waters. This classification is applied to waters "which are outstanding natural resources and which should be preserved because of their ecological, social, economic or recreational importance."

The inner harbor area is classified SC, a lower classification. This area includes the waters near the islands mentioned above, westward to the mainland and the Fore River. SC waters are "of such quality that they are suitable for recreation in and on the water, fishing, aquaculture, propagation and restrictive harvesting of shellfish, industrial process and cooling water supply, hydroelectric power generation and navigation and as a habitat for fish and other estuarine and marine life."

Presumpscot River

The Presumpscot River starts at Sebago Lake with a Class A designation (DEP's highest classification). The classification drops to Class B until a point just below the village of South Windham — presumably at the discharge point from the Correctional Facility — where it drops further to Class C (the lowest classification). The river carries this classification through Westbrook and into Portland. Class C waters are defined as having "such quality that they are suitable for the designated uses of drinking water supply after treatment; fishing; recreation in and on the water; industrial process and cooling water supply; hydroelectric power generation and as a habitat for fish and other aquatic life."

Stroudwater River

Stroudwater River is classified as B, "suitable for the designated uses of drinking water supply after treatment; fishing; recreation in and on the water; industrial process and cooling water supply; hydro-

electric power generation ... and as habitat for fish and other aquatic life." Discharges to such waters "shall not cause adverse impact to aquatic life in that the receiving waters shall be of sufficient quality to support all aquatic species indigenous to the receiving water without detrimental change in the resident biological community."

Groundwater Quality

In 1989, the Portland Island Groundwater Management Study was adopted as part of the City's comprehensive plan. Groundwater recharge and discharge areas were identified on all of the islands. This report recommended careful stewardship of the islands' groundwater resources.

The plan recognized the availability of Sebago's water on several of the islands but nonetheless recommended that land use policies should be balanced to preserve groundwater resources. One of the land use policies subsequently adopted by the City was the following:

> The goal of island land use policy shall be the protection of groundwater aquifer resources from degradation or depletion as a result of the cumulative impact of development. Groundwater resources shall be managed so that islands can be self sufficient in reliance upon natural systems for water supply and sewage disposal.

Critical Land Areas/Natural Areas Program

The State Legislature established the Critical Areas Act which is a register of sites throughout the state with "unusual natural, scenic or scientific significance ... to facilitate their preservation for present and future generations." The Critical Areas Program was consolidated with the Natural Heritage Program to form the Maine Natural Areas Program, which is administered by the Maine Department of Economic and Community Development. The Natural Areas Program now includes those lands that support rare and endangered plants and animals, exemplary natural communities, and unique, geological, hydrological or scenic features. Endangered plants and animals are also listed. According to the Natural Areas Program, Portland has not had a systematic search on the ground for rare features so there may be rare plants and animals, or exemplary natural communities that are not on the register.

There are three sites in Portland that are on the Critical Areas list — Inner Green Island, Outer Green Island and a Old Growth White Pine Stand on Davis Farm Road. These sites are described below:

> Inner Green Island - "Very small outer island that is grassy and uninhabited with a 250 to 300 foot sand and gravel beach. It is an important nesting area for Eiders and Cormorants." (2 acres)
>
> Outer Green Island - "A significant nesting site for the common Eider Duck which is the only nesting sea duck on the eastern U.S. coast." (4.9 acres)
>
> White Pine Stand off Davis Farm Road - "Stand of white pine 150 to 200 years old and 125 to 140 feet tall. Stand is near the major metropolitan area and more than half of the original stand has been destroyed." (2 acres)

Other Sites

The board that adopts nominations for inclusion on the registry has disbanded. Therefore, unadopted nominees have simply not been reviewed for significance and may be as qualified for inclusion as adopted areas. Regardless, these natural areas do have local, and in some cases, regional significance. A list of the previously nominated areas and a short description of the sites are provided below.

> Eastern Promenade - "An attractive grassy park with a good scenic vista of the islands in Casco Bay." (77 acres)
>
> Back Cove - "Large tidal flat area." (500 acres)

Jewell Falls (Formerly Chapman Preserve Falls) - "Eight waterfalls located on a tributary of the Stroudwater River amidst heavy development." (1 acre)

Peaks Island

Peaks Island Cobble Beach - "A small cobble beach about 500 feet long at one of the very few undeveloped sections." (1 acre)

Peaks Island Beach - "300 foot gravel beach on a heavily populated island. The beach is used for recreational purposes." (1 acre)

Torrington Point - "Extremely rocky area of island with heavy surrounding development." (4 acres)

Cliff Island

Cliff Island Glacial Characteristics - "Glacial evidence such as striations (thread-like lines on the surface of rocks, etc.) and Erratics. Striations at South Point and Kennedy Beach. Erratic: 1200 feet north of town landing." (300 acres)

Kennedy Beach - "2 small beaches separated by rocky ledges. One beach is approximately 350 feet long and the other is considerably smaller and more pebbly." (1 acre)

Lees Cove (also known as South Point) - "Small shingle beach, 300 feet long with a good variety of rocks and a small brackish marsh behind the beach." (10 acres)

Cliff Island Cliffs - "Very abrupt cliffs at the northeastern tip of the island approximately 35 feet high. The eastern section of the island is undeveloped and quite wooded." (4 acres)

House Island (Fort Scammal) - "A large bat population at the fort and large colony of herring gulls. The remainder of House Island is privately owned." (1 acre)

Cushing Island

Cushing Island Beach - "A small sandy beach that occupies about .25 of an acre and is used sparingly for recreational purposes. It is undeveloped, although a road is nearby." (1 acre)

Ritchery Reserve

Cushing Island (West Shore) - "Scenic area that is managed by the people who live there. A good view to the Mainland from this spot of ledges and small sandy beaches." (40 acres)

Cushing Island (Whitehead) - "These 80-foot cliffs are the highest in Casco Bay and are on a preserve. It is undeveloped. Not a critical area" (10 acres)

Great Diamond

Great Diamond Island Beach - "450-500 foot pebbly beach at the northernmost point on the island." (1 acre)

Great Diamond Island - "Development extensive except for the eastern section of the island which is heavily wooded. There are 80-foot cliffs along east edge." (420 acres)

Little Diamond

Little Diamond Island Cliffs - "35 feet high with no development. Eastern face of island is characterized by a geologic dividing point between two rocks" (1 acre)

Little Diamond Island Beach - "Two very small sandy beaches, neither one exceeding more than 300 feet in length. Both are well preserved and support vegetation." (2 acres)

Old Stand of Trees on Little Diamond - "350 to 400 year old, mature, hardwood stand of hickory, maple and oak. 4 or 5 oaks are 6 to 7 inches short of state record" (1 acre)

Jewell Island - "Scenic island in Casco Bay with a 250 long cobble stone beach at the punchbowl. There is a state park on the island which is relatively undeveloped and heavily wooded."

Junk of Pork Island - "Small outer island that is essentially rocky with 30 to 40 foot cliffs. Nesting area for double crested cormorants." (1 acre)

Rare Plants

The Natural Areas Program (endangered plant listing) lists seven plants that have been seen in Portland that are either endangered, threatened or of special concern. Some of these plants have not been seen in Portland since the turn of the century.

| Common Name | Ranking | Last Seen |
|---|---|---|
| Allegheny Vine | Critically imperiled | 1860 |
| Wild Leek | Imperiled | 1978 |
| Variable Sedge | Critically imperiled | 1911 |
| Pale Green Orchid | Imperiled | 1907 |
| Smooth Hedge-Nettle | Apparently extirpated | 1910 |
| American Sea-Blite | Occurred historically | 1932 |
| Three-Lobed Violet | Occurred historically | 1908 |

Air Quality

Air quality in Maine is significantly better than many other areas of the country. According to the Maine Bureau of Air Quality Control, a unit of DEP, air quality in the Portland area is quite good, with no major problems or areas of concern. However, DEP does monitor air quality in Maine and has a number of monitoring stations in and around Portland. There are seven pollutants or classes of pollutants that currently are monitored by DEP -lead, carbon monoxide, ozone, nitrogen dioxide, sulfur dioxide, hydrocarbons and particulates. In addition to these pollutants, DEP intends to begin testing for airborne toxics beginning in the summer of 1994.

The monitoring program is in response to state and federal requirements intended to determine whether the air Maine residents breathe is attaining national and state air quality standards which are designed to protect the public's health and welfare. Maine state standards are at least as strict as federal air quality standards, and in some cases stricter.

Air quality is important in this context primarily because of the effects of air pollutants on human health; all of the pollutants discussed below can have potentially serious implications for human health at sufficient concentrations. Further, most of these pollutants have a potentially deleterious effect of fauna and flora, as is evidenced in the case of acid rain. Finally, in extreme cases, these pollutants can even have a negative effect on man-made structures and natural features.

Generally speaking, efforts to monitor and minimize these pollutants can benefit both humans and the environment. Further, certain vegetative barriers — for example bands of forest — can effectively screen and absorb substantial amounts of these pollutants, thereby protecting more vulnerable human or natural resources. Here again is an example of how open space planning and environmental protection interests can coincide.

Lead

The predominant source of lead in the ambient environment is the combustion of gasoline in motor vehicles. There has been a significant downward trend in airborne lead primarily due to the decreased use of leaded gasoline. Another major sources of atmospheric lead are the extraction and processing

of metallic ores, which is not a significant factor in the Portland area.

Current lead levels are less than 20% of the state standard and an even smaller percentage of the federal standard. Lead levels are expected to remain fairly constant, experiencing only minor fluctuations.

Carbon Monoxide

Carbon monoxide, a tasteless, colorless and odorless gas, constitutes the largest component of pollutants found in an urban atmosphere. It is produced primarily by the incomplete combustion of fossil fuels for automobiles and building heating systems. Because motor vehicle traffic is the single greatest source of carbon monoxide, daily concentration peaks coincide with morning and evening rush hours.

Carbon monoxide levels are typically highest in cold winter months. This is because cold weather makes motor vehicles run less efficiently, or "dirtier." Cold weather also necessitates increased use of fossil fuels for heating.

Ozone

Ozone is the major component of "smog," but the haze and odors associated with smog are primarily caused by other components. Ozone is not emitted directly from specific sources as are most other pollutants; instead, it forms as a secondary pollutant. When certain pollutants, namely hydrocarbons — emitted in automobile exhaust, from gasoline and oil storage and transfer, and from many other industrial sources — react in sunlight, ozone is formed through a photochemical reaction.

The highest ozone levels generally occur during summer afternoons when high temperatures and strong sunlight promotes photochemical reactions. Stagnant weather may cause smog to linger in an area for several days. The winds may also transport ozone many miles outside of the urban environment. For example, it is estimated that the majority of the ozone in the state is transported into Maine from sources located outside the state.

Nitrogen Dioxide

Nitrogen dioxide is a corrosive and a strong oxidizing agent. In its pure state, nitrogen dioxide is a reddish-orange-brown gas with a characteristic pungent odor. It is formed when nitrogen in the air combines with oxygen during high temperature combustion. Nitrogen dioxide is also formed as a secondary pollutant when nitric oxide, another by-product of fossil fuel burning, is transformed through a photochemical reaction, forming nitrogen dioxide.

Sulfur Dioxide

Sulfur dioxide is a colorless, pungent gas with an odor like a struck match. It is emitted mainly from stationary sources that burn fossils fuels (coal and oil) such as power plants and refineries. Sulfur dioxide is highly soluble in water, readily forming sulfurous acid, a highly corrosive agent. Globally, sulfur dioxide is considered to be one of the most significant pollution problems.

The corrosiveness of sulfur dioxide and its derivatives can cause crop and material damage. Its transport and transformation contribute to acid rain, potentially causing soils and lakes to become seriously acidified.

On the Portland peninsula, DEP mandates the sale of low-sulfur fuel oil for household heating and industrial uses. This requirement was not the result of monitored violations of ambient air quality standards, but rather was the instituted in response to potential violations exhibited in atmospheric modeling.

Particulates

Particulates are tiny airborne particles of solid or semi-solid material. It is the "dirt" in the air that is visible as a "brown cloud," haze or smog. The sources of particulates are numerous: wind-blown dust and sand from roadways, fields, and construc-

# CHAPTER FOUR:

## MANAGEMENT OF OPEN SPACES

# GREEN SPACES BLUE EDGES

# CHAPTER FOUR: MANAGEMENT OF OPEN SPACE AND RECREATION

This chapter discusses about the history of Portland's open space management and how those facilities and programs are managed today. There has been a fundamental shift toward planning in a more comprehensive way through park master plans, and those completed master plans are outlined in this chapter. The mission and vision of the Department are discussed as well as the challenges and opportunities Portland faces in the coming decade.

## DEPARTMENT OF PARKS AND RECREATION

The City has managed Portland's open spaces since the nineteenth century. A Cemeteries and Public Grounds Committee oversaw the City's first open spaces— Deering Oaks, Eastern and Western Prom, Lincoln Park, and Eastern, Western and Forest Cemeteries. (Evergreen Cemetery had a different administrative structure with a trustee management system that remained in place until 1957.)

After 1885, a Board of Commissioners oversaw City park management. The Cemeteries and Public Grounds Commission managed the park system until 1915 when the Parks Commission was established. A year later, the Recreation Commission was created and given responsibility for overseeing playground programs and ballfield use. This structure remained in place until 1947 when the Parks and Recreation Department was formed, merging the functions of the Parks Commission and the Recreation Commission.

Budget constraints forced the dissolution of this separate Department in 1981. A new Parks Division was established and a Parks and Public Works Department formed. A Recreation Division was established in the Department of Health and Human Services and recreation activities and programs moved to that agency. Staffing dropped from 122 positions in the Parks and Recreation Department to 71.5 positions spread across the two Divisions.

When the original *Green Spaces, Blue Edges* was developed in 1993, park management and recreation were still separate. In 1994, the Parks and Recreation Department was reestablished under the direction of Larry Mead, with divisions to cover administration, cemeteries, parks, ballfields, forestry, winter operations, recreation, aquatics, ice arena and golf (Souza, 1999). When Larry Mead became the Assistant City Manager in 1997, Dana Souza was hired as the Director.

With the change in structure in the early 1990s, came an increase in funding for both capital improvements and maintenance activities. Table 1 shows an 18% increase in the Department's budget since 1995. Staff numbers increased by 45 positions to a total 145 positions during this time. A capital improvement planning process was instituted also.

**Table 1. Parks and Recreation Funding**

| Fiscal Year | Funding (millions) |
|---|---|
| 95 | $1.0 |
| 96 | $1.1 |
| 97 | $.9 |
| 98 | $.9 |
| 99 | $1.1 |
| 00 | $1.1 |
| 01 | $1.2 |
| 02 | $1.3 |

In 2001, Denise C. Albert CPRP, was hired as the Director for the Department of Parks and Recreation. The Department is currently organized in five divisions to facilitate better service delivery for constituents through a streamlined and efficient management of like programs, parks and services. Figure 1 shows how the current Department is configured.

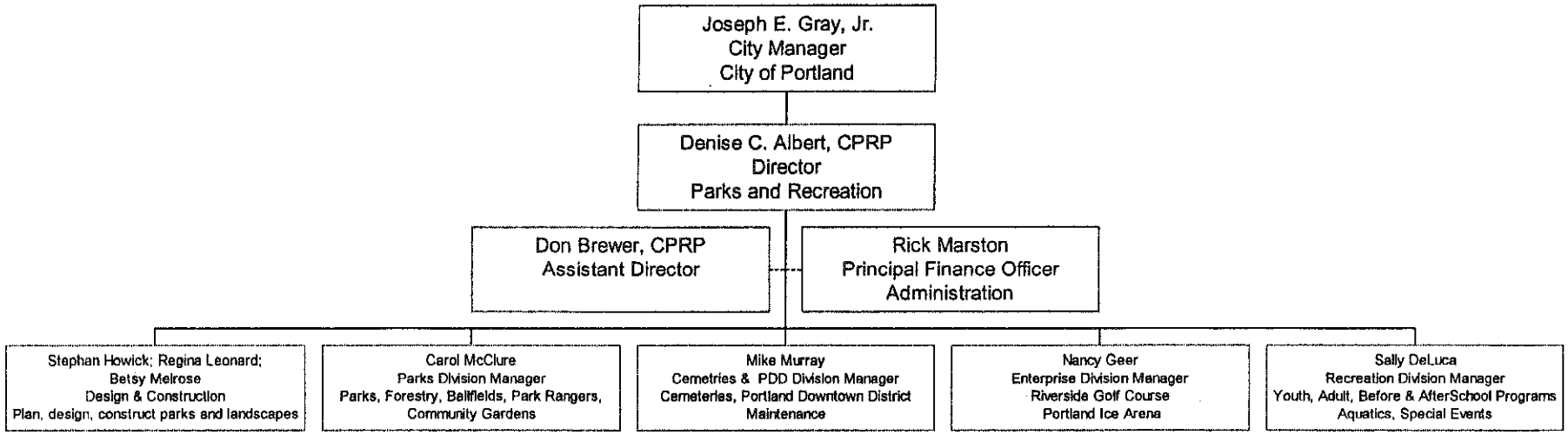
- Under the **Recreation Division,** an extensive before and after school program is available at all school sites within the City of Portland. The Recreation Division oversees a wide array of programming for participants of all ages, and manages the Riverton and Reiche community pools, along with the outdoor Kiwanis pool.
- The **Parks Division** manages parks operations and maintenance, forestry, ballfields, horticulture, community gardens, park rangers, and special events coordination.
- The **Cemeteries and Portland Downtown District Division** oversees primarily the operation and maintenance of the historical Evergreen Cemetery, Western Cemetery, Forest City Cemetery, Eastern Cemetery and several other inactive cemeteries. With consolidation of staffing, the Division Manager also maintains the Portland Downtown District, whose primary function is to beautify the City's downtown.
- The **Design and Construction Division** oversees the planning, design, construction and renovation of park projects.
- The **Enterprise Division** manages the Riverside Golf Course, a 27-hole course, and the Portland Ice Arena. Both entities provide the City of Portland with another venue to the already wide array of services offered through Parks and Recreation.

Unfortunately in 2001, bond analysts warned the City of Portland that they were relying too heavily on reserves to fund their operating budget and noted that those reserves were not being replenished. Consequently, each City Department has made a 4.5% reduction from their budget for FY 2001-2002. The Department of Parks and Recreation cut five positions: Two maintenance workers, a parks coordinator, a landscape architect, a ballfield coordinator, and a programmer for the ice arena. In addition, several seasonal positions were cut and line items reduced.

At the same time, analysts warned that the City needed to manage their capital spending to ensure that their debt service would not rise. Funding for the Capital Improvements Plan has been substantially reduced delaying the Department's progress on master plans.

Figure 1.

City of Portland
Department of Parks and Recreation



MASTER PLAN APPROACH TO PARKS

Another major change in Portland's management of parks over the past decade has been a shift from developing incremental projects at individual properties to a master planning approach for each park, greenway, and cemetery. Currently, the Department of Parks and Recreation develops comprehensive, long-term plans for each parcel. Master plans integrate a site's history, resources and community needs with a vision for the future. Master plans have been completed and approved for 8 properties to date. The Department also is working on master plans for Tommy's Park begun in November 1999, the Reiche School recreational space, Riverton Trolley Park, Lincoln Park and Fort Sumner. The following section outlines the master plans that have been completed to highlight how those plans envision the future of those properties.

**Table 2.**

**Park and Cemetery Master Plans Completed**

| Property | Year |
|---|---|
| Evergreen Cemetery | 1994 |
| Deering Oaks | 1994 |
| Baxter Boulevard | 2000 |
| Payson Park | 2000 |
| Dougherty Fields | 2001 |
| Western Cemetery | 2001 |
| Capisic/Fall Brook Greenway | 2001 |
| Athletic Fields | 2001 |
| Tommy's Park | In Process |
| Reiche School Rec Space | In Process |
| Riverton Trolley Park | In Process |
| Lincoln Park | In Process |
| Fort Sumner | In Process |

*Evergreen Cemetery*

The Evergreen Cemetery Master Plan tried to balance the primary function of the cemetery with a range of recreational uses that attract people there. A National Endowment for the Arts grant received by the Friends of Evergreen Cemetery funded the work. The primary issues addressed by the plan were the definition, preservation and strengthening of the cemetery's visual character; burial and memorial options that respect and enhance the character of the landscape; accommodation of appropriate forms of passive recreation; and strengthening the cemetery's financial support.

*Deering Oaks*

The 54-acre Deering Oaks Park is a focal point for Portland's Park system. The master plan, adopted in 1994, has as its goals the improvement of the image and safety of the park, preserving the historic design intent, facilitating use of the park, restoring the park's horticultural beauty and ecological health, and strengthening maintenance and management programs. A series of recommendations have been phased in over time with additional work still to come. To date the tennis courts and basketball courts have been moved and redeveloped, landscape features such as the ravine have been restored, and renovation of the castle is underway.

*Baxter Boulevard Improvement Plan*

Baxter Boulevard is a 100-foot wide roadway and linear park that skirts Back Cove. It is a cultural and natural resource that offers bird-watching, jogging, walking, biking, in-line skating, kite flying and sun bathing. It is the most heavily used park within the Portland park system. This Master Plan recommends developing well-defined entrances and connections for the Boulevard, improving and coordinating pedestrian and bicyclist amenities, improving care and maintenance of the existing linden trees, replacement and infilling of declining linden trees, efforts to protect and enhance wildlife habitat along the shoreline, maintaining and improving the walkways, traffic safety recommendations, and site-specific recommendations. The Portland City Council has not yet adopted this master plan.

*Payson Park*

The Edward Payson Park Master Plan was developed between 1998 and 2000, but not adopted until 2001. The goals of the plan are to:

- Minimize the impact of vehicular traffic on the park by relocating the heavily used road that currently bisects the park to the northern boundary. This allows the park to function as one larger uninterrupted parcel.
- Enhance the relationship between active and passive uses of the park while improving the condition, safety and efficiency of the facilities. Uses of the park are organized around a large central, multi-purpose space. Several athletic fields are reoriented and reconstructed with the net loss of one athletic field.
- Improve the pedestrian circulation system within and through the park. Internally, a small network of interconnected paths will ultimately connect to Baxter Boulevard and Ocean Avenue's walking and biking trails.
- Expand the Longfellow Arboretum as a resource for the park. New plantings around the new proposed multi-purpose space will better integrate the Arboretum into the park.
- Make the park accessible to all users. The plan calls for a substantial increase in parking spaces, from 230 to 420 spaces. Strategically placed parking will provide more convenient access for park users and safer pedestrian conditions.

*Western Cemetery*

Western Cemetery, a 12-acre 19th century historic cemetery, sits atop the Western Promenade and offers spectacular views to the south. It was used for several decades as a sanctioned off-leash dog park. It is popular because it is large, with varied topography and vegetation, and mostly fenced. Conflicts arose over societal values of respect for the dead and the popularity of the area as a dog run. The Western Cemetery master plan recommends restoration and rehabilitation of the property in a contemporary context, reinforcement of an overall image, improving accessibility and increased educational and passive recreational opportunities. The Portland City Council has in turn, discontinued the use of this area as an off-leash dog park. The Master Plan recommends to:

- Remove volunteer and dangerous vegetation to open vistas and return the park to its more open original design.
- Maintain the historic circulation system and define the edges of gravesites along primary routes to prevent people from inadvertently walking over gravesites.
- Maintain the access and egress points, except use the Davies Memorial Gateway and don't use the Spring Street access.
- Restore structural elements, fencing and gates.
- Provide interpretive materials, benches and relocate trash receptacles.
- Improve maintenance of the site.

*Dougherty Fields*

The Dougherty Fields Master Plan is a 3 or 4 phase plan developed to minimize disruption of the many programs that already use the facilities, while upgrading the overall capacity of the site. Dougherty Fields are heavily used and the loss of space and fields during reconstruction and renovation will be hard to replace. Phase I includes upgrading the pool to make it more family-oriented, secure, and updated. It also includes moving and reorienting the Little League fields. The second phase of the plan involves reconstructing and reorienting the rectangular fields so that an additional multi-purpose field can be fit into the existing space. Parking issues and other problems also are addressed as part of the plan.

*Fall/Capisic Brook Greenway Master Plans*

Fall Brook and Capisic Brook are drainage ways through Portland's northern and eastern portions respectively. The City of Portland has entered into a consent decree with the US Environmental Protection Agency and the Maine Department of Environmental Protection to reduce combined sewer overflows to Casco Bay. These waterways are part of the City's strategy to comply with this decree. Portland plans to modify large portions of the Capisic and Fall Brook corridors to naturally accommodate more stormwater. Engineering improvements focus on reducing flooding and stormwater backup, improving water quality and controlling erosion and debris accumulation.

The master plans for these two waterways combine goals for developing their use as greenways while improving wildlife habitat and hydrological characteristics. The plans build off existing and planned water management improvements for the streams. Recommendations address water quality

improvement, wildlife habitat enhancement and the provision of a trail along the length of the greenway.

### *Athletic Fields Task Force*

In 1999, the City Council appointed an Athletic Fields Task Force to develop a set of recommendations to improve the quality and quantity of Portland's athletic fields. This group met for two years, examining the trends and issues concerning Portland's athletic fields. Their work documented a doubling of the scheduled use of Portland's athletic fields between 1983 and 2000. This tremendous increase took place at the same time that the number of athletic fields in Portland decreased. Portland's athletic fields are not built to the standards required to support this intensive use and the quality of the fields suffers.

The work of the Task Force culminated with a phased strategy to improve the quality of existing fields, increase the number of playing fields to meet community needs, and support maintenance strategies that keep the fields in good condition in a cost-effective manner. The Task Force developed a set of phased recommendations to upgrade, expand and improve the athletic fields within the city. These recommendations cover a ten-year period and would cost about $10 million. It is expected that private money will be raised to cover the cost of some of these improvements. The initial phase of these recommendations is being implemented and is included in the proposed capital improvements plan.

## LAND BANK COMMISSION

In 1999, the City Council created the Land Bank Commission, elevating the status of open space within the City. The Commission's charge is to insure the conservation and preservation of open space that has important wildlife, ecological, environmental, scenic or outdoor recreational values. The Commission was charged with developing an inventory of privately and publicly held open space to prioritize acquisition efforts, to act as a liaison to other organizations and agencies involved with open space conservation, and to cooperate with other agencies in wetland mitigation projects. The Commission also has a fund to accept gifts and funds to acquire properties.

The Land Bank Commission has inventoried open space and recreational property within the City, developed a priority list of properties for acquisition in the North Deering area, established an account to accept donations and gifts, and recommended zoning changes to clarify open space and preservation status of several parcels.

## FRIENDS OF THE PARK COMMISSION

In 1983, the City Council created the Friends of the Park Commission, although it was not functional until 1989. Thirteen members, including a member of the City Council, comprise the Commission. The official duties of the commission include: encouraging and accepting private contributions to the park system, maintaining inventories of parks and recreational needs, encouraging public educational programs, and undertaking activities to enhance the parks and the recreational programs

of the City. The Commission is a good sounding board for policies of and actions by the Department of Parks and Recreation.

## PRIVATE ORGANIZATIONS

Private organizations with goals of improving recreational resources and publicly accessible open space have grown within the City over the past decade and their strength has been a boon to Portland. Several of these organizations are outlined below.

### PORTLAND TRAILS

The 10-year-old Portland Trails organization is working to create a 30-mile network of multi-use trails within Greater Portland. The group also serves as an advocate for the protection of and access to natural places within the region. Current projects include the Eastern Prom Trail, Stroudwater River Trail and the Fore River Trail. Portland Trails has a strong volunteer base, and is able to fund-raise and solicit grants to enhance Portland's trail network.

### FRIENDS ORGANIZATIONS

Several parks in Portland have loosely organized support groups who act as land stewards and help the Department focus on issues involving specific properties.

**Friends of Deering Oaks**
Organized in 1997 to identify a series of physical and program initiatives to be undertaken, this group has been instrumental in raising private funds to rehabilitate the ravine and restore the castle.

**Stewards of Western Cemetery**
This group has helped the City define the issues and obtain grants to address conflicts and uses at Western Cemetery. They are managing a volunteer base to work with the Forestry Section to implement maintenance portions of the master plan.

**Friends of Riverton Trolley Park**
Since 1997, this organization has organized memorabilia for the park and conducted tours.

**Friends of Evergreen Cemetery**
This organization secured funds for an Arts Heritage Conservation Grant from the National Endowment for the Arts to identify and preserve historic resources at Evergreen Cemetery. Founded in 1991, this group conducts tours of the Cemetery, advocates for preservation and had input into the master plan.

**Friends of Capisic Pond**

This group, now inactive, was formed in 1989 when a parcel near the pond was slated for development. This group successfully advocated for acquisition of the parcel and helped identify needs for the pond.

MAINE ISLAND TRAILS ASSOCIATION

MITA provides stewardship and education for some of Maine's undeveloped islands. They have developed the Maine Island Trail, which identifies campsites and accessible areas for recreationists. Jewell Island is one of their sites.

RIPPLE EFFECT

Ripple Effect is an adventure-based youth development organization based in Portland. Ripple Effect offers leadership and esteem-building programs for youth at risk. These programs use sea kayaks and ropes courses to encourage healthy risk-taking. The organization has recently purchased 26-acre Cow Island, in cooperation with Maine Coast Heritage Trust, to use as an experiential and environmental outpost.

This section outlines recreation trends in Portland and how the Department of Parks and Recreation is adapting to changes since *Green Spaces, Blue Edges* was first developed. At that time, the Department was non-existent and its functions split between different Departments. The Department is streamlining its effectiveness under its current Director, while addressing projected budget reductions. This section outlines how the Department is setting its direction for the coming decade.

## TRENDS

The need for more parks and open space has increased in Portland over time, however it's not population growth that is fueling this change. Portland's population has increased slightly over the last 20 years and has remained relatively constant since 1990.

### Table 3. Portland's Population

| Year | Population[1] | Portland School Enrollment [2] |
|---|---|---|
| 1980 | 61,572 | 8600 |
| 1990 | 64,358 | 7468 |
| 2000 | 64,249 | 7914 |

However, Portland's Athletic Fields Task Force (2001) documented a doubling of scheduled athletic field use between 1983 and 2000; from 10,378 to 21,563 hours. This was largely attributed to more girls and boys participating in sports, putting increased demand on Portland's athletic fields. This increased demand has put more stress on the existing fields and the fields are overused and in declining condition.

Another significant trend in park use has been the availability of private funding for several projects. Several components of the Deering Oaks Master Plan have been funded through private donations. These include $330,000 to restore the Deering Oaks ravine and $330,000 to date, to refurbish the Castle in the Park. The Athletic Facilities Task Force envisioned raising private funds to augment work funded through the City's capital improvements plan.

Finally, the character of Portland's population is changing and becoming more diverse. Pockets of ethnicity exist within the City, providing a rich difference to the community. These different ethnic groups have different requirements from the parks and recreational spaces within Portland.

## MISSION

The Portland Parks and Recreation Department has recently redefined their mission as dedicated to:

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[1] 2000, 1990, 1980 – US Census

[2] Patrick Dow, Maine Dept of Education, Personal Communication, June 2000.

*Strengthening our diverse community, while creating and providing quality recreation and leisure experiences through people, parks, programs and services.*

GOALS

From a service delivery perspective, the Department of Parks and Recreation has defined goals and objectives to work towards. These goals and objectives work in tandem with the goals and objectives developed from the park user's perspective in the original *Green Spaces, Blue Edges* (see chapter 2). The goals address internal actions and set the stage for overall departmental management, operations, and priorities.

**Customer Service**

- Continue to meet and respond to the needs of the community through quality parks, programs and services.
- Provide exceptional service with optimism, creativity, initiative and innovation.
- Meet the needs of internal customers – Parks and Recreation staff and volunteers.
- Review past, evaluate current, and plan for future parks, programs and services.

**Partnerships / Collaboration / Stewardship**

- Collaborate with City Departments, Friends groups, schools and the community.
- Establish new partnerships and collaborative efforts.
- Foster Friends and stewardship initiatives within the framework of Master Plans.
- Enhance the quality of life for residents of the City of Portland through stewardship.

**Finances / Accountability**

- Create and maintain budgets that reflect actual expenditures and revenue needs.
- Maintain accurate records of division finances for monthly review.
- Review past, evaluate current, and plan for long term budgetary needs.
- Review past, evaluate current, and plan for long term Capital Improvement Program and Capital Outlay Programs.

**Communication**

- Communicate our mission statement through parks, programs and services.
- Increase dialogue with community, City staff, City Council, and schools to enhance service delivery.

- Set standard for regular meetings with respective staff at all levels.
- Communication through marketing, advertising, and professional ethics.

PRIORITIES

Chapter 2 has outlined both citywide and neighborhood priorities and recommendations for the Department of Parks and Recreation. These priorities provide a blueprint for action by the Department as they respond to fluctuations in funding levels. The table represents a change in approach from those articulated in the original *Green Spaces, Blue Edges* in that master plan recommendations are identified as priority actions rather than specific pilot projects. Master plans set out ultimate design objectives for specific properties so that parks, cemeteries, and greenways can be developed in a cohesive, systematic way. Developing master plans was a recommendation of the original *Green Spaces, Blue Edges* report and has been implemented since that document was published.

## CHANGING NEEDS

Coupled with changes in how Portland views and uses its open spaces and park lands and the needs that have already been identified, the coming decade will provide a host of opportunities and challenges for Portland's Department of Parks and Recreation. Portland's population is aging and growing more ethnically diverse. A brief listing of opportunities and challenges are included below.

Opportunities—

- The City has and should continue to attract private funding to enhance recreation and open space goals.
- The Department should foster partnerships with nonprofits that have similar goals. This sector is growing in Portland.
- Now that park needs and projects have been identified and articulated through master plans, the Department may be able to build on projects done by other City Departments and organizations.

Challenges—

- Reduced funds available for the Capital Improvements Plan will hamper efforts to upgrade Portland's parks and open spaces.
- More athletic field space is needed to accommodate the growth in scheduled field use.
- Resources are needed to upgrade existing athletic facilities and infrastructure to current standards, for health and safety as well as to support the high intensity of use.

- The competing demands of a more diverse community create challenges. The changing needs of Portland's population translate into need for such things as off-leash areas, multi-purpose fields, and other facilities.

- The Parks and Recreation Department needs to consolidate their space, so that all divisions are within the same building. Currently, the Department operates out of two separate locations.

# CHAPTER FIVE:

## HISTORY OF OPEN SPACES AND RECREATION

# GREEN SPACES BLUE EDGES

# CHAPTER FIVE: HISTORY OF OPEN SPACES AND RECREATION IN PORTLAND

Portland's park system has evolved and developed through the efforts of many individuals. At key intervals in the City's history, we have been fortunate to have community leaders with the foresight and vision to protect valuable greenspaces for the enjoyment of future generations. It is important to understand and document this rich history of planning and developing Portland's park and recreation facilities, so that in planning for our future generations we may derive lessons and inspiration from the past.

## Summary

The foundation of Portland's park system was laid in the late 1800's, much of it during the six term tenure of Mayor James Phinney Baxter. The establishment of park spaces at Deering Oaks, Back Cove, and the Eastern and Western Promenade comprised the first significant effort to develop a park system in the City. The geographic focus of these plans was primarily the peninsula and Back Cove vicinity.

The first city-wide park plan, called the Long Range Recreation Plan, was completed in 1943. A second city-wide plan, called The Fourth "R" Recreation: A Master Plan for Parks and Recreation, was done in 1964. Both plans emphasized the need for developing new parks in areas off the peninsula to serve growing residential neighborhoods as well as the importance of maintaining and rehabilitating existing recreation facilities. Both plans also emphasized the need for increased recreation project funding through the City's capital improvement program.

The development of new parks and recreation facilities since the second World War paralleled the location of new public schools. New housing had been built in the neighborhoods off the peninsula over the past fifty years creating a demand for new schools and recreation facilities in these areas. Sites for these new schools were more spacious than older peninsula neighborhood schools, and were accompanied by more extensive recreation facilities than was typical in the City's urban neighborhoods.

During the 1960's and into the 1980's, the park system was influenced by a number of redevelopment projects on the peninsula. Many of these projects involved reorganizing existing open spaces such as with the construction of I-295 or creating new spaces such as Tommy's Park, the Maine State Pier, etc.

A quality of Portland's parks has been their location to natural features. High points such as the Eastern and Western Proms, stream corridors such as Riverton Park and Capisic Pond, natural remnants such as Deering Oaks and waterfronts such as Baxter Boulevard and Maine State Pier Park, convey a very strong and positive image of the City.

A recurring theme in the development of Portland's park system is the incremental route by which most parks are completed. For example, the plan for Baxter Boulevard, from concept plan to implementation, spanned three decades. Perhaps indicative of the limits of the City's financial resources, it has typically taken many years for most park plans to be completed. Supporters of the park system should take heart - it takes patience, persistence, public support and resources to build parks. The element that has coalesced these efforts has been a vision of the park system that has helped direct and sustain the exemplary parks that we enjoy today.

# The Development of Portland's Open Space and Park System

This section traces the development of over 20 parks in the City. Parks are not islands. They are influenced by social, economic, technical and political changes in society. Portland's park system has evolved through the years, responding to the changing needs of its residents.

Early efforts in park and open space development involved the cemeteries and the creation of our most historic park facilities. Around the turn of the century, Portland was fortunate to have the combined leadership and talents of Mayor James P. Baxter and the Olmsted Brothers Landscape Architects, a nationally renown park planning firm. In the post war era, off peninsula schools were the driving force to create new recreation facilities. In recent decades, redevelopment and downtown improvements have been significant.

# Earliest Efforts - Historic Parks and Cemeteries

## Cemeteries

Cemeteries are the oldest forms of open space in the City. Eastern Cemetery, for example, was dedicated 200 years before Deering Oaks was established. Although cemeteries today are often viewed as strictly a repository for the dead, they have traditionally also been used as a public park. The historic relationship of cemeteries and open space is quite strong.

Although not always considered a park or recreational resource, it must be recognized that cemeteries provide important open space relief, a pastoral setting for passive recreation such as strolling and observing the historical value and craftsmanship of the tombstones. This value was most celebrated with the advent of artfully designed garden cemeteries, such as the famous Mt. Auburn Cemetery in Cambridge, Massachusetts. Our own Evergreen Cemetery in Deering is a fine example of this movement.

"By the mid 19th century, the popularity of cemeteries as tourist attractions and 'pleasure grounds' signaled a demand for public parks. According to New York architect Clarence Cook, who in 1869 agreed with Andrew Jackson Downing that cemeteries were 'all the rage'. They were 'famous over the whole country and thousands of people visited them annually.'"

(Blanch Linden Ward, Cemetery Historian)

### Eastern Cemetery

The Eastern Cemetery is the oldest major cemetery in the City. Located at the foot of Munjoy Hill, it provides a green space between Lincoln Park and the Eastern Prom. Founded in 1668, it was the only burial place for the territory which was called Falmouth and incorporated as the Town of Portland in 1786. The earliest recorded burial was in 1718. Originally, only the southeastern half of the present cemetery was used. The other half was unfenced and used as a public common. In 1820 this second half became part of the cemetery. The cemetery was used until the 1860's and occasionally after that, but is inactive today. The cemetery totals about 5 acres in size.

The present cast iron and granite fence along Congress Street was erected in 1852. The granite receiving tomb to the right of the entrance was erected in 1849.

Within the graves of the Eastern Cemetery are many religious, civic, and business leaders who shaped the social, cultural and economic development of the City during the 18th and 19th centuries. Soldiers of many wars are buried in the cemetery, including those who fought in the earliest colonial wars to those who fought in the Civil War. The commanders of the American ship, "Enterprise," and the British ship, "Boxer," are buried side by side. These two warships fought each other off the coast of Maine during the War of 1812.

"The average citizen has no idea of the number of strangers that visit the old Eastern Cemetery every day during the summer months. It is the historic ground, and it is no uncommon sight to see 10 or even 20 strangers looking this cemetery over on a pleasant afternoon in the height of our summer travel."

(1900 Annual Municipal Report)

"The Eastern Cemetery is simultaneously two places. It is an ancient cemetery and as such communicates an incredible sense of place. It is quite visible from much of the Portland Harbor waterfront and from the eastern slope of the

> center of the City. The sheer size of the cemetery creates an isolation from its surroundings. The way the cemetery is raised up from the surrounding ground level for most of its border reinforces this isolation."
>
> (National Register of Historic Places Nomination)

In 1982, an organization called Friends of Eastern Cemetery was formed to deal with the deteriorating conditions of the cemetery and to establish a long range program to assure its continued maintenance. The Friends have sponsored numerous clean-ups of the cemetery which has improved the appearance of the cemetery immensely. The historic cast iron fence along Congress Street was restored in 1986, along with ornamental fencing to replace the unsightly chain link to provide security against vandalism.

## Western Cemetery

The land which became Western Cemetery was purchased by the City in 1829. In 1841, still more land was added bringing the total land area of the cemetery to its present 12 acres. This cemetery is located on the Western Promenade. Originally the Vaughan family burying ground stood in the center of the cemetery. William J. Vaughan transferred the parcel to the City for consideration, reserving a 50 foot square section of the cemetery for his family. Today the cemetery is no longer active for burials.

The Western Cemetery is the site of a town laid out by William Vaughan. The plan was completed in 1813. The land which today forms the cemetery was laid out into streets and building lots and was to extend to Congress Street. Although a plan remains on file at the Registry of Deeds, it was never executed.

Western Cemetery is a significant element of the Western Promenade open space. When City Engineer William Goodwin was planning improvements to the Western Promenade area, he recommended that the approaches to the Promenade - Danforth, Bowdoin and West Streets - be flattened and widened with a double row of trees. He also noted that the Western Cemetery would soon be abandoned and that it could be subsequently utilized as a ramble. He felt that "the cemetery would be one of the most attractive features of our public resort."

The 1943 recreation plan recommended that a 3 1/2 acre section of the cemetery be acquired for a playground to serve the Bramhall Hill area.

> "This cemetery is now infrequently used for burial purposes and it is only a matter of time before it becomes obsolete. The proposed acreage should be acquired adjacent to Vaughan Street. This recommendation is made with due appreciation of the sentiment associated with old burial grounds. However, if a standard sized playground is to be obtained south of Congress Street, there is no alternative except to pay an exorbitant price for expensive residential property."
>
> (1943 Long Range Recreation Plan)

This suggestion was not followed through with and the cemetery remains intact today.

While the Western Promenade offers a majestic view of surrounding areas and distant mountain tops, the Western Cemetery provides an enclosed rural space where city dwellers can enjoy a respite from urban living. The contrast compliments the two spaces very well. The cemetery, as an open space, does not have the formal recreation facilities found in other city parks. It does, however, provide residents the opportunity to walk, jog and relax in a small pastoral enclave within walking distance of an urban neighborhood.

## Evergreen Cemetery

Evergreen Cemetery, located in the Deering section of Portland along Stevens Avenue, is the second largest publicly-owned open space (239 acres) in the City. Established by the City in 1854, the cemetery was designed as a rural landscape with winding carriage paths, ponds, footbridges, gar-

dens, chapel, funerary art and sculpture. It also includes extensive wooded wetlands. The cemetery was designed by Charles H. Howe.

While today we think of a cemetery as an area restricted as a burial ground for the dead, Evergreen like many other cemeteries during the 19th century was intended with the dual purpose of providing a resting place for the dead as well as an open space and rural enclave for city dwellers to visit.

> "We have secured and enclosed over one hundred acres of land in Deering, within two miles of the town, full of attractions, with trees, waters, plentiful shrubbery, and the varying undulating of surface which render natural scenery so attractive. We have laid out winding paths and carriage-roads, with hedges and monuments, and beautiful enclosures, of such a character, that the grounds have become a great attraction to visitors, and are often crowded with strangers, hour after hour, toward nightfall, and we have established a line of horse-cars which run thither regularly every half hour."
>
> (Portland Illustrated, John Neal, 1874)
>
> "The beauty of these grounds, where the harmonies of art are blended with the wildness of nature, sheds the radiance of heavenly light upon the gloom of death. Thousands come here for a quiet walk among the blended beauties of art and nature where all the associations are conducive to meditative thought."
>
> (Portland and Vicinity, Richard Elwell, 1876)

The development of Evergreen Cemetery was influenced by garden and rural cemeteries that were developed in this country as a response to the overcrowded burial sites in urban centers. Evergreen Cemetery was modeled after America's first rural cemetery, Mount Auburn in Cambridge, MA. The popularity of garden/rural cemeteries as designed landscapes was so great, in form and function, they pointed the way to the development of urban parks as we know them today. So close was the association of rural cemeteries and urban parks, that Frederick Law Olmsted, the prominent park designer of his time, is reported to have insisted that no one be buried in Central Park in New York City.

Just as Evergreen provides open space for humans, the cemetery has been host to a variety of wildlife such as geese, ducks, pheasants, swans, turtles, blue heron, fox, mink, deer and moose. The spaciousness of the cemetery with its vegetation, ponds and surrounding wetland is truly a wildlife oasis. In the past, Maine Audubon has sponsored bird watching activities in the cemetery.

In the 1970's, new walking trails were created in the undeveloped area of the cemetery. The Portland Shoreway Access Plan identified Evergreen Cemetery as a major linkage or destination point for three trails. The trail segments include a trail through Baxter Woods to Back Cove, a trail to Capisic Pond and the Fore River Sanctuary, and a trail to the Presumpscot River. A fourth trail to Rocky Hill, is also contemplated. Its central location and size makes it perhaps the most significant inland open space of the trail system.

The original cemetery gardens (33 in number), wooden walkways over man-made ponds, winding paths, entranceway, and landscaping are elements that were carefully planned to provide a very rich and scenic landscape environment. Some of these elements however, such as gardens (down to 4), the ponds, landscaping, and several cemetery buildings have suffered from the consequences of deferred maintenance in a period of limited municipal resources. Vandalism has also taken its toll.

In 1991, the Friends of Evergreen was formed. The Friends mission is to "preserve, protect, and restore the cemetery for past, present and future generations." As an advocate for the cemetery, the Friends have also worked on projects to improve the cemetery. The Friends, in cooperation with the City, are working on a comprehensive management plan for this vital open space resource that will be completed in 1994.

## Historic Parks[1]

### Lincoln Park - The First City Park

The first City park exclusive of cemeteries, was Lincoln Park, which was developed just after the fire of 1866. The park is located across the street from the Cumberland County Courthouse. One important purpose of this open space was to create a firebreak separating the Downtown from the neighborhoods of the East End. Inspired by the recovery that the city made after the fire, the new park was named Phoenix Square but was re-named to Lincoln Park in honor of President Lincoln in 1867. Lincoln Park was conceived as a "promenade" park, the object being less to display beautiful scenery but primarily afford an opportunity for fresh air and ample uninterrupted promenade. Over time, the park has decreased in size in order to accommodate a fire station and construction of the Franklin Street Arterial.

The acquisition of land for Lincoln Park represented a change in community attitudes. Mayor Baxter attributes the change in attitude to the fire which he said "aroused our people from their apathy giving them broader views and a more generous appreciation of civil obligations."

### Deering Oaks Park

The City had been interested in the Deering Oaks site for a number of years and finally, in 1875, the Deering family offered fifty acres of their land to be used as a "park forever". Four years later, the city acquired the parcel. William Goodwin, who served as Portland's City Engineer from 1871 to 1892, directed and planned numerous park improvements to Deering Oaks as well as Eastern and Western Promenades. In 1879, he wrote "the magnificent area of fifty acres comprising Deering Oaks...for years to come will demand the best thought of our citizens."

> "It is expected that in the not far distant future, the grounds will be laid out into a park, which will be not only ornamental but healthful, where our citizens will spend many pleasant hours in health deriving exercises and though leaves have their time to fall and flowers to wither, still, may those brave old oaks be spared the woodman's axe and grow and thrive to show the wisdom of purchase."
>
> Like many of his contemporary park planners, Goodwin's practical knowledge of civil engineering and surveying was coupled with prevailing societal concerns for publicly supported open space. He insisted on an immediate and careful inspection of all the trees and said, "no trees should be cut even in trimming without deep sense of responsibility and earnest conviction of necessity."
>
> (City Engineer William Goodwin, from Igleheart)

Later Goodwin convinced the City to acquire the property abutting the park to the southeast which housed a tannery, and slaughterhouse.

Goodwin's design of the Oaks reflects many naturalistic and picturesque features associated with the leading park designers of the day. The Oaks was laid out as primarily pastoral with open lawn areas and scattered trees around the pond. In order to create an enlarged sense of space, the pond was laid out with bays and headlands. The rambling, winding paths create indefinite boundaries and therefore further add to the perception of enlarged space. The municipal annual report of 1880 stated, "the crowning glory of the oaks will always be the "breezy dome" of the old woods, to which elms and beeches and birches, the maples and evergreens and shrubbery can never be more than ornamental fringing."

Originally Deering Oaks was part of Back Cove. The Deering Oaks pond flowed into a creek across Forest Avenue before it was reshaped, and the water impounded. The reshaping of this wetland resulted in man-made land that increased the upland area of the park. Over the years, the City purchased additional land (including the site of a tannery and a slaughter house) that expanded the park's boundaries.

In 1902, the City installed two large stone columns at the State Street entrance as a gateway to the park. During this same period, a swan boat traversed the pond giving rides for up to 10 children at a time. Another attraction was a small zoo in the park which had coyotes, deer, monkeys, pheasants, squirrels, and other animals.

The first playground was built in the Park in 1902. The annual municipal report indicated that "the experiment of erecting and maintaining playgrounds has been satisfactory from the start. It is entirely new feature for Portland...If anyone doubts the advisability of this expenditure of money, they should have seen the crowd of happy children at play there every pleasant day from early morning until it was closed for the night." In 1911, the playground was moved to its current location.

The popularity of this playground was only the beginning. With the dense housing conditions near the park and the emerging public interest in recreation activities at the turn of the century, more playfields were added. By 1924, there were five claysurfaced tennis courts. A bowling green was provided two years later. Horseshoe courts and basketball courts were built in the 1930's. By 1943, there were 8 tennis courts, a large grass area for softball and football, a regulation ball diamond with permanent bleachers, a wading pool, a bowling green, horseshoe pitching courts and a small childrens playground. These facilities were built primarily on the northerly side of the park. In 1943 it was estimated that 14 acres of the park was used for active recreation.

The construction of Interstate 295 in 1971 resulted in the loss of 4 acres from the park. A strip 40 to 100 feet wide along the park's northerly border was lost in the turnpike project. In exchange for this land, the City received 20 acres of filled land between I-295 as it crosses Back Cove and Marginal Way, extending all the way from Tukey's Bridge to Forest Avenue. In addition to other concessions, it was reported that, "$200,000 will be spent to improve the Oaks, including three tennis courts, a basketball court, more playgrounds and landscaping."

### Fort Allen Park

Fort Allen Park was acquired in 1890 after the Federal Government determined it was no longer needed for the defense of the harbor. This was the first portion of the Eastern Prom to be acquired by the City as a park. A year later, a shelter was built from plans by Stevens and Cobb Architects.

> "We propose to have a driveway around the park, going below the lookout, and below the drive we propose to build a terrace with walks connecting with main walks at the entrance."
> (1893 Annual Municipal Report)

The Fort Allen Park acquisition was a stroke of genius in generating support for a public park in the City. It was very popular with the public and demonstrated the potential for a park ringing the entire Eastern Promenade.

> "More people can be found in Ft. Allen Park on a fair day than can be seen in the several hundred acres of many of the suburban parks of the largest cities in New England. It's gratifying to those having a park or parks in charge, to find an appropriate sense of their work in a patronage that is exceptional, and Portlanders are to be congratulated in having a park so accessible and compact with a great diversity of attraction."
> (1908 Annual Municipal Report)

# Turn of the Century

## The Planning Legacy of Baxter and Olmsted[1]

William Goodwin's park planning ideas were not limited to the design of Deering Oaks. Just after the acquisition of Deering Oaks Park, he described the potential for a park system in the City.

> "The circuit of our public grounds, beginning with either Promenade and thence passing through our shaded streets and the Oaks to the other Promenade, affords a variety and natural beauty of scenery to be found in but few cities of the country. The foreground of these several landscapes and marine views will doubtless be cared for little by little as the means of the City will warrant."
>
> (William Goodwin, City Engineer, from Igleheart 1881)

Goodwin's vision of a park system was shared by James Phinney Baxter, an influential, forward looking, civic minded citizen who served six non-consecutive terms as mayor beginning in 1893. Expanding on Goodwin's vision, in 1895 Baxter proposed the idea of linking the parks with an "arbor way", a shade tree lined esplanade that would connect the Western Promenade through Deering Oaks around Back Cove and along the Eastern Promenade. The densely populated neighborhoods on the peninsula needed public open space. The adjacent waterways and topography of the peninsula provided a spectacular backdrop for Baxter's idea.

Baxter was inspired by visits to parks in European and American cities. The American urban parks movement, during the latter half of the 19th century, had demonstrated a need for rural enclaves (green spaces) within cities where residents could relax from the congestion of urban living. A principal practitioner of this movement was Frederick Law Olmsted, planner of Central Park (1858), the Back Bay Plan in Boston (1879) and parks in other major cities.

> The philosophy of the parks movement was expressed by F.L. Olmsted: "We want a ground to which people may easily go after their day's work is done, where they may stroll for an hour, seeing, hearing, and feeling nothing of the bustle and jar of the streets, where they shall in effect, find the City put far away from them."

Determined that his idea of a park system should occur, Baxter hired the Olmsted Brothers landscape architect firm to prepare a plan. The result of their efforts is the 1905 "City of Portland, Maine, General Plan for Park System."

In addition to a landscaped greenbelt connecting the Eastern and Western Promenades, Deering Oaks and Back Cove as Baxter envisioned, the Olmsted's plan included a design plan of improvements for each park. The early planning and development of these parks, including the work of the Olmsteds, is discussed in the remaining paragraphs of this section.

### Back Cove[1]

Back Cove, in Baxter's day, was literally an open cesspool, since much of the city sewage flowed into the cove. Baxter lamented that "the cove was not only offensive to nostrils and eyes, but a menance to the health of the City."

As early as 1884 there was concern about the unhealthy conditions and odor of Back Cove. William Goodwin, City Engineer, proposed constructing an elaborate sewer system that would help protect Back Cove but would not address the problem of the existing polluted mud flats. Later, Mayor Baxter envisioned a park around a newly sanitized cove which would form the centerpiece of Baxter's greenbelt vision. The City began acquiring the property during his first mayoral term beginning in 1893. Baxter hired the firm of Olmsted, Olmsted and Eliot to develop a plan for Back Cove in 1895.

"The acquirement of the shore of Back Cove and of suitable approaches . . . [will] create a great public water park extremely agreeable to look at as well as immediately available for small pleasure boats. Such a water park with its fringes of trees as proposed, would present most attractive views, and it would unquestionably have a most favorable influence in raising the value of all adjacent land."
("A Report on the Improvement of Back Cove" Olmsted, Olmsted and Eliot - 1895)

The plan proposed the construction of a shore drive and promenade "for the benefit of all people of Portland and Deering." The report also suggested constructing a dam at the mouth of the Cove, to cover the offending mudflats at all times.

The majority of the work on the boulevard was undertaken in 1916 and it opened to the public the following year. Work continued on improving the Boulevard into the 1920's. In 1921, 100 Linden trees were planted along the esplanade. In order to maintain the view, power lines along the Boulevard were buried. By the mid-1920's, the Olmsted Plan had been completed between Bedford Street and Washington Avenue.

As part of the construction of Interstate 295 in 1971, a portion of Back Cove was filled in to accommodate the highway project. To compensate for the loss of parkland from Deering Oaks and other property, the state conveyed 20 acres of new land between I-295 as it crosses Back Cove and Marginal Way, extending from Tukey's Bridge to Forest Avenue. This land also included the scenic overlook at Preble Street and the adjacent soccer field.

The original intent of the Boulevard has been altered somewhat in order to accommodate increases in traffic by creating a second traffic lane from the original median strips. The easterly end of the Boulevard was effected by the Tukey's Bridge replacement. However, the esplanades continue to be intensively used for a variety of recreational purposes and at high tide the Cove is popular with windsurfers. In 1989, a walking trail was completed around Back Cove that has become one of the most used pedestrian path in the State of Maine. The portion of the trail adjacent to the highway uses land given to the City when I-295 was built.

## Eastern Promenade[1]

Work on the Eastern Prom part of the Olmsted plan began in 1904 and was completed the following year.

"(The) outlook has been a governing factor in our design. We believe that no intricacy of tree planting, for beauty in itself or for shade of another road should seriously interfere with the free view from the present roadway."
(J.C. Olmsted, Project Architect, 1905)

Olmsted discouraged the addition of new drives, recommended that Cutter Street be discontinued, and that paths be laid out so as not to interrupt the sweep of the land.

"We have proposed a system of paths connecting at convenient intervals with the existing promenade, forming reasonable boundaries to the natural divisions of the topography, and running for the most part on the brow of the steepest slope, so that persons on foot may enjoy the full sweep of the view to the eastward."
(J.C. Olmsted, Project Architect, 1905)

Olmsted's plan resulted in the first master plan for the Eastern Prom. Back in 1828, the City first purchased 12 acres of land on Munjoy Hill. A decade later, improvements were made to the Eastern Prom including grading, constructing a road and planting trees. William Goodwin continued this work by more filling and grading, the addition of loam for lawns, and the planting of trees and shrubs. Despite these improvements concern was expressed continuously about the condition of the Promenade and the fact that much of the land was still privately owned and development could threaten the scenic qualities of the site. Over time, the City did purchase the Eastern Prom parcel by parcel, but it was

Olmsted's plan that helped set the vision for the park's development.

The Olmsted plan divided the park into four areas: baseball field, play field, children's playground, and little children's lawn. The plan is a good example of blending structured recreational activities needed by many neighborhood children into a pastoral setting while preserving the scenic qualities of the site. The concourse at the northern end and Fort Allen Park at the southern end of the Promenade help define the park space. A path system that was designed connected the various areas with seats along the walks.

The Olmsted plan was never fully carried out although the sweep of the lawn and views from the Promenade have been maintained. The additions to the park which depart from the Olmsted plan include a wastewater treatment facility in the northern section, tennis courts, parking lots and a ball field located in the Olmsted's proposed playfield areas.

The first playfield on the Eastern Prom was a baseball field in 1903. The City also installed an outdoor gymnasium the same year. Over the next several years, the City added to their landholdings. In 1905, 21 acres were acquired (primarily slope area) for the park. In the same year, a concourse was built at the northerly end of the driveway at the Eastern Prom to intersect with Washington avenue.

Over time, other recreation facilities were added to the Prom. During the 1930's softball fields and tennis courts were installed. In 1943, it was reported that just under 11 acres of the park had been developed for active recreation. The park at that time included a small children's playground, three hard surface tennis courts, two softball fields, one skating area and a saltwater bathing beach.

In the waning months of World War II, a major plan was drawn up for the shore area of the Eastern Prom near the East End Beach. The proposal "called for construction of a swimming pool for 1,000 bathers, a bathhouse and a recreation center with a bowling alley, a roller skating rink, a dining room and cafeteria and a multi-purpose recreation room." The plan also included a yacht club and marina. The proposal did not go forward for lack of funds.

The East End Beach has always been a popular area for people to escape the summer heat. It is the only beach in Portland on the mainland. There are reports of 4,000 people a day using the 200 yard long beach during the 1930's and 1940's. The bathhouse during this time had 85 stalls. In 1963, the beach was closed to bathing because the surrounding water was declared too polluted for swimming. The following year a swimming pool was constructed on the site as a substitute for saltwater swimming. By 1979, a modern sewage treatment facility had been constructed on the northwesterly end of the Eastern Prom. The water was now safe to swim and the beach reopened, 16 years after it had been closed.

Since the re-opening of the beach, the swimming pool has been filled because of its deteriorated condition. However, numerous improvements were made near the East End Beach in the late 1980's including construction of a new parking area, boat landing and a small bath house.

### Western Promenade[1]

When Olmsted began his overall plan in 1904, a number of improvements to the Western Prom had been completed. The Olmsted plan sought to maximize views, improve pedestrian and vehicular circulation, and provide a link with Deering Oaks. A double row of regularly spaced elms lined the Promenade from the northern entry and Bramhall Street to the southern end at the intersection of Vaughan and Danforth Streets. Only one formal element was included in the plan; at West Street a terrace and shelter was proposed defining the link along Valley and Portland Streets to the Deering Oaks.

Within the boundaries, rambling paths were proposed, along with the planting of shrubs and trees. At this point, outside the boundaries of the Promenade, regularly spaced trees would be planted along

a lower path existing at Valley Street. No structured recreational activities were proposed in the design.

> "The new cement walk built on this Promenade proved a great accommodation, and was much appreciated by the large numbers of visitors who used it. A new and attractive feature of this promenade was the erection of the statue of Thomas B. Reed, and if anything was needed to give a warming grace to this beautiful outlook this work of art has filled the bill."
>
> (1910 Annual Municipal Report)

Many features of the Olmsted Plan were not executed including the shelter and terrace at West Street, the development of the lower walk with an entrance from lower Danforth Street and the Western Cemetery. The original design objective - to provide uninterrupted views toward the White Mountains by pedestrians and passerbys sheltered overhead by high tree canopies - has been compromised by the growth of tall trees on the promenades' flank and by the loss of large mature trees along the promenade road.

[1]Includes excerpts from an article by Elizabeth Igleheart entitled "Gardens of Municipal Intercourse", from American Society of Landscape Architects, Maine Section Newsletter.

## Specialty and Community Parks

### Riverton Trolley Park

The geneses of Riverton Trolley Park is tied to the development and use of trolleys as the primary mode of transportation at the turn of the century. The Portland Railroad Company built the park in 1896 as a scheme to increase ridership of their trolleys. They figured an attractive rural park located along the Presumpscot River, near the Portland/Westbrook line (corner of Forest Avenue and Riverside Street), would entice people to use their trolleys. The park was a success and at it's official opening, it drew 10,000 persons. The park provided a wide range of attractions including a casino, bandstand, steam boat landing, outdoor theater, trout pond, picnic shelters, croquet and bicycling.

The design and layout of the park was carefully planned to convey a rural and pastoral environment with striking picturesque landscape views. The park design was by Frank Blaisdell, a landscape architect and civil engineer, who designed the Arkansas State Capital, the grounds of the Samoset Hotel, Merry Meeting Trolley Park in Brunswick, and 40 other trolley parks throughout the country.

The decline in popularity of trolley car travel doomed the park. The park closed in 1918. It reopened in 1923 as an amusement park but the changed character of the park never gained the public acceptance that the first park had and it finally closed in 1929. In 1947, the City acquired the park land.

Riverton Park was the subject of a planning report in 1981 entitled, Feasibility Analysis of the Historic Re-Creation of Riverton Park by Economic Research Associates.

The role of Riverton Park has evolved over time. Originally it was improved for a passive and active park, became an amusement center, was abandoned and essentially has been land-banked by the City for the past 45 years. The lone improvements to the site since the park closed are two little league fields that have been constructed adjacent to Riverside Street and an effort in the 1970's to rehabilitate some of the paths and bridges. The buildings and structure of Riverton Park have long since disappeared but the basic natural land forms, vistas and open spaces that people enjoyed nearly a 100 years ago, are still intact.

> "Even in its deteriorated condition today, one can experience drastic drops of topography, breathtaking views of the river and the Westbrook landscape beyond, and pastoral, peaceful, open fields. The circulation paths, roadways, stairways, and foundations of architectural features are gone. It is important to understand that these features were a part of the overall design, not the major feature of the park. They were carefully worked into the design of the site along with the wooded hillsides, open fields, stone walls, gateways, ponds, walkways and paths."
> (Lucinda Brockway, Landscape Historian)

With the municipal golf course and Hamlin's Pit north of the Riverton park, the City owns 228 acres and over 1 1/2 miles of frontage along the Presumpscot River. These landholdings are interrupted by a small amount of privately held property between Riverton Park and Hamlin's Pit. The Portland Shoreway Access Plan identified this site for a riverfront trail.

### Payson Park

Payson Park, located between Ocean Avenue and Back Cove, was purchased by the City in 1917 from William Payson of Boston to be named in honor of his brother, Edward. With Baxter's plan for the Back Cove Boulevard nearing completion, Payson Park provided the opportunity to anchor the boulevard with a large open space. The view of Back Cove and the peninsula provided a spectacular back drop for a park, its central location convenient to the peninsula and other neighborhoods of the City.

In 1918 twenty of the park's forty-eight acres were set aside for community gardens. The annual municipal report of that year reported that the gardens

were "quite successful." The park was also used as an area to transplant trees from the City nursery. Many of the trees along Baxter Boulevard were transplanted from the park.

It was reported in the 1933 annual municipal report that two tennis courts were in the process of being marked out. Two new park drives had recently been cut through making accessible 15 to 20 acres of the park. A year later, the report stated "it is recommended that the present playground be put in better condition. There has been some demand for a soccer field in this park."

By 1943, things hadn't changed too much. There were two tennis courts, one baseball diamond and a small children's playground. Only approximately five acres out of the 47 acres in the park were developed for active recreation. The 1943 recreation report recommended two additional tennis courts, a multi-use hard surface area for a variety of sports, outdoor basketball courts and facilities for field games. Five years later, a road was constructed connecting the park with Baxter Boulevard. An ice skating rink was added to the park the same year.

In 1964, the The Fourth "R" Recreation plan reported the same number of facilities at the park as in 1943.

In 1976, the Longfellow Arboretum was established as a cooperative effort between the Longfellow Garden Club and the City of Portland. The arboretum is on a 3 acre parcel on the southwesterly corner of the park. The arboretum grows exotic plant material for the enjoyment and education of the public.

During the early 1970's, significant changes were made to Payson Park. Two tennis courts were added adjacent to the existing ones, a softball field and additional playground equipment were provided. In the 1980's, changes to the roadway parking and baseball field were undertaken.

The role of Payson Park has evolved through the years. It was originally used as a site for community gardens and a nursery. Gradually, improvements were made to the park but for the first 50 years of the park's existence it had a limited number of facilities. As the largest park adjacent to Baxter Boulevard, it was inevitable that it has become a popular park for the City as a whole as well as adjoining neighborhoods.

Today Payson Park's predominant use is directed to active recreation facilities, including a lighted softball field, baseball field, two little league fields, four tennis courts, a basketball court, a skating rink and a tot lot. A prominent winter use in the park is the sledding hill extending from Ocean Avenue into the park.

### Riverside Golf Course

The opening of the Riverside Golf Course represented a new type of recreation facility for the City. Although the first golf courses in this country were not built until the 1880's, golf very quickly became the craze. Unlike other sports, such as baseball and tennis, that could be quickly accommodated within existing park facilities, a golf course could not because of its inordinately large land requirements.

The Riverside Golf Course was opened in 1929 as a nine hole course. Three years later, US Open Champion Jesse Guilford performed in the first golf exhibition at Riverside. By 1937, the course was expanded to 18 holes using Workers Progress Administration funding. Today, the course is 6,309 yards with a par of 72. The main part of the golf course is about 240 acres.

The 1938 annual municipal report indicated that "in the winter, skiing is enjoyed over the rolling terrain of the course, and a toboggan slide is erected, and an ice pond is provided. In the winter, the course is a popular place for informal winter sports."

The 1943 recreation plan found that "at the present time there is one excellent 18-hole course which apparently has been adequate to meet the past and present needs. If interest in this spirit should broaden in the future, it may be desirable to consider the construction of an additional course of nine holes in some other section of the city."

In 1961, 25 acres of land was purchased adjoining the course for use as a practice driving range and additional parking.

In 1975, the City acquired Hamlin's Pit. This parcel (22 acres) is adjacent to the golf course. With the acquisition of this parcel, the old Riverton Park land was now linked to the golf course (except for a small interruption), providing a continuous tract of recreational land over 1 1/2 miles long and containing about 280 acres. Hamlin's Pit, a former quarry, is currently being used as a reclamation area for construction debris. Long-term plans call for the property to be used as open space. During the early 1960's there was discussion of using this land for an additional nine holes.

A new clubhouse was constructed in 1976. The 6,400 sq. ft. clubhouse includes a restaurant, bar, pro shop, and locker rooms.

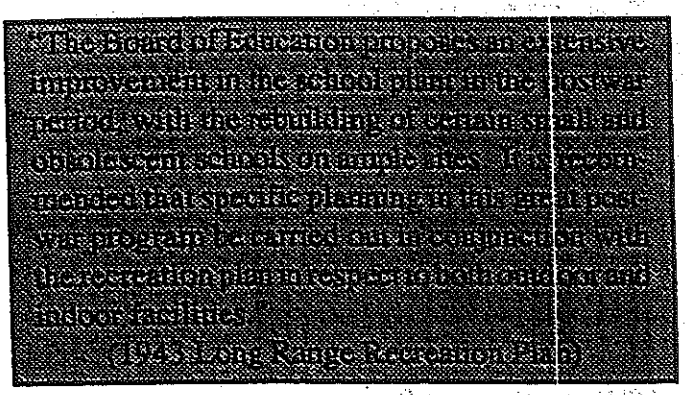
A long-term strategy to improve the golf course was outlined in the Ten Year Master Plan for Riverside North Municipal Golf Course. The 1983 plan (see Appendix A) provided a comprehensive list of needed improvements estimated to cost a total of $956,000.

The Riverside Golf Course and adjacent City-owned land represents a significant resource. Although the site is a bit remote from most of Portland's developed neighborhoods, it is used by residents on a community-wide basis. With Evergreen Cemetery, it is one of the two largest open spaces in the City. The property has the most continuous length of shorefrontage of any city-owned parcel except for Back Cove. The site was originally designed and improved as a golf course, but it is also popular for winter sports. The Portland Shoreway Access Plan recommends that a riverside trail and canoe trail be considered for this property.

# Schools

Portland's schools and parks have had a long interwoven relationship. The first public play areas in the City were the playgrounds adjacent to schools. These play areas consisted simply of playgrounds for children. The playground areas were small because typically the schools were on small sites in dense neighborhoods. During the 1800's, ten schools were built in peninsula neighborhoods, only a few were in off peninsula locations.

As growth occurred in outlying areas of the City, new schools needed to be built.




The integration of school and recreation facilities has been an efficient use of resources since facilities can be shared rather than building separate ones. Schools are typically located in a central area of a neighborhood which is a good location for recreation facilities.

Since World War II, eleven public schools have been constructed in the City. Eight of the schools were located in off-peninsula locations reflecting a shift in population to these areas. All of them have incorporated recreation facilities on their sites. These schools include Presumpscot, West, Hall, Reiche, Baxter, Lyseth, Moore, PRVTC, King, Riverton and Marada Adams.

The newer schools were built on fairly spacious campus-like sites as compared to the cramped sites of older peninsula neighborhood schools. The larger land parcels provided the opportunity to integrate school and extensive recreation facilities on one site. In practice, however, funding was not always available to complete park improvements and a lack of master facility plans for several sites has resulted in a less than optimum facility layout.

Riverton and Reiche were the first community schools, built as joint school and community centers with staffing by the Recreation Department. As such, they had larger than normal gymnasiums, meeting spaces, and swimming pools.

### Deering High School (Presumpscot Park)

In 1923, Deering High School was constructed on its present site on Stevens Avenue. This represented the first large scale school facility built in an off-peninsula location. Deering High School had previously been located in the Lincoln School building. The site of the school was part of a tract of land known as Presumpscot Park which included land on the westerly side of Columbia Road. Adjacent to this, is a parcel of land later known as Baxter Pines which was donated to the City by James P. Baxter.

Presumpscot Park was established in 1875 by a group of area businessmen as a trotting park for horse races. The park included a horse track with an enclosed grand stand. For several years, it was also the official home of the Maine State Fair. The park was financially unsuccessful, and as a result, a variety of other attractions were tried at the park including baseball, an airplane exhibition, and religious revival meetings. None of these uses could support the facility.

The City purchased the property as a neighborhood park in 1920. The construction of Deering High School followed three years later.

One year after Deering High School was constructed, a plan for a new athletic field was shown in the Portland Press Herald. The 1924 plan included a football/baseball field, and a 1/4 mile running track behind the high school building. Three tennis courts and a basketball court were shown on the site oriented toward Columbia Road. The westerly side of the park included a volleyball and a croquet court.

The 1943 recreation plan commented that Presumpscot Park is provided with six tennis courts completely fenced, all hard surfaced; two softball diamonds; an exhibition football field, entirely enclosed; an ice skating pond; and a 12-lap running track. The softball fields are also used for field hockey and other types of field games. Five acres of the park area are used as the site of the high school building and the general landscape development immediately surrounding it.

The 1943 recreation plan recommended acquiring a 20 acre parcel between Presumpscot Park and Evergreen Cemetery that would connect the two open spaces. This was never accomplished. The plan commented that "the excellent facilities in the Deering High School should be made available for indoor community recreation as part of the organized program for the entire City. This property is the only public facility in the entire suburban area suitable for diversified indoor activities."

The 1964 recreation plan reported the same number of recreation facilities as the 1943 plan.

The 1974 Land Development Plan indicated that a comprehensive plan for Harlow Field and Baxter Pines had been completed two years previously. Open space funds for the reconstruction of the existing tennis courts, new play equipment, a relocated playfield and park roadway, and associated site improvements had recently been allocated. Other elements in the plan included a swimming pool, landscaping, walkways, ice skating area, tot lot, all-purpose recreation court and ballfield improvements.

In the early 1980's, a building addition was constructed to the high school which affected the configuration of several fields.

The 1983 Athletic Facility Use Study rated Presumpscot Park as the "most congested and overused athletic facility." All facilities are in "very poor condition, except tennis courts." The report recommended a variety of improvements to rehabilitate this facility.

A year later, $300,000 was allocated in the capital improvement program to help address these deficiencies. Deering Memorial Field was rebuilt and an irrigation system added. Lights were donated and installed with funds provided by public donations. As part of the project, two youth baseball fields were constructed in the area behind Memorial Field. In order to construct these fields permission was received from the heirs of the Baxter Trust to build a developed recreation facility that encroached on Baxter Pines.

### Dougherty Field

Dougherty Field is a park facility that is built over a city dump. The St. James Street dump (located on the corner of Congress Street and St. James Street) needed to be closed out. A public park provided the opportunity to reclaim the land as a positive community asset. The 1943 plan recommended that a recreation facility be developed on the 12 acre site. The report commented that "the extensive residential construction in the neighborhood gives fresh importance to the provision of additional playground and playfield facilities." A concept sketch for this site envisioned a large multi-use facility. It included a football-soccer field, baseball and softball diamonds, tennis courts, field hockey, tot lots and other facilities.

In 1958, the concept plan for the park was revised. A new school, West School, was to be built on the site as well as a pool. Existing houses on the easterly side of Douglass Street originally slated to be re-

moved were saved under the new plan. During the 1950's, Dougherty Field received capital improvement program funding eight straight years to close out the dump and improve land for a park. In 1962, West School was constructed. A swimming pool was constructed on the site with joint funding by the Kiwanis Club and the City.

In 1983, the Athletic Facility Use Study had the following comments on Dougherty Field:

- Fields are rough and rocky;
- Storage and toilet facilities are required.

Dougherty Field is on the edge of the peninsula and is in proximity to several peninsula neighborhoods. Exclusive of Deering Oaks, it is the largest recreation facility in proximity to the westerly side of the peninsula. It serves a number of nearby neighborhoods (West End, Libby Town, Bradleys Corner, Deering Center), although the presence of Brighton Avenue and Congress Street would tend to limit access for children. As a facility on a large parcel, it has the capability to accommodate a number of recreation activities on one site.

Dougherty Field is one of the largest athletic complexes in the City. It has a baseball field, soccer/football field, a swimming pool, two little league fields, four tennis courts, basketball court, tot lot, and softball field.

### Lyman Moore and Lyseth School Campus (North Deering Playfield)

North Deering was an open rural area before World War II. With the anticipated post-war housing boom, North Deering was a ripe area for new housing development. The need for a major park in North Deering was identified in the 1943 recreation plan. The report recommended that a parcel be acquired in the vicinity of Auburn Street and Summit Street.

> "A tract of land of approximately 100 acres in the vicinity of Auburn, Summit, and Allen Avenue should be acquired for park land for two playgrounds, a playfield, and a large recreation park. At least 3 1/2 acres of this tract should be developed in the vicinity of Allen Avenue as one of the playgrounds. Another portion of 3 1/2 acres adjacent to and east of the Summit School on Summit Street should be developed as a second playground. At least 20 acres of the remaining property in the best suited area (from the standpoint of accessibility and topography) should be set aside and later developed as a playfield. The remainder of the area should be developed for park purposes with opportunities for picnicking, hiking, bicycling, nature study, and similar activities. A large portion of this area is wooded and has natural beauty and is exceedingly valuable for park purposes. The tract in question is adequate to provide sufficient park area for the entire section of North Deering. This is one more proposal designed to provide a complete pattern of well distributed park properties throughout the City."
>
> (1943 Long Range Recreation Plan)

The 1943 recreation plan anticipated the North Deering area as a developing residential neighborhood in the future for which open space would need to be acquired. The neighborhood would also need school facilities. Ten years later, the City started construction on the Lyman S. Moore School off Auburn Street. A concept plan for the school site included a playground and recreation fields for baseball, softball and football. While the site was large (25 acres), it was well under the 100 acre park recommended in the 1943 plan. A concept plan for the property showed the location of a future junior high school. In 1960, Lyseth Jr. High School was constructed. As the population of the North Deering area grew, building additions were constructed for Lyman Moore (1961) and Lyseth (1966). In 1964, another playfield was constructed on the site.

In 1974, the Land Development Plan recommended that the North Deering playfield be expanded.

> "This playfield is improperly developed and needs to be redesigned and more fully improved. The importance of maximizing the recreational use of this land is underscored by the fact that North Deering playfield is immediately adjacent to two of the largest schools in the City and by the fact that this playfield is situated near the heart of the City's fastest growing neighborhood."
>
> (1974 Land Development Plan)

The need for school and recreation facilities in the North Deering area has grown over the years but the size of the original campus has remained unchanged. The growth in the neighborhood is perhaps symbolized by stationing of portable classrooms on the site in the late 1980's. The lack of a master plan and the inability to acquire additional land has resulted in a recreation facility that has limited capacity to expand. An attempt was made in 1985 to acquire 15 acres of land adjacent to school property extending to Summit Street. However, the City did not allocate sufficient funds for the purchase and was unable to buy the land.

The 1980 recreation survey had the following comments on this park:

- Additional adjacent land should be acquired;
- A little league complex and an additional soccer field should be constructed;
- A master plan is needed;
- Current space on the site should be redesigned; and
- The site has poor vehicle circulation.

### Riverton School

Riverton School was constructed in 1976. Like the Lyman/Lyseth School complex, the Riverton School was a response to the post-war housing boom in the suburban areas of the City. The Riverton School campus is located in the outer Forest Avenue area of the city and has a total land area of 20 acres.

The 1964 recreation plan recommended that a playground be constructed on the future Riverton School site. The Riverton neighborhood was listed in the report as not adequately served by playfields. Reed School was the lone recreation facility for children in the neighborhood at that time. Prior to the construction of Riverton School, the closest recreation facilities outside the neighborhood was a small playfield at Morrill School and Gulliver's Field, south of Morrills Corner. As growth continued in North Deering and Riverton, recreation needs became even more evident.

> "It is here where new recreational needs are mounting the fastest. Existing parks and playgrounds are too remote or widely spaced to serve most future development in these neighborhoods adequately. Based on existing patterns of development, the location of developable land suitable for new residential growth and the service areas of existing parks and playgrounds, it appears that needed school site acquisitions."
>
> (1974 Land Development Plan)

The Riverton facility was developed with playfields and tennis courts. The playfields include two little league fields, a soccer field and a playground. Unfortunately, a master plan for recreation facilities apparently was never done. Indoor facilities include a community pool which was the first indoor pool constructed off the peninsula.

Seven years after the school's opening, the 1983 Athletic Facility Use Study had the following comments on the Riverton facility:

- A master plan is needed;
- There is a need for an additional little league field;
- There is a need for two recreational softball fields;
- Fields need to be rehabilitated.

## Reiche School

Reiche School campus was the first school built in the West End since the beginning of the century. Reiche School is located on the corner of Brackett Street and Spring Street. The school department in the post war era was looking to replace obsolete schools with new facilities. There were six elementary schools on the West End of the peninsula before Reiche School was built. Typically older schools on the peninsula were on very smaller lots with minimal open space areas. Contrary to tradition, the Reiche School site has a large amount of open space (about 50% of the lot) compared to older schools although it does not have the large play fields that schools off the peninsula have.

Reiche School was built in 1973. The five acre site was assembled by the acquisition and raising of blighted housing as part of the Model Cities program. With the construction of Reiche School, the play areas around the old elementary schools were lost. The size of these areas were generally small.

Like Riverton, Reiche School was the first community school built as a joint school and community center operated by the Recreation Department. As such the facility has a library, larger than normal gymnasium, meeting space and swimming pool.

# Nature Preserves

Portland's rich natural resources have had an indelible imprint on the City's image and character. As an urban community, it is impossible to protect all sensitive land areas. Dedication of these areas to parkland protects such resources. The Fore River Sanctuary, Capisic Pond and Baxter Woods are examples of important natural areas that have been preserved and protected. Although most of the parkland in the City is publicly owned, the Fore River Sanctuary is privately owned by Maine Audubon Society and Baxter Woods was purchased privately and contributed to the City.

## Baxter Woods

Baxter Woods was presented to Portland citizens on April 13, 1946 by former Governor Percival P. Baxter in memory of his father, the late James Phinney Baxter, six term mayor of Portland. Baxter Woods is one of the few publicly owned nature preserves in the City. The park is located between Stevens Avenue and Forest Avenue and totals 30 acres.

"The property shall remain in its natural wild state for the use of pedestrians only. It is to have no cement walks, only paths and trails, and there are to be no cultivated flower beds — it already is a wild flower garden — and it is to be a sanctuary for birds. I want it to remain and to be used about as it is now, free from all automobiles, so that people undisturbed may enjoy its quiet and its beauty, and so that children may learn about nature, the ferns, flowers, trees and birds."

"...these woods are an unspoiled tract of natural forest. In walking through their shady paths, one will may feel he is far from a City with its noise and confusion, and that he is strolling through the woods of Franklin, Somerset or some other of our counties to the North and East."

"...I have allowed the City to use these woods as a recreational center and I laid out several portions of it as picnic grounds and built three open air stone fireplaces for the children who brought their lunches with them for a day's holiday."
(Portland Press Herald, April 14, 1946)

As befitting a park intended as a nature preserve, improvements to the park are very limited. A 1935 plan for the site entitled "Baxter Bird Sanctuary," shows several winding paths traversing the site, a small pond and a picnic area. The plan also divided the park into sections for the Boy Scouts, Girl Scouts, and Camp Fire Girls. Mr. Baxter allowed the public to use the woods prior to it being donated to the City. The impressive stand of trees on the site (one white oak is 250 years old) have been left undisturbed providing a forested enclave for the surrounding neighborhood.

Baxter Woods occupies an important location between Evergreen Cemetery (the City's largest open space) and Back Cove. The park is directly across the street from Evergreen Cemetery. When combining the linear footage of the two parks, a continuous greenbelt of over 1 1/2 miles is provided. With its location on Forest Avenue and proximity to the Ocean Avenue neighborhood, the park provides the opportunity for a connecting walk route to Back Cove.

## Capisic Pond Park

Capisic Pond is another publicly owned nature preserve in the City. It was acquired by the City in the late 1930's. Additional land around the pond has been purchased by the City over time as a protective buffer. Except for some minor improvements and dredging of the pond, the park remains as undisturbed open space. Located off Capisic Street, the park totals 18 acres.

"Visioned as a pastoral, beautifully landscaped water parkway curving along the easterly shore from Lucas to Capisic Street...

Picturesque pedestrian paths and rustic picnic tables on the opposite pond banks...

Canoes and rowboats plying the narrow, shallow waters in summertime...

In Winter, the flashing blades and clear, frosty laughter of skates zipping over nearly a half-mile of gleaming ice."

(William Dougherty, Director of Parks and Recreation, vision of Capisic Pond, summarized in the Portland Press Herald, 1/10/50)

In 1949, the City spent $25,000 to clean up the pond. This involved excavating the pond to deepen it and eradicate weed growth. This effort enabled the City to sponsor ice skating on the pond for the first time in 1950.

The 1964 recreation plan commented that "ice skating is the only active use made of the area at the present time, but its potential service to a growing residential area is great."

In 1989, Woodlot Alternatives, Inc. completed a study of Capisic Pond entitled the Natural and Cultural Resources of Capisic Pond. The report included an inventory of the pond's natural resources, site conditions, plant and wildlife. An analysis of the park found that the pond contained moderate to high value waterfowl and wading bird habitat.

Water sampling tests results indicated that Capisic Pond is threatened by an abundance of algae growth. A 100 foot wide buffer strip was recommended by the consultant to protect the pond. A long-term management program was also suggested for the pond.

In 1989, "Friends of Capisic Pond" was formed by residents to protect and revitalize the park. The organization petitioned the City Council to acquire vacant land near the park to protect the pond. A trail through the park was constructed by residents in 1991.

Capisic Pond is at the lower end of Capisic Brook which extends up to Evergreen Cemetery. It is also in close proximity to the Maine Audubon Sanctuary. In the Portland Shoreway Access Plan, a trail is shown running along Capisic Brook to Capisic Pond and the Maine Audubon Society Sanctuary.

The Portland Shoreway Access Plan recommended that a master plan be developed for this site.

"This land, if suitably developed as a neighborhood park, would primarily serve the sizable residential area lying southerly of Brighton Avenue and westerly of Stevens Avenue. This area of Rosemont and Nason's Corner is presently deficient in park and playground area. The only sizable parkland south of Brighton Avenue presently existing is Dougherty Field, more than a mile away."

(1974 Land Development Plan)

## Fore River Sanctuary

The Fore River Sanctuary is the largest nature preserve (80 acres) in the City. Although privately owned by the Maine Audubon Society, it is open to the public for foot traffic only. The parcel features an enclosed saltwater marsh unique to Portland and the Southern Maine area, as compared to open marshes such as Back Cove. The property also has large forested wetlands adjacent to the marsh.

While the property has aesthetic and recreation values, its diversity also has ecological value. Within the sanctuary's boundaries are many natural communities representative of Southern Maine including fresh and saltwater marsh, hemlock ravines and oak/pine forests. As a salt-water marsh, it plays an important ecological role in sustaining a basic element of the food chain on which many life forms are dependent.

The sanctuary originated in 1971 with the gift of 11 acres to the Maine Audubon Society. In 1977, the Society received full title to an additional 57 adjoining acres. Other land has been added to the sanctuary over the years.

The sanctuary parcel has been considered as a route for the Westbrook Arterial. This roadway was planned to link I-295 in Portland to Westbrook as part of the federal interstate system. In 1974, the Maine Department of Transportation released a draft environmental impact study of the highway project and compared four different alignments, which had varying impacts on the sanctuary. Several of the routes would have drastically affected the sanctuary. These proposals generated opposition from the Stroudwater neighborhood and the Maine Audubon Society. In 1975, MDOT withdrew it's support of the project, citing economic considerations. Since that time, there has been further consideration of route options.

Over one-half mile of the historic Cumberland and Oxford Canal lies just inside the southern boundary of the sanctuary. This canal was built in the 1820's and carried cargo 28 miles between Sebago Lake and the Portland waterfront until the 1870's when the railroads put it out of business. The most visible remaining element of the canal in Portland is the raised berm or tow path of the canal.

The sanctuary is a rich natural resource which offers a wide range of passive recreation opportunities from walking to observing wildlife. The conservation of this land protects the resource and provides the opportunity for people to observe nature and the ecological balance sustained by marshes. Waterfowl, shorebirds, mink and muskrats are the most prevalent wildlife of the marsh. Deer, fox, raptors, and warblers use the upland forests and edges as travel and feeding corridors. Maine Audubon Society has sponsored numerous field trips of the marsh as part of their environmental education program.

There are several routes into the sanctuary including trails off Rand Road and Hillcrest Avenue. Pedestrian trails within the sanctuary total about 2 1/2 miles in length. Maine Audubon Society, Portland Trails and the City of Portland are proposing to build a pedestrian bridge off Congress Street near the Stroudwater Crossing office building which would improve access into the sanctuary. The bridge would provide access across the Cumberland-Oxford canal tow path that was broached by tidal water. Maine Audubon has also improved many of the footbridges within the sanctuary over the last several years. A small parking area for the sanctuary off Frost Street has been made available with the cooperation of Orthopedic Associates.

The presence of nearby Capisic Pond Park provides the opportunity to link these two open spaces together as part of the Shoreway Trail.

### Oatnuts Park

Oatnuts Park is a tract of land off Summit Street that has been preserved as open space primarily because of a failed development scheme at the turn of the century. In 1902 the Liberty Pure Food Co. of Boston offered as a promotion, a free lot of land for cereal fans of Oatnuts porridge and Nameless Breakfast Food. All the cereal enthusiast had to do was to send in three cereal box tops, porridge directions from a Oatnuts porridge cereal box plus $2 to cover legal fees. Deeds to 803 lots were sent to their new owners. The original parcel totalled 36 acres.

Unfortunately the layout of the cereal boxtop subdivision rendered the lots virtually unbuildable. The largest of the lots were only 30 feet by 50 feet with most of them being 20 feet by 50 feet. These "micro" lots were much too small to build a house on. In addition the roadways were only 20 feet wide. Property taxes were ignored by many lot owners either through disinterest or perhaps upon discovery that their lot was useless. Over a period of time the City acquired most of the lots through tax liens. The City's land holdings are in a patchwork quilt pattern since there are pockets of lots that remain privately owned.

Today Oatnuts remains a mature hardwood forest. Over the years, a few enterprising property owners have found enough contiguous lots to build houses on . But with today's zoning regulations, it is extremely difficult if not impossible to assemble them into legal building lots.

It has been suggested over the past two decades that the City should utilize the state community development statue to gain clear title to the (undeveloped) lots and erase the old subdivision lots. This has not taken place to date. In the 1970's there was discussion on using this technique to clear the land and then sell it to developers for a future residential subdivision. Since that time, there has been more discussion on retaining the land for park purposes. Oatnuts is close to the Presumpscot River providing a linkage to this point and the Lyseth-Moore School campus.

"Perhaps it is just as well off undeveloped. The concept of Oatnuts Park has worked well - it has succeeded in the creation of a park. Quiet forested land is hard to come by in Portland these days. Perhaps it ought to be kept as it is, unspoiled and undeveloped, a tribute to a hucksters dream."

News column by Dan Hansen appearing in April 10, 1975 edition of the Portland Press Herald.

# Islands

The Islands of Casco Bay are a unique natural resource. The physical features and environment of the islands (pastoral character, shoreline, coves, inlets, forested land, freshwater ponds, etc.) poses a striking contrast to the mainland.

Portland's islands were first recognized as a major recreation and open space resource at the turn of the century when steamboat lines cruised Casco Bay carrying mainlanders and tourists to the islands for clambakes and picnics on the beach. While a large number of cottages were built along the shore edges, private development of open land had been somewhat limited on the islands, up until the 1970's and 1980's. The most significant land development activity on the islands during the 20th century, aside from the flurry of cottages built before WWI, was the construction of military facilities by the Federal government to defend Portland Harbor. As the Federal government declared this land surplus, opportunities became available to protect this land as open space.

During the 1960's, 1970's and into the 1980's, there were a number of actions taken by citizen groups, the City and the State to protect open space. Many of these properties were formerly controlled by the Federal government. In 1972, the State acquired Jewell Island (120 acres) and Little Cheabegue Island (71 acres). Also in 1972, the State purchased Andrews Beach on Long Island (16 acres) which has the smoothest sand of any beach in the Greater Portland area.

On Peaks Island, the Casco Bay Island Development Association purchased the former military reservation on the backshore of the island in 1967. The 100 plus acre parcel included over a mile of shore frontage. Most of the land was deeded back to the City for open space purposes. This is the largest City owned parcel on the islands. Later, the Maine Department of Fisheries and Inland Wildlife acquired a 20 acre parcel adjacent to this property as a nature preserve.

On Cliff Island, the Cliff Island Corporation for Athletic and Conservation Education acquired a 15 acre parcel in 1978 on the northerly end of the island for recreation and open space purposes.

Land acquisition on the islands during the 1960's and in the 1980's has focused primarily on protecting open space for passive recreational purposes. This open space enables the islands to expand their recreation facilities if necessary and to protect environmentally sensitive land. With a limited amount of land on each island and the prospect of future development, the protection of open space has been viewed as a counterbalance to protect the ecological resources of the islands from the impact of future population growth.

# Recent Developments - I-295, Model Cities, Downtown and the Waterfront

During the 1960's and early 1970's, there were a number of major construction projects that influenced the park system. These included highway construction and urban renewal projects.. The construction of Interstate-295 required that the northerly edge of Deering Oaks Park be taken for the roadway resulting in a loss of 4 acres. A portion of Back Cove was also filled. To compensate for this loss, the State conveyed 20 acres of land to the City including land along Marginal Way and along Back Cove from Tukey's Bridge to Forest Avenue, the site of the soccer field and the parking area adjacent to Back Cove and Preble Street Extension. This new park area was called Back Cove Park. As part of this project, Winslow Park was relocated to the intersection of Baxter Boulevard and Preble Street Extension.

The Model Cities Program helped create recreation facilities as part of an overall improvement program for peninsula neighborhoods. The scope of improvements in these areas ranged from rehabilitation to redevelopment and new construction. Among the recreation related projects undertaken during this time period were Reiche School, Peppermint Park, Bayside Mall, and Bayside Playground.

Downtown revitalization efforts created numerous parks during the 1970's and 1980's. The Our Lady of Victory statue was rescued from a sea of automobile traffic and a new central pedestrian park (Monument Square was created). Tommy's Park, in the Old Port, provides open space for this bustling area. The popularity of Tommy's Park sparked interest in a second park being built next to it, Post Office Park. Congress Square Park, formerly the site of an all-night doughnut shop, provides a focal point for the improvements in the Congress Square area including the new art museum, and rehabilitation of the Sonesta Hotel. Redevelopment projects such as the Temple Street parking garage, One City Center, Canal Plaza and Portland Square have incorporated publicly accessible open space. The importance of open space to this area was recognized in the recently adopted master plan for the Downtown (Downtown Vision) which encourages the integration of open space in the Downtown and identifies opportunities for both enhancing existing open space and creating new open spaces.

Several projects were initiated during the 1980's to provide open space and pedestrian access along the waterfront. Portland Pier (City-owned) was rebuilt and a connecting walkway behind the Thomas Block and the Carrol Block was also constructed, as the beginning of a pedestrian trail along the waterfront. The westerly side of the Maine State Pier was resurfaced to protect the pier structure, a boat landing installed, a walkway and other pedestrian amenities were installed along the pier edge. A small park along Commercial Street next to the ferry terminal parking garage was also built as part of the waterfront trail system.

# Milestones in the City of Portland Park System

| | |
|---|---|
| 1837 | Roads constructed along the Eastern and Western Promenades |
| 1852 | City acquires land on Stevens Avenue for a new cemetery (Evergreen Cemetery) |
| 1866 | City acquires land for the first public park in Portland - Lincoln Park |
| 1875 | City acquires land owned by Deering Family for Deering Oaks Park |
| 1890 | Fort Allen Park acquired - the first portion of the Eastern Prom acquired by the City |
| 1891 | Our Lady of Victories statue in Monument Square is dedicated |
| 1895 | Baxter proposes an arborway linking Eastern and Western Proms, Back Cove and Deering Oaks |
| 1896 | Riverton Trolley Park opens |
| 1902 | Boothby Square laid out by the City while constructing Fore Street |
| 1902 | The first formal play area built in the city in Deering Oaks |
| 1903 | A baseball field and outdoor gymnasium built on the Eastern Prom |
| 1904 | Portland Sunday Telegram reports that the pond in Deering Oaks comes alive during the winter with hundreds of skaters |
| 1905 | The Olmsted Brother's landscape architect firm completes the "City of Portland, Maine, General Plan for Park System" |
| 1915 | The Exposition Building constructed. During the 1920's an indoor track and basketball courts were installed in the building |
| 1917 | Payson Park acquired |
| 1917 | Baxter Boulevard opens to the public |
| 1918 | Twilight League (baseball) established |
| 1919 | A toboggan slide was opened and staffed at the Western Prom and expanded to a length of 600 feet |
| 1919 | Evergreen Cemetery Commission gives some land on Stevens Avenue for a football field |
| 1920 | City buys Presumpscot Park (previously a horse trotting park) for a neighborhood park |
| 1920 | There were 30 amateur baseball teams in the City |
| 1924 | There are five clay surfaced tennis courts at Deering Oaks |
| 1926 | Reed School opened (expanded in 1959) |
| 1926 | Bowling Green provided in Deering Oaks |
| 1927 | Field hockey fields built at Deering Oaks and Presumpscot Park |
| 1929 | Riverside Golf Course opened |
| 1931 | Portland Stadium dedicated |
| 1932 | First Peaks-to-Portland swim |

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| 1934 | The first two softball fields are built. Four years later there are 20 fields |
| 1943 | The first city wide recreation and open space plan completed |
| 1943 | Jack Jr. School opened (expanded in 1961) |
| 1946 | Baxter Woods presented to the City |
| 1947 | The Parks and Recreation Department was formed and the first Director appointed, William Dougherty |
| 1954 | Lyman Moore School opened (expanded in 1961) |
| 1957 | Baxter School opened |
| 1958 | Adams School opened |
| 1958 | First tot lot built in the City...Tate - Tyng |
| 1959 | Hall School opened (expanded in 1969) |
| 1960 | Lyseth School opened (expanded in 1966) |
| 1962 | Presumpscot School opened |
| 1964 | East End Beach closes because of polluted water. Does not reopen until 16 years later |
| 1973 | Reiche School constructed |
| 1975 | Monument Square Plaza constructed |
| 1976 | Riverton School constructed |
| 1982 | Congress Square Park completed |
| 1984 | An indoor ice arena constructed by the City next to the Expo |
| 1989 | A walking trail completed encircling Back Cove |
| 1990 | Park and public boat landing constructed at the end of the Maine State Pier |
| 1993 | Dedication of Post Office Park on Exchange Street |

# Historical Review of Portland Recreation and Athletics

The development of recreation in Portland mirrors the changing nature of New England society and the development of Portland as an urban community. As the City of Portland developed and grew, the role of the municipality in helping to provide for the recreational needs of residents expanded. The park and open space system incorporated the physical play areas needed for outdoor games and sports. The recreation program component organized opportunities for recreational pursuits in both indoor and outdoor settings.

Recreation is defined as activity that is voluntarily done during one's free time for fun and enjoyment. As Portland approached the start of the 20th century the great majority of the adult population had limited amounts of free time. Recreational games were, generally, activities for the young or the well-to-do. Family and adult games were somewhat genteel, and included badmitton or tennis, croquet, and lawn bowling. Organized athletics were only just beginning to gain a foothold among colleges and high schools, and were exclusively confined to males. A professional baseball league was still in its early stages in major American cities. Amateur baseball clubs were growing in number, but were played by a relatively small number of people. Portland boasted the Resolutes, which played during the 1890's in several Portland locations, including the Western Promenade, Presumpscot Trotting Park, and the slaughterhouse grounds near Stroudwater. All of these locations were rough approximations of legitimate baseball diamonds. As the turn of the century approached, these ball games were the harbinger of a huge growth in recreation which would take place.

## Turn-of-the-Century 1900-1915

The demand for recreational facilities grew rapidly during the first decade of the 1900's. Interest and participation in baseball, basketball, football, and tennis was increasing. Sports were growing in importance in the public schools, and more young adults were becoming interested in playing games. Baseball, especially, was popular. Games were played at Cunningham and Richardson Fields, and on other open grounds where enough space could be found for a ball game. In Deering Oaks, fill was added in order to double the space available for ball games. The growing neighborhoods on the peninsula, Munjoy Hill, Bayside, and downtown, created the need to establish playgrounds where the children could play. Without park spaces, children had nowhere but the streets to play. The first formal play area in the park system was established in 1902 in Deering Oaks, with contributions from the Civic Club and the Aldermen of the City. A second was established at the Eastern Promenade within the next year.

Winter skating was popular within the City. The pond at Deering Oaks park was well used for skating, even when the ice was too thin to accommodate it. Police officers were kept busy chasing the children away from the hazard. On Christmas day in 1909, over 3,000 people skated at the Oaks.

## The Playground Movement 1915-1924

Responsibility for the growing play areas was given to the Department of Cemeteries and Public Grounds until 1915, when the Park Commission was established. In 1916, the Recreation Commission was created and given responsibility for overseeing playground programs and ballfield use. The first Supervisor was Granville Lee, who was to remain in his position until the 1940's. It was during this time that the Playground Movement was growing in the United States. This period brought about the development of playground areas in neighborhoods that would be staffed during the summer months by program attendants, called teachers or leaders. In its first year of operation, the Recreation Commission staffed nine playground areas across the peninsula

with thirteen teachers. The locations were: Deering Oaks, Bayside, Eastern Promenade, East Deering, North School, Fore and India St., Staples School, Brackett St. School, and Clark and Danforth St. Attendance for the summer was reported at 9000 per week. Most of the areas were little more than small open spaces, but a few included play apparatus such as swings, slides and see-saws. Deering Oaks was the best equipped of all, and most heavily attended. It boasted a small wading pool.

During the next ten years the Recreation Commission would promote and facilitate the expansion of ballfields and sports facilities in Portland, and assist in the establishment of sports leagues, while continuing to provide daily playground programs in the summer months.

Baseball: Baseball was king in Portland. It grew tremendously during this time period. A grammer school league was established. The Twilight League was formed in 1918. The games quickly became the focus of large social gatherings of several hundred spectators. By 1920 there were over 30 amateur baseball teams in the City. Bleachers were built in 1923 at Richardson Field, in the area of today's Hadlock Field. There were four good quality ball diamonds in Portland and four in Deering. In addition, the game was played wherever there was room. At times there would be four or five games overlapping the same space on the Deering Oaks grounds.

Tennis: Public courts were established at four park areas during this period. The popularity of tennis was slowly increasing. It was a game that was played by both men and women, which distinguished it from other activities. In 1923, a tennis tournament was held by the Recreation Commission. By 1924, there were five courts at Deering Oaks, all clay surfaced.

Football: Football was played at both public high schools and by a few amateur teams. It was not nearly as popular as baseball. In 1919, the Evergreen Cemetery Commission gave some land on Stevens Avenue for use as a football field.

East End Beach: The 1922 Municipal Report refers to the East End Bathing Beach as a "municipal health resort". To the many residents of Portland who could not escape to the inland lakes or popular seaside resorts, the East End Beach was the place to beat the heat. The Beach was operated by the Recreation Commission, which maintained 80 dressing rooms able to accommodate 2-3 people each. Attendance at the beach was reported as in excess of 100,000 each summer. There were few other swimming options within the City.

Winter Sports: The Recreation Commission expanded the winter sports opportunities within the City, for which there was a great demand. A toboggan slide was opened and staffed at the Western Promenade in 1919, and expanded to a length of 600 feet, over several seasons. "Coasting" was allowed on more than a dozen city streets, although the increasing automobile traffic was making this more problematic by 1924. By far the most popular winter activity was skating. Rinks were maintained in 4-5 locations. In 1920, lights were added to Presumpscot Park for night skating. A hockey rink was established for use by Portland High at Richardson Field. The unpredictable coastal winters made the maintenance of ice a continuing problem for managers and skaters.

## Expansion of Leisure Time 1925-1942

As the first quarter of the century closed, Portlanders were enjoying greater availability of leisure time. The growing prosperity of citizens, shortening of work hours, and adoption of daylight savings time, all contributed to an increased need and demand for recreation by adults. In addition, women were becoming more actively involved in sports, especially tennis, volleyball, field hockey, and golf. The growing interest in recreational pursuits re-

sulted in expansion of traditional activities and the development of new areas of interest. This period included the development of numerous facilities which remain key components of the City's recreation facilities at the present, including the golf course, Presumpscot Park, tennis courts, Baxter Boulevard, the Boys Club Race (1930), the Peaks-to-Portland Swim (1932), Portland Stadium, and the Bowling Green (1926, still so named, but no longer in use).

Portland's Recreation Office expanded its activities and responsibilities as the City expanded the available recreation facilities. Summer concerts with Chandlers Band were an annual feature. The recreation office was responsible for scheduling the use of the limited ball fields to the large number of baseball teams. By 1926 there were over 70 amateur teams in Portland, including 40 teams in the twilight league. The administrative staff of the Recreation Office expanded for a brief four year period to include a part-time program supervisor, until the Depression forced municipal budget reductions in 1931. Private recreation opportunities also became a growing factor, reaching out to serve the children from poorer families. In 1926, attendance at the summer playground programs decreased for the first time since their inception. The decline was attributed to the growing number of summer camp opportunities available to Portland's youngsters, and also to the initiation of a church vocational school program during the summer months. In 1930, the Portland Boys Club moved into its spacious new home on Cumberland Avenue behind City Hall, becoming an easily accessible resource to youngsters living on the peninsula.

The demand for winter sports continued to be strong. The Western Promenade toboggan run was rebuilt in 1931. Lights were added at that time to expand the hours of available use. Several skating rinks were also lighted, including the North Street rink in 1932. Because of increased volumes of automobile traffic, sledding runs were built in numerous parks in 1927 and 1928, including the Oaks, Payson Park, Cunningham Field, Richardson Field, North Street, and Presumpscot Park. The construction of the municipal golf course at Riverside in 1935 allowed for an expansion of winter activities to that location, including skiing, a toboggan run, and an ice rink.

Many of the expanding areas of interest were significant in the participation of women in larger numbers, including tennis, softball, golf, and winter sports. In addition, field hockey was added to both Portland and Deering High School sports. In 1927, field hockey areas were built at the Oaks and Presumpscot Park. The municipal report for 1926 notes that women participated in games at the bowling green in comparable numbers to men. Softball in particular grew very rapidly in popularity. The first softball fields were built in 1934 at the Eastern Promenade and in the vicinity of Brighton Avenue and Massachusetts Street. By 1938 there were 20 fields available.

Tennis continued to increase in popularity during this period. In 1927, the first hard surface courts were built out of concrete, one court at the Oaks and one at Presumpscot Park. Two clay courts were located at Payson Park. Two more asphalt courts were built in 1934 at the Eastern Promenade. In 1939, the municipal report promised that nine additional courts would be added in the next year. During this same period, horseshoe courts were added to the municipal system, eight at Deering Oaks in 1931, eight more in 1934, and eight at Bayside, also in 1934. Beginning in 1931, the Evening Express sponsored an annual tournament.

Basketball was a popular sport, both indoor and outdoor. Basketball courts were part of the facilities at the Oaks, Presumpscot Park, and Payson Park during the '30's.

The Depression that gripped the country for much of the decade of the 1930's proved to be a boon to the development of recreation facilities in Portland. Federal money, and the large publicly supported labor supply, resulted in the purchase and development of numerous park areas during this period, in particular the Golf Course, Presumpscot Park and

Portland Stadium. World War II marked the end of this significant growth period in Recreation. The Recreation and Park Plan developed for Portland in 1943 by the National Recreation Association cited as strengths the following areas: bandstands, beach, golf, ice skating, track, tennis, and tobogganing. Weaknesses were: picnic centers, recreation buildings, baseball, barbecues, swimming pools and comfort stations. Some of these shortcoming would be rectified during the period which followed the War.

## Post World War II to the Present: Prosperity and the Expansion of Recreation

The 1943 Recreation and Parks plan served as the guide to program and facility development after World War II. In 1947, the Parks and Recreation Department was formed and the first Director appointed, William Dougherty. The War had prompted the development of the former Church of the Messiah into a USO center at the corner of India and Congress Streets. Following the war, the building was given to the City for use as a recreation center. The City's first community recreation facility was named the Lee Center in honor of Granville Lee. The Recreation Division diversified the types of programs it offered to the public, adding such activities as archery, dramatics, dancing, table tennis, photography, bowling, and rifling. Activities were offered at the Lee Center, as well as at neighborhood schools. In 1960, the Exposition building was remodeled and subsequently used as a site for recreation programs. These types of community offerings would continue into the 1970's. At that time, increased state funding for community education programs resulted in the transfer of these community recreation activities to the School Department, under the auspices of the Adult Education program.

The post war period included the development of additional recreation facilities in conjunction with school construction, including Dougherty Field at Douglas Street, the North Deering playfields, and the Riverton playfields. Organized sports activities grew tremendously for both children and adults, with baseball, football, softball, basketball, and field hockey prominent during the 1950's and 60's. The Little League organization promoted the development of numerous neighborhood youth fields throughout the City. School sports expanded greatly. The 1980's was a period of tremendous growth in girls' sports in the public schools, as well as a time of expansion of soccer for both youth and adults. Adult softball expanded tremendously, with men's, women's and co-ed leagues being formed. Softball replaced baseball as the sport of greatest demand on facilities, with far greater numbers of participants.

Other significant developments included the following:

- The addition of full time, year-round, staff to the Recreation Department,
- The development in the mid 1970's of neighborhood recreation facilities on Munjoy Hill (Cummings Center), and at the Riverton and Reiche Community Schools,
- The closing of the East End Beach due to pollution in 1964, and the subsequent reopening in 1984,
- The construction of municipal pools at Douglas Street, the Eastern Promenade (since closed), Riverton School, and Reiche School. The latter two are indoor facilities,
- The addition of nine holes at the Riverside Golf Course,
- The expansion of private recreation facilities, including golf courses, pools, tennis facilities, and fitness centers,
- The fitness explosion and a growth in health awareness in the 1980's, resulting in large number of runners, walkers, and joggers (road races became a weekly phenomenon),
- The growth of the ski resort industry,
- The growth of the pleasure boating industry,
- The construction in 1983 of a municipal ice arena,
- The tremendous growth of professional sports nationally.

In general, the growing prosperity of the middle class, and the increase in discretionary income, resulted in an explosion of opportunities available for the use of leisure time. The role of municipal recreation today is to provide opportunities for recreational pursuits at a reasonable cost, and to increase the awareness of the public of the benefits of a healthy and active use of leisure time. This is accomplished through the maintenance and operation of recreation facilities and programs that are located within a reasonable distance to the various neighborhoods in the City.