

Celebrating Community. A Cultural Plan for Portland, Maine

Portland Downtown
Traffic & Streetscape Study



Portland's Comprehensive Plan City of Portland, Maine

Compilation of Adopted Documents Goals and Policies

Listed According to
Growth Management Goals - State of Maine

November 2002, Updated 2005
Volume 1

ort
Professional Economic Planners
Landscape Architects
Environmental Graphic Design

A PLAN FOR PORTLAND'S ARTS DISTRICT

Including Supplement I
& Study of Portland's Arts Reference
and Supplement II
A Cultural Plan for Portland
November, 2005
The Arts and Cultural
and Committee

EVERGREEN CEMETERY ADVOCACY IN ACTION



CITY OF PORTLAND
FRIENDS OF EVERGREEN

Deering Oaks RAVINE REHABILITATION PROJECT in Memory of Kay Westcott

City of Portland Historic Resources Design Manual



A Component of the City's
Historic Preservation Ordinance
and
Comprehensive Plan

PORTLAND INDUSTRY AND COMMERCE PLAN RECOMMENDATION OF THE INDUSTRY AND COMMERCE PLAN ADVISORY COMMITTEE FINAL REPORT

Prepared for:

City of Portland
389 Congress Street
Portland, ME 04101

Prepared by:

Industry and Commerce Plan Advisory
Committee

PORTLAND'S COMPREHENSIVE PLAN

PORTLAND, MAINE

**Compilation of Inventory, Goals, and Implementation
Initiatives from Plans Adopted as part of the City's
Comprehensive Plan**

November 2002, Updated 2005

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PORTLAND'S COMPREHENSIVE PLAN
CITY OF PORTLAND, MAINE
INTRODUCTION

PORTLAND, A REMARKABLE CITY

The City of Portland is a truly remarkable city, comprised of the urban peninsula, the inner ring suburbs, the outer ring suburbs and the islands. The peninsula is densely developed, centered on the vibrant downtown with its historic Old Port, bustling waterfront, and burgeoning arts district, surrounded by the maritime industries of the working waterfront and the residential neighborhoods of East End, West End, Parkside and Bayside. Prominent features of the peninsula include three historic districts, and the major parks of the 1905 Olmsted *General Plan for Park System*, including Eastern Promenade, Western Promenade, and Deering Oaks.

Separated from the peninsula by Back Cove and I-295, the inner ring suburbs are characterized by low and medium density housing built in traditional neighborhood development patterns. Local businesses are clustered in neighborhood centers, such as Deering Center and Rosemont Corner, and community retail services are arrayed along Forest Avenue from I-295 to Woodford's Corner and Morrill's Corner. Much of this area was historically developed as the Town of Deering, which was annexed to Portland in 1899. Major features include Baxter Boulevard, Payson Park, and Baxter Woods, as well as Evergreen Cemetery, a turn of the century garden cemetery.

The outer ring post-war suburbs have both traditional neighborhoods, such as Riverton, with a street grid pattern, and the more suburban designs of North Deering and Longfellow Woods, with curvilinear streets and cul-de-sacs. Outer Washington Ave., Auburn Street, Forest Ave., Brighton Ave., Westbrook and Congress Streets, have evolved over the past 50 years from the rural outskirts of Portland to growing population and employment centers in their own right. Regional shopping centers, such as Pine Tree and Northgate, are located within commercial crossroads of major arterials. The Portland Jetport, office parks and industrial parks are found along outer Congress Street and on Riverside Street and Riverside Industrial Parkway. Balancing this development are major open spaces and natural areas that comprise a municipal greenbelt along the Stroudwater River, from the historic Stroudwater Village neighborhood to the river valley westerly to the Westbrook line, connecting with the Fore River Sanctuary, and then jumping over to the Presumpscot River valley incorporating Riverside Golf Course and the river trail corridor along recently annexed and purchased land in North Deering.

The islands offer a unique variety of rural and village landscapes just a short ferry ride from downtown Portland. Peaks Island provides opportunities for seasonal and year round living within an easy ferry commute to town, and sustains a significant population with a variety of commercial services on-island. Cushing Island provides an exclusive enclave of historic homes in a private setting with a remarkable military architectural heritage. Little Diamond Island features a tightly knit community of historic cottages with the Casino at the landing providing a social focus, along with an assemblage of newer seasonal retreats nestled within the mature forest of the Sisters of Mercy subdivision. At low tide the sand bar connects Little Diamond with Great Diamond Island, and its historic cottage community on the westerly side. The easterly half of Great Diamond is centered on the redeveloped historic Fort McKinley complex surrounding Diamond Cove and the landing with its restaurant and shops. Away from the fort's parade grounds are roadways leading to historic gun emplacements, with newer seasonal homes along the wooded shoreline. Cliff Island remains a remote and rustic seasonal island, retaining a distinctly down-east character of sea faring and lobster fishing.

Together the islands, along with the 17 peninsula and off-peninsula neighborhoods and downtown, contribute to the remarkable diversity that is Portland, Maine.

PLANNING IN PORTLAND

History of Planning in Portland

The City of Portland has a long and impressive record of planning for its growth and development. One of the oldest comprehensive planning efforts in Portland occurred after the great fire of 1866. The degree of devastation across the City created the need to rethink both the distribution of uses and the architectural character on the peninsula, resulting in creation of Lincoln Park as "fire break" and codes requiring brick construction. In 1905 Portland adopted the General Plan for Park System prepared by the famous Olmsted Brothers Landscape Architects and directed by Mayor James P. Baxter. City wide zoning dates back as far as 1928 and the Planning Board was formed in 1945. Planning in the 1960's revolved around the General Neighborhood Renewal Program. More contemporary comprehensive planning began with the Land Development Plan of 1974.

Planning Accomplishments

Over the past decade, the City of Portland has conducted numerous comprehensive planning activities that have produced a broad spectrum of comprehensive elements and specific plans that are more strategic in approach. The in-depth focus of the City's planning process has enabled Portland to develop the City's overall goals and policies, while at the same time creating the specific actions, investments, and other implementation measures, including land use ordinance provisions, necessary to address complex issues and to achieve community goals. This approach to planning has produced detailed documents that are inter-related and coordinated with the City's ongoing planning efforts. Specifically, Portland has pursued planning for the following geographic areas: a) waterfront; b) islands; c) downtown; d) Nason's Corner; e) Bayside; and f) Eastern Waterfront. The following functional uses or categories are components of the Comprehensive Plan: a) residential; b) commercial; c) industrial; d) open space; e) municipal facilities; f) historic resources; g) transportation; and h) arts and culture.

The City of Portland is fully committed to involve citizens and interested constituents in the planning process. Each plan includes extensive public input, which has resulted in active citizen support for City policies and endeavors. Portland Trails, Friends of the Parks, Friends of Evergreen Cemetery, and Friends of Deering Oaks are volunteer groups that were formed to implement the recommendations contained in the Shoreway Access Plan, Green Spaces/Blue Edges, and the historic landscape master plans for Evergreen Cemetery and Deering Oaks. Business and industry representatives have aided in establishing public and quasi-public organizations, such as the Portland's Downtown District, Downtown Portland Corporation, and the Portland Arts and Cultural Alliance, to carry forward the recommendations contained in Downtown Vision and the Portland Arts District. In addition, Portland has established administrative review boards, such as the Historic Preservation Committee and the Public Arts Committee, which were recommended during planning processes to protect and enhance the City's cultural resources and heritage.

Portland's Comprehensive Plan Assembled and Maine's Growth Management Act

Comprehensive planning is not static, but evolves, responds and guides the rapidly changing community in which we live. In response to the City's desire to better serve its citizenry, Portland has created a single document for the public, which summarizes the various plans that make up the City's Comprehensive Plan. With the grant under Maine's Growth Management Act, the City has created a unified package of its current inventory, goals and policies, and implementation measures from the City's many plans. The State grant also assisted Portland in updating the housing element of the Comprehensive Plan with Housing: Sustaining Portland's Future.

The Comprehensive Plan begins with the Community Vision prepared during the planning process for Housing: Sustaining Portland's Future. The Vision presents Portland's distinctive features to value, preserve and build upon. The second half of the Vision lists the future direction for Portland. The Community Vision is followed by a compilation of the goals and policies contained in the City's adopted plans. The goals and objectives from the City's diverse adopted plans are listed according to the most relevant the State Growth Management Goals. A bibliography of the numerous documents that comprise Portland's Comprehensive Plan is included in the Appendix. For a complete review of City policies, refer to the original source documents for the background, analysis, policies, and recommendations. Where the City goals and policies might relate to more than one State Goal, the strongest fit was chosen to avoid repetition.

The inventory and analysis chapters of this document are based on the underlying work for each adopted plan and the material has been updated to reflect current data and trends. The City also updated its inventory chapters by using a Geographic Information System (GIS) to develop a unified and versatile set of maps. Portland's GIS Workgroup has produced many of the computer-generated maps contained within this report, which offer a geographic presentation of land based data and interrelationships.

The City employs a wide range of measures to implement the Comprehensive Plan. The major initiatives are summarized in the first chapter of the implementation component of this document. The Future Land Use Plan is the second component of the strategy. The Future Land Use Plan supports the City's zoning classifications, highlights where redevelopment and rethinking of zoning will occur, and establishes growth and rural areas within Portland. The Regional Coordination Plan follows with highlights of goals and policies from the City's plans that have regional significance and require regional cooperation. These recommendations are found under the relevant State Goals as well.

**PORTLAND'S COMMUNITY VISION
FOR
THE FUTURE**

Distinctive Features to Value, Preserve and Build Upon

And

Future Directions for Portland

A COMMUNITY VISION FOR PORTLAND

DISTINCTIVE FEATURES OF PORTLAND TO VALUE, PRESERVE & BUILD UPON

Portland is an **intimate city, small in scale but big in urban amenities and a high quality of life**, which is situated around a scenic Maine coastal peninsula. Portland is a city of **neighborhoods around a vibrant downtown**, which make up the building blocks to the community as a whole.

I. A City That Provides For People

Portland is the largest city in Maine and is the **economic and service center** for the region.

Portland continues to attract people of workforce age due to **diverse job opportunities** (particularly in business and technology), quality employment, and a stable economy.

Portland has a **vital working waterfront** with diverse coastal commerce activities and water dependent uses.

Portland is the center for many **regional service institutions**, which offer high quality medical care, an extensive range of social services for those in need, and numerous higher education opportunities.

II. A City That Is A Good Place To Live

Portland retains a **small town feel** with a built environment that is scaled for people, is pedestrian friendly, and is accessible to the community. Residents value and seek to enhance the safety of the community, the proximity of commercial uses near residences, and the walkable nature of the city.

Portland enjoys a personable and congenial atmosphere that makes it a **welcoming place to work, live and visit**.

Portland offers the **amenities and services** of a big city. Throughout Portland there are diverse arts, cultural and educational offerings, assorted shopping opportunities, numerous scenic parks and active athletic facilities, and high quality municipal services and infrastructure.

Portland has an **active and vibrant downtown** both day and night due to its interwoven mix of residential, commercial, institutional and cultural land uses.

Portland is the **visual and performing arts center** of Maine.

Portland is a **city of neighborhoods** with a range of residential neighborhood types, such as high-density areas on the peninsula, early 20th century neighborhoods off the peninsula, suburban neighborhoods and the more rural areas of the Islands.

Portland is a great place for families with **good neighborhood schools** that serve families throughout their life cycle.

III. A City That Values Its Natural, Architectural And Cultural Heritage

Portland is a **coastal community** that is geographically varied and dynamic with:

Spectacular views of Casco Bay and the Islands, Back Cove, and Maine's Mountains from the City's promontories; and

Three meandering rivers with significant saltwater estuaries and streams that flow through neighborhoods;

Significant wildlife and fisheries resources; and

Access to our natural features through the City's trails, parks and scenic viewpoints.

Portland is a **culturally and ethnically diverse community** that values its shared history, is proud of its cultural diversity and is working together for a cohesive community.

Portland is a **historic maritime city**, which:

Retains a rich historic character for both commercial and residential neighborhoods;

Offers a broad spectrum of architecture and distinctive landmarks; and

Maintains unifying features, such as brick buildings and sidewalks, and established and traditional neighborhoods with narrow and interconnected streets.

A COMMUNITY VISION FOR PORTLAND

FUTURE DIRECTIONS FOR PORTLAND

Portland is Maine's principal city, the **center of employment, housing, and services** for the region. In the future Portland will evolve as an extension, continuation and enhancement of the best qualities and characteristics of Portland today. Progress and prosperity will result from both incremental growth and bold initiatives tempered by careful consideration and foresight in planning. Portland's future will:

I. Build A Vibrant Small City

Build upon the distinctive fabric of Portland's built environment by **rehabilitating historic resources** and by **developing new buildings that respect the scale and character of traditional development patterns**. New development shall be pedestrian oriented and accessible.

Strive for innovation and bold initiatives that increase the livability and quality of life in Portland.

Support a **dynamic downtown** that embraces an intertwining of uses, including residential, business, retail, institutional, service, and arts and cultural uses.

Promote, **support and celebrate the arts and cultural community** that enriches the lives of our citizens.

Capitalize on Portland's economic assets and develop a strong economy based upon traditional industries, a strong retail and office center, and emergent opportunities in industry, business, and coastal commerce.

II. Serve The People

Provide compassionate services for the city's vulnerable citizens, while leading regional approaches to share the responsibility of caring for citizens in need.

Foster **expanded opportunities, innovative solutions** and **exemplary services** from Portland's institutions for higher education, health care, and community services.

Achieve and operate excellent neighborhood schools with state of the art facilities and which serve the educational needs of all students. Establish wide recognition that Portland schools meet or exceed the educational performance of any other public school system in the region.

Support and encourage the creation and preservation of an **adequate supply of quality housing** for all.

III. Provide High Quality Leadership

Create a **sustainable community** with vital neighborhoods, high quality infrastructure, a strong economy, and a healthy environment, while keeping municipal taxes affordable.

Encourage **excellence in City government and comprehensive planning** through increased civic involvement, responsive local government, accountable decision making, and creative and adaptive local and regional planning. Innovative thinking and leadership will preserve those attributes of Portland that we value.

Incorporate environmental, economic and neighborhood considerations in municipal decision-making.

Take the lead in developing **clear standards and rules and ensure adherence thereto**.

IV. Protect Our Community Attributes

Protect the natural environment and historic resources.

Preserve and enhance the park system with its trails, active recreation facilities and natural areas.

Strengthen alternative transportation options in order to create an accessible City that promotes ease of movement for all citizens, serving neighborhood needs, pedestrians, handicapped persons, bicyclists and vehicles.

Listen to, embrace, empower and support our diverse citizenry.

PORTLAND'S GOALS AND POLICIES

FOR

THE FUTURE

STATE GOAL A: To encourage orderly growth and development in appropriate areas of each community, while protecting the State's rural character, making efficient use of public services and preventing development sprawl;

INTRODUCTION

Each strategic plan prepared by Portland addresses land use issues and offers goals for orderly development and the efficient use of the City's resources. The goals from each strategic plan are intertwined to create a basis for making land use decisions. The City's goals that are the most relevant to State Goal A are listed below. Excerpts are taken from Housing: Sustaining Portland's Future, A New Vision for Bayside, Portland's Transportation Plan, Green Spaces and Blue Edges, Portland Island Study, Downtown Vision, and Community Commercial Policies and Land Use. For a more complete understanding of these goals, refer to the original source document that contains the analysis, policies, and implementation strategies.

I. HOUSING: SUSTAINING PORTLAND'S FUTURE – November 18, 2002

Goal

- Portland's Comprehensive Plan encourages a manageable level of growth that will sustain the city as a healthy urban center in which to live and work and to achieve a shared vision for Portland. Portland should encourage sustainable development patterns and opportunities within the city by promoting efficient land use, conservation of natural resources, and easy access to public transportation, services, and public amenities.

Policies

- Encourage growth in Portland that strives for a dynamic balance of the essential elements of the city, such as excellent schools, diverse housing choices, proximity to services and employment, increased public transit usage, expanded economic base, high quality services, and an affordable tax rate.
 - Target Portland to achieve and maintain a 25% share of Cumberland County's population.
 - Integrate Portland's housing and economic development incentives to encourage growth and take advantage of the City's capacity to accommodate more people.
 - Monitor and assess the impacts of growth on the City's infrastructure and adjust policies accordingly.
- Maximize development where public infrastructure and amenities, such as schools, parks, public/alternative transportation, sewer lines, and roads, exist or may be expanded at minimal costs.

- Create new housing to support Portland as an employment center and to achieve an improved balance between jobs and housing.
- Encourage neighborhood business centers throughout the city to reduce dependence on the car and to make neighborhood life without a car more practical.
- Locate and design housing to reduce impacts on environmentally sensitive areas.
- Design housing to use new technologies and materials that reduce costs and increase energy efficiency.

II. A NEW VISION FOR BAYSIDE – April 2000

Goals

- **Urban Gateway:** Bayside will be an attractive urban gateway and extension of the downtown business district for the City of Portland. This district will create a new front face of the City, and present the character of Portland which will encourage people to stop, visit, and enjoy all that the downtown and Portland peninsula have to offer. A fully functioning urban district and neighborhood will reconnect with and add to the fabric of the peninsula from downtown to the adjacent neighborhoods. A compact blend of uses fosters lively daily interaction and a sense of community spirit. A wide variety of housing, shops, workplaces, open spaces, centers of community and civic activity, and needed social services will comprise the future of Bayside.
- **A Walkable District:** Bayside will contain housing, workplaces, services, transportation, recreation, dining and shopping, all within comfortable walking distance of each other and the downtown. Attractive lighted sidewalks, bicycle, and pedestrian trail linkages will connect these uses, designed for full and maximum accessibility. Key features will include Bayside Avenue (currently Marginal Way) as a landscaped boulevard, with Chestnut, Elm, Oxford and the rail-to-trail corridor forming major pedestrian axes.
- **A Neighborhood Center:** The community centers at the Chestnut Street church, Boys and Girls Club, and Portland High School combine to form a significant center for the neighborhood with space for youth and family recreation and community gatherings.
- **A Social Services Resource Network:** Bayside will continue to fulfill its role as the hub of a social service network of substantial recognized value to the city, the region and the State of Maine. The homeless, the disabled, and those in poverty rely on these services for survival and hope. Vital facilities such as the homeless shelters and related services will remain in this area. Service clusters will provide a permanent and stable working environment, integral to the fabric of the community that builds upon new and established working relationships to best serve the needs of the community.

- **Environmental Remediation:** The USEPA Brownfields Program encourages the reuse of vacant and underutilized land by providing for practical cleanup standards that are based on the future of the land. Bayside redevelopment projects will clean up the soil and recycle these underutilized parcels into productive resources for the future of the Portland community. Redevelopment of brownfields in Bayside counters the trend toward sprawl development in this region, adding to the vigorous urban center of Portland.
- **Scrap Yard Redevelopment:** Removal and redevelopment of the current scrap yards into more compatible and productive uses is another cornerstone to the Bayside redevelopment plan, that will spur private development and improve aesthetic, economic, and community character of the Bayside District.
- **Transit Oriented Development:** see State Goal B.

III. A TIME OF CHANGE: PORTLAND TRANSPORTATION PLAN - July 1993

Transportation Plan Guiding Principle

Provide maximum mobility in a balanced transportation system, which encompasses all modes, to support the economic vitality and quality of life of the Portland community.

Land Use and Transportation Link

Link the transportation plan with land use planning policies in the City and region to guide decision-making for development and infrastructure investment.

- Ensure that future growth does not foster auto dependency.
- Provide appropriate land and infrastructure for development in the shipping/distribution/transport industries.
- Weigh investment decisions for automotive infrastructure against investments in alternative transportation modes.

Design Aesthetic

- The design of system components shall represent a high standard of aesthetic and functional quality.
- Build visually attractive and durable infrastructure such as roadways, pathways, and bridges.
- Set high architectural standards for terminal buildings, stations, shelters, garages, and other facilities.
- Respect and enhance the built and natural environment through architecture, landscaped, and engineered features.
- Preserve significant historic and natural resources.

Transportation Policies

- Vibrant neighborhoods include nearby, small-scale commercial areas that provide both convenient service and natural meeting places. Provide routine, daily services within walking distance of residents of all neighborhoods, as long as the businesses providing the services are small-scale, are designed compatibly with residences, and fit into the fabric of the neighborhood.
- Work with individual neighborhoods to identify suitable locations and approaches to accommodate neighborhood businesses.
- Neighborhood streets, Downtown streets, and streets through the City's parks should be considered to be - and designed as- multipurpose, public spaces.
- Encourage businesses to locate in established employment centers, including Downtown, that are served by public transportation or that have the critical mass necessary to support alternative modes of transportation.
- Allow development along transit corridors and near community commercial centers to evolve at a density sufficient to make public transit, walking, and biking viable options.
- Create local multi-modal centers for the City's commuters and mass transit passengers, building on the presence of existing centers of activity, connected with each other and with regional transport centers.
- Shift through-traffic to other more appropriate modes and routes.
- Develop and implement a strategy that balances the integrity of the neighborhood against the need to move traffic on the arterials.

IV. GREEN SPACE, BLUE EDGES: AN OPEN SPACE AND RECREATION PLAN FOR THE CITY OF PORTLAND, 1995, updated 2001

Open Space and Recreation Goals

- Develop a vision of the natural environment that enhances the full range of dynamic contrasts between the landscapes and built forms found in Portland, which will enrich the appearance and enliven the use of our City.
- 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.

Open Space and Recreation Policies: Linking Open Spaces and Pedestrian Circulation

- Facilitate public access along shore areas and open space resources for properties undergoing development review through regulatory measures, private trust agreements and pedestrian easements.
- Extend or upgrade sidewalks and trails as needed to address gaps in the neighborhood walkway system (including safe pedestrian crossings across busy streets) especially along streets/connections linking residential areas to schools and parks. Pedestrian linkages should be as direct and convenient as possible.
- Link open spaces in Portland with open spaces in surrounding towns.
- Inventory all pedestrian and bike trails in neighborhoods.

V. PORTLAND ISLANDS LAND USE AND ZONING STUDY - 1985

Portland Islands Goals

- The Portland Islands pose a completely unique situation for land use planning and zoning. Unlike most other densely inhabited islands on the Maine coast, which are separate municipalities, the Portland islands are similar to the neighborhoods of a large, urban mainland municipality and pose strong contrasts of urban vs. rural and seasonal vs. year-round living. Similarly, unlike other areas of seasonal home concentrations in the rural Lakes regions of the State, the islands are subject to spill-over growth pressures from the 'city', and invite comparison to the mainland's relatively high level of public services in terms of streets, sewage, schools, waste collections, fire protection, police and libraries.
- The islands are different from the mainland in terms of the natural features, their resource value, the public services available (or possible), and the people who reside and work there. The City's land use policies and regulations should reflect this essential difference.
- The overall land use goal is to balance future growth and development on the islands to preserve those essential natural, physical and social factors that contribute to the islands unique value and character.

Portland Islands Policies

- Portland's islands are unique and valuable natural areas and villages. Each island is unique, with individual community needs and aspirations. There are those most sparsely or seasonally populated, such as the Diamonds and Cushing, serving as summer retreat and vacation homes, to those that support a more significant year round population, such as Peaks (within commuting distance of downtown Portland) and Cliff (an hour's boat ride away). Island residents are

striving to sustain the mix of jobs, housing, education and culture of their unique and independent-spirited island community.¹

- Encourage development of a type, scale, diversity and density appropriate to the circumstances, environment, infrastructure, and service capabilities of each island.
- The City should adopt a policy for future development that minimizes the dependency on and intrusion of private automobiles on the islands.
- Protect groundwater aquifer resources from degradation or depletion as a result of the cumulative impact of development. Groundwater resources shall be managed so that the islands can be self-sufficient in reliance upon natural systems for water supply and sewage disposal. (Planning Board Report #70-89, see editor's note, footnote 1)
- Islands are unique landforms, which have particular fragile environmental characteristics. These environmental conditions pose upper limits to the level of development that can be supported in harmony with the islands' environment. In addition environmental conditions and logistical constraints pose challenges to provide basic services such as solid waste disposal and other community services that are available or possible. Such concerns, including groundwater issues, are significant enough to dictate a policy of low-density development for the islands. (Planning Board Report #70-89, see editor's note, footnote 1).

VI. DOWNTOWN VISION - March 1991

Downtown Vision: Overall Goals

- Preserve and enhance the livability and walkability of Downtown Portland for residents, workers, shoppers, and visitors.
- Maintain and enhance the Downtown's prominence as the regional center for commerce, human services, historic resources, culture and the arts.
- Encourage growth and development Downtown while preserving and strengthening the unique identity and character of the Downtown.
- Achieve the highest quality urban experience through high standards of excellence for improvements to the physical environment, including new construction, building alterations, and the enhancement of the pedestrian environment.

¹ Editor's Note: While the basic plan for Portland's Islands was written in 1985, the goals and policies evolved in the intervening years with increased attention to the uniqueness of each island. These policies reflect these changes. The first two policies listed here are found in Planning Board Report #70-89, Planning Board Report Recommendation to Adopt the Portland Islands Groundwater Management Study as part of the Comprehensive Plan of the City of Portland and To Adopt Zoning Amendments to the Land Use Code.

- Preserve and enhance the quality and vitality of neighborhoods within and adjacent to the Downtown.
- Guide and position the Downtown in response to changing market conditions to maintain its vitality and strength to achieve the above stated goals.

Downtown Vision: Office Economy Goals

- Strengthen and enhance the Downtown as the prominent professional office center of the State and northern New England.
- Provide office space opportunities for small, medium and large-sized companies and which accommodate new and expanding business needs.

Downtown Vision: Office and Retail Economy Policies

- Promote office development opportunities Downtown through increased maximum building heights along the Congress Street corridor (between Congress Street and Cumberland Ave.) and in the Congress to Spring Street corridor to encourage taller office development; infill redevelopment or rehabilitation opportunities for properties within the central business district; and reuse of upper stories along Congress Street from Monument to Congress Square.
- Encourage mixed-use-development, including substantial office and retail growth, in the lower Center/Danforth/York Street (Gorham's Corner) and Bayside areas of the Downtown. Encourage additional office and retail development in the India Street area within the context of mixed office, retail and residential uses. Perimeter office and retail growth, complementary to the central downtown district and of a scale and character compatible to those commercial neighborhoods, is part of a mixed-use approach to revitalize those areas.

Downtown Vision: Design Framework Goals

- Encourage excellence in urban design and sensitivity to pedestrian scale and interest throughout the Downtown in the construction, renovation, and rehabilitation of buildings, streets, pedestrian ways, and open space.
- Preserve and promote the positive qualities and attributes of Downtown's unique identity, historic fabric, and sense of place through the re-use of existing structures and the development of new construction respectful of the built and natural surroundings.
- Develop an open space system throughout the Downtown, which provides the highest quality parks, plazas and pedestrian environment. Pedestrian improvements and amenities should utilize the best materials and be carefully designed to provide a comfortable, durable, accessible and aesthetically pleasing environment. Buildings fronting on pedestrian open space should be of high quality materials of significant detail and interest to enhance the walking environment, and readily accessible from the pedestrian way.

VII. COMMUNITY COMMERCIAL POLICES AND LAND USE PLAN -
September 1987-1988

Development Goals

- Accommodate the City's commercial activity within a range of functionally and physically defined commercial centers.
- Promote preservation and revitalization of its existing commercial centers and maintain a scale within them that is compatible and integrated with other land use.
- Encourage the development of new commercial enterprises within the existing neighborhood centers and CBD.
- Maintain and promote a community, which is attractive to both existing and prospective families and homeowners to help support the neighborhood commercial district.
- Promote new office park development of high quality in outlying areas for development seeking a suburban-style setting.

STATE GOAL B: To plan for, finance and develop an efficient system of public facilities and services to accommodate anticipated growth and economic development;

INTRODUCTION

Portland began its Capital Improvement Program (CIP) in the mid-1960's and the system was revised in the 1980's from a five-year to a ten-year planning period in order to better anticipate long-term needs and goals. The CIP identifies needs, coordinates improvements and plans for financing these expenditures. The budgeting process incorporates the priorities and implementation strategies found in the City's strategic plans. In addition to the CIP, excerpts from strategic plans that directly address citywide public facilities are taken from Portland's Transportation Plan, Brighton Avenue/Main Street Corridor Traffic and Streetscape Study, and Outer Brighton Avenue Task Force Report, Green Spaces and Blue Edges, Portland Island Study, and Downtown Vision. For a more complete understanding of these goals, refer to the original source document, which contains the analysis, policies, and implementation strategies. Please note that implementation measures found in master plans for park facilities, housing strategies and other targeted plans are not listed under State Goal B, but are listed under a more relevant State Goal.

I. PORTLAND CAPITAL IMPROVEMENT PLAN – 2001-2010

Capital Improvement Goals

- Promote fiscal responsibility and avoid yearly budget fluctuations by programming capital projects into a multi-year infrastructure development plan.
- Strengthen and upgrade existing neighborhoods by providing physical improvements, which enhance and preserve the neighborhood character and environment.
- Provide for economic growth and development in the City as set forth in the Comprehensive Plan.
- Balance competing infrastructure, education, recreation, and other capital needs to promote an attractive and livable community for residents, workers, and visitors in Portland.
- Fund needed large infrastructure projects through planned multi-year phasing.
- Explore and develop alternative capital improvement funding sources other than the property tax.
- Provide a forum for public input in establishing capital funding priorities.

Capital Improvement Policies

All projects under funding consideration should be of quality design, durable materials, and reasonable future maintenance and operation costs and should be prioritized as follows:

- Projects that address existing, imminent health and safety hazards.
- Projects recommended by the Comprehensive Plan and/or subsequent comprehensive facility studies and needs assessments.
- Projects supported totally or substantially by federal, state or other non-municipal revenue sources and addressing an identified local need.
- Projects that have been initiated and programmed for phased funding.
- Projects identified for funding in the previous year's CIP.

II. A TIME OF CHANGE: PORTLAND TRANSPORTATION PLAN - July 1993

Transportation Plan Guiding Principle

Provide maximum mobility in a transportation system, which encompasses all modes, balances competing objectives, and promotes the economic vitality and quality of life of the Portland community.

Integrated Intermodal

- Provide a convenient, integrated, intermodal transportation system.
 - Provide physical connections between various modes of transportation.
 - Provide operation connections between various modes of transportation.
 - Make improvements that are contextually appropriate.
 - Provide the maximum modal choice for transportation consumers at the greatest convenience level possible, with special attention to the needs of the handicapped and elderly.
 - Foster a sense of mutual respect among the various modes of transportation, so that, for example, pedestrians and bicyclists will not feel threatened by motorists.
 - Foster a sense of safety and security so that riders of mass transit will not feel threatened.
 - Educate the public on modal choices available.

Structured System

- Achieve a transportation system appropriately structured and designed to safely and effectively move goods and people.
 - Create a neighborhood street system characterized by a network of interconnected streets, which minimizes through-traffic in residential neighborhoods.
 - Appropriately scale and design streets and highways and other transportation infrastructure to serve local traffic, destination traffic and through-traffic.

- Foster domestic and international transportation and commerce links that are vital to the economic health of the City and region.

Performance Targets & Physical Plan

- Set performance targets and create a physical plan that delineates specific improvements to the transportation system.
 - Establish aggressive but realistic targets for the modal split within the transportation system for the short, medium, and long term. Progress should be monitored and longer term goals set accordingly.
 - Create a funding strategy that realizes maximum resources from all available sources and allocates those resources so as best to achieve the modal split targets contained in the Transportation Plan.

Transportation Policies

- Promote the interconnection of neighborhood streets and pathways, so that there are multiple paths of travel to get to destinations within and between neighborhoods by foot and bicycle, as well as auto.
- Operate mass transit swiftly, safely, and conveniently to and from transportation districts. The standard of service must be such that it will attract not only the "transportation-dependent" but also people with choices to its ridership.
- Encourage bicycling and walking as important modes of daily transportation by creating a comprehensive, safe and continuous system of bicycle and pedestrian facilities and by integrating these facility needs on equal terms with other modes in transportation planning and funding.
- The City's government should lead by example with respect for and use of multiple transportation modes and travel demand management.
- Establish a coordinated program by the City and major employers for managing travel demand within Portland.
- Implement the Downtown Parking Goals and Policies as presented in Transportation Resources Chapter.
- The City should continue to develop an interconnected and seamless transportation system encompassing both local and regional transportation centers.
- Encourage public initiatives and creative ways to meet transportation needs through the City Council's Public Safety Committee, its representation in PACTS, and other similar institutional vehicles.

III. BRIGHTON AVENUE/MAIN STREET CORRIDOR TRAFFIC AND STREETScape STUDY - 2001

See Regional Coordination

IV. OUTER BRIGHTON AVENUE TASK FORCE REPORT, 2001

Policies

- **Improve Public and Private Streetscape**
 - Implement Brighton Avenue/Main Street Corridor Traffic and Streetscape Study.
 - Consider adding a Neighborhood Improvement Overlay Zone for blighted areas along arterials, starting with the Outer Brighton Avenue corridor.
- **Support Residential Uses on Arterials**
 - On an experimental basis, narrow Brighton Avenue from four lanes to three lanes between Rosemont and Nason's Corner, with corresponding adjustments to lanes to bring them to proper size, to implement bicycle or pedestrian paths and other changes in roadway usage.
 - Incorporate high-quality materials as a recognizable "signature" application for arterial crosswalks.
 - Consider mid-block crosswalks along Brighton Avenue between Rosemont and Nason's Corner.
 - Implement the proposed streetscape improvements (Streetscape Study) that address an improved pedestrian environment.
 - Manage traffic on Rand Road and promote pedestrian access along the road and at significant crossings.
 - Provide only one turning lane onto Brighton Avenue for access from Rand Road.
 - Consider lowering the speed limit on Brighton Avenue and enforce posted speed limit.
- **Support for a Compatible Mix of Uses & High Quality Commercial Uses**
 - Reclaim the public use of the right-of-way on the east side of Rand Road for non-vehicle uses.
 - Sidewalks with ample esplanades, street trees and plantings should be constructed on both sides of Rand Road from Brighton Avenue to the new Turnpike Access road.
 - Bike lanes should be added to both sides of Rand Road, landscaped center lane islands and adequate crosswalks.

- Landscaping needs should be addressed in a comprehensive way for public spaces.
- Campus like development of office and business park uses should be permitted along the entire length of Rand Road not rezoned to OP.
- Urban streetscape considerations applied in the Streetscape Plan should be carried over to Rand Road developments, including limited curb cuts, shared roadway access, and interior drives.
- Parking should be sited carefully to maintain an attractive streetscape appearance with appropriate noise and light constraints.
- **Support for Neighborhood-Based Community Living**
 - Examine City land use and economic development policies to more fully implement the policies of the Transportation Plan and transportation recommendations of this report.
 - Provide free bus service in the Brighton Avenue Corridor for an extensive study period to reduce traffic, monitor ridership and develop policies on public transportation's impact on congestion.
 - School transportation for middle school and high school students should be reintegrated with the METRO to a degree that makes operational and budgetary sense.
 - Major intersections should have pedestrian activated crossing opportunities, which stop through and turning movements.
 - Enforce the City ordinance that requires property owners to clear snow from their sidewalks.
 - Encourage parents of students to have their children take the bus, walk, or bicycle to school.
 - Develop the community by constructing, maintaining and improving neighborhood pathways as a sound means of increasing neighborhood cohesion and pedestrian safety.
 - Promote professional, well-conceived and smoothly operated city services, including good schools, well-maintained public facilities, and effective public safety.

V. PORTLAND DOWNTOWN TRAFFIC AND STREETScape STUDY – 1999

Goals

Downtown Traffic & Streetscape Policies

- Investigate and analyze traffic access into and within the Downtown;

- Develop more on-street parking;
- Minimize conflicts between pedestrians and vehicular traffic;
- Develop a pedestrian-friendly streetscape in the Congress Street corridor; and
- Create stronger pedestrian linkages between the Old Port and the Congress Street corridor.

VI. A NEW VISION FOR BAYSIDE- 2000

Goals

- **Transit-Oriented Development:** Mixed use, compact and intensive land development, and quick and convenient transit service combine to make Bayside a neighborhood that has genuine mobility choice. This model for the peninsula and beyond will be designed from the ground up, free from dependence upon the automobile. Features including the trail connectors and frequent shuttle service throughout the peninsula area and to all major transportation centers, which will signify progress and commitment by the City to implement the 1993 Portland Transportation Plan.
- **Multi-level Parking Structures:** Ample parking is needed to serve the needs of Bayside residents, visitors, and workforce. Strategically located parking structures will serve multiple functions, connect with transit services, facilitate the flow of traffic with minimal impact on neighborhood residents, and avoid extensive land consumption by surface parking lots. The location and timing of development of parking structures must complement and enhance the function of Bayside as a transit-oriented district and respond to the policies of the Portland Transportation Plan.

VII. PORTLAND ISLANDS LAND USE ZONING STUDY - 1985

Policy

- An adequate level of municipal services should be maintained for the islands. Over time municipal services and infrastructure should be improved, but with the realization that logistical constraints unique to the islands pose problems that make service delivery difficult to provide.

VIII. GREEN SPACE, BLUE EDGES: AN OPEN SPACE AND RECREATION PLAN FOR THE CITY OF PORTLAND, 1995, updated 2001

Open Spaces and Recreation Policies: Management of Open Space and Recreation

- Integrate the principles and recommendations of Green Spaces, Blue Edges into all public programs and improvement projects.

- Ensure a coordinated, efficient and effective administrative system with the capability and authority to manage the parks, open spaces and recreation programs and facilities while addressing both current and long-range needs. The system must include sufficient planning, design, advocacy, stewardship, and maintenance capabilities for all the City's open spaces and natural areas.
- Establish a municipal green space account to accept and dedicate money or lend contributions for parks and open spaces.
- Increase operating budget resources for park and facility maintenance. Timely and appropriate park maintenance extends the life of and protects the City's investment in park facilities.
- Ensure that the high priority deficiencies identified in the neighborhood profiles of Green Spaces; Blue Edges are addressed through future operating budgets, the capital improvement program or outside funding.
- Focus attention and resources on selected neighborhood "pilot projects" using operation budget funds that provide immediate and profound improvements.
- Review the legal status of land that we consider to be parkland and once that status is established, protect as such.

IX. DOWNTOWN VISION - March 1991

Downtown Vision: Overall

- Accommodate ingress to and egress from the Downtown with a maximum efficiency and minimum of vehicular congestion, while maintaining a favorable pedestrian environment.
- Manage traffic and parking to diminish and decentralize the concentration of private automobiles in the heart of the Downtown through a creative combination of on-street, on-site, central garage, and peripheral parking, and alternative transportation mode solutions.

Downtown Vision: Moving About Goals

- Achieve convenient, safe, and uncongested access and circulation to and within the Downtown area to serve the commuting work force, residents, shoppers, visitors, and other users.
- Maintain the Downtown as a comfortable and enjoyable walking environment.
- Expand the role of mass transportation to gain popular acceptance by the commuting workforce, residents, and shoppers, vehicle maintaining service for transportation disadvantaged groups.

- Provide sufficient parking availability and traffic capacity for existing and new development Downtown.

Downtown Vision: Moving About Policies

- Work in the long term to wean the Downtown workforce from over-reliance on on-site parking for single occupant commuter vehicles. Promote a pedestrian oriented Downtown center, with a higher proportion of commuters relying on transit, shuttle lots, van pools, ride share, walking, bicycling, and other alternatives to private automobile use in the heart of the city.
- As the Downtown grows, make necessary infrastructure and traffic management improvements to accommodate vehicular peak traffic with a minimum of congestion. Emphasize management and modest infrastructure improvements rather than large scale roadway improvements that would substantially alter the face of the city. Recognize pedestrian safety and comfort in the heart of the Downtown as a top priority.

Downtown Vision: Management Policies

- The City in cooperation with Downtown business, civic and institutional organizations, form an umbrella public/private management entity with responsibility for the Downtown Management District.

Downtown Vision: City Services Goal

- Provide a high level of services, facilities, and maintenance to enhance the attractiveness, safety and usability of the Downtown.

Downtown Vision: City Services Policies, Human Services

- Identify social, health, and recreational needs in the Downtown and develop policies and programs to address them.
- Assess the long-term impact of continued Downtown growth and development on the availability, affordability and retention of office and support space for service providers.
- Locate those facilities and services where they are most accessible to their intended populations and in close proximity to related providers, but do not overwhelm a particular area.
- Evaluate how accessible Downtown is to the physically disadvantaged and eliminate barriers throughout the Downtown.

STATE GOAL C. To promote an economic climate which increases job opportunities and overall economic well-being;

INTRODUCTION

Portland's economy is diverse and its strengths include: its network of highway, air, and sea connections; its proximity to the natural resources of Maine; its trained professional core; and its remarkable quality of life that attracts and keeps employment opportunities in Portland. Downtown Portland's economic base supports professional office services, retail, tourism and the arts. The economy is viewed from a number of different perspectives with targeted reports: A New Vision for Bayside, Industry and Commerce Plan, Downtown Vision, Portland Neighborhood Economic Development Study, and A Plan for Portland's Art District. For a more complete understanding of these goals, refer to the original source document, which contains the analysis, policies, and implementation strategies. The marine-oriented and waterfront industries are a major component of the City's economy. The goals and strategies for waterfront industries are listed under State Goal G.

I. A NEW VISION FOR BAYSIDE- April 2000

Economic and employment opportunities: Bayside's location between downtown and I-295 presents a significant economic and market opportunity to be planned and managed to create the best value for development and quality of life improvements for the community, generate a broad range of employment opportunities and improve the tax base. Bayside presents prime real estate development prospects to expand the central business district with new office and commercial space, along with small-scale affordable spaces for start-up and small businesses.

II. PORTLAND INDUSTRY AND COMMERCE PLAN - 1994

Strengthen and Diversify the Economic Base

- create a variety of job opportunities for the full spectrum of the labor pool which:
 - are appropriate to our current and potential skills
 - provide good pay and benefits - a living wage
 - are rewarding/satisfying
- create a strong industrial base which is beneficial to the community
- reduce vulnerability to recession and industry trends
- strengthen and diversify the tax base

Improve the Quality of Life

- recognize that jobs and prosperity improve the standard of living for residents
- preserve, protect, and strengthen neighborhoods
 - compatible development
 - confidence/peace of mind regarding our industrial neighbors
- reduce tax burden on residential property owners

- make Portland attractive to new residents and businesses

Target Specific Opportunities

- maximize connections to Boston and the maritime provinces
- capitalize on location/telecommunications/transportation infrastructure, port, airport, highways, etc.

Revise Zoning

- protect neighboring residential zones
- adopt clear, predictable, and enforceable regulations
- promote compatible development within industrial districts
- consider limitations on hours of operation
- recognize that a well managed industry is a good neighbor
- accommodate clean industry
- create thoughtful flexibility for emerging industries
- create a process that provides a quick response on development permitting

Create Financial Incentives

- be creative, responsive, and work hard to retain existing business
- enhance the City's ability to attract economic development
- participate in regional economic development and technology development programs and strategies
- level the playing field between Portland and surrounding communities
- go after good jobs, and lots of them
- garner resources from Federal, State, and private sources
- simplify programs and minimize red tape

Adopt Overall Goals for Economic Development

- participate in regional economic/industrial development strategies
- promote communication
 - between industry and neighborhoods
 - between City and industry
 - between government, regulatory, and advocacy agencies
 - between City and regional entities
 - between City and banking industry
- reduce costs of doing business in Portland
 - worker's compensation
 - transportation
 - taxes
 - energy
 - regulation
- strengthen Portland's infrastructure to promote economic development
- develop a long term vision of what the Portland economy should look like and develop an economic development program accordingly.

Attract Target Industries, Take Advantage of Portland's Key Strengths, and wherever possible, Enhance its:

- excellent school system
- low rate of crime
- arts and culture
- clean and attractive urban environment
- ample high quality water resources
- beautiful physical environment
- telecommunications/transportation infrastructure

Enhance Higher Education and Research and Development Opportunities

- establish connections to Boston industries and academic resources
- improve education and training for higher levels of job skills
- support the continuing development of USM and SMTC and efforts to maintain/create ties between the schools and local industry

Work to Resolve Long Term Legislative Financial and-Structural Issues

- state school funding formula
- state tax structure
- worker's compensation
- energy costs

III. DOWNTOWN VISION- March 1991

Retail Economy Goals

- Strengthen and enhance the Downtown retail sector to meet the diverse consumer needs of Downtown workers, Downtown and citywide residents, and visitors.
- Revitalize Congress Street, Portland's main street, by establishing and promoting the Congress Street Cultural Corridor with additional cultural facilities and related retail uses.
- Pursue infill retail development within established retail areas and expand retail areas while complementing and supporting what already exists.

Downtown Vision: Retail Economy Policy

- Assure street-level retail or other pedestrian-oriented uses through appropriate zoning requirements.

Downtown Vision: Tourism and Hospitality Goal

- Develop appropriate attractions and improvements Downtown that complement and enhance the role of the tourism and hospitality industry.

Downtown Vision: Tourism and Hospitality Policy

- Provide full public support through Countywide initiatives and encourage private support for the development of a convention center in Downtown Portland, along with a new convention-quality hotel, located so as to integrate with existing retail and cultural areas.

- Support expanded Downtown programming for events and activities throughout the year to extend the "tourist season" and to serve local residents and employees as well.

Downtown Vision: Office Economy Policies

- Achieve diversity in the Downtown's economy, in activities, uses, and participants.
- Bring the resources and initiatives of the Downtown Portland Corporation, which administers economic development programs, to enhance and create business and employment opportunities downtown.
- Develop a coordinated marketing program, which promotes Downtown, seeks out potential new businesses, and identifies incentives to create new jobs.
- Take the lead in pursuing creative financing mechanisms and incentives such as tax-increment financing, the Capital Improvement Program, or the Portland Development Fund, which will assist in attracting and retaining Downtown office tenants.

Downtown Vision: Arts and Culture Goals

- Promote and enhance the cultural community by retaining and encouraging arts and cultural organizations.
- Support the cultural community by retaining and expanding performance and exhibition space, housing, studio space, and office/support space for artists, institutions, and organizations.
- Promote the Downtown as the local, statewide and northern New England center for arts and culture.
- Enhance and promote accessibility to diverse arts and cultural opportunities for all segments of the community.

IV. A PLAN FOR PORTLAND'S ART DISTRICT - Goals and Objectives -1995

- Improve the economic performance of arts institutions in the Arts District and throughout the city by:
 - increasing attendance;
 - supporting efforts to develop subscribers, stabilize audiences and develop audience base;
 - improving marketing communications;
 - supporting better integration of arts institutions with the other major downtown interests; and
 - encouraging arts-related businesses to establish in, or relocate to the Arts District.
- Enhance the economic impact of arts institutions in the city by:

- providing opportunities for expanded spending for goods and entertainment associated with arts attendance at museums, galleries, and performing arts events;
 - extending the length of stay for all visitors in the downtown; and
 - increasing the overall attractiveness of the city for tourists.
- Create a more favorable business climate in the District and in downtown Portland by:
 - increasing pedestrian activity and total visitorship to the downtown; and
 - improving the appearance and the occupancy rate of commercial properties in the Congress Street corridor.
 - Support the creative efforts of individual artists and safeguard their continuing presence in the community.
 - Contribute to the overall quality of life in the community.
 - Establish an Arts District that is a permanent feature of downtown Portland.
 - Build community trust and collaboration of broadly diverse groups as a way of fostering cross-cultural communication and understanding.

V. PORTLAND NEIGHBORHOOD ECONOMIC DEVELOPMENT STUDY, 1982

Goals

- Restructure the City's zoning ordinances to accurately reflect the hierarchy of commercial centers. This would result in five commercial districts: R-P Residence-Professional to serve as a buffer district; B-1 Neighborhood Business District to provide limited areas for the location of small scale retail and service establishments; B-2 Community Business District to provide several major locations for a variety of retail, service and office uses; B-3 Downtown Business District; and B-4 Commercial Corridor District to provide locations for businesses that rely particularly on the regional highway network.
- Carefully weigh the value of on-street parking when making decisions concerning traffic, snowplowing, and road maintenance in the commercial centers. Develop incentives for the sharing of off-street parking lots among merchants.
- Enhance the security of neighborhood businesses through police efforts to control petty theft, vandalism, and harassment. Couple these efforts with expanded business training programs and recreational and youth job programs in neighborhoods where vandalism is most serious.
- Improve the City's working relationship with the businesses of the commercial centers and open formal lines of communication with the small business community.
- Establish a reserve fund for replacement of public improvements within the commercial centers.

- Expand the City's facade easement program into commercial centers on an as-needed basis to upgrade the appearance of the centers, especially where private property abuts the public right-of-way.
- Establish design controls through site plan review for major renovations of commercial structures.

STATE GOAL D. To encourage and promote affordable, decent housing opportunities for all Maine citizens:

INTRODUCTION

Portland has a long history of planning for its housing needs and programs. Homeownership programs, housing rehabilitation, assisted housing programs, and community development programs are financed with Federal, State, and local funds. Housing: Sustaining Portland's Future serves as the policy document guiding the City's housing programs. The 2000 Consolidated Housing and Community Development Plan establishes specific objectives for housing and community development projects to be funded with federal funds and U. S. Housing and Urban Development requires this document. Housing Policy Amendments adopted in 1991 addressed handicapped accessibility issues and the Downtown Vision and A New Vision for Bayside plans include neighborhood policies for the peninsula. Residential policies enacted in the 1980's established the basis for current residential zones and regulated institutional uses in these zones. The City's actions recommended to implement these goals are listed within a chart at the end of this section. Please refer to the original source document for a complete review of the analysis, policies and implementation strategies excerpted below.

I. HOUSING: SUSTAINING PORTLAND'S FUTURE- November 18, 2002

Overall Goal

Portland, as Maine's largest city, will strive to provide a sufficient supply of quality housing commensurate with a manageable level of growth to sustain the city as a healthy urban center in which to live and work, and its position as a growing regional economic and service center.

Housing in the city will be varied and affordable to accommodate Portland's socially and economically diverse population.

The existing housing stock will be enhanced and preserved, and a wide variety of new housing will be designed and created to support Portland's continued economic development, insure the safety of its citizens, and maintain its vibrant and stable neighborhoods.

When seeking solutions to Portland's housing needs and issues, the city will strive for innovation and creativity in the areas of urban design, expenditure of its financial resources, and the use and reuse of land and buildings to ensure that residential development fits within Portland's unique living environment.

Goal

- Ensure that an adequate supply of housing is available to meet the needs, preferences, and financial capabilities of all Portland households, now and in the future.

Policies

- Ensure the construction of a diverse mix of housing types that offers a continuum of options across all income levels, which are both renter and owner-occupied, including but not limited to the following:
 - i. Affordable housing², including starter homes;
 - ii. Housing units for decreasing household size, such as young professionals, empty nesters, single-parent households, and senior citizens;
 - iii. Medium and high priced options for the “move-up” market
 - iv. Housing for special markets, such as SRO’s, student or dormitory housing, group homes, and artist housing including live/work opportunities;
 - v. Higher density housing, such as row houses, small lots, reuse of non-residential buildings, and mixed use buildings;
 - vi. Rental units for large families with children;
 - vii. Housing development that encourages community, such as co-op housing;
 - viii. Housing with a range of services and medical support for the elderly and special needs population, including assisted living, congregate care, group homes and nursing homes; and
 - ix. Emergency Shelters for the homeless and transitional housing for individuals and families striving for independence.
- A variety of housing choices should be available such that no one should have to spend more than 30% of their income for housing.
 - Maintain Portland’s current proportion of subsidized³ units to its total housing stock. Establish a target of at least 20% of the total number of new housing units will be subsidized for households earning 80% or less of the region’s median income.
- Encourage higher density housing for both rental and home ownership opportunities, particularly located near services, such as schools, businesses, institutions, employers, and public transportation.
- Increase Portland’s rental housing stock to maintain a reasonable balance between supply and demand yielding consumer choice, affordable rents, and reasonable return to landlords.
- Increase home ownership opportunities for all types of households and all income levels.

² Affordable Housing: Housing that costs 30% or less of a household’s gross income. The term is generally used in this plan to refer to housing that is affordable to households earning less than 80% of the median for the Portland MSA (Metropolitan Statistical Area).

³ Subsidized Housing: Housing that has received financial or other forms of government assistance, e.g. density bonuses and other mechanisms to offset costs and to achieve the goal for more affordable housing.

- Ensure that a continuum of housing is available for people with special needs and circumstances ranging from emergency shelters and transitional housing to permanent housing (rental and homeownership), which offer appropriate supportive services.
- Identify vacant land and redevelopment opportunities throughout the City to facilitate the construction of new housing.
- Promote Portland as a Pro-Housing Community.

Goal

- Maintain, rehabilitate, and restore the existing housing stock as a safe and important physical, economic and architectural resource for the community.

Policies

- Assist with the restoration and rehabilitation of architecturally significant residential properties within and outside of Portland's historic districts.
- Foster safe and high quality housing through appropriate building codes and financial assistance.
- Target vacant buildings for maintenance, rehabilitation and reuse.
- Improve the safety of Portland's housing stock by eliminating public health hazards from single and multi-family residential properties.
- Establish a standard of "no net loss of housing" for all proposed development.

Goal

- Maintain and enhance the livability of Portland's neighborhoods as the City grows and evolves through careful land use regulation, design and public participation that respects neighborhood integrity.

Policies

- While accommodating needed services and facilities, protect the stability of Portland residential neighborhoods from excessive encroachment by inappropriately scaled and obtrusive commercial, institutional, governmental, and other non-residential uses.
- Support Portland's livable neighborhoods by encouraging a mix of uses that provide goods and services needed and are within walking distance of most residents.
- Encourage innovative new housing development, which is designed to be compatible with the scale, character, and traditional development patterns of each individual residential neighborhood.
- Encourage new housing development in proximity to neighborhood assets such as open space, schools, community services and public transportation.

- Ensure the integrity and economic value of Portland's neighborhoods.
- Encourage Portland's neighborhoods to address the City's housing issues through the Neighborhood Based Planning Process.
- Encourage neighborhood populations that are economically, socially, culturally and ethnically diverse.

Goal

- Strive to ensure freedom of choice in housing type, tenure, and neighborhood for all, regardless of race, color, age, gender, familial status, sexual orientation, religion, national origin, source of income or disability.

Policies

- Increase and ensure equal access to housing opportunities for minorities, low-income people and persons with disabilities and special needs.
- Work to prohibit discrimination in selling and renting of all types of housing.
- Ensure that an adequate supply of new and existing housing is accessible to persons with physical disabilities.
- Work to educate the public about housing laws and opportunities.

II. A NEW VISION FOR BAYSIDE – 2000

Goal

- **A critical mass of dwellings:** An urban district must have a mix of residences to be truly vital. The Bayside plan will fill in, extend, and enhance the existing residential fabric with a substantial amount of new housing units. A diversity of dwelling types will enable citizens from a wide range of economic levels, age groups, and life circumstances to live in Bayside. Careful attention to design, scale, density and variety will strive to create a healthy and compatible neighborhood similar to other successful urban neighborhoods on the Portland peninsula.

III. 2000-2005 CONSOLIDATED HOUSING AND COMMUNITY DEVELOPMENT PLAN- May 2000

Affordable Housing Strategies

- Assisted housing should be provided for those individuals and families with the greatest needs, including the elderly, low income and disabled populations in order for them to live independently and achieve stability and self-sufficiency in their lives.
- Assisted housing should address an identified community need or meet other city policies.

- Assisted housing should create or maintain neighborhood viability and economic vitality in the community.
- Assisted housing should strive to include a mix of individuals and families with differing incomes and populations in order to create healthy stable neighborhoods that are socially and economically diverse.
- Assisted housing should use public resources as efficiently as possible to stimulate private investment and to fill affordability gaps in projects that meet the City's principals and priorities. Public funds should be leveraged to the maximum extent possible.
- Due to the shortage of housing, the City should not allow development projects that result in a net loss of housing units in the City. The City should consider a policy requiring that any loss of housing be replaced on a one for one basis.
- Assisted housing must be developed and managed in a manner that supports neighborhood stability.
- Assisted housing must be developed and managed in a manner that affirmatively promotes fair housing practices.

IV. DOWNTOWN VISION: OVERALL GOALS - March 11, 1991

Goal

- Preserve and enhance the quality and vitality of neighborhoods within and adjacent to the Downtown.

Downtown Vision: Neighborhood Policies

- Continue to offer, expand, and promote programs, which maintain and upgrade housing in the neighborhoods within and immediately surrounding the Downtown.
- Continue support for improving access and re-use of upper stories, with more emphasis on upper-story residential uses between Congress and Longfellow Square and within the Congress Street to Cumberland Avenue area. Actively market this upper-story space.
- Implement zoning and development ordinances, which require the relocation of tenants displaced by new development, in locations within or adjacent to the Downtown. Where demolition is necessary to facilitate new growth consistent with the plan for the downtown, relocation of existing residential tenants must be carefully addressed.
- Initiate long-term development programs for the Bayside, Gorham's Corner and India Street perimeter areas with an objective of establishing and re-establishing residential components with a mix of income levels and types of housing within a context of mixed commercial and residential uses.

V. REGULATION OF INSTITUTIONAL USES IN RESIDENTIAL ZONES - 1983
(Planning Board Report #46-83)

Goals

- Institutional uses, where they are to be allowed in residential zones, should be designated conditional uses with review before the Planning Board.
- Any new institutional use should be required to have a lot size of sufficient area to accommodate all activities, including parking and to absorb impacts and growth needs of the institution.
- Reasonable expansion of existing institutions should be accommodated, but effective use of existing lot area should be required.
- For both new development and expansion of existing institutions, the displacement or conversion of existing dwellings should be avoided, and that an institutional development proposal that causes significant residential displacement should be cause for denial of conditional use approval.

STATE GOAL E. To protect the quality and manage the quantity of the State's water resources, including lakes, aquifers, great ponds, estuaries, rivers and coastal areas;

COASTAL MANAGEMENT POLICIES

4. Hazard area development. Discourage growth and new development in coastal areas where, because of coastal storms, flooding, landslides or sea-level rise, it is hazardous to human health and safety.

8. To protect the quality and manage the quantity of the State's water resources, including lakes, aquifers, great ponds, estuaries, rivers and coastal areas;

INTRODUCTION

Portland is a coastal community with eight islands and three rivers (Presumpscot, Stroudwater and Fore Rivers) flowing through it. In 1993, Portland adopted the Combined Sewer Overflow Abatement Study (CSO Study), which provides an overall framework for eliminating combined sewer overflows and improving surface water quality. Accompanying the CSO study is a five-year implementation plan for years 1997 to 2001 and a new five-year plan is being prepared to address years 2002 to 2006 for DEP review and approval. There are several master plans that offer more detailed guidance for improvements and management efforts in the Capisic Brook and Fall Brook watersheds. The City adopted The Capisic Brook Greenbelt/Stormwater Abatement Study, which creates a future vision for this watershed and recommends an integrated approach for watershed management, recreation and habitat enhancement. As an outgrowth of this plan, Greenway Master Plans incorporating specific recommendations for an integrated series of improvements have been prepared for the Capisic Brook and Fall Brook watersheds. Watershed planning to improve surface water quality continues to be an emphasis of the City's environmental work.

The Portland Island Land Use and Zoning Study adopted a series of policies recognizing the fragile environmental characteristics of the islands and the City of Portland Island Ground Water Management Study is an in-depth groundwater analysis prepared as an outgrowth of the Island study. The hazards of flooding are addressed in the regulations adopted by the City under the Federal Flood Plain Management Program. For a more complete understanding of the goals from these reports, refer to the original source document, which contains the analysis, policies, and implementation strategies.

I. GREEN SPACES, BLUE EDGES: AN OPEN SPACE AND RECREATION PLAN FOR THE CITY OF PORTLAND- 1995, updated 2001

Goals

- 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.

Policies

- 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 space and vegetation to minimize the identified environmental problems.

II. COMBINED SEWER OVERFLOW ABATEMENT STUDY – Prepared for City of Portland by CH2M HILL and Dufresne-Henry, Inc. 1993

Goals

- Control of 99% of all wastewater flows generated during wet weather. (Deactivate 29 out of Portland's 39 CSOs).
- Improve the quality of Portland's surface waters. (The number of individual CSO events will be reduced by 85%; CSO volume will be reduced by 88% and CSO duration will be reduced by 88%.)
- Provide, on average, 100% Portland CSO elimination in four of our six receiving waters.
- Reduce significantly the CSO events, volume, and duration in waters with remaining CSOs.
- Reduce significantly the number of violations of water quality standards for bacteria.
- Improve habitats for critical uses and sensitive areas.
- Expand the recreational potential of Portland's waters.

Policies

- Use a wide variety of control measures from inexpensive modifications to the existing system to relatively expensive storage and treatment options for the high-density areas of Portland.
- Continue to implement, at a greater level, the programs that are currently in practice:
 - Inflow reduction (separation and vortex valves)
 - Maximizing flow to the WWTF (Portland Wastewater Treatment Facility)
 - Pollutant source control
 - Proper operation and maintenance
 - Increased use of the sewers for in-system storage

- o Increase pumping capacity through the India Street pump station so that, along with the increased pumping from existing pumps at the Northeast pump station, the available capacity at the WWTF can be used to treat an additional 20 mgd of wet weather flow.
- o Implement watershed management programs for the Fall Brook and Capisic Brook watersheds. These programs will be comprehensive efforts that include land use planning, stormwater management, selective sewer separation, expanded use of BMP's for source control, rehabilitation of natural waterways, and development of recreation and environmental resources in conjunction with CSO and stormwater control. The goal is to eliminate CSOs in these watersheds by managing the volume and quality of storm water runoff, while maximizing use of existing conduits.
- o Complete several Libbytown projects, including the Douglass Street and Edwards Street Interceptor separation projects, stormwater pumping of the Hood Dairy Area, and flow slippage and sewer separating in the Maine Medical Center and Deering Oaks areas. These improvements, combined with the Fall Brook watershed projects and storage conduit under Baxter Boulevard and the soccer field along Marginal Way, will considerably reduce overflow volume and frequency to Back Cove.

III. THE CAPISIC BROOK GREENBELT/STORMWATER ABATEMENT STUDY – 1996 – Revised 1999 CONSOLIDATED VISION SUMMARY 1999:

Water Quality: The watershed is a more open water system with no further sedimentation. There is clean water in the Brook and healthy ecosystem with thriving wildlife including eagles and fish. No contaminated sediments are showing up in the watershed as measured through the analysis of the lobsters and clams of Casco Bay. There is greenery, but not lawns. There is no CSO activity in the area, no flooding that effects dwellings and no sewer back ups. There are modifications of the brook to meet goals such as flood control or water quality, but the engineered improvements are barely visible, seamless with the natural environment. There is a natural dam above Warwick Street and the dam at Capisic Street had been studied and altered so that it is no longer a cause of flooding up stream. As part of the plan, 319 funds have been used in a model way.

Public Recreation: There are walking trails the full length of the brook, as close to the brook as possible without compromising the safety and property values of residents, which are linked to many other open space areas in the city. The trails link neighborhoods with the Brook and with each other and encourage community pride. There is access to the trails at various points with small-scale places for parking and bus drop off. The trails are well maintained and safe and do not constrict the conveyance capacity of the brook.

The Capisic Brook Greenbelt provides a variety of recreational experiences that are unique to city living and are compatible to a riparian landscape. Walking and jogging, fishing and rowing in the summer and skating and cross-country skiing in the winter are

major activities occurring in the area. Recreational and outdoor experiences are facilitated by a variety of different amenities, including secondary athletic fields, and comparable activities that enhance, support and tie together the Brook's environment as part of a single park system.

A separate master plan for the environmental enhancements and recreational amenities are incorporated into the engineering solutions and designed to fit well into the natural landscape.

Environmental Education: The area is used for environmental education including a park ranger and children who are becoming stewards of the Brook area. Education is successful in reducing the use of fertilizers and pesticides. The education is linked to monitoring and includes interpretive signs. The program is so good that others are touring the area in order to use it as a model.

Community Engagement: Lots of people love and use the park. All people along the corridors are informed, involved and active stewards of the area serving as the driving force behind clean up, maintenance and education. There is an effective communication vehicle. The City is using community planning and has neighborhood liaisons. The project is so successful that politicians are competing for bragging rights and this group is going together to Washington to accept cash awards.

Maintenance: There is a planned, agreed on maintenance schedule. Maintenance concerns are tied together with the planning for recreation and open space. There is adequate access for maintaining the waterway system and maintenance is low cost. A vegetative plan will be developed to address the maintenance of designed vegetation and the control of invasive species. The plan's approach of an "open water system" had been purposely chosen for many reasons including cost.

Goal

Implement an integrated watershed plan to maximize beneficial uses in the Capisic Brook watershed and reduce pollution loads to Casco Bay by maximizing natural treatment of stormwater flow.

- Remediate flooding, storm drainage, and sewer backup problems.
- Remediate water quality problems.
- Eliminate erosion and control debris accumulation.
- Create an urban recreational, educational, and aesthetic resource.
- Institute a revenue generating mechanism.

IV. PORTLAND ISLANDS LAND USE AND ZONING STUDY - 1985

Policy

- o Development on the islands should be managed to minimize the impact on the islands' fragile natural habitat.

V. **CITY OF PORTLAND ISLAND GROUND WATER MANAGEMENT STUDY - August 1986 and Planning Board Report #70-89 Recommendation to Adopt the Portland Islands Groundwater Management Study as Part of the Comprehensive Plan and to Adopt Zoning Amendments to the Land Use Code.**

Goal

- **PRESERVE QUANTITY** - Preserve the recharge rate to the island aquifers to the extent practical such that ground water tables are not significantly lowered and saltwater intrusion does not occur to either existing or future well sites.

Policies

- Minimize reduction of recharge and augment recharge if feasible.
- Coordinate storm water management with ground water management.
- Reduce progressive lowering of the ground water table and thus avoid the need to drill deeper wells with associated higher pumping costs and potential for saltwater intrusion.
- Do not exceed the safe yield of the bedrock aquifers.
- Continue to develop a data base on ground water elevations and monitor long-term trends.
- Provide education to the public on ways of preserving and enhancing recharge capability.

Goal

- **PROTECT QUALITY** - Protect ground water quality so that it will meet the State of Maine Primary Drinking Standards. Where the quality is presently inferior to those Standards, the goal is to restore the ground water to a quality equal to or better than the Safe Drinking Water Standards.

Policies

- Prevent degradation of quality to the extent possible, since this is cheaper and more effective than cleaning up or treating ground water.
- Assume that even where off-island water supplies and overboard discharges are presently available on the islands, that the islands may one day be forced to revert to self-sufficiency such that they will have to derive their water supply from the island and must dispose of their sewage on the island.
- Control housing and commercial use densities commensurate with available recharge such that when an entire island is developed to its permitted density, the ground water quality will still meet Safe Drinking Water Standards.
- Control the effects of residential subdivision and other commercial developments that will not undergo Site Plan Review such that any discharge to

ground waters must not result in ground water quality leaving the property on which the development is located exceeding one-half of the difference between the quality of ground water entering the property and the Safe Drinking Water Limits for the applicable physical, chemical, and biological standards.

- Control the disposal of any waste products on the island and define areas within which certain types of waste disposal should not occur.
- Control saltwater intrusion by preventing wells from exceeding the aquifers' safe yields and by reducing ground water extraction to the extent practical.
- Develop an emergency response plan for reacting to accidental chemical or petroleum spills.
- Control non-point sources such as petroleum storage tanks, resource mining, material stockpiles, pipelines, agricultural practices, road de-icing chemicals, and abandoned wells.
- Develop a remedial action plan for improving ground water quality where it is presently contaminated.
- Develop a long-term ground water quality monitoring plan.
- Provide public education on means of preserving ground water quality.

VI. FLOOD PLAIN MANAGEMENT REGULATIONS -June 1987

Goal

- The purposes of the Flood Plain Management Regulations are to reduce future flood risks and losses, protect against financial and human loss resulting from flood disasters, and to control the placement of structures, construction materials, and methods used to minimize potential property damage due to flooding.

Policy

- The City of Portland, Maine, elects to comply with the 42 USC sec. 4001 et. seq. requirements of the National Flood Insurance Act of 1968. The National Flood Insurance Program, established in the aforesaid Act, provides that areas of the city having a special flood hazard be identified by the Federal Emergency Management Agency and that flood plain management measures be applied in such flood hazard areas. The regulations establish a flood hazard development permit system and review procedure for development activities in the designated flood hazard areas of the city.

STATE GOAL F. To protect the State's other critical natural resources, including without limitation, wetlands, wildlife and fisheries habitat, sand dunes, shorelands, scenic vistas and unique natural areas.

COASTAL MANAGEMENT POLICIES

6. Scenic and natural areas protection. Protect and manage critical habitat and natural areas of state and national significance and maintain the scenic beauty and character of the coast even in areas where development occurs;
9. Air Quality. Restore and maintain coastal air quality to protect the health of citizens and visitors and to protect enjoyment of the natural beauty and maritime characteristics of the Maine Coast.

INTRODUCTION

Portland addresses its critical resources in Green Spaces, Blue Edges, which inventories the city's critical resources, habitats, and wetlands, and in the Portland Islands Land Use and Zoning Study, which recognizes the fragile environmental characteristics of its Islands. Recently, Portland expanded its Resource Protection Zone to incorporate sensitive lands identified in the Outer Brighton Avenue Task Force Report. This builds upon the Shoreland Zoning provisions, which conform and exceed minimum State standards. The environment and energy use is addressed in the Transportation Plan, which articulates the need to be responsible in the consumption of resources and protection of the environment. For a more complete understanding of the goals from these plans excerpted below, refer to the original source document which contains the analysis, policies, and implementation strategies. Scenic vistas and view corridors are identified in the Portland Shoreway Access Plan and the Waterfront Public Access Design, which are listed under State Goal J.

I. GREEN SPACES, BLUE EDGES: AN OPEN SPACE AND RECREATION PLAN FOR THE CITY OF PORTLAND- 1995, updated 2001

Open Space and Recreation Goals

- 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.
- Conservation of natural resources should include a complete array of natural features and habitats, so that the public may learn about and experience the full realm of Portland's natural environment.

Open Space and Recreation Policies: Landscape and the Environment

- Continue to support the Portland Partnership Landscape Planning and Planting Project involving Portland Public Schools, the City and the Maine State Landscape Architects. This program has the dual purpose of upgrading the yard spaces of school properties while developing student awareness of the important role landscapes play in the environment.
- Study alternative methods to treat dirty storm water (combined sewer overflows) by natural means - using vegetative buffers to filter out pollutants as an integral strategy with related parks, water bodies, and trail systems.
- Establish a system of arborways in the City along streets and boulevards.
- Acquire and hold needed land for athletic facilities and conservation purposes.
- Develop High Point Parks, open spaces located on the higher elevations of the city, in neighborhoods throughout the city such as the Ocean Avenue landfill, hilltop on Ocean Avenue by rock shop, Rocky Hill, and hills in Stroudwater.
- Undertake a comprehensive environmental assessment of the city; identify and conserve unique natural and ecological sensitive areas. Monitor water quality in major streams and rivers. The City should steward these resources, develop the capability to protect these resources including technical assistance to educate property owners on ways to protect such areas.
- Launch a major Presumpscot River conservation plan initiative. The plan would cover water quality, recreation, Riverton Park, Hamlin's Pit, Riverside Golf Course, and development of a greenway trail from Falmouth to Sebago Lake.

II. OUTER BRIGHTON AVENUE TASK FORCE REPORT – 2001

Policies

- **Support for Environmental Values**
 - Rezone the undeveloped portion of the Union Water Power Site from Residential R-2 to Resource Protection.
 - Rezone from Industrial I-M to Office Park OP and Resource Protection, the property recently purchased by the City.
 - Support development of a Rand Road Streetscape Plan that will encourage mixed land use with the goal of low impact development.
 - Seek trail connections that link the system throughout the area to tie together the Fore River Sanctuary, Evergreen Cemetery and the Capisic Pond and Brook.

- o Strive for a more formalized relationship between the owner of the Sanctuary and the City, so that joint management and shared resources could occur to an overall functional advantage.
- o Create a Rand Road entrance to the Fore River Sanctuary, particularly to facilitate school bus access and parking.

III. A TIME OF CHANGE: PORTLAND TRANSPORTATION PLAN - July 1993

Goal

Environment and Energy

- To establish a transportation system responsible to current and future generations in consumption of resources and protection of the environment.
 - Minimize negative environmental impacts.
 - Minimize energy consumption, especially nonrenewable energy resources.
 - Factor direct and indirect costs and benefits in decision-making. Impacts which are not easily expressed in dollar values should be considered.
 - Promote public awareness about the global and community impacts of behavior.
 - Reduce the percentage of trips by single occupant motor vehicles.

IV. PORTLAND SHORELAND ZONING AMENDMENTS - December 9, 1991

Goal

- To further the maintenance of safe and healthful conditions; prevent and control water pollution; to protect fish spawning grounds, aquatic life, bird and other wildlife habitat; protect buildings and lands from flooding and accelerated erosion; protect archaeological and historic resources; protect commercial fishing and maritime industries; protect freshwater and coastal wetlands; control building sites, placement of structures and land uses; conserve shore cover, and visual as well as actual points of access to inland and coastal waters; conserve natural beauty and open space; and anticipate and respond to the impacts of development in shoreland areas.

Policies

- o Establish a stream protection zone. Capisic Brook, Nason Brook and Fall Brook should be designated as stream protection zones.
- o Zone ten acre freshwater wetlands for shoreland zoning.
- o A shoreland building setback of 75 feet is appropriate but the requirements should be flexible for certain circumstances. The requirement should not apply to the W-1, W-2 and I-3b zones.
- o A shoreland parking setback of 75 feet is appropriate, but it should not apply to the W-1, W-2, and I-3B zones. The setback may be modified in the I-2, I-B and R-OS zones.

- Establish the Resource Protection Zone (RPZ) along portions of the Presumpscot River, Stroudwater River and Fore River. Expand the existing RPZ on Cliff Island and establish a new RPZ near the Presumpscot River outlet near I-295.
- Revise the definition of freshwater wetlands to include certain wetlands, less than 10 acres, that are depicted on the zoning map. Designate certain wetlands on Peaks Island for shoreland zoning protection.

V. PORTLAND ISLANDS LAND USE AND ZONING STUDY - 1985

Policy

- Development on the islands should be managed to minimize the impact on the islands' fragile natural habitat.

STATE GOAL G. To protect the State's marine resources industry, ports and harbors from incompatible development and to promote access to the shore for commercial fishermen and the public;

COASTAL MANAGEMENT POLICIES

1. **Port and harbor development.** Promote the maintenance, development, and revitalization of the State's ports and harbors for fishing, transportation, and recreation;
2. **Marine resource management.** Manage the marine environment and its related resources to preserve and improve the ecological integrity and diversity of marine communities and habitats, to expand our understanding of the productivity of the Gulf of Maine and coastal waters and to enhance the economic value of the State's renewable marine resources;
3. **Shoreline management and access.** Support shoreline management that gives preference to water-dependent uses over other uses, that promotes public access to the shoreline, and that considers the cumulative effects of development on coastal resources;
5. **State and local cooperative management.** Encourage and support cooperative state and municipal management of coastal resources.

INTRODUCTION

Portland is a major deep water port that serves as the distribution point for container shipments, raw materials, and oil. The fishing industry is a major component of the Harbor and it is supported by Portland with the Fish Pier and the Fish Exchange. Water dependent uses, such as BIW, the Casco Bay Ferry Terminal, and the International Ferry (its role in tourism is increasing as more cruise ships, including Queen Elizabeth II, schedule stops in Portland), are examples of the City's direct involvement in the development and continuation of these uses. The collaborative efforts between the City and the Waterfront Alliance produced a well articulated vision for a working waterfront that is based on a marketing strategy, land use recommendations, and a business plan. The land use and zoning policies are embodied in the Waterfront Zoning and Land Use Policy Update. Other reports include A Waterfront Action Plan for the Port of Portland, Maine, Berthing Management Plan, Port Marketing Study, Economic Impact of Land Use Recommendations and the Waterfront Alliance Recommendations, A Master Plan for Redevelopment of the Eastern Waterfront and Investing in Our Working Waterfront: Final Report of the Mayor's Waterfront Task Force on Economic Development are two recent planning initiatives, which coincide with the plans for a new Passenger Ferry Terminal. Excerpts of goals and policies from these documents are below and refer to the original documents for the complete analysis, policies and implementation strategies.

[Editors Note: The evolution of current waterfront planning in Portland began in 1982 with Waterfront Strategies (resulting in the W1 and W2, zones) with multiple updates in 1983 and 1988. In 1987 there was a citizen's initiative restricting uses on the waterfront to marine uses only (the waterfront overlay zone). In 1992 the Waterfront Alliance Report was the policy basis for new zoning districts (WPDZ, WCZ and WSUZ).]

I. **A MASTER PLAN FOR REDEVELOPMENT OF THE EASTERN WATERFRONT- 2004**

Goal

- Character and Impact of Development: Development within the eastern waterfront will be compatible with the surrounding areas, neighborhoods, natural environment and maritime uses.

Objectives

- Protect the operation of island ferry service and enhance parking, circulation and safety.
- Encourage compatible architecture.
- Encourage historic preservation and adaptive reuse of historic structures.
- Establish a new street and pedestrian network that integrates with the surrounding street and trail network.
- Preserve significant public view corridors to and from water and along the waterfront.
- Manage traffic, noise, and air and water emissions to minimize impacts on the surrounding community and users.
- Improve and protect the value and quality of natural resources.

Goal

- Mixed Use⁴: Development within the eastern waterfront will create a vital and active mixed-use urban area that generates life and use every day of the year and all hours of the day.

Objectives

- Provide opportunity for mixed-use non-marine development and activities in locations and in ways that are compatible with the use of maritime resources.
- Increase public use of the water, waterfront and shore through public access and green space development.
- Maintain and enhance recreational trail access.

⁴ Mixed use includes but is not limited to residential, commercial, public, institutional, marine, park, trail and industrial uses (all as generally defined in the B-5 Zone of the Portland Land Use Code.)

Goal

- Maritime Resources: Development in the eastern waterfront on piers, bulkheads, and on land within 75' of mean high water line, will give priority to compatible water-dependent and maritime uses.

Objectives

- Preserve and encourage long-term enhancement of emerging and traditional maritime and water dependent uses.
- Utilize the harbor's deep-water resources to serve deep draft vessels.
- Encourage small boat berthing where water depth does not permit deep-water berthing.
- Encourage public physical and visual access to the water where appropriate.
- Allow non-marine mixed uses when compatible with water dependent and marine uses.

Goal

- Economically Responsible Development: Development in the eastern waterfront will provide a significant benefit to the City and regional economy.

Objectives

- Encourage a positive economic return to the City.
- Sustain and strengthen water-related tourism.
- Enhance the economic viability of the eastern waterfront's property and facilities.
- Assure that public investment and development benefit the residents of the greater Portland community.
- Provide adaptable, flexible infrastructure that will allow the City to adjust to future technologies and trends.
- Enhance multi-modal transportation opportunities.

II. INVESTING IN OUR WORKING WATERFRONT: FINAL REPORT OF THE MAYOR'S WATERFRONT TASK FORCE ON ECONOMIC DEVELOPMENT - October 2000, adopted July 2001.

Guiding Principles

- The Portland waterfront is a limited natural resource and the City has established and should continue a policy of preserving access for both traditional and emerging water-dependent uses.

- While the Portland waterfront serves a number of functions (job center, industry center, property tax base, transportation center, retail center, gateway, home, marine ecosystem, etc.), its primary role, recognizing its unique geography, is an economic center for water-dependent businesses, which cannot exist elsewhere.
- Stable pier infrastructure is an essential element for successful water-dependent businesses.
- The array of marine-related industries on the waterfront represents a critical mass of inter-dependent uses and services that, in total, provide a necessary base for continued viability of water-dependent uses.

Goals

- To continue the policy priority of supporting water-dependent and marine-related businesses.
- Assist in maintaining the physical infrastructure of the waterfront.
- Utilize existing program and funding resources to cover gaps not being met by private financing sources.
- Address overarching needs that affect both waterfront businesses and other businesses in the Old Port area, especially regarding traffic congestion and parking.

Task Force Recommendations

- Encourage private and public sector waterfront investments through lending programs and a capital improvements program.
- Create a waterfront-centered economic development outreach program to ensure that waterfront businesses have access to needed programs and services.
- Support the current use taxation referendum to provide property tax relief to waterfront property owners.
- Support clean, working harbors through addressing the negative effects of combined sewer overflows and stormwater runoff on the waterfront economy.

III. WATERFRONT ALLIANCE - April 14, 1992

- Preserve the entire perimeter of the Harbor from Tukey's Bridge to Veteran's Memorial Bridge for berthing.
- Recognize that property with direct water access is limited and should be reserved exclusively for marine use.
- Allow marine compatible use of other property that does not interfere in any way with the activities of water-dependent users.

- Divide the waterfront into four zones that reflect the type of berthing or land use that each zone can accommodate.
- Promote public access to the Port for the benefit and enjoyment of its citizens and continue to insure ecological safety through the promotion of environmentally sound practices.

Policy Recommendations:

Special Use Zone

- Provide an area where marine industrial and marine compatible uses can operate;
- Allow marine compatible uses to occupy existing vacant facilities that are not directly water related;
- Encourage new non-marine development (new construction/substantial rehabilitation) to contribute to the maintenance and improvement of the infrastructure along the water's edge as a condition of use;
- Promote the use of the land along the water's edge to be used by water dependent uses;
- Encourage public access to the waterfront;
- Promote uses that do not harm abutting neighborhoods and are environmentally sound.

Port Development Zone

- Transport of goods by water to and from Portland is an important component of both the local and regional economy. This commerce is dependent upon land with direct access to the dredged deep-water channel of the Fore River.
- Restrict waterfront land with direct deep-water access to uses, which contribute to port activity, to insure the continued viability of the Port of Portland, ME. Uses in the Port Development Zone, while governed by the same performance standards as other industrial zones, are limited to those, which are dependent upon access to deep water and contribute to port activity.
- Allow non-marine industrial activity only on a temporary basis and only to the extent it will not preclude or impede any future water dependent development.

Pringle Amendment:⁵

The property along the shore west of the Million Dollar Bridge is an important resource as the largest remaining undeveloped parcel abutting deep water, with significant potential value for use by deep draft vessels in the future, including such uses dependent on the convergence of water, rail and highway

⁵ Editor's Note: During the City Council deliberations on Waterfront Zoning and Land Use Policy, a specific policy and zoning provision was moved by Councilor Anne Pringle. This provision has been commonly referred to as the "Pringle Amendment".

transportation linkages. Non-marine commercial or industrial development of this property should be allowed only to the extent that it will not impede or preclude future water dependent development. Such non-marine uses must allow for adequate right-of-way access to the shore, must be compatible with marine uses, and must be physically adaptable or relocatable to make way for future development for water-dependent uses, especially those, which utilize the deep water frontage of the site.

IV. WATERFRONT TASK FORCE RECOMMENDATION, PORTLAND HARBOR MAINE - April 1990

Berthing Recommendations

- Manage and control development of berthing, moorings, and marinas in Portland Harbor to avoid congestion in the Central Harbor and preserve the ability of large commercial cargo vessels to maneuver safely and efficiently. Specific location recommendations are provided pertaining to recreational berths, marinas, rack storage, moorings, dredging, commercial vessel berths, tour and charter boats, and fish boat berthing.
- The new public landing at the Maine State Pier, as well as the MEDCU/Fire Boat Float, should allow drop off and pick up by water taxis.
- The deep-water shore west of the Million Dollar Bridge should be reserved for deep draft vessels.
- Federal, State, and Local Regulatory Agencies should meet and continue to cooperate in Harbor matters. Portland and South Portland should facilitate this process, and the permitting process should be streamlined.
- There needs to be increased police enforcement power of traffic conditions in the Harbor.
- An exploratory committee should be formed to investigate the possibility of a new public or quasi-public entity to carry out the management and development of the Harbor.

Marketing Recommendations

- The "Port of Portland" must be the subject of an aggressive and ongoing marketing campaign, to develop and promote a favorable image and monitor and protect its competitive position, through at least a \$74,000 per year marketing program.
- Target specific markets to attract more fish processors, buyers and sellers at the Fish Exchange, improve the business climate for marinas and related restaurants, and market directly to ocean carriers, and shippers and receivers of general cargo.

- Market the port through participation in cruise ship seminars, make capital improvements at the International Marine Terminal and improve its general appearance and attractiveness.
- Develop a waterfront tourism center and a system of tourist information and signage with such information as pedestrian guidance and available parking.

Economic Impact of Land Use Regulations

- The Planning Departments, Planning Boards and Councils of Portland and South Portland should coordinate their waterfront Planning and Zoning Processes to consolidate layers and zoning and encourage a complementary waterfront plan between the two communities to protect marine related businesses and services.
- The Cities of Portland and South Portland should ask the State to fund a study of the economic impact of marine business and update the COG Waterfront Business Survey on an annual basis.
- A variety of mechanisms for economic assistance should be available for wharf owners.

V. A WATERFRONT ACTION PLAN FOR THE PORT OF PORTLAND, MAINE - April 1988

Policies

This plan recommends a wide range of port improvements represented in subsequent plans or underway. Some of the more general policy recommendations include the following:

- Evaluate how an aquarium could benefit the Portland Waterfront.
- The Cities of Portland and South Portland must continue to support the Harbor Commission financially.
- An economic analysis of our zoning regulations should be undertaken to ensure that the land uses currently allowed (and not allowed) on the waterfront reflect market realities.

VI. WATERFRONT ZONING GOALS AND POLICIES - August 3, 1983

Goals

- Foster port development and waterfront renewal to preserve the working character of the waterfront with activities that are uniquely related to and dependent upon a waterfront location.
- Preserve the architectural and historic heritage of the area, and protect the natural environment on the waterfront.

- Improve the transportation network and flow of traffic along Commercial Street.
- Encourage more intensive uses of land and buildings, while retaining and improving the structural integrity of finger piers and wharf areas.

VII. PORTLAND WATERFRONT PUBLIC ACCESS DESIGN PROJECT - 1983

Goals

- Protect and enhance the major visual corridors, viewing points, and access points along the waterfront, with particular recommendations for the Eastern Promenade, Commercial Street, Waterfront Core, Western Promenade, and Fore River.
- Encourage appropriate infill and renovations that will preserve and enhance the architectural character of the waterfront core area, with particular design guidelines and schematics for Maine State Pier, Portland Pier, Long Wharf, the Fish Pier, and the International Ferry.
- Provide attractive pedestrian linkages along the entire length of the waterfront, with special design attention to such features as lighting, walkway surfaces, benches, signage, etc. to enhance the pedestrian experience between major points such as the International Ferry, the Old Port, the island ferry, pier and wharf sites, and points east and west.

VIII. PORTLAND SHOREWAY ACCESS PLAN - Nov. 1987: refer to the Portland Shoreway Access Plan Goals and objectives under State Goal J.

STATE GOAL H.

To safeguard the State's agricultural and forest resources from development which threatens those resources;

INTRODUCTION

Portland serves as a major distribution point for natural resources. The City's proximity to the State's natural resources and its diverse transportation network have made processing and distribution of natural resources major contributors to the community's economic base.

The importance of urban forests is examined in reports such as Green Spaces Blue Edges, Deering Oaks Master Plan, Evergreen Cemetery Master Plan, and Baxter Boulevard Improvement Plan. Street tree recommendations are contained in the Portland Downtown Traffic & Streetscape Study and the Brighton Avenue/Main Street Corridor Traffic and Streetscape Study. The goals of these plans related to Portland's common forestry are listed below. Refer to the original documents for the complete analysis, policies and implementation strategies.

I. GREEN SPACES, BLUE EDGES: AN OPEN SPACE AND RECREATION PLAN FOR THE CITY OF PORTLAND, - 1995, updated 2001

Goals

- Develop an open space system that considers the 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.

Policies

- Continue to support the Portland Partnership Landscape Planning and Planting Project involving Portland Public Schools, the City and the Maine State Landscape Architects. This program has the dual purpose of upgrading the yard spaces of school properties while developing students' awareness of the important role landscape play in the environment.
- Establish a system of arbor ways in the City along streets and boulevards.
- Encourage private/public partnerships that enhance open space initiatives such as the development of trails by Portland Trails, Friends of Evergreen, the Millennium Tree Challenge, Co-op Tree Program and other partnerships.

II. DEERING OAKS MASTER PLAN- May 1994

Goals

- *Essential Park Elements:* There are particular park elements and spatial relationships that define the character of Deering Oaks, and should be understood and respected in all proposal for improvement:
 - The park's vegetation, particularly its stand of mature oaks, a signature of the space since pre-park days.
- Restore and Maintain the Park's Horticultural Beauty and Ecological Health
 - Improve the condition of the park's trees with a systematic program of removal, replacement, pruning, aeration and fertilization.
 - Develop a program of regular turf management.
 - Enrich the park's growing environment with a program of soil improvement.
 - Restore the park's understory plantings in selective places.

III. EVERGREEN CEMETERY MASTER PLAN - Nov. 1994

Goal

- Evaluate the Historic Landscape

Policies

- Stabilize, preserve, rehabilitate and improve the character defining features of the site, particularly the circulation design including the road layout and articulation of the circles, the entrances; the vegetation including the tree population and special planting at focal areas; the structures, particularly the monuments, Wilde Chapel and the ponds.
- Strengthen the diversity of landscape character, opportunity for focused views throughout the site, and interpretive potential with great diversity of vegetation treatment.
- Assess the original intent of the horticultural plan for the cemetery.

Goal

- Assess the Current Condition of the Landscape

Policies

- Assess the current conditions of vegetation and landscape features.
- Based on historic landscape information and assessment of current conditions, develop a plan that strengthens Evergreen's landscape.
- Articulate maintenance policies, which complement the historic character of the cemetery.

IV. BAXTER BOULEVARD IMPROVEMENT PLAN

Goal

- Preserve, protect and enhance the street trees along Baxter Boulevard.

Policies

- Develop a prioritized short and long-term comprehensive plan for the care of the existing Lindens
- Develop a long-term strategy for the replacement and infill of the existing Lindens.
 - Maintain the existing tree spacing
 - Replace declining Lindens with Lindens in most situations
 - Intersperse plantings of new trees of differing species in limited and select locations north of Fall Brook
 - Where replacement planting is needed, replace trees in blocks of three or more wherever possible.

V. PORTLAND DOWNTOWN TRAFFIC & STREETScape - 1999

Goal

- Corridor Street Trees: The importance of consistently planted and well-maintained street trees within the downtown area cannot be overstated. Street trees have often been credited as being the single most important characteristic of a successful urban street. Street trees need to be carefully selected for tolerance to heat, smog, salt, dehydration, and root compaction. The species selected need to be planted in consistent groupings and close enough to one another to provide visual unity. It is recommended that street trees be planted at a consistent spacing of 25' -30' along the entire primary and secondary corridors and that large blocks of similar species be used. Tree species selected should be urban tolerant, deciduous, reach a mature height of at least 35' and exhibit upward branching structure. Probably the most important factor in creating a successful environment for street trees is a well-conceived installation and maintenance program, including but not limited to the following:
 - planting (tree pit design, tree species selection)
 - pruning, watering
 - fertilization
 - aeration
 - maintenance
- *Specific recommendations for each segment of the primary and secondary corridors, are contained within the report.*

VI. **BRIGHTON AVENUE/MAIN STREET CORRIDOR TRAFFIC AND STREETScape STUDY - 2001**

- Select tree species that will tolerate extreme urban conditions; i.e. road salt, high wind, exhaust fumes, dogs, etc.
- Pay particular attention to the preparation of the planting pit to provide adequate room and growing medium for the trees to grow and thrive, and not merely survive.
- Avoid monoculture planting schemes. Select trees that will provide shade, an overhead canopy, and seasonal interest with minimum of care.
- Encourage property owners along Brighton Avenue to participate in a tree planting program. Provide private landowners with a maintenance guide to tree care once installed.
- The City Arborist should inspect trees on a regular basis and perform periodic tree care as necessary. Replace trees that have been lost to maintain the rhythm that provides continuity to the street.
- Protect all trees during construction activity to provide a plan showing how trees will be protected from bark damage, root compaction or other injuries.

Specific recommendations for each segment of the corridor, both the primary and secondary study area are contained within the report.

STATE GOAL I. To preserve the State's historic and archeological resources;

INTRODUCTION

Portland has a rich history as a maritime and urban center with a citizenry composed of a myriad of diverse cultural communities, each of which contributes to the greater civic community. Portland is also the home for diverse and outstanding arts and cultural organizations. A healthy relationship between artists, audiences of all types, and arts and cultural institutions is vital in order to strengthen our community through our arts and culture. Celebrating Community: A Cultural Plan for Portland, Maine was adopted as part of Portland's comprehensive plan on October 5, 1998. For a complete understanding, refer to the original document for the analysis, policies and implementation strategies.

Despite Portland's long history (first settlement in 1625), the visual character of its built environment is strongly Victorian. This is due to the fact that the community was repeatedly destroyed over its long history, first by Indian attack, then British bombardment and finally, in 1866 by a catastrophic fire, which destroyed most of the City's public buildings and half of its businesses and houses. Portland's strong economy during this period enabled the City to rebuild within a remarkably short time frame of the fire, which explains its predominant Victorian character.

Historic preservation concerns were first incorporated in the 1974 Land Plan and were further debated with the enactment of a demolition delay ordinance in the early 1980's. During the economic boom times of the late '80's, a strong resurgence of public attention focused on the pace of development throughout the community and the vulnerability of significant historical, architectural, and cultural resources. In 1988, the demolition of two historic structures (despite the demolition delay provision) drew attention to the need for an effective preservation program. Following two years of public debate, a Comprehensive Historic Preservation program was adopted by the City as part of its Comprehensive Plan in 1990, which includes an Historic Resources Element, an Historic Preservation Ordinance, and an Historic Resources Design Manual. The Manual is an important educational resource in itself and includes an inventory of individual landmarks, essays on the City's eight historic districts and four historic landscape districts, as well as properties eligible for the National Register of Historic Places. The manual illustrates the ordinance's standards for review of alterations, new construction, signage, streetscape, and pedestrian improvements.

The City's Shoreland Zoning Amendments include a standard to protect archaeological and historic resources. In addition, Portland has the Deering Oaks Park Master Plan, Evergreen Cemetery Master Plan, Master Plan for Western Cemetery, and Eastern Promenade Master Plan, which contain policies and implementation strategies for preserving these designated historic landscape districts. Downtown Vision is another strategic plan that identifies the historic significance of the downtown and its built environment. As part of this study, a consultant performed a height analysis with an emphasis on retaining the historic building stock and urban form of Portland. The goals and policies of all these documents are listed below and for a complete understanding, please refer to the original source documents.

I. HISTORIC PRESERVATION ORDINANCE, AN HISTORIC RESOURCE ELEMENT TO THE COMPREHENSIVE PLAN AND AN ORDINANCE PROTECTING HISTORIC RESOURCES IN THE CITY OF PORTLAND -1989

Goals

Preserve Portland's Architectural and Historic Heritage

- Some of America's most appealing cities are those which possess a distinct or unique flavor or appearance. An important element in a City's distinctiveness is its historic areas and architectural landmarks.

Promote the educational, cultural, economic and general welfare of the City of Portland

- Create a mechanism to identify, preserve and enhance distinctive areas, sites, structures and objects that have historic, cultural, architectural and archeological significance;
- Provide a resource of information and expertise to help those interested in rehabilitation of construction in a district or restoring a landmark.
- Apply design standards in a reasonable and flexible manner to prevent the unnecessary loss of the community's historical features and to insure compatible construction and rehabilitation in historic districts while not stifling change and development or forcing modern recreations of historic styles.
- Foster civic pride in the city's history and development patterns as presented in such distinctive areas, sites, structures and objects.
- Protect and enhance neighborhood character;
- Stabilize and improve the values of designated properties and areas;
- Protect and enhance the attractiveness of the city to its home buyers, home owners, residents, tourists, visitors, businesses, and shoppers.
- Foster and encourage preservation, restoration, and rehabilitation that respect the historic, cultural, architectural, and archeological significance of distinctive areas, sites, structures, and objects.

II. PORTLAND SHORELAND ZONING AMENDMENTS – December 9, 1991

Refer to the Portland Shoreland Zoning Amendments goal, under State goal F, page 57.

III. CELEBRATING COMMUNITY: A CULTURAL PLAN FOR PORTLAND, MAINE, 1998

Goal

- Promote discovery, appreciation, understanding, and pride in Portland and the diverse cultures found within the City.

Policies

- Increase opportunities for programs, festivals, and collaborative series that reflect and celebrate the history, cultures, heritages, religions, and interests of all Portland citizens.
- Commission work from visual, performing and heritage artists to advance Portland's reputation as a creative center.
- Create connections between the City's schools and traditional and ethnic artists.
- Enable people, particularly those who have been left out, to participate in cultural events and encourage a "feeling of belonging to that world."
- Support a community center in the Arts District for performing and visual arts, which serves all citizens and is accessible to the broadest range of artistic expression. The Center could provide space for workshops, exhibitions, performances, residencies, master classes, and mentoring programs.

Goal

- Develop and enhance opportunities for students of all ages to engage, create and perform with the local arts community.

Policies

- Expand the arts' curriculum (K-12) to ensure comprehensive and multi-cultural arts education in every classroom with related after-school/Saturday/summer season activities.
- Combine efforts of the Arts & Education Committee of Portland Partnership and PACA to increase and coordinate support for arts education in Portland's public schools.
- Coordinate exhibits, performances and resources available at community institutions with the school curriculum.
- Support lifelong learning and participation in the arts for all citizens.

Goal

- Build, sustain and expand audiences.

Policies

- Encourage broad audience participation by leveraging connections within the community.

- Increase opportunities for low-income individuals, students, and families to attend museums, concerts, and arts events.
- Assess the need for a 150 to 400-seat performance facility designed for traditional and contemporary performances.
- Cultivate media connections to accurately inform and support positive coverage of the arts.

Goal

- Encourage and safeguard artists' continuing presence in the community.

Policies

- Encourage and develop live/work and work spaces for artists, controlled by artists.
- Support more activity on the street and in the public realm, such as street musicians, public art, community murals, and festivals.
- Provide technical assistance to artists and organizations.

Goal:

- Improve the vitality and civic support of arts and culture throughout the city.

Policies

- Establish a PACA funding program to secure or to commission arts and cultural programs, created by local artists and organizations, which address identified public objectives.
- Create an information clearinghouse in PACA. The clearinghouse would be a centralized and coordinated source of information for artists, cultural community representatives, teachers, citizens, neighborhoods, social service agencies, and arts and cultural organizations.
- Advocate for State financial involvement in supporting arts and culture in Portland.
- Expand support for Portland's Public Art Program. Educate citizens to the value of public art and offer a venue for artists and students to make and exhibit public art.

Goal

- Strengthen neighborhood identity through cultural programming and create connections between neighborhoods and the Arts District.

Policies

- Create a Citywide approach where both neighborhoods and the Arts District are venues for heritage, performing, visual, and public art projects.

- o Improve transportation access to arts and cultural venues throughout the City.

Goal

- Apply arts and cultural solutions to the community's social issues.

Policies

- o Develop more opportunities outside school for youth, particularly low-income students and children with special needs, to see, experience, and participate in visual, performance, and heritage arts.
- o Work with human services/social service agencies to expand arts programs for all and to address community issues and special needs of citizens.

IV. Downtown Vision -March, 1991

Downtown Vision: Historic Resources Goal

- Preserve and promote the positive qualities and attributes which comprise the Downtown's unique identity, historic fabric including historic parks and open spaces, and sense of place through the re-use of existing structures and the development of new construction respectful of the built and natural surroundings.

Downtown Vision: Design Framework Policy, Visual Landmarks and View Corridors

- o Portland's landmark buildings and relationship to the water are an important part of its unique character. Key views to the harbor, Back Cove, and landmark buildings are a community resource to be preserved and protected. They create the sense of place, which defines Downtown Portland as well as providing orientation to public moving about Downtown.

V. Green Spaces, Blue Edges: An Open Space and Recreation Plan for the City of Portland, 1995, updated 2001

Goal

- Develop a master site plan for each of the City's recognized historic parks and landscapes, 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.

VI. Baxter Boulevard Improvement Plan, 1999

Goal

- Maintain the historical integrity of Baxter Boulevard and Back Cove by conserving, adapting or preserving existing historical resources and/or introducing new elements that are reflective of the park's history.

VII. Deering Oaks Master Plan- May 1994

Goals: Rehabilitate and Preserve the Historic Design Intent of the Park

- The focus of treatment at Deering Oaks, with its tradition of on-going use, should be on rehabilitation⁶ of the features of the park landscape sympathetic with historic design intent. This includes preservation of particular character defining features and possible reconstruction of lost features of significance.
- There should be an effort to stabilize, preserve, rehabilitate and /or improve the character-defining features of the site, particularly the circulation design for the park visitors; the vegetation and in particular the oak grove; the pond; and the park edges and entrances. Additions that are inappropriate to the park's historic character should be removed or replaced with sympathetically designed structures.
- Deering Oaks is significant as an early designed landscape of Portland, one that has had a prominent place in the public life of the city. The period of significance that qualifies Deering Oaks as an historic landscape and eligible for the National Register of Historic Places is the time period from 1879 to 1937.

VIII. Evergreen Cemetery Master Plan, Nov. 1994

Guiding Principle: The Dual Purpose of Evergreen Cemetery

- As a public cemetery with the purchase of interment rights available to all. Evergreen is at once an active public cemetery and an important historic landscape carefully designed as a dignified and beautiful setting to commemorate the dead.
- As a refuge for appropriate, low-impact recreational activities. In the same space residents of the city and the neighborhood find refuge in passive recreational activities. Evergreen's role as a place for recreation must be balanced with its primary purpose as a cemetery in order for these two purposes to co-exist and not conflict.

Guiding Principle: A City Park

- The significance of Evergreen Cemetery extends beyond its immediate neighborhood to all neighborhoods of Portland. It is a resource to the entire city and its management, maintenance, and improvements must reflect the needs of the larger public as well as those of the immediate neighborhood. Investment in the cemetery should be viewed in this light as well.

⁶ Rehabilitation refers to the National Park Service definition: Rehabilitation acknowledges the need to alter or add to a historic property to meet continuing or changing uses, while preserving those portions or features which convey its historical or cultural values.

Guiding Principle: Administration, Management and Maintenance

- The future of Evergreen Cemetery depends greatly on the city's commitment to state-of-the-art management and maintenance practices including: training of personnel to develop the additional skills and knowledge necessary for Evergreen's specialized care and for long-term infrastructure improvement, restoration and maintenance. It is essential that funding is adequate for Evergreen's rehabilitation and maintenance, and that an administrative structure be developed able to champion the cemetery's needs to the City Council and in City Hall.

Guiding Principle: Essential Design Elements and Spatial Relationships

- Preservation of significant landscape elements and overall character in historic areas, with particular attention paid to open areas, which are necessary for visual relief.
- Articulation of the entrance in response to historic design intent.
- Restoration of historically responsive design recommendations for focal areas such as the ponds, islands, and circles.
- Development and protection of naturalistic areas such as wildlife habitat and pedestrian trail links to Portland's greater open space network.

Guiding Principle: Use and Preservation

- The User Survey reflects a continued and growing use for passive recreation. These changes in park use must be considered in combination with historic intent when evaluating the park's condition, preservation needs, and maintenance requirements. Funding should be allocated to reflect this intensity of use.

IX. A Master Plan for Western Cemetery Portland Maine, Oct. 2001

Overall Goal

- Maintain the historic integrity of the site within the context of "rehabilitation", recreating the image of the historic cemetery in as much as possible, with the current loss off historic fabric, while adapting selected areas to accommodate existing and proposed changed needs and conditions.
 - While "restoration" is applicable to grave markers and structural elements, "rehabilitation" is applicable to pathways, fences and gates, site amenities and vegetation because of maintenance and use considerations, as well as societal expectations in regard to safety and security.
 - Primary focus of recommendations for improvement is the protection, stabilization and preservation of historic artifacts, tomb structures and retaining walls.

- Achievement of the overall concept will require restoration of the historic character of the period of emphasis with removal of incongruent elements, vegetative work and site improvements, resolving pedestrian circulation and control, and restring/reconstruction critical components.

VI. Eastern Promenade Master Plan - November 17, 2003

Goals

- Recreate the pastoral qualities of the historic landscape design while solving the contemporary problems of public safety, security, appropriates or use, maintenance, management and preservation.

STATE GOAL J. To promote and protect the availability of outdoor recreation opportunities for all Maine citizens, including access to surface waters.

COASTAL MANAGEMENT POLICY

7. Recreation and tourism. Expand the opportunities for outdoor recreation and encourage appropriate coastal tourist activities and development.

INTRODUCTION

Green Spaces, Blue Edges: An Open Space and Recreation Plan for the City of Portland was adopted in 1994 and updated in 2001. It has an extensive inventory of the City's recreation facilities, golf course, historic parks, historic cemeteries, nature preserves, trail system, and school facilities. It is a comprehensive vision of open space for the City and its twelve (12) mainland neighborhoods and eight (8) islands. The plan also incorporates the recommendations of the Portland Shoreway Access Plan with the "Waterlinks Concept" and confirms the open space strategies in the Downtown Vision report. Green Spaces, Blue Edges recommends that master plans be prepared for the City's parks and cemeteries.

The Master plans provide detailed recommendations for the public improvements to the city's intensively park system and guide decisions for historic landscapes. The plans are generally adopted as part of the Comprehensive Plan. The Master Plans prepared since the completion of Green Spaces, Blue Edges include the Deering Oaks Master Plan, The Evergreen Cemetery Master Plan, Baxter Boulevard, The Capisic Brook Greenbelt/Stormwater Plan, Payson Park, Western Cemetery, Eastern Promenade Master Plan and the Athletic Fields. Other plans in process include Tommy's Park, Reiche School Recreation Space, and Riverton Trolley Park. The next major master plan to be undertaken will be for the Eastern Promenade. The goals and policies of these strategic plans are listed below. For a complete understanding, refer to the original documents for the analysis, policies and implementation strategies.

I. GREEN SPACES, BLUE EDGES: AN OPEN SPACE AND RECREATION PLAN FOR THE CITY OF PORTLAND- 1995 and GREEN SPACES, BLUE EDGES: SUPPLEMENT, AN UPDATE OF PORTLAND'S OPEN SPACE AND RECREATION PLAN, 2001

Guiding Principles

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.

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 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, tapping the resources of private groups, and state and federal grant programs.
- Integrate school facility planning and city recreation and open space planning.
- Public and private partnerships should be fostered 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.

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

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

Open Space and Recreation Goals and Objectives

Goal

- 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.

Policies

- 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.

Goal

- 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.

Policy

- 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.

Goal

- 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.

Policies

- 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.

Goal

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

Policy

- 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.

Goal

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

Policy

- 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.

Goal

- 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.

Policy

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

Goal

- Maximize community involvement and participation to shape the recreation and open space plan and its implementation.

Policy

- 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 citizens.

Goal

- Develop an open space system that considers that 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.

Policy

- 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.

II. A NEW VISION FOR BAYSIDE – 2000

- **Recreation and open space:** Development of a multi-use trail and bikeway on the abandoned rail corridor will be a significant cornerstone feature of the Bayside plan. The trail and open spaces such as squares, greens, parks, and community gardens will be located and designed to encourage active use, and to link with the Eastern Prom Trail, Back Cove and Deering Oaks Parks. The plaza at the base of Chestnut Street will provide a focal open space.

III. DOWNTOWN VISION - March 1991

Downtown Vision: Open Space Goals

- Develop an open space system throughout the Downtown, which provides the highest quality parks, plazas, and pedestrian environment. Pedestrian improvements and amenities should utilize the best materials and be carefully designed to provide a comfortable, durable, accessible, readily maintainable, and aesthetically pleasing environment.
- Buildings fronting an open space play a vital role in the success of that open space. They should provide pedestrian-oriented uses and be of high-quality materials, significant detail and interest to enhance the walking environment, be readily accessible from the open space through frequent building entrances and window openings, and should not detract significantly from solar access to open space during hours of heavy use.

IV. PORTLAND SHOREWAY ACCESS PLAN – Nov. 1987

Goals: Past and Present Vision

- Maximize public access along all of Portland's waterfront, while respecting the integrity of existing neighborhoods and land use patterns
- Develop an integrated system of pedestrian walkways to link existing City Parks, recreation areas, and open spaces;
- Identify appropriate places and spaces for recreational open space, both active and passive, along or near the waterfront
- Identify the critical points within the waterfront neighborhoods where conflicts are most likely to arise over issues such as compatibility, scale, indigenous character, physical access, view corridors, invasion of privacy impacts, and open space preservation

- Develop standards for the Shoreway that address specific concerns for public access, handicapped use, visual access, neighborhood integrity, buffering, landscaping, and design quality and variety, within the context of the City's Comprehensive Plan.
- Understand the need for flexibility on the part of the City in reviewing projects proposed for a very unique and fast-changing area.
- Examine what improvements can be made on public property that could set the tone for private investment adjacent to the Shoreway
- Encourage high quality landscape architectural and site design in future developments.
- Develop a physical improvement strategy that will enable the City to implement the findings of this study in phases, in order to give a sense of both immediate gratification and long-term achievement.
- Investigate the means to carry out Olmsted's concepts of Baxter's Parkway in the early 1900's.

Policies: The Waterlinks Concept

- Implement and expand upon the historic Olmsted concepts of Baxter's Parkway.
- Integrate shoreway open space resources into a defined and cohesive walkway system.
- Link shoreway open space with the City's inland park system.

VI. EASTERN PROMENADE MASTER PLAN - November 17, 2003

Goals

- Develop a master plan and an implementation plan that can be used as a guide for both short and long term planning and improvements.
- Recreate the pastoral qualities of the historic landscape design while solving the contemporary problems of public safety, security, appropriates or use, maintenance, management and preservation.
- Recommend changes to existing facilities, management policies and maintenance practices that are inconsistent with the original landscape design intent and/or contemporary park needs.
- Increase the quality and quantity of passive recreation opportunities, while maintaining and improving the quality of active recreation.

HOUSING AND POPULATION

Inventory and Analysis

HOUSING AND POPULATION¹

I. A SHORTAGE OF HOUSING

Portland is experiencing a significant shortage of all types of housing and thus, current housing demands are unmet. Changes in the city's demographics and the limited amount of housing created over the past decade all contribute to the shortage. Portland seeks to encourage construction of new housing units through land use regulations and financial incentives. Increasing Portland's housing stock in developed urban areas of the city is challenging, but necessary for the long-term health of the city.

Condition One: Portland has a shortage of housing units because nearly two households were formed for every new housing unit created since 1990.

Facts: between 1990 and 2000:

Portland Data

- Total Population 64,249 people
- Added 91 new residents
- Added 1,560 new households
- Added 854 new housing units
- Vacancy rate 2.3%
- Average household size decreased by 6%, from 2.21 to 2.08

Cumberland County Data

- Total Population 265,612 people
- Added 22,477 residents
- Added 13,477 households
- Added 12,710 new housing units
- Vacancy rate 1.7%
- Average hshld size for Cumberland County decreased by 5% from 2.61 to 2.49

The City of Portland is home to 64,249 people, which is essentially the same number of people living in the city in 1990. Portland added 91 new residents for a growth rate of 0.1% during the last decade (see Table 1). Cumberland County added 22,400 new residents, which is a 9% increase in the county's population. More significantly; the balance of Cumberland County (minus Portland) grew by 13% in population.

During this past decade, the demand for housing increased significantly due to a change in the average number of people living in each housing unit. Each occupied housing unit is referred to as a household. The city's average household size dropped from 2.21 to 2.08. This drop in household size is the result of the growth in single person households and other non-family type households. The city lost 1,090 families and gained 2,650 new non-family households. These changes resulted in a net gain of 1,560 new non-family households in Portland. Essentially, the city needed 1,560 more units to accommodate virtually the same number of residents.

¹ Housing: Sustaining Portland's Future, draft plan April 2002, statistics prepared by Karen Martin, Greater Portland Council of Governments. Edited 2002.

Cumberland County also experienced a decline in the average household size with an accompanying increase in the number of households formed. The average household size in the balance of Cumberland County declined by 5% from 2.61 to 2.49. While this decline is similar in magnitude as in Portland the average household size is significantly larger than Portland's figure of 2.08 persons per household. Again the balance of Cumberland County experienced a growth in the number of households three times greater than Portland (an increase of 18%).

Table 1

Population and Households: 1990 to 2000			
	City of Portland	Balance of County	Cumberland County
2000 Population	64,249.00	201,363.00	265,612.00
1990 Population	64,158.00	178,977.00	243,135.00
Population Change	91.00	22,386.00	22,477.00
Percent Change	0%	13%	9%
2000 Households	29,714.00	78,275.00	107,989.00
1990 Households	28,154.00	66,358.00	94,512.00
Household Change	1,560.00	11,917.00	13,477.00
Percent Change	6%	18%	14%
2000 Household Size	2.08	2.49	2.38
1990 Household Size	2.21	2.61	2.49
Percent Change	-6%	-5%	-4%

Source: U.S. Census 2000

The total number of housing units in Portland is 31, 864, which is an increase of 854 units since 1990. The distribution of the housing types has remained relatively constant with single family and two-family homes maintaining the same percentage share of the housing stock. A decline in the number of buildings with 5 to 9 units was offset by an increase in the number of buildings with 10 or more units. The distribution of Portland's housing stock is shown in Table 2 below. In general, the housing stock in surrounding communities is primarily single family with fewer multi-family units than in Portland. The cities of South Portland and Westbrook do have more multi-family unit options than other Cumberland County towns (see Table 3).

Table 2

	Portland		Portland	
	2000	% City	1990	% City
Total Housing Units	31,864	100.0%	31,293	100.0%
1-unit, detached	11,169	35.1%	10,995	35.1%
1-unit, attached	1,508	4.7%	1,347	4.3%
2 to 4 units	8,935	28.0%	8,617	27.5%
5 to 9 units	3,650	11.5%	4,048	12.9%
10 or more units	6,526	20.5%	5,982	19.1%
Mobile home, trailer, or other	76	0.2%	304	1.0%

Source: US Census Bureau

Table 3

Municipal Comparisons of Housing Size Distribution Portland and Surrounding Communities in Cumberland County										
Housing Size	Portland	% of Total	South Portland	% of Total	West- brook	% of Total	Scar- borough	% of Total	Fal- mouth	% of Total
Total Housing Units	31,864	100%	10,349	100%	7,089	100%	7,233	100%	4,169	100%
1-unit, detached	11,169	35%	6,096	59%	3,532	50%	5,644	78%	3,383	81%
1-unit, attached	1,508	5%	427	4%	316	4%	435	6%	225	5%
2 units	3,844	12%	1,160	11%	923	13%	210	3%	145	3%
3 or 4 units	5,091	16%	909	9%	934	13%	290	4%	125	3%
5 to 9 units	3,650	11%	401	4%	520	7%	323	4%	65	2%
10 to 19 units	2,192	7%	496	5%	134	2%	59	1%	35	1%
20 or more units	4,334	14%	844	8%	439	6%	9	0%	174	4%
Mobile home	76	0%	10	0%	291	4%	263	4%	17	0%
Boat, RV, van, etc	-	0%	6	0%	-	0%	-	0%	-	0%

Source: US Census 2000

Since 1990, 1,560 new households were added in Portland, but only 854 housing units were built. Because the number of new households exceeded the number of new units built, the supply of vacant units decreased to an unusually low number. The Census reports vacancy rates of 2.3% and 1.7% for Portland and Cumberland County, respectively. This limited supply affects all types of housing units and all income levels. In addition, the demand for housing for persons with disabilities continues to grow. Many persons with disabilities seek to live in the city to be in proximity to employment, public transportation, medical services, and support services.

The number of housing units located in each neighborhood is shown on Table 4 for 1990 and 2000. Portland's Downtown had the most significant drop in the number of housing units, followed by East Bayside, West Bayside, Deering and Libbytown. The loss of housing units in the downtown may be attributable to a decline in the number of units classified by the Census as "other". This category includes mobile homes, vans, and group quarters. For additional neighborhood information, refer to "A Profile of Portland Neighborhoods Population and Housing Statistics Us Census Bureau: 2000" in the appendix.

Table 4.

Total Housing Units by Neighborhood			
Neighborhoods	2000 Housing Units	1990 Housing Units	Change
East End	2,579	2545	34
Downtown	1,895	2200	(305)
East Bayside	937	971	(34)
West Bayside	465	486	(21)
Parkside	2,676	2634	42
West End	3,549	3531	18
Valley Street	779	766	13
Oakdale	1,690	1522	168
Rosemont	1,952	1888	64
Ocean Ave	1,885	1728	157
Deering Center	1,997	2015	(18)
Nasons Corner	1,412	1399	13
Libbytown	747	751	(4)
Stroudwater	267	239	28
North Deering	4,324	3982	342
Riverton	1,989	1814	175
East Deering	1,500	1456	44
Islands	1,219	1081	138
City of Portland	31,862	31,008	854

Source: U.S. Census 2000

Condition Two: Lack of housing supply causes price increases for both renters and owners.

Facts: in 2000:

Rental Statistics

- 57.5% of Portland households are renters
- 47.6% of all renters in Cumberland County live in Portland
- Rental rates increased 70% over last ten years.

Home Ownership Statistics

- Sales prices increased 44% in Portland and 39% in the County between 1992 and 2000.
- 43% of Portland residents own their home
- 67% of County residents and 72% of Maine residents own their homes.

Portland is home to 24% of Cumberland County's population (a decrease since 1960 when Portland was 40% of the County's population) and nearly 50% of all renters in the county. While the homeownership rate in Portland is lower than the County's overall rate, it is higher than many other comparable cities. Year round housing represents 97% of Portland's housing stock, with seasonal units located on the Islands.

In 1990, 48.5% of Portland's population earned 80% or less of the median income for the Portland MSA. Current estimates indicate this income breakdown has remained constant. Also, 25% of the households under 80% of the median pay more than 30% of their income for housing costs.² Paying a disproportionate share of household income for housing increases the risk of homelessness. Portland's emergency shelters reached an all time high for bed-nights provided in 2000/01.

Table 5

Population and Housing Units by Ownership in 2000 Comparison of Portland and Cumberland County			
	Portland	Balance of County	Cumberland County
Total Housing Units	31,862.00	90,738.00	122,600.00
Year Round Housing Units	30,912.00	80,842.00	111,754.00
Seasonal Units	950.00	9,896.00	10,846.00
% Year Round Units	97.0%	89.1%	91.2%
Owned Housing Units	12,617.00	59,476.00	72093
Rented Housing Units	17,097.00	18,799.00	35,896.00
% Home Ownership	42.5%	76.0%	66.8%
% Renters	57.5%	24.0%	33.2%
Population of Home Owners	30,398.00	155,757.00	186155
Population of Renters	31,408.00	39422	70830
% Pop. In Home Ownership	49.2%	79.8%	72.4%
% Pop. Renters	50.8%	20.2%	27.6%

Source: U.S. Census 2000

The following table (Table 6) compares Portland's occupied units by tenure in 1990 and 2000 and highlights Portland's tight housing market. The vacancy rate for home ownership dropped from 1.5 % in 1990 to 0.5% in 2000. The rental vacancy rate dropped from 8% in 1990 to 3.5% in 2000. Table 6 also lists the average household size for occupied units. The household size is 2.41 for owner occupied units in 2000 and 1.94 for renter occupied. The overall average household size for occupied units in Portland is 2.16 persons/household.

² 2000-2005 Consolidated Housing and Community Development Plan, May 15, 200, City of Portland Housing and Neighborhood Services Division, Portland Maine

Table 6

Tenure in the City of Portland 1990 to 2000					
	1990*	Distribution	2000	Distribution	Change
Total housing units	31,293		31,862		569
OCCUPANCY AND TENURE					
Occupied housing units	28,235	100.0%	29,714	100.0%	1,479
Owner occupied	11,895	42.1%	12,617	42.5%	722
Renter occupied	16,340	57.9%	17,097	57.5%	757
Vacant housing units	3,058	10.8%	2,148	7.2%	(910)
For seasonal, recreational, or occasional use	997	3.5%	950	3.2%	(47)
Homeowner vacancy rate	1.50%		0.50%		
Rental vacancy rate	8%		3.60%		
Persons per owner-occupied unit	2.54		2.41		(0.13)
Persons per renter-occupied unit	1.96		1.84		(0.12)
Persons per Occupied Unit	2.28		2.16		
*1990 includes Long Island					
Source: US Census 2000					

II. PORTLAND HAS AN AGING HOUSING STOCK WORTH PRESERVING

As with any older American city, it is important to make maximum use of Portland's existing housing stock by preventing deterioration, minimizing demolition, and encouraging rehabilitation and code enforcement.

Condition One: Portland has a wealth of historic structures that contribute to its distinctive community character.

Facts: in 2000:

- Portland has approximately 1,500 structures in 7 Historic Districts
- Portland has 73 Individual Landmarks (buildings listed on the National Historic Register)

Portland is frequently cited for its rich historic character. Commercial and residential neighborhoods boast an impressive array of architectural styles reflecting over 250 years of development. The City uses a Historic Preservation regulatory program to preserve these historic resources. Portland has also been instrumental in facilitating the adaptive reuse of many non-residential historic buildings, such as former school buildings. Attention to historic assets and innovative approaches to redevelopment, which honor and preserve the city's history, contribute to the quality and character of the community. For more information refer to Historic Resources.

Condition Two: Portland's many older residential structures necessitate ongoing City efforts to address safety and substandard conditions

Facts: in 2000:

- Our housing stock is old with 50% of the housing stock built prior to 1939
- Less than 10 units per year are lost to demolition
- An estimated 80% of housing units have lead based paint.

Close to half of Portland's housing stock was built prior to 1939 and almost 70% of Portland housing stock was constructed before 1940. In Cumberland County and Maine, 29% of the housing stock was built before 1939 and significant residential construction occurred between 1970 and 2000.

While much of Portland's housing stock has been renovated and rehabilitated over the years, preserving this stock is an ongoing responsibility. Safety is a concern with an older housing stock, which may need to be upgraded to address lead based paint and fire safety hazards. At the same time, concerns have been raised about institutional expansions, which have converted or demolished housing or purchased residential structures only to neglect them until they are blight on the neighborhood. Housing is a critical component of the city's infrastructure. Any redevelopment initiatives, commercial or residential, should result in a no "net loss" of housing for the city as a whole.

Table 7

Age of Housing Stock						
Proportional Make-Up of Occupied Housing Units by General Physical Condition						
	Portland	% of Total	Cumberland County	% of Total	Maine	% of Total
1999 to March 2000	338	1.1%	2,354	1.9%	12,493	1.9%
1995 to 1998	503	1.6%	6,541	5.3%	36,375	5.6%
1990 to 1994	800	2.5%	7,935	6.5%	46,041	7.1%
1980 to 1989	2,818	8.8%	19,299	15.7%	104,039	16.0%
1970 to 1979	2,685	8.4%	17,514	14.3%	103,806	15.9%
1960 to 1969	2,851	8.9%	11,955	9.8%	59,812	9.2%
1940 to 1959	6,248	19.6%	21,491	17.5%	99,476	15.3%
1939 or earlier	15,621	49.0%	35,511	29.0%	189,859	29.1%
Total	31,864	100.0%	122,600	100.0%	651,901	100.0%

Source: 2000 Census

III. CURRENT IMPACTS ON NEIGHBORHOOD STABILITY AND INTEGRITY

Portland's neighborhoods are diverse in character and design; thus offering a broad spectrum of housing choices for residents from dense urban neighborhoods to island communities. Citizens maintain a strong sense of community in each neighborhood. This creates a common bond throughout the City's eighteen (18) neighborhoods. Building the integrity and quality of Portland's neighborhoods is key to encouraging the type of growth Portland needs both to support it in the future and counter regional sprawl.

Condition One: Since 1990, the number of people in Portland has not really changed, but within neighborhoods the population has shifted.

Facts: between 1990 and 2000:

<u>Gained 5% or more</u>	<u>Stable Neighborhoods</u>	<u>Lost 5% or more</u>
West Bayside 15%	West End +1%	East End (-10%)
Islands 14%	Ocean Ave 0%	Libbytown (-10%)
Riverton 13%	Rosemont (-2%)	Nason's Corner (-6%)
Stroudwater 12%	Oakdale (-2%)	Deering Center (-5%)
Parkside 9%	Valley Street (-2%)	East Deering (-5%)
North Deering 5%	East Bayside (-4%)	
	Downtown (-4%)	

Portland's total population has remained relatively stable since 1990, but population shifts have occurred between neighborhoods (refer to Table 8). Six neighborhoods gained population, with Riverton adding 600 new residents. Seven (7) neighborhoods remained relatively constant, while five (5) neighborhoods lost more than 5% of their population. East End (Munjoy Hill) lost the most, decreasing by 541 residents. The number of households increased while the population declined due to a 10% drop in the average number of people living in each household. The change in distribution of the City's population is reflected in the school enrollment where some schools are overcrowded and others are losing students. For additional neighborhood information, refer to "A Profile of Portland Neighborhoods Population and Housing Statistics Us Census Bureau: 2000" in the appendix.

Population and Households by Neighborhood: 1990 to 2000

Table 8

	2000		1990		Percent Change		2000		1990		Percent Change		2000		Percent Change	
	Population	Population	Change	Households	Households	Households	Households	Households	Households	Households	Households	Households	Households	Household size	Household size	Household size
East End	4,782	5,323	(541)	2,397	2,356	-10%	41	2,356	2,356	2,356	2%	41	2,356	1.99	2.22	-10%
Downtown	3,125	3,250	(125)	1,709	1,846	-4%	(137)	1,846	1,846	1,846	-7%	(137)	1,846	1.42	1.48	-3%
East Bayside	2,200	2,289	(89)	881	878	-4%	3	878	878	878	0%	3	878	2.46	2.56	-4%
West Bayside	916	799	117	451	427	15%	24	427	427	427	6%	24	427	1.66	1.68	-1%
Parkside	4,676	4,289	387	2,542	2,239	9%	303	2,239	2,239	2,239	14%	303	2,239	1.72	1.79	-4%
West End	6,195	6,150	45	3,395	3,278	1%	117	3,278	3,278	3,278	4%	117	3,278	1.74	1.87	-7%
Valley Street	1,274	1,304	(30)	698	664	-2%	34	664	664	664	5%	34	664	1.80	1.93	-7%
Oakdale	3,257	3,315	(58)	1,620	1,440	-2%	180	1,440	1,440	1,440	13%	180	1,440	1.93	2.20	-12%
Rosemont	4,496	4,572	(76)	1,894	1,831	-2%	63	1,831	1,831	1,831	3%	63	1,831	2.35	2.48	-5%
Ocean Ave	3,782	3,785	(3)	1,799	1,659	0%	140	1,659	1,659	1,659	8%	140	1,659	2.10	2.28	-8%
Deering Center	4,334	4,581	(247)	1,931	1,934	-5%	(3)	1,934	1,934	1,934	0%	(3)	1,934	2.20	2.32	-5%
Nasons Corner	3,520	3,734	(214)	1,378	1,376	-6%	2	1,376	1,376	1,376	0%	2	1,376	2.39	2.58	-8%
Libbytown	1,590	1,758	(168)	721	722	-10%	(1)	722	722	722	0%	(1)	722	2.20	2.42	-9%
Stroudwater	671	601	70	261	231	12%	30	231	231	231	13%	30	231	2.57	2.60	-1%
North Deering	10,111	9,626	485	4,192	3,865	5%	327	3,865	3,865	3,865	8%	327	3,865	2.35	2.44	-4%
Riverton	4,951	4,372	579	1,920	1,630	13%	290	1,630	1,630	1,630	18%	290	1,630	2.55	2.56	0%
East Deering	3,357	3,520	(163)	1,452	1,369	-5%	83	1,369	1,369	1,369	6%	83	1,369	2.23	2.48	-10%
Islands	1,012	890	122	473	409	14%	64	409	409	409	16%	64	409	2.14	2.18	-2%
City of Portland	64,249	64,158	91	29,714	28,154	0%	1,560	28,154	28,154	28,154	6%	1,560	28,154	2.08	2.21	-6%

Note: Long Island was removed from 1990 data for comparison purposes

Source: Prepared by the Greater Portland Council of Governments using US Census Data

IV. AFFORDABLE HOUSING IS A REGIONAL ISSUE

Housing issues do not follow municipal boundaries and housing affordable to all income levels is needed throughout Cumberland County. Portland needs partners to address the growing demand for reasonably priced units. Portland citizens seek strong City leadership to address housing through regional collaborations, organizations and solutions.

Condition One: Portland provides a significant amount of housing affordable to households earning 80% or less than the County's median income.

Facts: in 2000:

- Portland has over 3,168 subsidized units³
- Portland Housing Authority provides Section 8 housing assistance to 1,900 households
- The subsidized units represent 15% of all occupied housing units

Portland offers financially assisted housing for over 5,000 households, which includes subsidized units and rental assistance certificates available for use in the private market. Thus, at least 15% of Portland's total occupied housing units are subsidized and this estimate does not include group homes and other assisted-living arrangements. There are special needs housing options for the homeless, domestic abuse, youth, substance abuse, mentally ill, AIDS/HIV, and others. While there is a range of subsidized housing options in Portland, there is not enough housing to meet the demand. Lower income persons are hurt the most in a tight housing market and are often forced to move due to escalating rents.

Condition Two: There is an insufficient supply of affordable housing opportunities throughout Cumberland County.

Facts: in 1990 and 2000:

- In 2000, 24% of homeowners are paying 30% or more of their income toward housing costs in Portland, compared to 22% in 1990.
- In 2000, 22% of homeowners are paying more than 30% of their income for housing in Cumberland County compared to 21% in 1990.
- In 2000, 40% of Portland renters pay 30% or more of their income toward housing costs compared to 43% in 1990.
- In 2000, 38% of County renters pay 30% or more of their income toward housing costs compared to 39% in 1990.
- 53% of all renters in the County paying 30% or more of their income to housing costs live in the City of Portland.

Since 1990, the percentage of households paying more than 30% of their household income on housing has increased for home ownership costs; but declined for rental

³ This figure does not include group homes and other assisted living arrangements.

expenses in both Portland and Cumberland County (refer to charts 9 and 10). The percentage of Portland households paying a larger share of their income for owner-occupied housing rose from 22% to 24% and in Cumberland County, the numbers rose from 21% to 22%. According to the Census, the reverse occurred for rental costs, where the percentage of households paying more than 30% of their income for rent decreased from 43% to 40%. It should be noted that the Census statistics were gathered in 1999, just before Portland experienced rapidly escalating rents. Chart 10 compares the rental costs paid in Portland, Cumberland County and Maine. In Portland, 63% of all renters pay \$500 or more a month for housing. In Cumberland County, 70% of the county's renters pay \$500 or more and in Maine, the statistic is 53%.

Table 9

Selected Monthly Owner Costs as a % of Household Income in 1999						
	Portland	% of Total	Cumberland County	% of Total	Maine	% of Total
Less than 15.0 percent	3,011	31.6%	17,907	31.9%	91,163	36.0%
15.0 to 19.9 percent	1,830	19.2%	10,851	19.3%	48,264	19.0%
20.0 to 24.9 percent	1,384	14.5%	8,866	15.8%	37,930	15.0%
25.0 to 29.9 percent	1,038	10.9%	6,143	10.9%	24,501	9.7%
30.0 to 34.9 percent	688	7.2%	3,452	6.1%	14,331	5.7%
35.0 percent or more	1,592	16.7%	8,990	16.0%	37,359	14.7%
Total Units for which there is data	9,543	100.0%	56,209	100.0%	253,548	100.0%

Source: U.S. Census 2000

Table 10

Selected Monthly Renter Costs as a % of Household Income in 1999						
	Portland		Cumberland County		Maine	
Less than 15.0 percent	2,524	15.1%	5,232	15.5%	24,353	18.5%
15.0 to 19.9 percent	2,757	16.5%	5,885	17.5%	21,276	16.1%
20.0 to 24.9 percent	2,558	15.3%	5,306	15.8%	19,143	14.5%
25.0 to 29.9 percent	2,264	13.6%	4,350	12.9%	17,162	13.0%
30.0 to 34.9 percent	1,325	7.9%	2,796	8.3%	10,436	7.9%
35.0 percent or more	5,273	31.6%	10,092	30.0%	39,406	29.9%
Total Units for which there is data	16,701	100.0%	33,661	100.0%	131,776	100.0%

Source: U.S. Census 2000

Another method of considering affordability is to examine the median income of an area, calculate the affordable housing costs based on the actual median income and compare the estimated affordable level with the actual median costs. Table 11 and Table 12 present this information for owner-occupied units and rental units in Portland, Cumberland County and Maine. Portland's median income is \$35,650, which is below the State's median of \$37,240 and is considerably below Cumberland County's median of \$44,048 (Table 11). If it is assumed that spending no more than 25% of your income on principle and interest is affordable, then the affordable median house price in Portland should be \$106,000.

Table 11

Housing Value for Specified Owner-Occupied Units Proportional Make-Up of Housing Units by Affordability to Median Income						
	Portland	% of Total	Maine	% of Total	Cumber-land County	% of Total
Specified owner-occupied units	9,579	100.0%	254,866	100.0%	56,403	100.0%
Less than \$50,000	113	1.2%	21,959	8.6%	545	1.0%
\$50,000 to \$99,999	2,499	26.1%	108,736	42.7%	12,745	22.6%
\$100,000 to \$149,999	4,540	47.4%	69,554	27.3%	22,193	39.3%
\$150,000 to \$199,999	1,470	15.3%	27,431	10.8%	9,696	17.2%
\$200,000 to \$299,999	626	6.5%	17,337	6.8%	7,166	12.7%
\$300,000 to \$499,999	268	2.8%	7,076	2.8%	3,037	5.4%
\$500,000 to \$999,999	58	0.6%	2,249	0.9%	878	1.6%
\$1,000,000 or more	5	0.1%	524	0.2%	143	0.3%
Median (dollars)	\$ 121,200		\$ 98,700		\$ 131,200	
Median Income	\$ -		\$ -		\$ -	
Affordable Value for Median Income @25%	\$ 106,000		\$ 116,000		\$ 138,000	

Source: US Census 2000

Note: the affordable values represent only Principle and Interest and do not include taxes, Insurance and other costs

The actual median price for owner-occupied units in Portland is \$121,200, which exceeds the affordable figure by \$15,000. In fact, Portland's median housing value is higher than the medians for Maine, South Portland and Westbrook, all of which have higher median incomes than Portland. In Cumberland County, the median income is 44,048 (\$8,400 above Portland's median); however the actual median owner-occupied cost, \$131,200. This figure is below the estimated affordable index of \$138,000. Approximately 73% of Portland households are living in owner-occupied units that are at or above the affordable median cost of owner-occupied units. The higher cost of homeownership in Portland results in a trend of households, particularly families, seeking housing opportunities outside of Portland.

Almost half of Cumberland County's occupied rental units are located in Portland. Based on Census data, the affordable rent in Portland is calculated to be \$743 per month (Table 12). In Maine the monthly affordable level is \$776 and in Cumberland County it is \$918. Portland's significantly lower affordable rent figure is due to the city's lower

median income. According to the Census 2000, roughly 73% of renters in Portland live in units at or below the affordable rental cost. Thus the Census count indicates Portland has a large share of its rental stock within the affordable range of its residents; however, this data does not capture the market's rapid escalation in rental costs since 2000.

Table 12

Rental Costs in Portland: 2000						
	Portland	% of Cumberland Total	Cumberland County	% of Total	Maine	% of Total
Specified Renter Occupied Units	17,103		35,591		143,727	
Less than \$200	1,464	8.6%	2,500	7.0%	12,806	8.9%
\$200 to \$299	902	5.3%	1,685	4.7%	10,512	7.3%
\$300 to \$499	3,073	18.0%	5,921	16.6%	44,055	30.7%
\$500 to \$749	7,007	41.0%	14,388	40.4%	46,780	32.5%
\$750 to \$999	3,294	19.3%	6,945	19.5%	14,428	10.0%
\$1,000 to \$1,499	804	4.7%	1,983	5.6%	3,764	2.6%
\$1,500 or more	274	1.6%	506	1.4%	999	0.7%
No cash rent	285	1.7%	1,663	4.7%	10,383	7.2%
Median Rent \$	598		\$ 615		\$ 497	
Median Household Income \$	35,650		\$ 44,048		\$ 37,240	
Affordable Monthly Rent: 25% of Income \$	743		\$ 918		\$ 776	

Source: 2000 US Census

Housing is one area that would benefit from strong regional leadership that encourages collaboration among municipalities. Every community in Cumberland County must grapple with affordable housing needs. A growing percentage of the County's residents are spending more for their housing. The housing issue must be addressed regionally and solutions must be sought that increase the supply of affordable rental and home ownership options throughout the region.

V. SUSTAINING PORTLAND AS A HEALTHY CITY

Growth is a part of sustaining Portland as a healthy city and maintaining its role as the economic, cultural, and residential center for the region. Appropriate growth is needed to provide housing near employment centers, support public transportation, attract families with children, expand the tax base, and stabilize neighborhoods. Portland needs to grow along with Cumberland County and maintain a 25% share of the County's population. Portland must grow to remain an attractive urban center in which to live and work and to achieve its shared vision for the future.

Condition One: Portland's share of the County and State's population is declining.

Facts: Between 1960 and 2000, Portland's population as a share of the County:

<u>Year</u>	<u>Portland Population</u>	<u>Cumberland Population</u>	<u>Portland Share of County Population</u>
1960	72,376	182,202	40%
1970	64,926	195,029	33%
1980	61,382	215,789	28%
1990	64,358	243,135	26%
2000	64,249	265,000	24%

Cumberland County's population has grown over the past decades, whereas Portland's population has declined and then stabilized. The City's share of the county population has dropped to its current level of 24%. A declining share of the County's population results in a smaller legislative delegation, less influence in the region, a declining tax base, and underutilized public infrastructure. Portland's prominence as the central city is threatened by these trends.

Condition Two: Families are leaving Portland and school enrollment is declining.

Facts: In 2000, Portland's population & age distribution compared to Cumberland County:

<u>Total Population</u>	24% of County	<u>Residents 45 to 54</u>	22% of County
<u>Residents under 5</u>	21% of County	<u>Residents 55 to 64</u>	20% of County
<u>Residents 5 to 19</u>	19% of County	<u>Residents 65 to 74</u>	23% of County
<u>Residents 20 to 34</u>	34% of County	<u>Residents 75 to 84</u>	26% of County
<u>Residents 35 to 44</u>	23% of County	<u>Residents 85 & over</u>	31% of County

- Total enrollment in Portland schools has decreased by 500 students since 1996.
- In 1995, there were 823 children born to Portland residents. Only 533 of these children were enrolled in Portland kindergarten classes in 2000.

Compared to other Cumberland County municipalities, Portland has the largest percentage of young adults, the lowest percentage of population between 30 and 65, and the highest percentage of population over 75. This age distribution, combined with the declining school enrollments, suggests that families with children are leaving Portland. The movement of families out of the City is also indicated by the declining percentage of children born to Portland residents actually entering the school system. In the early 1990's, the number of children entering kindergarten equaled the number of children born to Portland parents five years earlier. By 2000, only 65% of the children born to Portland parents entered the public school system.

Condition Three: Cumberland County has one of the highest conversion rates of rural to urbanized land. The low-density development consumes increasingly more land than past patterns of development.

Facts: Between 1982 and 1997:

- Developed land in the County increased by 108%
- Population increased in the county by 17.4%
- Population density in the County decreased by 47%

The expanding development of the region results in some of Portland's public investments and infrastructure being underutilized, such as public transportation, schools and sewers, while the City's roads are congested with commuter traffic. The Brookings Institute Study* identified Greater Portland as one of the fastest urbanizing metropolitan areas (measured by the percent change of rural to urbanized land). The expanding development patterns do not support higher density housing and mixed use projects that are within walking distance of employment centers, parks, schools, and public transit lines. In Portland, new development is desired that is efficient, well designed and created at a manageable rate for the community.

* "Who Sprawls Most? How Growth Patterns Differ Across the U.S.", William Fulton, Rolf Pendall, Maie Nguyen, and Alicia Harrison, *The Brookings Institutions Survey Series*, July 2001.

VI. EQUAL ACCESS IN HOUSING

In the 1980's, Portland was designated a Refugee Resettlement community. The religious, cultural and ethnic diversity of Portland has increased significantly over the decade. As Portland becomes more diverse, we need to ensure that housing is equally available to all residents.

Condition One: Incidents of housing discrimination have occurred in Portland, particularly against large families with children, people of color who are recent immigrants, and people with disabilities.

Facts: in 2000:

- 8.7% of Portland residents are People of Color
- 14.4% of all of Maine's People of Color live in Portland
- 49.6% of all of Cumberland County's People of Color live in Portland.
- International In-migration is a significant factor in City and County Population

The Census figures on ethnicity in Portland are contained in Table 13 (on following page). Over 90% of Portland's population is white. Asians represent 3% of the population and Blacks or African American's represent 2.6%. As a Refugee Resettlement Community, Portland has over 40 languages spoken in the public schools with most of the recent immigrants coming from Cambodia, Vietnam, Eastern Europe, Africa and Islamic nations. "Analysis of Impediments to Fair Housing" completed by the City of Portland in November 1996, concluded that the principle form of housing discrimination encountered in the City was against people of low income. The rental market has tightened since 1996 and Portland is now facing a scarcity of multifamily units and escalating rental rates. Most of the recent calls received by the Fair Housing Office are tenant/landlord complaints and difficulties with rising rents. The 1996 survey data did reveal incidents of discrimination against protected classes, particularly large families with children, people of color who are recent immigrants, and people with disabilities.

Table 13

Ethnicity in the City of Portland				
April, 2000				
	All	% of	Population	% of
	Population	Total	18 and over	Total
Total population	64,249	100	52,177	100
One race	63,054	98.1	51,469	98.6
White	58,638	91.3	48,606	93.2
Black or African American	1,665	2.6	1,019	2
American Indian and Alaska Native	302	0.5	229	0.4
Asian	1,982	3.1	1,318	2.5
Native Hawaiian and Other Pacific Islander	36	0.1	29	0.1
Some other race	431	0.7	268	0.5
Two or more races	1,195	1.9	708	1.4
HISPANIC OR LATINO AND RACE				
Total population	64,249	100	52,177	100
Hispanic or Latino (of any race)	974	1.5	643	1.2
Not Hispanic or Latino	63,275	98.5	51,534	98.8
One race	62,187	96.8	50,884	97.5
White	58,201	90.6	48,305	92.6
Black or African American	1,611	2.5	979	1.9
American Indian and Alaska Native	283	0.4	219	0.4
Asian	1,967	3.1	1,308	2.5
Native Hawaiian and Other Pacific Islander	29	0	25	0
Some other race	96	0.1	48	0.1
Two or more races	1,088	1.7	650	1.2
Source: U.S. Census Bureau				
Census 2000 Redistricting Data (Public Law 94-171) Summary File				

ECONOMIC RESOURCES

Inventory and Analysis

ECONOMIC RESOURCES

I. INTRODUCTION¹

Portland is the central city of the most diverse regional economy in Maine and one of the most diverse in northern New England. It also has the largest residential population in the State with a socioeconomic demographic mix, which must be protected and strengthened by zoning, neighborhood preservation, and solid economic development. Portland is at once a manufacturing center, a distribution center, a financial center, and a services center. It is a center for each of these not merely in the sense that it has an important firm or two in the given category. Rather, it has achieved a level of specialization that in each case commands disproportionate share of employment compared with the State as a whole.

In the spring of 1993, the Industry and Commerce Plan Advisory Committee (ICPAC) was formed. The Committee with assistance from Market Decisions and Enterprise Resources reviewed the inventory of data collected on existing and potential industries in the Portland area and the potential financial incentive programs to aid in the recruitment, retention and expansion of our industries. The Committee also made Zoning Ordinance recommendations regarding the industrial sectors of Portland. The Portland Industry and Commerce Plan was adopted as an element of Portland's Comprehensive Plan and the zoning recommendations were reviewed and adopted by the city in 1997. Please refer to the original report for the full text of its inventory and the policies are listed in the policy section of this document. The ICPAC study contains extensive economic inventories and analyses on Portland's industry and commerce sector, public infrastructure, human resources and technological infrastructure, business capital resources, and target of opportunities.

Downtown Vision is the 1991 plan, which thoroughly evaluated the conditions of the retail, office, and tourism sectors of the downtown economy. The inventory for this plan is found within the original document and the policies are listed in the policy section of this document. The revitalization and initial efforts to support the city's arts industry are based on the findings and recommendations of this report.

In addition to the inventory and analyses contained in the above studies, an update of economic conditions in Portland follows using recently released Census data, State sales tax information, and Maine labor force figures. Portland also conducted an analysis of the city's art industry and developed the Portland Arts District Plan adopted in 1996. A summary of the findings from this report is contained under section XII.

¹ Portland Industry and Commerce Plan, Prepared for City of Portland by Industry and Commerce Plan Advisory Committee, assisted by Market Decisions, Inc. and Gore Flynn, Enterprise Resources. 1994. page 1-1

II. PORTLAND'S LABOR FORCE²

The U.S. Census defines labor force as all people classified in the civilian labor force (that is, "employed" and "unemployed" people) plus members of the U.S. Armed Forces. Thus, labor force statistics refer to the number of residents in a community who are working in any municipality or are unemployed (not at work at the time of the census, actively looking for work or available to start a job). Portland's labor force figures refer to the city's residents who are employed or unemployed, but the figures do not refer to the number of jobs within the city.

Portland's labor force represents roughly 25% of Cumberland County's total labor force (refer to Table 1). The city's total labor force has 37,543 persons and almost all of these individuals are part of the city's civilian labor force. Only 72 residents are employed in the armed services. The Census reports that 1,781 persons are unemployed, which is an unemployment rate of 4.8% for the city, which is higher than the county's rate of 3.6%. Portland's total population of persons 16 years and over in age is 53,543. Of this total there are 16,540 persons who are not participating in the labor force; thus, Portland's labor participation rate is 69%. This rate is equal to the rate in Cumberland County and exceeds the state participation rate of 65.3%.

Table 1

	Portland	Cumber- land County	% of County in City	Maine
Population 16 years and over	53,543	210,662	25.4%	1,010,318
In labor force	37,003	145,269	25.5%	659,360
Civilian Labor Force (CLF)	36,931	143,908	25.7%	655,176
Employed	35,150	138,612	25.4%	624,011
Unemployed	1,781	5,296	33.6%	31,165
Unemployment Rate - CLF	4.8%	3.6%		4.7%
Armed Forces	72	1,361	5.3%	4184
Not in labor force	16,540	65,393	25.3%	350,958
Labor Force Participation Rate	69.1%	69.0%		65.3%
Females 16 and Over	28,349	110,364	25.7%	525,690
In labor force	18,295	70,346	26.0%	314,480
Civilian Labor Force	18,295	70,154	26.1%	313,878
Employed	17,549	67,743	25.9%	299,764
Female Labor Force Participation Rate	64.5%	63.7%		59.8%
Female Unemployment Rate	4.1%	3.4%		4.5%

Source: US Census 2000

Women represent 52.9% of the city's population aged 16 and over and 25.7% of the County for the same demographic group. In Portland, women represent 52% of the employed workforce. Portland's female labor force is consistently 26% of the County's figures for the total female labor force, the civilian labor force and women employed. The unemployment rate for women in Portland is 4.1%, which is higher than Cumberland County's rate of 3.4%; however, the labor

² Prepared by Portland Planning and Development Department based on Census 2000 data.

force participation rate for women in Portland is slightly higher than in Cumberland County and significantly higher than in Maine.

A special household survey of Portland Metropolitan Statistical Area³ (MSA) conducted by the Census in June 2000 reports that 10.1% of the workers in the Portland MSA labor force are holding down more than one job. The survey also found that 13.7% of the people in the labor force are looking for a job.

III. WORKING AGE OF PORTLAND EMPLOYEES

Portland's work force is aging. The number of employees between the ages of 35 to 44, 45 to 54 and 55 to 59 grew since 1990 with a total of 4,854 employees in those age brackets (refer to Table 2). The age category of 45 to 54 changed significantly with 3,309 or a 63.54% increase in employees. Declines in the number of employees occurred in the younger age brackets of Portland's work force. The age categories for 20 to 24 and 25 to 34 dropped by 16% and 11%, respectively. According to *Houses, Jobs, and Maine People: 2001*, Cumberland County attracted young adults with a net in-migration for people under 35.⁴ While the employment figures do not mirror the population increase, it is the younger age groups that are needed to support the city's long-term economic health. The 25 to 34 age group continues to constitute the largest number of employees in Portland with roughly 27% of the work force, but this share is down from 31% in 1990. The 35 to 44 year olds are the next largest group in Portland's employment base with over 10,700 employees and 24% of the total employees.

Table 2

Portland Working Age Population			
Age Group	1990	2000	Change
15 to 19 years	3,715	3,535	(180)
20 to 24 years	6,467	5,413	(1,054)
25 to 34 years	13,949	12,408	(1,541)
35 to 44 years	9,511	10,778	1,267
45 to 54 years	5,207	8,516	3,309
55 to 59 years	2,363	2,641	278
60 to 64 years	2,643	2,065	(578)
Subtotal	43,855	45,356	1,501

Source: US Census Bureau

³ Portland Metropolitan Statistical Area includes Cape Elizabeth, Casco, Cumberland, Falmouth, Freeport, Gorham, Gray, North Yarmouth, Long Island, Portland, Raymond, Scarborough, South Portland, Standish, Westbrook, Windham, Yarmouth, Buxton, Hollis, Limington, and Old Orchard Beach.

⁴ *Houses, Jobs, and Maine People: 2001*, report by Frank O'Hara, Planning Decisions, to the 2001 Governor's Affordable Housing Conference, September 10, 2001, page 5.

IV. UNEMPLOYMENT RATE

The unemployment rate in Portland has been declining and is now consistent with Cumberland County's rate. Since 1994, Portland's unemployment declined from a high of 6.1% to a low of 2.1% in 2000 (refer to Table 3). The rate rose slightly to 2.2% in 2001. Cumberland County's unemployment rate was 5% in 1994 and is now 2.1%. The annual unemployment rates for Maine and the United States exceed Portland's unemployment figures since 1995.

Table 3
Unemployment Rates for Portland, Cumberland County, Maine and the U.S.

Year	City of Portland	Cumberland County	State of Maine	USA
1994	6.1%	5.0%	7.4%	6.1%
1995	4.2	3.6	5.7	5.6
1996	3.4	2.9	5.1	5.4
1997	3.4	2.9	5.4	4.9
1998	2.8	2.4	4.4	4.5
1999	2.5	2.3	4.1	4.2
2000	2.1	2.0	3.5	4.0
2001	2.2	2.1	3.5	4.8

Source: State of Maine, Department of Labor, Labor Market Information Service.

V. EMPLOYED LABOR FORCE BY OCCUPATION TYPE FOR CUMBERLAND COUNTY AND PORTLAND

A. Cumberland County

There were more jobs added in Cumberland County between 1990 and 1999 than people. The number of payroll positions rose from 139,225 to 164,929, which is an increase of 25,704 jobs (refer to Table 4). This 18.5% increase in the number of jobs in Cumberland County raises the jobs to population ratio from 0.57 to 0.62.

All of Cumberland County's economic sectors experienced job growth since 1990, except for manufacturing. There was a net loss of 651 manufacturing jobs, a 3.9% decline. Cumberland County's service sector expanded by 30.7% with 14,407 new payroll jobs. The next largest numerical increase was in the retail sector with 5,866 new positions, which is a 17.5% growth rate. The transportation sector added 1,891 jobs and finance added 1,558 jobs for growth rates of 22% and 12.5%, respectively.

While there was a net loss in manufacturing jobs in Cumberland County this occupation type comprises 10% of the county's total labor force. Services and retail are the two largest occupation types within the region's labor force. Service positions account for 37% of the labor force and retail jobs account for 24%. The number of firms operating in Cumberland County increased by 2,031, which is 23.8% increase in new businesses.

Table 4

Jobs in Cumberland County- 1990 and 1999					Percent % of Total
	Dec-90	Dec - 99*	Change	Change	1999
Payroll Jobs	139,225	164,929	25,704	18.5%	
Population (April 90-00)	243,135	265,612	22,477	9.2%	
Jobs to Population Ratio	0.57	0.62			
Housing Units (April 90-00)	109,890	122,600	12,710	11.6%	
Manufacturing	16,571	15,920	(651)	-3.9%	10%
Transportation	8,584	10,475	1,891	22.0%	6%
Retail	33,467	39,333	5,866	17.5%	24%
Finance	12,474	14,032	1,558	12.5%	9%
Services	47,000	61,417	14,417	30.7%	37%
Other	21,129	23,752	2,623	12.4%	14%
Number of firms	8,518	10,549	2,031	23.8%	

Source: Maine Department of Labor, ES 202 Data Series

B. Portland

Portland is the central economic hub for the region with more payroll jobs than population. Portland's prominence as the economic core for Cumberland County is threatened by rapid employment growth in surrounding communities. Over 8,800 payroll jobs were created in Portland, a 14.5% increase in new opportunities (see Table 5). It should be noted that a portion of this increase is due to a correction in the employment data.⁵ While Portland's growth is significant, new payroll jobs are being created faster in Cumberland County than in the city. Thus the city's share of the region's economic growth is declining. Indicators of the county's accelerated economic growth compared to Portland are as follows:

- Portland's share of the Cumberland County's total number of payroll jobs declined from 43.6% to 42.1%.
- Portland's share of Cumberland County's total population declined from 26.5 to 24.2%.
- Portland's share of Cumberland County's total housing units declined from 28.5% to 26%.

⁵ The job data was corrected to include all University of Southern Maine employees working at the Portland Campus in the Portland totals, rather than credited to Gorham.

Table 5

Jobs in Portland and Portland's Share of Cumberland County's Labor Force 1990 and 2000						
	Dec-90	Dec - 99*	Numerical Change	Percent Change	% of County	
					in 1990	in 1999
Payroll Jobs	60,674	69,496	8,822	14.5%	43.6%	42.1%
Population (April 90-00)	64,357	64,249	(108)	-0.2%	26.5%	24.2%
Jobs to Population Ratio	0.94	1.08				
Housing Units (April 90-00)	31,293	31,862	569		28.5%	26.0%
Manufacturing	4,473	4,955	482	10.8%	27.0%	31.1%
Transportation	5,503	6,744	1,241	22.6%	64.1%	64.4%
Retail	8,913	10,499	1,586	17.8%	26.6%	26.7%
Finance	9,709	8,474	(1,235)	-12.7%	77.8%	60.4%
Services	23,430	29,659	6,229	26.6%	49.9%	48.3%
Other	8,646	9,165	519	6.0%	40.9%	38.6%
Number of firms	3,179	3,608	429	13.5%	37.3%	34.2%

Source: Maine Department of Labor, ES 202 Data Series

* Some of the increase is due to a data "correction". In 1990, all of University of Southern Maine jobs were counted in Gorham. In 1999, the jobs were split to reflect jobs in Portland and Gorham

A comparison of the changes in occupation types for Cumberland County and Portland reveals significant differences between the county's and the city's economic base. While the manufacturing sector lost payroll jobs in Cumberland County, Portland added 482 positions. This is close to an 11% increase and raises Portland's share of the county's manufacturing jobs from 27% to 31.1%. Portland lost 1,235 payroll jobs in the finance sector, a decline of 12.7%, whereas Cumberland County gained 1,558 positions and grew by 12.5%. Therefore, Portland's share of the county finance positions dropped dramatically from 77.8% in 1990 to 60.4% in 1999. Roughly 6,200 new service jobs were created in Portland, a 26.6% increase. However, the County grew by 30.7% with more than 8,000 jobs added outside of the city. Almost all of the new transportation jobs created since 1990 are in Portland and represent 64.4% of the county's total. The number of firms in Portland has grown with 429 new businesses, a growth rate of 13.5%. Portland's new firms represent 21% of the 2,031 firms created in Cumberland County since 1990.

VI. PROPORTION OF EMPLOYED LABOR FORCE BY INDUSTRY FOR PORTLAND AND CUMBERLAND COUNTY

To better understand the composition of Portland's economic base, Table 5 presents a breakdown of jobs according to Industry classifications for Portland, Cumberland County and Maine.

Table 6

Portland Residents by Industry Compared to Region and State						
	Portland	% of Cumberland Total	County	% of Total	Maine	% of Total
Agriculture, forestry, fishing and hunting, and mining	173	0.5%	1,366	1.0%	16,087	2.6%
Construction	1,453	4.1%	7,647	5.5%	42,906	6.9%
Manufacturing	2,614	7.4%	13,453	9.7%	88,885	14.2%
Wholesale trade	1,309	3.7%	5,372	3.9%	21,470	3.4%
Retail trade	4,734	13.5%	20,335	14.7%	84,412	13.5%
Transportation and warehousing, and utilities	1,335	3.8%	5,404	3.9%	26,857	4.3%
Information	1,718	4.9%	5,058	3.6%	15,294	2.5%
Finance, insurance, real estate, and rental and leasing	3,741	10.6%	13,590	9.8%	38,449	6.2%
Professional, scientific, management, administrative, waste management services	3,925	11.2%	13,756	9.9%	43,074	6.9%
Educational, health and social services	7,648	21.8%	30,854	22.3%	144,918	23.2%
Arts, entertainment, recreation, accommodation and food service	3,736	10.6%	10,727	7.7%	44,606	7.1%
Other services (except public administration)	1,707	4.9%	6,183	4.5%	29,182	4.7%
Public Administration	1,057	3.0%	4,867	3.5%	27,871	4.5%
Total Employed Persons	35,150	100.0%	138,612	100.0%	624,011	100.0%

The largest industry in Portland is the educational, health and social services with 21.8% of the city's labor force employed in this sector. This industry is also the largest segment of Cumberland County and Maine's workforce with 22.3% and 23.2%, respectively. The next largest industry category in Portland is retail with 13.5% of the city's total employment. This figure is equal to the State's share, but lower than Cumberland County's 14.7% of employment in the retail industry. Portland's workforce is weighted toward professional employment. The following industries, each with roughly 11% of the city's employment, represent the next largest share of the city's employment base:

- Professional, scientific, management, administrative, waste management services;
- Finance, insurance, real estate and rental and leasing; and
- Arts, entertainment, recreation, accommodation and food service.

The industries of agriculture/forestry/fishing, construction, manufacturing, and public administration represent a smaller share of the city's total work force than these same sectors represent within the County and Maine. Portland is in line with Cumberland County and the State for the industries of wholesale trade, retail trade, transportation & warehousing, and other services.

VII. MAJOR EMPLOYERS IN PORTLAND AND THE REGION

There have been few changes in the overall list of major employers for the region in 1997 and 2001. The seventeen major employers in Portland for 2001 are listed below in Table 7 and Table 8 is the list for 1997. The top three employers in 2001 are Maine Medical Center with 5,140 employees, UNUM Provident Corporation with 4,000 and LL Bean with 3,466 employees. There are seven corporations with 1,000 to 2,000 employees and seven major employers with between 500 and 1,000 employees. While there have been shifts within the list since 1997 based on the number of employees, there are only two companies that are no longer considered major employers. These companies are the Eastland Shoe Company and Talk America. Idexx and Sebago, Inc. have been added to the list of major employers in 2001 with 800 and 620 employees, respectively.

Table 7⁶
Major Non-Government Employers for the City of Portland Metro Area

Name	Business	Employees 2001 ¹
Maine Medical Center	Medical Facility	5,140
UNUM Provident Corporation	Insurance	4,000
L.L. Bean	Outdoor/Recreational	3,466
Hannaford Bros. Co.	Wholesales and Retail	1,947
Verizon	Communications	1,519
Key Bank, N.A.	Banking	1,352
Fairchild Semiconductor	Technology	1,245
S. D. Warren Co.	Paper Products	1,200 *
Anthem/Blue Cross Blue Shield	Insurance	1,176
Mercy Hospital	Medical Facility	1,100
Banknorth, N.A.	Banking	900
Shaws Supermarkets	Retail Groceries	963
Idexx	Laboratory	800
Barber Foods	Retail Groceries	775
Blethen Maine Newspapers	Publishing	800
Sebago, Inc.	Footwear	620
FleetBoston Financial Corp.	Banking	509

Source: Telephone survey. Note: (1) Includes employers located outside the City of Portland, Maine. (*) Estimated

⁶ Official Statement Dated March 21, 2002, City of Portland, Maine \$14,445,000 General Obligation Bonds, ABN-AMRO Financial Services, Inc. Duane G. Kline, Director of Finance, City of Portland, Maine, edited 2002.

Table 8

Major Non-Government Employers for the City of Portland Metro Area		
<u>Name</u>	<u>Business</u>	<u>Company-wide Employees-1997</u>
Maine Medical Center	Medical Facility	4571
L.L. Bean	Retail Sporting Goods	3466
UNUM Corporation	Insurance	3300
Hannaford Bros. Co	Wholesale & Retail Groceries	1947
NYNEX	Communications	1519
Peoples Heritage Savings Bank	Banking	1453
Key Bank of Maine	Banking	1352
National Semiconductor	Technology	1245
S>D> Warren Co.	Paper Products	1200
Blue Cross Blue Shield of Maine	Insurance	1176
Shaw's Supermarkets	Wholesale & Retail Groceries	963
Mercy Hospital	Medical Facility	900
Fleet Bank of Maine	Banking	835
Barber Foods	Food Processor	730
Eastland Shoe Company	Retail	700
Portland Newspapers	Newspaper	625
Talk America	Telemarketing	560

Source: Portland Department of Finance, 1997 list of major employers

VIII. VALUE OF TAXABLE RETAIL CONSUMER SALES BY RETAIL SECTOR FOR PORTLAND AND THE REGION

A. Portland

The taxable consumer sales in Portland by sector are shown for 1994 through 2001 in Table 9. Over the past eight years, Portland's group total sales have increased by 32.9%. Total consumer sales grew steadily since 1994 and peaked in 2000. There was a slight decline in total sales of 1.5% between 2000 and 2001.

Table 9

Portland's Retail Sales Trend

Year	Business/ Operating	Bldg. Supply	Food Store	Gen. Mdse.	Other Retail	Auto/ Transp.	Restaurant/ Lodging	Group Total	Personal Consump.
1994	\$159,110	\$105,645	\$73,737	\$120,305	\$ 77,895	\$113,165	\$135,111	\$784,967	\$625,857
1995	165,895	106,698	68,528	120,447	80,239	126,882	139,136	807,828	641,933
1996	157,416	107,489	72,519	130,835	91,056	138,498	150,893	848,707	691,291
1997	168,749	11,0744	74,670	179,148	101,866	148,888	154,655	938,720	769,971
1998	171,766	118,365	79,240	213,452	109,693	161,897	167,001	1,021,417	204,796
1999	168,071	189,148	80,145	185,848	118,181	192,759	176,334	1,110,488	942,417
2000	168,677	207,800	81,510	186,456	131,426	217,285	194,268	1,187,424	1,018,746
2001	184,029	198,952	72,794	193,423	22,230	214,789	206,004	1,169,234	985,205

Source: State of Maine, Department of Taxation, Sales Tax Section; Amounts expressed in thousands.

In looking at the seven retail sectors that make up total consumer sales, the five strongest sectors are business/operating, building supply, general merchandise, auto/transportation and restaurant/lodging. Growth in sales in these five sectors are as follows:

- Building Supply – 88.3%
- General Merchandise – 60.8%
- Auto/Transportation – 89.8%
- Restaurant and Lodging - 52.5%
- Business and Operating - 15.7%,

In 2001 the food store⁷ and other retail product groups experienced declines resulting in an overall loss of sales since 1994 of 1.3% and 71.5%, respectively. Both of these sectors had generally grown each year until 2001. The “other retail” sector had the most significant drop in sales from \$ 131,426,000 to \$22,230,000. The rate of personal consumption in Portland grew by 57.4%.

The quarterly sales for Portland are shown in the Table 10. This table is prepared by the State of Maine Revenue Services. The strongest quarters for the Restaurant and Lodging sector are in the second and third quarters, which indicate the strength of tourism in Portland. In 2001, there is a 42.4% increase between the first and second quarters. The second and third quarters are also generally the strongest quarters for the product groups of building supplies, food store, general merchandise and auto/transportation. The general merchandise category has three strong quarters with the fourth quarter generally accounting for comparable or higher consumer sales. Business operating varies from year to year, but the last three quarters are generally the healthiest for this sector. The first quarter is the lowest quarter for all product groups.

B. Portland ESA and Portland’s Share of the Regional Market

The Portland region has had an increase in taxable consumer sales since 1996 (refer to Table 11). The sales rose from \$1,459,341 to 1,873,294. This is a 28.4% increase compared to Portland increase of 37.8% for the same time period. The highest amount of taxable sales occurred in 2000 with a total of \$1,879,674 and this figure declined slightly by 0.34%

The effect of tourism is reflected in the restaurant and lodging figures for the region with the third quarter accounting for the largest sales each year. The second and fourth quarters of this retail sector have comparable sales figures. The building supply product group has grown each year with the last three quarters representing strong sales. The highest sales quarter occurred in the third quarter of 1999. The food store sector also has generally strong sales during the last three quarters of each year. Similar to Portland’s sales data, this sector had its most profitable year in 2000, with a 10% decline of sales in 2001.

General merchandise and other retail have stronger sales in the second and third quarters, but the strongest sales activity occurs in the fourth quarter. The overall growth in these product group sectors since 1996 has been 33% for general merchandise and 18.8% for other retail.

The first quarter in all product groups has the lowest figures for taxable sales. Portland’s “other retail” sector did not share in this growth, which experienced a drop in sales in 2001 resulting in a decline of (-) 75.6%. This significant decline may be due to a tax adjustment

⁷ It should be noted that the food store figures represent roughly 25% of the total sales, since food for home consumption is not taxed.

Table 10 Total Taxable Sales in Thousands of dollars by Individual Town and Product Group for Portland

Year:Qtr	Business Operating	Building Supply	Food Store	General Mdse	Other Retail	Auto Transp	Restau Lodging	Total	Personal Consump	Restau rant	Lodging
2001:1	40788.6	37995.9	16121.2	39774.0	20909.7	46499.5	43114.2	245203.1	204414.5	38083.3	5030.9
2001:2	55450.5	54908.0	18197.8	46670.9	24215.2	58088.7	51391.2	308922.3	259471.8	43047.9	8343.3
2001:3	46478.8	53067.0	19312.5	47645.2	25527.9	61560.7	61467.6	315059.7	268580.9	48825.7	12641.9
2001:4	41312.0	52981.4	19163.3	59333.6	28577.6	48650.4	50031.5	300049.8	258737.8	42850.9	7180.6
2001	184028.9	198952.3	72794.8	193423.7	99230.4	214799.3	205004.5	1169234.9	985205.0	172807.8	33196.7
2000:1	37808.8	41058.3	18887.3	36087.3	27361.1	48673.1	39941.5	249817.4	212008.6	35306.5	4635.0
2000:2	42062.3	55954.7	21394.4	46464.3	80592.3	57093.8	48243.6	351805.4	309743.1	40646.3	7597.3
2000:3	43125.9	55076.2	21005.0	45125.9	-21143.0*	62531.2	58184.6	263905.8	220779.9	45558.7	12625.9
2000:4	45680.8	55711.5	20223.4	58778.8	44615.8	48986.9	47898.5	321895.7	276214.9	40854.2	7044.3
2000	168677.8	207800.7	81510.1	186456.3	131426.2	217285.0	194268.2	1187424.3	1018746.5	162365.7	31902.5
1999:1	35600.7	30321.9	17925.6	41697.6	26004.2	39287.4	36360.9	227398.3	191597.6	31666.7	4696.2
1999:2	45580.0	47711.3	19659.4	41587.7	28747.9	50741.1	41031.9	275059.3	229479.3	34927.1	6104.8
1999:3	43225.0	60407.0	21523.6	44460.4	30965.5	56740.7	55685.3	313007.5	269782.5	42253.5	13431.8
1999:4	43465.4	50708.1	21037.0	58102.5	32463.6	45990.1	43256.8	295023.5	251558.1	37319.0	5937.8
1999	168071.1	189148.3	80145.6	185848.2	118181.2	192759.3	176334.9	1110488.6	942417.5	146166.3	30168.6
1998:1	36682.8	24048.8	18145.1	41712.5	22451.7	32468.0	34901.2	210410.1	173727.3	29759.1	5142.1
1998:2	40876.4	30372.9	19516.7	51894.8	26016.5	43741.3	40129.4	252548.0	211671.6	33727.3	6402.1
1998:3	44816.3	32926.8	20928.1	52603.4	28238.4	47466.6	50500.8	277480.4	232664.1	38453.5	12047.3
1998:4	49391.2	31016.9	20650.2	67242.2	32986.5	38221.9	41469.7	280978.6	231587.4	35348.7	6121.0
1998	171766.7	118365.4	79240.1	213452.9	109693.1	161897.8	167001.1	1021417.1	849650.4	137288.6	29712.5
1997:1	39967.5	21138.2	17346.9	36742.2	21225.1	27028.7	31243.6	193692.2	154724.7	26716.0	4527.6
1997:2	45020.9	28105.5	18463.3	46963.1	24163.8	43578.5	38001.6	244296.7	199275.8	31314.8	6686.8
1997:3	43523.2	30557.4	19398.2	43936.6	26506.1	43258.8	47516.4	254696.7	211173.5	36465.0	11051.4
1997:4	41237.4	30943.1	19461.3	51506.0	29971.3	35022.1	37893.1	246034.3	204796.9	31791.6	6101.5
1997	168749.0	110744.2	74669.7	179147.9	101866.3	148888.1	154654.7	938719.9	769970.9	126287.4	28367.3
1996:1	37897.5	20667.6	16077.7	25888.0	16112.8	30559.0	31961.9	179164.5	141267.0	27558.8	4403.1
1996:2	36734.1	27420.6	18547.7	31101.5	24415.2	33984.4	36179.6	208383.1	171649.0	30088.3	6091.3
1996:3	38856.2	28779.6	19111.2	31939.6	22733.3	42003.3	45140.3	228563.5	189707.3	34629.0	10511.3
1996:4	43928.3	30621.6	18782.7	41906.5	27794.4	31951.3	37611.3	232596.1	186667.8	30718.5	6892.8
1996	157416.1	107489.4	72519.3	130835.6	91055.7	138498.0	150893.1	848707.2	691291.1	122994.6	27898.5
Total	1018710.6	932500.3	460879.6	1089164.6	651452.9	1074127.5	1049156.5	6275992.0	5257281.4	867910.4	181246.1

* Negative numbers may be the result of a "negative audit", where tax dollars are refunded to businesses within that sector.

Source: Maine State Planning Office and the Maine Revenue Services, chart dated 2.27.02

rather than a dramatic decline in sales. The automobile and transportation product group had significant sales in its second and third quarters from 1996 to 1999. The 2000 and 2001 sales figures show that the first and last quarters are gaining in strength, with less seasonal shifts in its annual sales activity.

Table 11

Portland ESA: Taxable Retail Sales (all values in \$1,000)							
Year: qtr	Building Supply	Food Stores	General Mdse.	Other Retail	Auto Transp.	Rest. & Lodging	Total Taxable Sales
1996:1	40,691	28,812	62,739	31,236	77,428	51,870	292,776
1996:2	56,676	32,354	75,675	42,503	90,949	59,629	357,786
1996:3	52,096	33,398	84,178	45,719	101,280	74,421	391,092
1996:4	51,218	33,060	122,821	64,128	82,298	64,162	417,687
Annual total	200,681	127,624	345,413	183,586	351,955	250,082	1,459,341
1997:1	32,920	30,007	77,816	41,147	68,916	52,861	303,667
1997:2	48,264	32,170	98,251	46,998	112,254	63,864	401,801
1997:3	49,062	33,877	103,615	52,368	105,259	78,037	422,218
1997:4	48,274	34,360	127,920	70,384	83,577	61,763	426,278
Annual total	178,520	130,414	407,602	210,897	370,006	256,525	1,553,964
1998:1	36,031	31,515	83,702	43,916	83,511	58,902	337,577
1998:2	50,555	33,467	106,187	51,548	106,067	64,823	412,647
1998:3	51,555	36,002	110,498	54,187	108,664	81,379	442,285
1998:4	48,783	35,544	143,383	75,641	91,755	69,523	464,629
Annual total	186,924	136,528	443,770	225,292	389,997	274,627	1,657,138
1999:1	43,551	31,888	85,821	46,840	94,460	60,608	363,168
1999:2	64,374	34,042	95,516	53,657	113,375	67,951	428,915
1999:3	82,298	37,718	104,060	59,945	126,179	93,928	504,128
1999:4	66,920	36,447	140,211	76,065	99,704	73,701	493,048
Annual total	257,143	140,095	425,608	236,507	433,718	296,188	1,789,259
2000:1	51,232	33,507	81,623	51,067	109,875	65,496	392,800
2000:2	69,698	37,079	105,030	57,626	124,420	80,319	474,172
2000:3	68,481	37,034	106,383	57,815	129,420	95,701	494,834
2000:4	67,912	36,125	142,583	89,320	102,660	79,268	517,868
Annual total	257,323	143,745	435,619	255,828	466,375	320,784	1,879,674
2001:1	45,842	28,813	91,473	45,316	105,487	71,370	388,301
2001:2	66,885	31,648	102,206	48,536	127,285	81,793	458,353
2001:3	65,061	33,898	106,831	53,691	138,900	97,153	495,534
2001:4	65,632	35,062	159,046	70,520	121,115	79,731	531,106
Annual total	243,420	129,421	459,556	218,063	492,787	330,047	1,873,294

Source: State of Maine, State Planning Office, web site, quarterly taxable sales figures for Portland ESA.

Portland's total sales represent a significant portion of the region's sales. Following is Table 12 that lists the total taxable sales for the past five years in Portland ESA and the city. The Portland numbers do not include the figures for business and operating as presented above. Portland's share of sales is close to half of the annual sales in the regional market. Portland's share of taxable sales was 47.4% in 1996 and grew to a high of 54.2% in 2000. The national economic decline in 2001 is seen in the city's reduced share of regional sales, which dropped to 48.5% that year.

Table 12

Total Taxable Sales (all values in \$1,000)			
Portland SEA and the City of Portland			
	Portland ESA	City of Portland	Portland's Share of Portland ESA Sales
1996	1,459,341	691,290	47.4%
1997	1,553,964	769,971	49.5%
1998	1,657,138	849,648	51.3%
1999	1,789,259	942,415	52.7%
2000	1,879,674	1,018,745	54.2%
2001	1,873,294	908,192	48.5%

Total Taxable Sales includes the product groups of building supply, food stores, general merchandise, other retail, auto transportation and restaurant and lodging.

Source: State Planning Office Retail Sales Data

IX. WHERE EMPLOYMENT OPPORTUNITIES EXIST AND COMMUTING PATTERNS OF PORTLAND RESIDENTS

Portland is the employment center for Cumberland County with 42.1% of all jobs located within the city in 1999 (refer to Table 13). The next largest employment center is South Portland with 14.4% of all the county's jobs. The municipalities of Brunswick, Freeport, Scarborough, and Westbrook each have between 5% and 8% of the county's employment. All of the other communities have less than 5% of the County's jobs.

The number of jobs in Portland grew by 14.7% since 1990. Portland's growth may be characterized as moderate compared to the more rapid job growth experienced in some of the surrounding suburban communities. For example, the number of jobs in Freeport grew by 72.1%, Scarborough grew by 58.9%, South Portland grew by 43.8% and Falmouth grew by 29%. Some of the outlying communities also had a high percentage change in their job numbers, but continue to represent a small percentage of the overall employment opportunities.

Table 13

Municipality	Jobs by Community				% Change from 1990 to 1999 for Selected towns
	1980 ⁸	1990	1999 Qt 4	% of Total	
Baldwin			208	0.1%	
Bridgton			2,031	1.2%	
Brunswick			11,949	7.3%	
Cape Elizabeth	913	1642	1,335	0.8%	-18.7%
Casco			683	0.4%	
Cumberland	902	1241	1,162	0.7%	-6.4%
Falmouth	2346	3413	4,412	2.7%	29.3%
Freeport	2213	4724	8,132	4.9%	72.1%
Gorham	2617	3667	3,898	2.4%	6.3%
Gray			2,060	1.3%	
Harpswell			438	0.3%	
Harrison			196	0.1%	
Long Island			47	0.0%	
Naples			824	0.5%	
New Gloucester			664	0.4%	
N. Yarmouth	266	299	386	0.2%	29.0%
Portland	44789	60390	69,283	42.1%	14.7%
Pownal			119	0.1%	
Raymond	530	843	1,070	0.7%	26.9%
Scarborough	3516	6658	10,577	6.4%	58.9%
Sebago			107	0.1%	
S. Portland	11311	16495	23,726	14.4%	43.8%
Standish	1421	1702	1,988	1.2%	16.8%
Westbrook	6948	10324	10,315	6.3%	-0.1%
Windham	2061	4450	5,191	3.2%	16.7%
Yarmouth	1709	3033	3,587	2.2%	18.3%
Frye Island			13	0.0%	
unknown			15	0.0%	
Cumberland County			164,416	100.0%	

The Census 2000 provides statistics on the commuting patterns of residents. Over 70.7% of Portland residents commute in a vehicle by themselves. This percentage is lower than the figures for Cumberland County and Maine, which report single occupant commuting of 78.9% and 78.6% respectively. Carpooling represents 10.8% of Portland's commuters, which is within a percentage point of the figures for Cumberland County and Maine. Almost 9% of Portland residents walk to work, whereas only 4% of commuters outside of Portland walk. Those people who use public transportation or other means of transport constitute 6% of the city's commuters and this is significantly higher than the percentages for Cumberland County and Maine. Only 3.6% of Portland's residents work at home, but this figure rises to 4.6% in Cumberland County and 4.4% in Maine. The average time to travel to work in Portland is 18.7 minutes and the average rises to 22 minutes or more for Cumberland County and Maine.

⁸ Figure 6-7, Employment, 1980-1990, Portland Industry and Commerce Plan, page 6-12.

TRANSPORTATION RESOURCES

Inventory and Analysis

TRANSPORTATION RESOURCES

I. MOVING LOCALLY: THE NEIGHBORHOODS¹

Before the motor age, the city's neighborhoods were of necessity designed as a walkable place. Blocks were short and usually designed in a grid pattern, so that there were multiple ways to get to the same place. Lots were narrow, so that distances between places were short. Within or next to the neighborhoods were small-scale stores and services accessible to the neighborhood's residents. With the advent of the trolley, neighborhoods developed farther from the central business district of the city, but even then the neighborhoods were compact and within a quarter –or half-mile of the trolley stop.

As the auto became prominent and affordable to the average family, the design of neighborhoods changed. It pushed new neighborhoods farther from the hubbub of the city center. Within the more suburban neighborhoods, land uses were strictly separated. Lots became wider and larger. Blocks were lengthened, cross streets were reduced to discourage connections, and dead ends with cul-de-sacs became the norm.

The purpose of the street itself also changed. Prior to the 1950's and the dominance of the auto, the street was, by its nature, an important public space. Transportation was only one of its purposes. It was also a place of socializing, recreation and even commerce. The dominance of the auto in the design of contemporary streets and neighborhoods has converted many city streets into single-purpose spaces and that purpose is to move automobile traffic as efficiently as possible. Where that purpose is paramount, the other transportation modes, such as bicycling or on-street parking, are diminished or eliminated.

Balancing the realities of the motor age with the imperative of highly livable neighborhoods is at the heart of the transportation issues and policies at the neighborhood level. And it bears directly on the health of the City. If residents who live in the city by choice come to believe their neighborhoods are not safe for walking, are not protected from noisy through-traffic, don't provide easy access to the daily necessities, don't give their children the freedom to move about independently – then the City has lost much of its competitive advantage over the suburbs. Portland still is in the position to preserve its advantage and to help families choose to remain.

¹ A Time of Change: Portland Transportation Plan, July 1993. Updated and edited 2002.

Neighborhood Issue #1 - Neighborhood Land Use

Some neighborhoods, especially those more recently developed, lack even routine daily services within walking distance. Where such services do exist, the zoning ordinance often considers them to be non-conforming uses.

A basic concept of neighborhood is that it functions as a "unit" in which residents (and especially children) can move about easily and safely and meet at least some of their basic, daily needs within their neighborhood. Historically, the elementary school, religious institutions and neighborhood stores were the cornerstones or meeting places of many neighborhoods. They are part of the "glue" of lively neighborhoods. To the extent that new neighborhoods are designed without proximity to basic goods and services and to the extent that auto-oriented commercial strips replace small neighborhood commercial areas, the "glue" is lost.

The city has a well-established pattern of small-scale service areas. They are found in neighborhood centers such as Rosemont, Central Square, Pine Street, or "down front" on Peaks Island, or in freestanding locations along nearby arterials. Many of these areas are zoned as Neighborhood Business (B-1). Until recently, many of the services were nonconforming uses, and thus in jeopardy of being lost if they are temporarily discontinued. In 1999, Portland revised the B-1 zones, which provide limited areas throughout the city for small-scaled commercial uses to serve local markets. The changes reaffirm that uses will be complementary to adjoining residential areas, limited

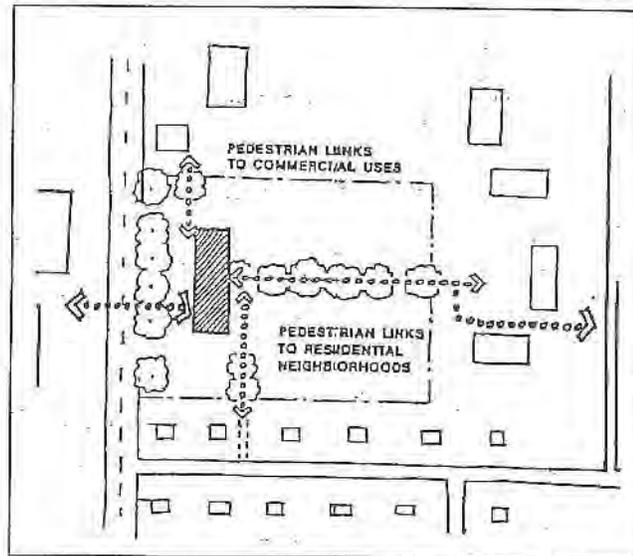


Figure IV-2: Pedestrian interconnections between commercial and residential uses

in size, will be designed to a pedestrian scale, and will provide convenient pedestrian access. Mixed-use buildings are encouraged with retail, office, and business uses on the first floor with residential units above. There are neighborhoods, such as the outer North Deering area, Stroudwater, Ludlow Street area, and the Payson Park/Cheverus area of Ocean Avenue, that have limited access to neighborhood services.

Neighborhood Issue #2 - Street Network

Outside of the City's older neighborhoods, the system of neighborhood streets often lacks safe and convenient interconnections. This system of street design protects residents from through traffic but also makes them highly dependent on the auto even for simple tasks.

The traditional network of interconnected neighborhood streets offers several advantages. By giving multiple ways to reach the same point, it spreads out local traffic and it is less

likely that any one street will be burdened with the problem of crosscutting. It allows residents to get to neighborhood destinations without having to venture onto an arterial. Trips are more direct and distances are reduced, thus making it easier to walk or bicycle. If neighborhoods are thoughtfully located within larger transportation districts, with arterials and collectors designed to respect the integrity of neighborhoods, the need for the dead-end street as a defense against heavy flows of through traffic is lessened. In turn, there are more opportunities for the neighborhood to function as a social unit.

Many of the city's neighborhoods already have a pattern of interconnected streets. In these cases, the task is to preserve the interconnections. Streets, for example, should not be dead-ended, except perhaps where a neighborhood street is being inappropriately and dangerously used by regional traffic as a through street. Even then, alternatives to eliminating interconnections should first be explored. As a rule streets in the Woodfords area should not be cut-off by rail lines. In established neighborhoods that don't have an interconnected network, there may be opportunities to make connections: via walkways and bike paths, for example.

Efforts to promote an interconnected street grid system are on-going. Portland's subdivision ordinance requires that proposed streets be coordinated with the existing street system and provide for the continuation or appropriate projection of streets into surrounding areas. Reserve or spite strips are prohibited. Private streets are no longer permitted, which also promotes an integrated city street system. Pedestrian connections with trails and sidewalks are also required in new subdivisions. The master plans for Bayside and the Waterfront recommend extending existing streets and create new intersections to extend the street grid pattern.

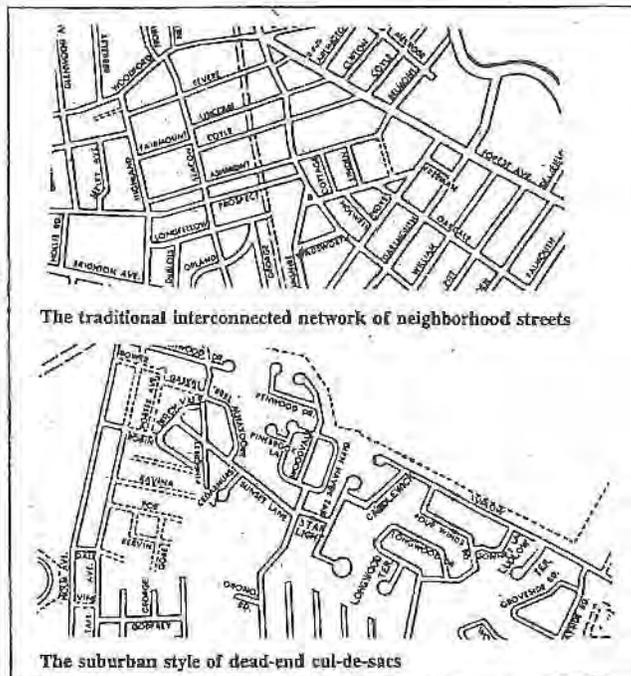


Figure IV-1

Neighborhood Issue #3 - Streets as Public Space

Neighborhood streets are increasingly used as single-purpose spaces: to move automobile traffic as swiftly as possible. In some cases, arterials and collectors cutting through neighborhoods have given over almost entirely to this one purpose.

The "street" includes the whole width of the right-of-way, which often has within it esplanades with trees and sidewalks on one or both sides of the street. These are part of the multiple purposes of this public space. The paved street itself should be designed for

multiple purposes: in addition to the movement of automobile traffic, there can be provision for bicycling, parking, informal recreation and socializing. These purposes usually are limited or eliminated on arterials and collectors that have been entirely given over to automobile traffic. They should be selectively reintroduced where the goal is to slow down ("calm") or divert through traffic to other roads. On neighborhood streets that are meant to serve primarily the neighborhood's traffic, these purposes should be specifically designed into the street.

In addition to neighborhood streets, Downtown streets and streets through City parks offer good opportunities for multiple use. Downtown's retail streets, for example, can be (and are) converted to festival streets from time to time and can be used as an extension of the marketplace and for recreation.

Traffic and streetscape studies for Stevens Avenue, Congress Street and Brighton Avenue offer a range of improvements to increase the multiple uses of these roads. Raised crosswalks are located along Stevens Avenue to slow down traffic and create safer crossing points for students attending the five schools along this Avenue. Between Rosemont and Nason's Corners, Brighton Avenue now has three travel lanes rather than four, in order to reduce traffic speeds, provide safer turning movements and allow shoulders to accommodate bicyclists. The City Traffic Engineer reports there has been no significant diversion of traffic onto adjoining residential street as a result from the Brighton Avenue redesign; however the average operating speed on this arterial is lower. The Downtown Congress Street Study contains detailed recommendations for crosswalks, pedestrian amenities, and traffic improvements to enhance the street for its many users. Redesign of Longfellow Square will be the first project funded from this study.

Neighborhood Issue #4 - Education of Youth

The idea and use of alternative modes of transportation have been nearly eliminated from the everyday lives of the City's youth. Lacking any habit of using these modes, the youth are not likely to think of them as natural or credible alternatives as they become adults.

With proper education, the proper provision of bicycling and pedestrian facilities as recommended elsewhere in this Plan, and proper supervision, the use of bicycles and the public bus system can be safe and convenient alternatives for transporting students to their schools. In addition to issues of safety, it is important that the schools and other major destinations provide for the proper storage of bicycles as protection against theft.

II. MOVING FROM PLACE TO PLACE IN PORTLAND: THE CITY

People move from place to place within Portland. In considering this movement, it is helpful to divide the City into "transportation districts." Transportation districts should be employed to ease the mobility needed in the daily lives of the City's resident. Within transportation districts, streets, land uses and transportation facilities can be designed for short, easy and safe trips to meet many day-to-day needs. At the same time, the interior of the districts can be protected from heavy flows of through traffic. Between transportation districts, connections can be designed to move people so they can take easy advantage of other destinations and resources of the City.

A properly conceived transportation district is perhaps one to two miles along its longest dimension; a "walkable" or "bikable" distance. It usually comprises two or more neighborhoods. It should be bounded by – but not crossed by – arterial roads. Major crossroads ("collectors") should be widely spaced to protect the individual neighborhoods. Within the area most activities should be able to be reached by foot, bicycle, taxi, or bus, rather than depend solely on the auto. Thus, for daily activities, there is little need to venture onto or to cross the auto-dominated arterials that define the boundaries of a district.

This is the theory. In practice, many arterials run through the middle of neighborhoods that might otherwise comprise a transportation district; Route 302 through Riverton, for example, or Route 22 through Stroudwater. Some streets started out as local roads but evolved into cross-town collectors that go through the heart of some districts. Stevens Avenue, Capisic-Frost, and the State Street-High Street couplet are examples. Some parts of the City lack the mix of activity to be even moderately self-sufficient in terms of meeting the day-to-day needs of residents. As a result, residents are forced to leave the area, usually by car, for basic needs.

In a city where the auto has been superimposed on a system of streets and neighborhoods built in earlier times, roadways are often called upon to do double duty: to serve both as a local street and as a regional arterial. Many of Portland's transportation policies are intended to ease the tension between these roles:

- By promoting a degree of self-sufficiency within neighborhoods that might constitute transportation districts;
- By encouraging alternative modes of travel between districts; and
- By sorting out the functions of major streets so that neighborhoods bounded by them can be better protected.

<u>Portland Street System</u> (Plowed by City)	
State Highway	20.44 miles
State-Aid Highways	30.27 miles
City Streets	190.78 miles
Unaccepted Streets	9.71 miles
Island Roads	29.5 miles
Source: Portland Department of Public Works	

For the purpose of this transportation plan, the City has been divided into eight transportation districts as shown on Figure V-1.² Following is a map of the Portland's transportation network (Transportation Map 1).

² The boundaries of each district were located so that no individual neighborhood is split into more than one district. The boundaries are not "official." Conceptually, the eight identified districts serve this Plan's purposes.

Transportation District Concept

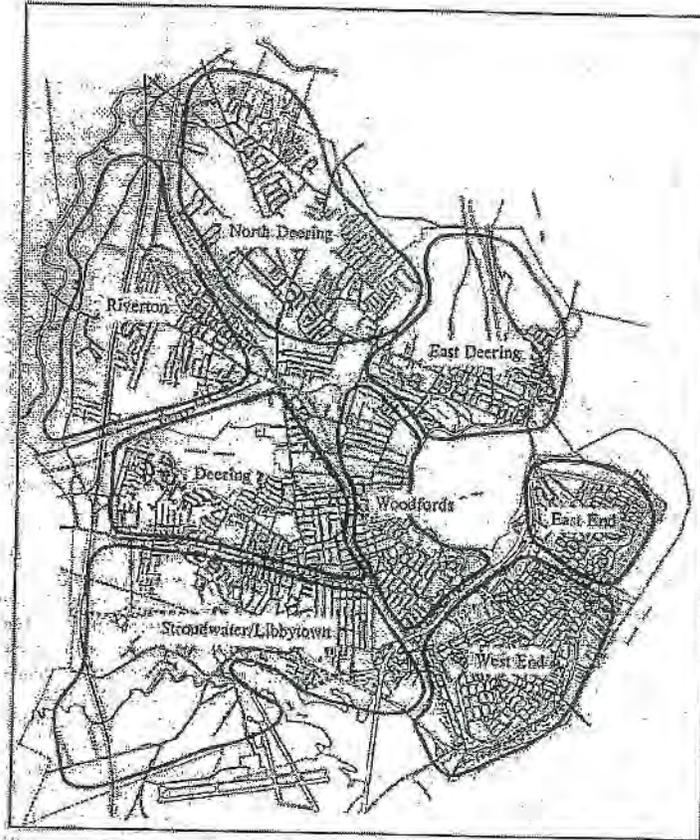


Figure V-1: Transportation districts

Condition of Portland Street System

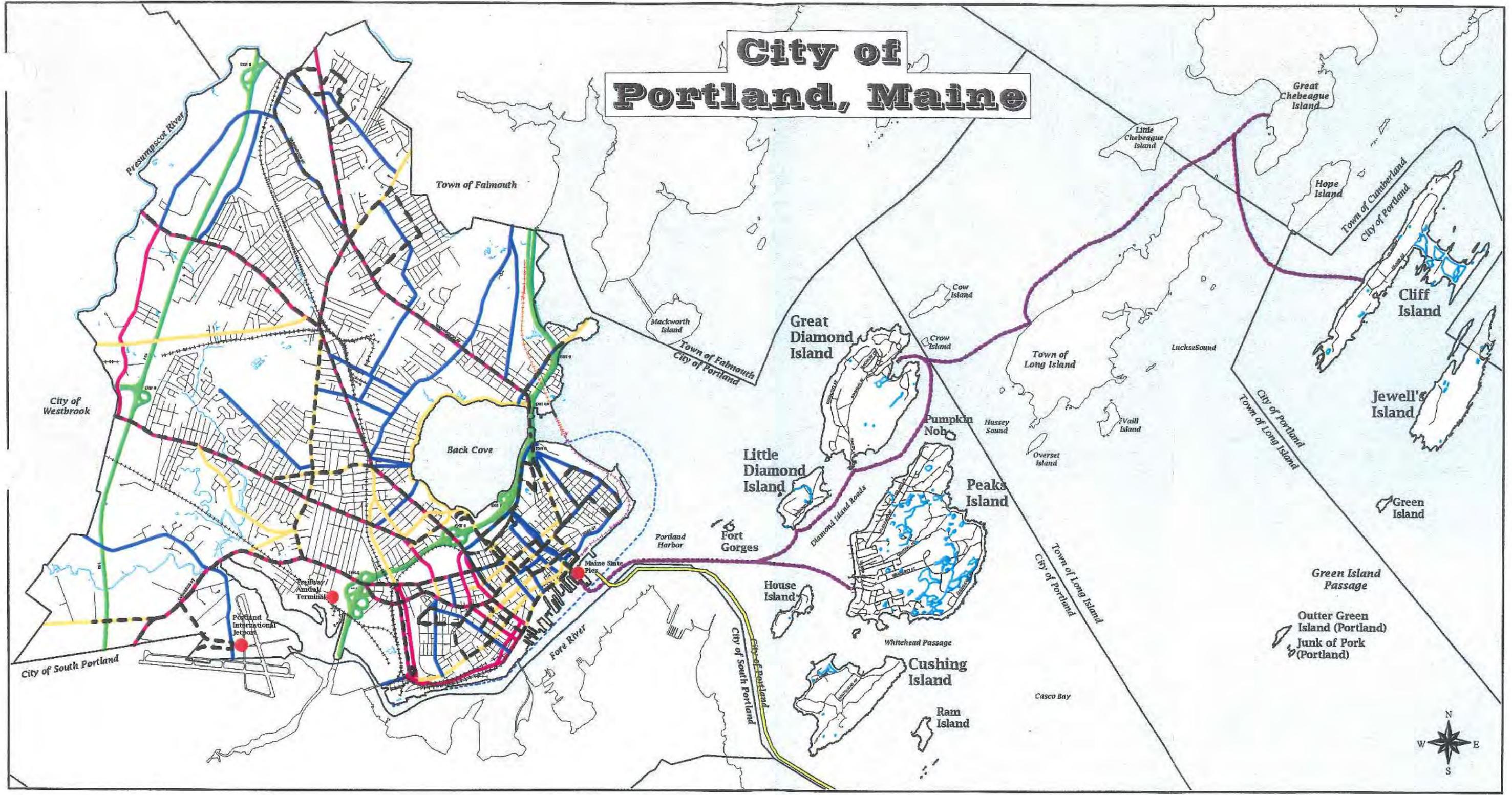
Portland maintains over 230 miles of roadway and evaluates the pavement condition of these streets on an index (PCI) of 1 to 100. Currently 1247 segments of the City's road system have been evaluated. Portland has a paving and street rehabilitation program, which is funded through annual allocations of Capital Improvement Funds. The list of streets planned for improvements during the 2002 fiscal year are included in the appendix along with the rating system and inventory of streets.

City Issues #1 - City Land Use

Within Portland itself, land use has been decentralizing for at least the last 30 years, making transportation by foot, bicycle, and bus more and more unlikely.

The distance a person must travel between destinations is the most important determinant of how he or she will accomplish the trip. Other factors come into play, too: the purpose of the trip (is it to buy five bags of groceries or a quart of milk?); the availability and design of facilities to accommodate the preferred mode (is it safe, comfortable, and uncongested?) and the weather. But distance and time are the *sine qua non*. If the distance is beyond a quarter- or half-mile, experience shows that the average person will

City of Portland, Maine



TRANSPORTATION

0 5000 10000 15000 Feet

FEDERAL HIGHWAY CLASSIFICATION			
	COLLECTOR		BUS ROUTES
	INTERSTATE		FERRY ROUTES
	MINOR ARTERIAL		INTERNATIONAL FERRY
	OTHER PRINCIPLE ARTERIAL		TRANSPORTATION CENTER
			GUILFORD RAILROAD
			ST. LAWRENCE RAILROAD
			MAINE NARROW GAUGE RAILROAD

not walk even if the purpose is merely to buy a quart of milk, the sidewalk is well maintained, and the weather is sunny. If the distance is more than perhaps two miles and certainly more than five, it discourages bicycling among those who may have an inclination toward it but aren't enthusiasts.

If the destination is distant, motorized travel is a necessity. In that case, the choice of motorized travel is related to density, both at the point of origin and at the point of destinations. Studies³ suggest that:

- Local bus systems are most likely to attract a significant number of riders in areas with residential densities of at least 4 dwelling units per acre and, more typically, 7 dwelling units per acre; and they need destinations that contain at least 5 million square feet of business space;
- Light rail transit requires an average residential density of at least 9 dwelling units per acre in a corridor of at least 25 square miles;
- Ridesharing programs can operate in low-density neighborhoods, with park-and-ride lots serving as points of concentration, but the destination of the vehicles has to be relatively concentrated with a floor area ratio (the ratio of total floor area to land area) of 2.0.

Portland's historic pattern of land use continues to make alternative modes of transportation viable options. An estimated 40% to 50% of the City's households live in areas with densities of 7 units per acre or more. Downtown Portland contains on the order of 5 million to 6 million square feet, with most of it built at floor area ratios well over 2.0. Where sufficient densities and concentration of activities already exist to support public transit, or are allowed by zoning, they should be continued and/or obstacles to reaching their potentials (such as unrealistic off-street parking requirements) should be removed.

However, over the last 40 years, the City has experienced three important, decentralizing land use trends that have influenced transportation patterns and modes.

- 1) The percentage of households living at densities that can support mass transit has been dropping.

Between 1960 and 1980 the City's population fell by 11,000 (from 72,566 to 61,572), a loss of 15%. This by itself reduced the City's density. At the same time, the City's residential land use pattern was decentralizing as in-town neighborhoods were changed or even relocated and residential development occurred on the fringes of the City. So the City had fewer people in 1980 than in 1960, and they were spread more thinly across the City.

During the 1980's this pattern changed somewhat. Unlike the previous decades, the City's population grew by 4.5%. However, the pattern of decentralization continued. The North Deering area, for example, saw its population grow by over 40% between 1980 and 1990, reflecting the construction of a large number

³ Pushkarov, Boris s., and Zupan, Jeffrey . Public Transportation & Land Use Policy, 1977; Cervaro, Robert, "Congestion Relief: The Land Use Alternative," JPER, VOL 10, No. 2, pp. 119-129, c. 1990

of low-density single-family developments. In contrast, the peninsula saw its population remain relatively constant (23,243 in 1980, 23,403 in 1990), while older residential areas such as the Ocean Avenue area, the Deering Center neighborhood, and East Deering saw only small increases in their population. Other older off-peninsula neighborhoods such as the Brighton Avenue/Deering Highlands area, Oakdale, and the Libbytown area actually saw their populations decrease. By 1990 an estimated 30% to 35% of the City's households were living in neighborhoods of fewer than 3 units per acre (up from about a quarter of all households as of 1980).

The 2000 Census reports that Portland's population has remained constant over the past decade with only 92 new residents for a total population of 64,249 (0.1% increase from 1990). The average household size has declined by 6% from 2.21 to 2.08 persons /household. This drop in household size is the result of the growth in single person households and other non-family type households.⁴ These trends increase the demand for housing units (a total of 854 units added to Portland's housing stock in the past decade) and contribute to a lower population density. While Portland's total population has remained relatively stable since 1990, population shifts have occurred between neighborhoods. Neighborhoods gaining population include, the Islands, the peninsula neighborhoods of West Bayside and Parkside, and the off-peninsula neighborhoods of Riverton, Stroudwater and North Deering. The neighborhoods losing 5% or more of their population include the East End, Libbytown, Nason's Corner, Deering Center and East Deering. Thus the trend of lower densities and the dispersal of housing units has continued in the 1990's.

2) The organization of commercial uses has changed dramatically

On one hand, there has been some concentration of uses as community stores and services were supplanted by large chain stores in shopping centers. At the same time, these new retail and service centers located in a decentralized pattern across the City. The shopping center style of development is single-story with vast parking lots, creating very low floor area ratios. Recently enacted amendments to the Neighborhood Business B-1 and Community Business B-2 zones encourage more mixed-use and multi-story buildings. The B-1 zone limits the size of buildings to support smaller neighborhood oriented businesses.

3) Land use regulations have favored less density and concentration

In the quest to enhance quality of life, the City has revised its land use regulations significantly over the past decades. The allowable density of residential development was decreased substantially in the R-6 and R-5 districts, the City's principal multifamily districts. The City doubled the off-street parking requirement for all residential uses, making even moderate density residential development difficult and expensive. The stricter standards reduced the density of and potential for mixed-use development in commercial districts. The impact of these well-meaning changes was to restrict the potential for infill-development or redevelopment in the built-up part of the City, further promoting a lower

⁴ "A Profile of Portland Neighborhoods, Greater Portland Council of Governments, 2002.

density/dispersed pattern of land use. More recently, the business zone amendments for B-1 and B-2 enacted in 1999 allow higher density housing above commercial uses and provide for the shared use of parking spaces, thus addressing some of the impacts of earlier changes. No one has taken advantage of the increased flexibility to date, thus the challenge is to encourage developers to build a more urban structure rather than a single-story suburban structure. The goals of the Transportation Plan are unlikely to be met without reaffirmation of historic patterns of development in the City. These patterns were concentrated, diverse and ready-made for choice in transportation.

City Issue #2 - City Mass Transit

The infrastructure necessary for effective mass transportation between transportation districts in Portland is not fully in place.

The Greater Portland Transit District (METRO) operates seven major bus routes, originating from its timed-transfer Pulse at the Elm Street municipal parking garage, Downtown. METRO boardings shrunk from 1985 to 1995 when they bottomed out at 1.14 million. Boardings rebounded in 1996 to 1.3 million boardings in 2001.⁵ The routes follow most of the City's arterials and major collector streets. The most heavily used routes are those that run from Congress Street to Downtown Westbrook via Brighton Avenue (284,660 boardings in 2001), along Congress Street to the Jetport and Maine Mall (265,467 boardings), and from the Eastern Prom to St. John Street via Congress Street and Downtown (193,036 boardings). The Forest Avenue Route, where service has been increased to 15-minute frequency as part of the Forest Avenue Smart Travel or FAST project, came very close to

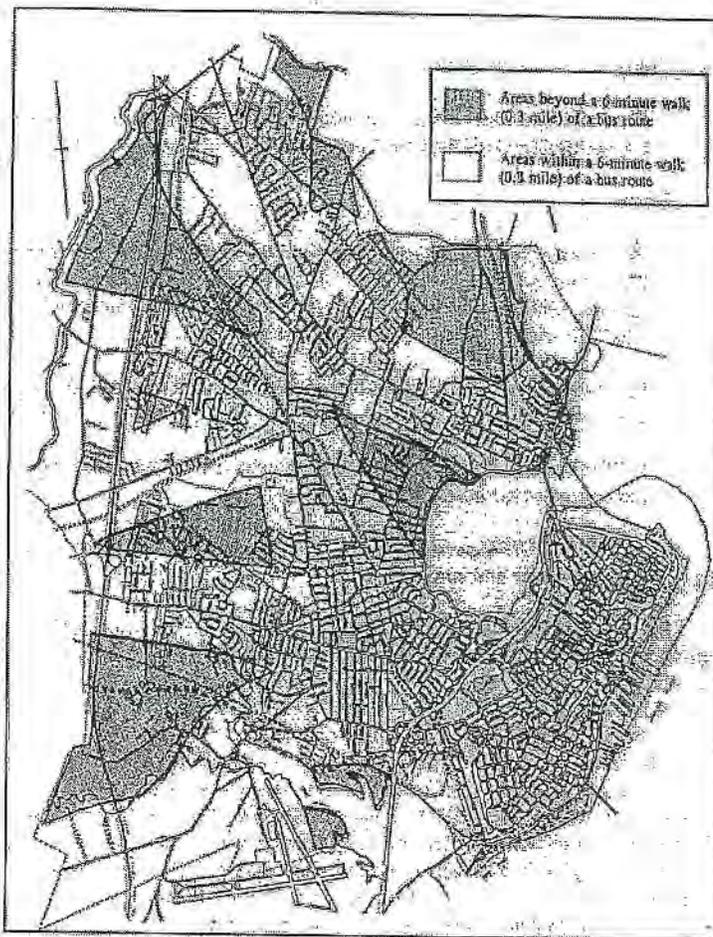


Figure V-3: Most of Portland is within a 6-minute walk of a bus route.

⁵ 2001 ridership numbers provided by Steve Linnell, Greater Portland Council of Governments and John Tibbetts, METRO.

moving into the number three slot in 2001 due to the dramatic surge in ridership (40% increase in boardings) as a direct result of the project.

Beside land use patterns that discourage heavy use of mass transit, the Greater Portland Travel Demand Management Study (Working Paper No. 1, Greater Portland Council of Governments and PACTS, 1993) notes that barriers to its use include unfavorable cost perceptions, lack of information about transit routes and schedules, and inconvenience (in terms of time and frequency of service). Extensions of routes can increase ridership but often have little impact on reducing auto travel. According to the TDM study, a study of the results of extended routes in four relatively small metropolitan areas in different parts of the country found that an average increase of 63% in bus miles traveled yielded only a 0.1% net decrease in regional vehicle miles traveled. Therefore, bus routing has to be carefully targeted. In general, according to the TDM study, a 1% increase in transit service results in a 0.5% increase in patronage. But a 1% increase in service to a central business district yields on average a 0.9% gain in ridership.

City Issue #3 - Local Transport Centers

The City's internal transportation system is developing planned, local multimodal centers that offer choice of transportation or that enables easy shifts from one mode to another.

To think comprehensively about transportation, it is necessary to think in terms of "transportation centers." A transport center is a point at which different modes of transportation meet, and where one can switch from one mode to another. Local multimodal centers would serve a variety of trips, including shopping medical, school, commuting, and other trips. The city's principle transportation facilities, Portland International Jetport, Portland Transportation Center and Casco Bay Lines/Portland Ocean Terminal, are interconnected by Metro and the Portland Explorer. A comprehensive guide to schedules and usage is found at www.transportme.org.

Local transport centers are different, in design if not function, than regional transport centers in several ways:

- Whereas regional transport centers will involve shifts to and from a variety of modes (taxi to air, bus to rail, auto to ferry, truck to shop, etc.), local transport centers almost always will involve a shift to and from a street-related mode (walking, biking, or car).
- Whereas regional transport centers must be located near regional travel networks and be sized for them, local transport centers will be smaller scale and city-oriented.

Local transport centers will have the best chance of success if they are part of larger activity centers with activities, such as shopping, workplaces, services, recreation, and so forth. They might simply be enhancements of existing sites, such as bus stops or park-and-ride lots. As a minimum, they should provide for bus service, park-and-ride, bicycles, convenience services, taxis, and pedestrians. They should be bright, friendly

places, with shelters, lighting, landscaping, and public art. Possible locations for local transport centers – appropriate in part because they already are activity centers are indicated on figure V-6. The PORTLAND EXPLORER, Portland’s Interport Connection, is an express shuttle bus connecting both local and regional transport centers, which was initiated in 2002. It provides continuous service from 6 a.m. to 9:30 p.m. between the Portland Jetport, Portland Transportation Center (Concord Trailways and Antrak/Downeaster), Vermont Transit, Scotia Prince Ferry, Casco Bay Ferry and two hotels, Embassy Suites and Hilton Garden Inn.

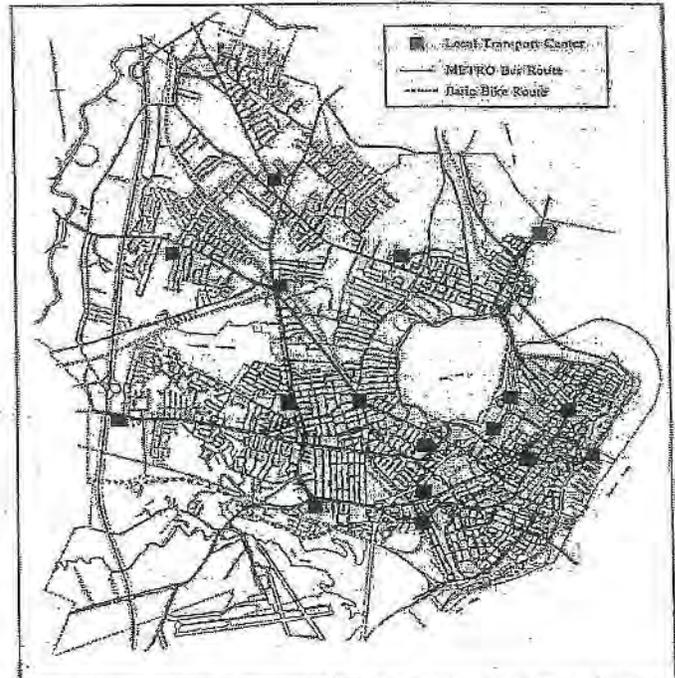


Figure V-6: Possible local transport center locations, placed at activity centers, integrated with bus and bicycle routes

City issue #4 - Bicycles and Pedestrians

Bicycling and walking are viable and important modes of everyday transportation, but ever-increasing auto traffic and planning to accommodate the auto have greatly reduced the opportunity for safe and pleasant biking and walking.

Less than 1 percent (0.8%) of Portland area residents commute by bicycle. The City, however, still has many of the raw materials needed to make bicycling viable. Many of its older neighborhoods are compact and most neighborhoods, old and new, are within bicycling distance of commercial centers, including Downtown. Its mainland is roughly 5 miles by 5 miles, making most in-town travel by bicycle possible within 20 minutes.

Commuting by bicycle will only appeal to a minority of residents. There is good evidence that if the barrier of poor facilities, dangerous traffic conditions, and inadequate routes are overcome, and if employers support this mode with storage and lockers/showers, then the share of bicyclists can increase five to ten times.⁶

⁶ Note: In places that made a commitment to bicycling, this mode now accounts for 2% (Seattle, Portland, OR) to 11% (Chico, CA, Madison, WI) of commuting trips. Places like Madison demonstrate that biking as a mode of commuting is viable in northern climates. A recent Harris Poll found 20% of Americans would bike more often if the facilities were available. A Time of Change: Portland Transportation Plan, July 1993.

Portland received an \$80,000 grant from MDOT to implement a bicycle network of approximately 30 miles throughout the City. The proposed network of bike creates routes throughout the city on collectors and arterials. The design, review, approval and implementation of all 30 miles of the network will be accomplished incrementally, as resources are available. There are 10 projects under consideration in 2002, which include Veranda Street, Bates Street, Baxter Boulevard, Preble Street Extension, Marginal Way, Commercial Street, St. John Street, and Brighton Avenue. The next bike route improvements to be designed will be for Auburn Street, Forest Avenue, Deering Avenue and Washington Avenue.

Many of the problems afflicting bicycling affect walking, as well. However within the City a notable percentage of workers do walk to work: 12.4% according to the 1990 Census. The barriers to walking are in some respects similar to biking (safe, maintained routes, comfortable conditions)

and in some respects different. Traffic and streetscape studies for Baxter Boulevard, Congress Street and Brighton Avenue recommend a range of pedestrian enhancements to improve pedestrian safety and use. Land use patterns – compactness, mixture of uses – are especially important to walking, since the maximum practical commuting distance on foot is fairly short: one to one-and-a-half miles, and less for many. The City established a Crosswalk Committee in 2002 that considers and makes recommendations regarding requests for pedestrian crossings throughout Portland. Recent cross-walk improvements have included count-down lights, overhead signs and lights, red flags for pedestrians to carry, and a range of paint designs to delineate the crossings.

Portland Sidewalk System	
Bituminous	81 miles
Brick	74 miles
Concrete	31 miles
Source: Portland Department of Public Works	

City Issue #5 - Travel Demand Management (TDM) Regulation

Past practice has been to respond to increased traffic by trying to accommodate it. Recent federal and state law shifts the emphasis to “travel demand management,” and this will require the City to reconsider its approach to transportation planning.

At the heart of recent federal and state legislation –the Transportation Efficiency Act for the 21st Century (TEA-21) and the Maine Sensible Transportation Policy Act – is the concept of “travel demand management,” or TDM. The essence of TDM is that before streets are widened or new ones built to accommodate growing traffic, attempts should be made to reduce the volume of traffic during peak driving times.

This is very much a regional issue, particularly in considering proposals for ridesharing, park-and-ride lots, and a coordinated system of mass transit. Proposals for a compact and integrated pattern of land use, local transport centers, and bicycling facilities are also key to TDM. The transportation plan calls for incorporating TDM into ordinances that govern the review of public and private projects within Portland. It is hoped that other communities in the region will likewise consider TDM and that the state through its Site Location Act will assure that large projects in the region implement TDM measures.

City Issue 6 - Arterials in Neighborhoods

Existing arterials carrying through-traffic cut through transportation districts with established neighborhoods, disrupting life in the neighborhoods and putting pressure on the street system that, if expanded in response to the traffic, will further chip away at the integrity of neighborhoods.

The treatment of arterials, whose role is to carry through-traffic, requires different approaches on different roadways. Balancing the need to move goods and people and the need to protect the internal functioning of transportation districts and their neighborhoods is critical. In some cases it is appropriate to encourage more efficient use of the roadway and to mitigate the impacts. In others, it is appropriate to give up some efficiency in the movement of traffic in response to the needs of the neighborhood. And in others, it is necessary to actively discourage use of the roadway in favor of alternative routes of travel.

An effective program of travel demand management, with effective local transport centers and good facilities for bicycling and walking will help mitigate the problem of through traffic. Realistically, however, the problem of through-traffic dividing and disrupting neighborhoods is likely to persist and must be addressed directly. The proposed strategy has four parts, dealing with arterials in four different situations:

1. Where commuting traffic has an alternative to the arterial that is cutting through the transportation district and its neighborhoods, take steps that will discourage use of the arterial (including "calming" traffic through reduced roadway capacity; substituting on-street parking, bike lanes, etc.) and, concurrently, encourage the use of other arterials that are better located (upgrading the latter arterials if necessary). The use of raised crosswalks on Stevens Avenue and concrete center circles at selected intersections on Capisic Street are examples of traffic calming on arterials.
2. Where commuting traffic has no alternative but to take the arterial that is cutting through the transportation district and its neighborhoods, and the land uses are sensitive to the traffic (e.g. Schools, pedestrian-oriented activities), take steps to "calm" the traffic without substantially taking away capacity (e.g., through effective landscaping, definitive sidewalks with esplanades, pedestrian crosswalks, and similar visual cues). The Brighton Avenue corridor between Rosemont and Nason's Corners was reduced from 4 to 3 lanes. The change has not reduced capacity, but has reduced travel speeds. Increased landscaping, improved crosswalks, and a new streetlight have enhanced the pedestrian environment along Forest Avenue (between Preble Street Ext and Woodfords Corner).
3. Encourage commuting traffic to use highways, I-295, Falmouth Connector, and the Maine Turnpike. A toll free zone would encourage local "cross-town" traffic to use the highways in lieu of arterials through neighborhoods.

4. Where commuting traffic has no alternative but to take the arterial that is cutting through the transportation district and its neighborhoods, and where land uses are not highly sensitive to the traffic, take the steps necessary to move the traffic through the area in the shortest time possible during peak periods. The emphasis here is on efficient use of existing pavement, not necessarily widening roadways. Nor does it mean speeding up traffic, but rather trying to achieve smooth, steady flows.

Of the four strategies, priority should be given to the first three. Good physical design and aggressive enforcement of motor vehicle laws are necessary to achieve the desired results of a safe pedestrian environment for residents of all ages.

City Issue #7 - Downtown Parking

Continued efforts to make parking easily available Downtown encourages the travel of autos into Downtown via the arterials that cross local transport areas; but to do otherwise in the face of free and expansive parking in the suburbs may further jeopardize the attraction of Downtown to retailers and major office users.

Portland's Parking Division conducted a survey of downtown parking facilities in 2001. There are fourteen (14) parking garages in Portland with a total of 6,742 spaces. Of this total, the City owns and operates 4 parking garages with 2050 spaces. The City also maintains 1425 on-street parking meters. In addition to the garages, there are 38 privately owned surface parking lots with space for 4332 vehicles. A list of all downtown-parking facilities is located in the appendix and 38 of the centrally located facilities are shown on Transportation Map 3. In addition there are 200 parking spaces primarily used for island parking at the Portland Ocean Terminal.

In May 1992, the City Council adopted a set of goals and policies on Downtown Parking.

The goals can be summarized as follows:

1. To make the experience of parking Downtown a positive one, which means it must be attractive, secure, user friendly, convenient, and affordable.
2. To minimize the amount of prime location Downtown property which is consumed by parking.
3. For the City to play a leadership role to ensure that the long-term parking capacity exists to meet the needs of all, diverse user groups, and to mitigate the extent to which parking cost and availability compromise the competitiveness of Downtown vis a vis the suburbs.
4. To manage the supply of on and off street parking spaces to achieve maximum and optimum use.
5. To cultivate a positive reputation for the Downtown that ample parking is available, safe, convenient, affordable, and easy to find and use.
6. To encourage the Downtown workforce and visitors to reduce reliance on on-site parking for single-occupant vehicles, as top priority. This should include the education of students at the high schools about the costs and benefits of the single-occupant auto versus other modes.

7. To build incentives for owners of surface parking lots located near stores and services to conform to an overall parking plan that calls for day-long parkers to use garages, freeing up the surface lots for turnover, metered parking. Explore shared parking options or pooled parking resources, so facilities are used 24 hours seven days a week accommodating commercial, residential, entertainment and other users.
8. To explore the possibility of using assessments on parking to fund bicycle and pedestrian improvements, so facilities serve multiple uses.

City Issue #8 - The Islands

The islands' transportation needs, both between the mainland and the islands and on the islands themselves, are unique. Of necessity, islanders each day must shift among different modes of travel, and these shifts must operate smoothly and at reasonable expense. Since the establishment of the Casco Bay Island Transit District in 1981, the system has worked well. Issues for the future center around keeping services and equipment up-to-date with the changing demographics of the island.

The populated islands are Cushings, Peaks, Little Diamond, Great Diamond, Long (now a town of its own), Cliff and Great Chebeague (part of Cumberland). Cushings is an exclusively summer community and is tied to Portland by its own ferry service. The Casco Bay Island Transit District serves the other islands year-round.

Although year-round populations have grown, all the islands are highly seasonal. As of the 1990 Census, Portland's islands, including Long, had 1,098 year-round residents, mostly on Peaks. There were a total of 1,366 housing units (including Long Island). Of these, 849 or 62% were used seasonally. The 2000 Census reports that Portland's year-round island population (excluding Long Island) is 1,012. The total number of housing units is 1219, of which 57% or 694 are seasonal units. The island populations (with the exception of Cushings), generate transportation needs filled by the Casco Bay Island Transit District (CBITD) and other barge, landing craft, and water taxi services. The Casco Bay Ferry Terminal, owned by the city is a prominent waterfront intermodal facility. In 1992, CBITD carried a total of 635,262 passengers and 5,093 autos. The figures have risen since then to over 800,000 passengers and 18,000 vehicles, annually⁷. Riders run the gamut from casual day-trippers to daily commuters. Peaks is a significant bedroom suburb. To a lesser extent, so are Cliff, and Great Diamond. Peaks and Cliff have schools that go through the fifth grade. After that the children commute to Portland for school. A significant number of mainlanders do a "reverse commute" to the islands for work.

Freight, fuel, goods, and vehicles are transported to the islands in a variety of ways. Peaks and Great Diamond have transfer bridges that permit the CBITD vehicle ferry to transfer autos or trucks of about any description at any phase of the tide. Vehicle access to the other islands is provided primarily by barge or landing craft and is possible only at

⁷ Casco Bay Island Transit District, www.casbavlines.com

the upper end of the tide range. Excluding large shipments of building materials or fuel, the bulk of down-bay (beyond Peaks Island) freight is carried on the passenger ferries.

Of course in addition to commercial transportation there is a significant use of private craft by individuals for transportation purposes.

CBITD's operating costs are covered nearly completely by revenue collections. The state does provide and maintain island landings rent-free, and the city has provided a one-time \$20,000 subsidy. Also the city subsidizes with discount rents. The city provides discount berth rates and square footage discounts of nearly \$170,000 per year. Subsidies are provided through cruise ship and other waterfront revenue.

One of CBITD's challenges, as it replaces and updates its vessels, is to anticipate demographic changes on the islands: a shift toward more commuters, for example, and an aging population. These changes are influencing the types of future vessels. For example, a new vessel soon to come on line will be equipped with an elevator.

City Issue 9 - Public Participation

The federal Transportation Efficiency Act for the 21st Century (TEA-21) and the Maine Sensible Transportation Policy Act open the door to a stronger local voice in how transportation dollars should be spent.

Portlanders have a history of initiatives in transportation. They include, for example, Portland Trails; the Narrow Gauge railway; a system of bicycle pathways, the Brighton Avenue lane reconfiguration, the proposed I-295 connector, and a current study of ways to reduce traffic through Deering Oaks Park. These are examples of creative ideas that can be spawned by open participation in transportation planning.

III. MOVING IN AND OUT OF PORTLAND: THE REGION

Portland has a major presence in the region and state, serves them with regional transportation facilities, and is affected by the many decisions about transportation made by surrounding governments, and by the thousands of individuals living in neighboring communities. It is essential, therefore, that by dint of cooperation and leadership, Portland offer policies to influence the movement of people and goods into and out of the city, from and to the larger region.

Regional Issue #1 - Regional Land Use

Land uses in the region are spreading out, commercial activity is decentralizing, and housing is being built at lower and lower densities. These trends translate into congestion on the city's and region's arterials.

Transportation systems exist to move people from one land use to another. Demand for transport and the resulting traffic stem almost entirely from how land is used and organized.

The developing pattern of land use in the region is systematically locking it into dependence on the single-occupant auto. A spread-out pattern of development leaves few alternatives. Unfortunately, sprawl is aided and abetted by public policy:

- Energy and tax policies keep gasoline, and thus the cost of commuting long distances, inexpensive.
- Burying the costs related to the means of auto travel- in road and parking lot construction and maintenance, for example - put other modes at competitive disadvantage.
- Local land use policies and zoning ordinances in the region not only encourage sprawl but also, through requirements for large lots, wide frontages, and prohibitions against mixed use, require it.
- Practices governing the funding of new or expanded roads are designed merely to react to traffic problems created by sprawl. They generally do not try to rein in the sprawl.

Portland's own transportation problems won't be solved, and new transportation opportunities won't be seized, unless policies influencing the pattern of land use in the region are changed. This means advocating for change in federal and state gasoline tax policy. It means working with government and employers to "monetize" costs of commuting and parking. It means arguing for new directions in land use policy in the region and for different practices in the selection and funding of transportation improvements in the area.

To assure that Portland is not placed at a disadvantage in the region, it is essential that policies affecting auto-related practices, such as off-street parking be implemented regional and through the State's Site Location Act.

Portland also can lead by example. It can do so by working with other municipalities, GPCOG, PACTS, and MDOT to write model zoning and subdivision ordinances that are "friendly" to alternative modes of travel. Portland is participating in PACTS planning process to produce a regional transportation plan, which incorporates land use recommendations.

Regional Issue 2 - Economy and Regional Transport Centers

Portland depends on a network of air, rail, sea, and highway travel to tie it to a global economy.

A. Air Transportation

Since the opening of the original terminal in 1968, the Portland international Jetport has seen steady growth. As the table below shows, passenger and cargo numbers have climbed each fiscal year (with the exception of fiscal year 2002 which includes September 2001). The Jetport is currently served by six major airlines (American Eagle, Continental Express, Delta, Northwest, United Express and US Airways) and several commuter carriers offering more than 100 flights per day. The Jetport is also home to two cargo carriers (Federal Express and Airborne Express).

**Jetport Activity
Fiscal Years 1996-2002**

Fiscal Year*	Passengers	Cargo (in pounds)	Operations
1996	1,129,038	18,122,430	120,130
1997	1,154,804	21,062,472	118,439
1998	1,256,021	32,239,823	129,681
1999	1,342,131	29,631,079	131,108
2000	1,347,640	34,809,427	112,059
2001	1,353,680	34,425,329	112,774
2002	1,211,185	29,632,980	105,862

* The Jetport's fiscal year runs from July 1 through June 30

To accommodate the demands of Maine travelers, a number of enhancements have been made at the airport over the past several years. They include, the expansion of the terminal in 1982, 1988 and 1995, the addition of six new boarding bridges, the redesign of a the airport roadway system to improve traffic flow, the opening of a new turnpike exit (with the cooperation of the Maine Turnpike Authority and the Maine Department of Transportation), the reconstruction of the parking garage, the construction of new cargo buildings and the resurfacing of the main runway.

With passengers numbers expected to increase in the coming years, several improvements are planned – such as a new boarding bridge and terminal expansion – while others are already underway, including: a new 1,400-space parking garage that will house a consolidated car rental facility (to open in 2003 and will double the available

public parking), and an enlarged baggage claim area (2004). Additionally, improved navigational aids and centerline runway lighting will be installed to help reduce delays and cancellations during inclement weather.

B. Rail Transportation

Greater Portland is tied into the state and national rail networks by the freight service of the Springfield Terminal Railroad, which is owned by Guilford Transportation Company (formerly the Maine Central and Boston & Maine Railroads). Direct connection from Portland Waterfront into the Canadian rail network was lost when the trestle on the Grand Trunk line of the Canadian National railroad burned and was not repaired. The St. Lawrence and Atlantic Railroad now operates freight service on the former Grand Trunk line, which connects with the Springfield Terminal network at Yarmouth Junction, just north of the city. Regular service is still provided into East Deering. Passenger service in the form of excursion rail is fairly regular in September and October each year.

Freight movement in Maine increased by 12% (10,628 cars) while the tonnage of rail freight increased by 17% (1.1 millions tons) between 1996 and 1998.⁸ The total tonnage of freight shipped to Maine has been between 4 and 4.2 million. In 1997, the tonnage increased to 4.5 million. The freight shipped from Maine includes pulp and paper (more than half of tonnage), petroleum, chemicals, coal, glass and stone.

In December 2001 passenger rail service was restored to Portland from Boston with several stops in between. The passenger station shares the Concord Trailways Bus Station on Thompson's point and a new interchange provides direct access from I-295. Ridership has exceeded expectations and plans to expand the service to other parts of Maine are underway. MDOT is evaluating the options for extending passenger service and a multimodal terminal building is being considered on Marginal Way. The reintroduction of passenger rail opens opportunities not only for interregional travel, but also for commuter rail into Portland.

C. Water Transportation

Commercial: The Port of Portland is a regional distribution point for consumer and industrial goods. The port is 10 miles from the open ocean. Its main ship channel is 1,100 feet wide, with depth of 45 feet at mean low water (MLW) to the Diamond Island Roads Anchorage. The channel is maintained at a depth of 35 feet MLW from the anchorage upstream to the Rolling Mill docks. The harbor has 50 wharves and piers with 51,620 linear feet (refer to Waterfront Map 1). Included on the Portland side are two major cargo facilities:

- The city-owned International Marine Terminal has 750 linear feet of berthing. The facility was renovated in 1990 and 1993. In 1991 weekly containerized cargo service was inaugurated by Germany-based Hapag-Lloyd America, Inc. between Portland and Halifax, N.S., with connections to Europe and the Far East. The facility also serves Maersk-Sealand. The annual

⁸ PACTS 2025 Regional Transportation Plan, Draft 6/9/02, Prepared by: Wilbur Smith Associates and Greater Portland Council of Governments

total number of container moves reached a high in 1999 and the annual figures between 1997 and 2001 are as follows⁹:

<u>Year</u>	<u>1997</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>	<u>2001</u>
<u>Container Moves</u>	2173	1492	2706	2011	1639

- The International Marine Terminal (operated by the Portland Department of Transportation) will become a dedicated container terminal, with the development of the former BIW site for cruise ships and the Scotia Prince Ferry.
- The privately owned Merrill's Marine Terminal, built in 1983, has 900 feet of berthing, 450 feet of roll-on/roll-off berthing, a 175-ton crane, and a 50-railcar siding. Major cargoes shipped in and out of Merrill's include coal, lumber, salt, baled wood pulp, paper, frozen fish, scrap metal, tapioca, and machinery.

Passenger: The harbor has both local and national/international passenger service. Scotia Prince Cruises provides, via the M/S Scotia Prince, daily service between Portland (International Ferry Terminal) and Yarmouth, Nova Scotia from May through October. In 1990 it carried 165,000 passengers, 30,000 cars, and 2,000 trucks and buses. In 1999, The Scotia Prince transported 160,000 passengers. In addition, over the last few years, Portland has become a recognized port of call for cruise ships. The port averages 35 cruise ship calls per summer and fall. The passenger count for the cruise industry rose significantly between 1989 and 2001 with the number rising from just under 10,000 passengers a year to 45,000 per year.¹⁰

The Casco Bay Island Transit District provides local ferry service to the islands of Casco Bay on a daily, year-round basis. Annually, CBITD serves over 900,000 passengers, carries freight, and transports 18,000 vehicles.¹¹ The district is based at the Casco Bay Ferry Terminal, which was built in 1986 at the junction of Commercial Street and Franklin Arterial along with a 400-car parking garage. It is an intermodal facility in its accommodation of land and water taxis, bicycles, buses, and foot traffic to and from the ferry. In addition, numerous recreational cruise companies offer daily excursions and are an important tourist attraction.

D. Maine Turnpike¹²

Over its 100-mile length, about 55.7 million vehicles traveled on the Maine Turnpike in 2001. This marked the 10th consecutive year that total traffic on the Turnpike has grown. Over that time, traffic has increased by over 60%. This equates to an average growth rate of 4.9% per year.

⁹ Portland Department of Transportation, www.portofportland.org/container.html

¹⁰ Portland Department of Transportation, www.portofportlandmaine.org/cruise.html

¹¹ Casco Bay Island Transit District, www.casbaylines.com

¹² Maine Turnpike Authority, Rebecca Grover, Assistant to the Manager of Govt. Relations, June 2002.

Table 1 summarizes the total number of Turnpike trips from 1990 to 2001.

Table 1 – Total Turnpike Trips, 1990-2001

Year	Trips
1990	37,083,712
1991	34,520,240
1992	36,836,284
1993	37,521,962
1994	39,624,770
1995	41,440,803
1996	42,481,234
1997	45,741,534
1998	47,784,836
1999	51,946,294
2000	54,660,791
2001	55,686,078

The Greater Portland area accounts for many of the trips taken on the Turnpike. Nearly one out of every five Turnpike trips originates at either Exit 7, Exit 7A, or Exit 8. In fact, with the exception of the York toll plaza, Exits 7 and 8 are the two busiest interchanges on the Turnpike.

Table 2 summarizes the number of entering trips at each of the Portland interchanges. The table also identifies the proportion of Turnpike trips that originate at these interchanges.

Table 2 – Entering Vehicles at Portland Interchanges

Year	Exit 7		Exit 7A		Exit 8		Total	
	Enter	% of Total	Enter	% of Total	Enter	% of Total	Enter	% of Total
1990	3,505,000	9.5%			2,992,000	8.1%	6,497,000	17.5%
1991	3,469,000	10.0%			2,941,000	8.5%	6,409,000	18.6%
1992	3,516,000	9.5%			2,998,000	8.1%	6,514,000	17.7%
1993	3,546,000	9.4%			3,046,000	8.1%	6,592,000	17.6%
1994	3,517,000	8.9%	N/A		3,277,000	8.3%	6,794,000	17.1%
1995	3,535,000	8.5%			3,448,000	8.3%	6,983,000	16.9%
1996	3,596,000	8.5%			3,528,000	8.3%	7,124,000	16.8%
1997	3,731,000	8.2%			3,646,000	8.0%	7,376,000	16.1%
1998	3,865,000	8.1%			3,764,000	7.9%	7,629,000	16.0%
1999	3,947,000	7.6%	412,000	0.8%	4,459,000	8.6%	8,817,000	17.0%
2000	3,861,000	7.1%	1,912,000	3.5%	4,861,000	8.9%	10,634,000	19.5%
2001	3,827,000	6.9%	2,144,000	3.8%	4,560,000	8.2%	10,531,000	18.9%

Exit 7A opened for traffic on September 29, 1999. Since that time, the total number of vehicles entering the Turnpike from the Portland interchanges has increased from 7.6 million (in 1998) to 10.5 million (in 2001). This remarkable growth (over 11% per year) suggests that many vehicles in the Greater Portland area that used to travel on local roads are now taking advantage of the new interchange and shifting to the Turnpike for a portion of their journey. More of the same is likely when the new Rand Rd. interchange (Exit 7B) opens in the Fall of 2002. A toll free zone could encourage increased use of the highway system for local "cross-town" traffic in lieu of the city's arterials.¹³

E. Trucking

Trucks are the major carrier of freight in the region. They were estimated in 1985 to account for more than 135,000 trips daily (PACTS Arterial Study, Vanasse Hangen Brustlin, Inc. January 1988, p26) in Greater Portland. This was about 17% of all trips on the area's roadways. Forecasted annual heavy haul truck volume growth for Cumberland County is 1.25%.¹⁴ Estimated heavy truck volume growth in Cumberland County, between 2000 to 2015, is 68% on minor arterials and 54% on major and minor collectors.¹⁵ In Maine, there has been a steady increase in freight transportation by truck as compared to other modes of freight transportation between 1982 and 1997:

<u>Year</u>	1982	1991	1995	1996	1997
<u>Truck Transportation</u>	65%	82%	87%	88%	89%

Regionally there are 30 interstate carriers with main or branch terminals in Greater Portland. Eight of the terminals are in Portland. There are thirteen (13) terminals to the south in South Portland and Scarborough, in the Route 1-Pleasant Hill Road area, from which there is good access to the Turnpike. Nevertheless, many of the trucks/destinations for both pick-ups and deliveries are the manufacturers, distributors, retailers, shippers and others in Portland. It is also important to note that the 1999 number of commercial vehicles registered in Portland is 4076, which is 38% of the combined total of commercial vehicles registered in Westbrook, South Portland, Scarborough, Portland, Gorham, Falmouth and Cape Elizabeth.¹⁶

F. Bus Transportation

Several public and private operators provide bus service to and from the region. See issue 4.

G. Regional Transportation Centers

While the City's role as a hub of regional transportation has long been appreciated, it has not always been viewed comprehensively. Many of the City's regional transportation facilities had developed as single-purpose centers and the components of regional

¹³ Edited, Department of Planning and Development, Portland, 2002.

¹⁴ Source: Maine Statewide Travel Demand Model.

¹⁵ Source: A heavy Haul Truck Network for the State of Maine, Wilbur Smith Assoc., August 6, 2001 Draft

¹⁶ PACTS 2025 Regional Transportation Plan, Draft 6/9/02, Prepared by: Wilbur Smith Associates and Greater Portland Council of Governments

transportation were disjointed. This results in inconvenience and economic disadvantage; as, for example, when connections between highway and waterfront terminals are indirect, or connections between airport and the central business district are primarily by auto through a residential neighborhood.

The Transportation Plan recommended thinking comprehensively about regional transportation and to think in terms of "transport centers." A transport center is a point at which different modes of transportation meet, with the facilities to allow switching from one mode to another. "One mode to another" includes switching from a single-occupant auto to a carpool, as well as to an entirely different mode.

1) Passenger Transport Centers

Every regional, passenger transportation terminal (airport, railroad station, etc.) of necessity becomes a kind of transport center because the auto and, to a limited extent, other modes are used to get to and from the terminals. Thus, for example, the Jetport is served by private auto (with parking garage and surface lots), bus, taxi, and charter services.

When the Transportation Plan was developed in 1993, most of the transport centers in Portland were "single-purpose" centers, developed to allow for the transfer to the specific mode at hand (air travel, rail travel, carpool, etc.). The Transportation Plan called for a more integrated approach and recommended the following centers be developed as regional inter-modal transportation centers:

- Portland Jetport
- AMTRAK station/ Concord Trailways
- One or more Turnpike Interchanges
- Waterfront from International Ferry Terminal to Merrill's Terminal
- Proposed Passenger Terminal Facility at former BIW site

Since then, significant progress has been made in establishing "multi-purpose" transport centers: "nerve centers" at which travelers arrive by one of several possible modes and decide to switch to another of several possible modes. The Portland Transportation Center serves as the hub for the Concord Trailways bus company and the AMTRAK/ Downeaster passenger rail service. Plans are underway to build Ocean Gateway, a passenger facility for cruise ships and the Scotia Prince, at the former BIW site. Multiple transportation modes will serve this facility and the adjoining Casco Bay Ferry Terminal. City and State officials are also seeking to extend passenger rail service in Maine and create a multi-modal commuter station in Bayside. The City has also pursued a more integrated system with the PORTLAND EXPLORER, which is an express bus providing transport from 6 a.m. to 9:30 between other transport centers and hotels. This service started in 2002 and serves the following locations: Portland Jetport, Embassy Suites, Hilton Garden Inn, Portland Transportation Center, Vermont Transit, Scotia Prince Ferry, and Casco Bay Ferry.

Portland is also planning a transportation center in Bayside with adjoining high density redevelopment opportunities. The Bayside Plan envisions the entire district to be developed with an urban mix of uses, (residential and commercial) at high densities and using principles of transit oriented development. The plan includes roadway and transit infrastructure for AMTRAK and commuter rail service, convenient mass transportation access, pedestrian and bicycle trails, and higher densities for development, which are intended to create an integrated transportation system with less reliance on automobiles.

Park-and-ride lots also play a role as transport center, through at present primarily by allowing a switch from single-occupant auto to ridesharing. Park-and-ride lots and ridesharing are discussed later in this chapter.

2) Commercial Transport Centers

Instead of autos, the connecting mode for commercial transport centers is trucks, traveling to or from shops in Portland Harbor and rail at warehouses or rail sidings. An exception is Merrill's Marine Terminal, where roadway, rail, and sea-borne modes of transportation converge. While, this terminal has lacked direct access to the interstate highways, the plans for the I-295 Connector will address this deficiency. The new connector will better serve the entire waterfront and ease access to the Jetport. The existing commercial transport centers are:

- International Marine Terminal
- Merrill's Marine Terminal
- Portland Jetport.

Regional Issue #3 - Conflict with Neighborhoods

Conflict between regional transportation facilities and neighborhoods is possible, but it creates opportunity to address transportation issues imaginatively.

Regional transportation facilities are, by their nature, sizable and often intrusive. This is especially so where neighborhoods historically grew up around transportation centers. The challenge to the City is to find, through siting, design, and negotiation, acceptable balance between these facilities and the neighborhoods. Portland has examples where this has worked: Merrill's Marine Terminal and the West End neighborhood, for example. It also has examples where vigilant neighborhoods and the City have been doing the hard work of looking for the balance, such as in the case of the Jetport and Stroudwater neighborhood.

Regional Issue #4 - Regional Mass Transit

When the Transportation Plan was written in 1993, regional mass transportation was largely unavailable and to the extent it is available, not well coordinated. Significant improvements have been made to expand the availability and to create an integrated system. It is important that these efforts continue.

Mass transit in the Portland region is served by buses, ferries and recently restored rail service to Boston. The regional bus system, operated by the Greater Portland Transit District (METRO), has both shrunk and been fractured during the last 15 to 20 years. In 1975 the system had 3.7 million passenger trips. At that time, the system included Portland, South Portland, Westbrook, and Cape Elizabeth, with service to the northern suburbs. In 1978 the service to the northern suburbs ended for lack of ridership. Also in 1978 Cape Elizabeth withdrew from the system. In 1983 South Portland withdrew and initiated its own local bus service. In 1984 METRO lost the benefit of special-fare tickets for low-income and other groups eligible for service from the countywide Regional Transportation Program. In 1985 the system lost its service to schoolchildren, who began to ride school buses.

As a result of these blows – as well as the general spreading out of the region's population in patterns and densities that preclude bus service – ridership on the regional METRO fell to less than 1.2 million as of 1995. Since that time boardings have begun to increase, reaching nearly 1.3 million in 2001. Better marketing and route adjustments account for the early upswing in riders. Another boost in ridership came with the inception of the Forest Avenue Smart Travel (FAST) project in June of 2000, which doubled frequencies to every 15 minutes on one of the busiest travel corridors in the City. This project has netted a 40% increase in boardings on Route 2.¹⁷ According to the Greater Portland Travel Demand Management Study, there are 20 mass transit boardings per capita in Portland, accounting for 1% of all trips (work, shopping etc.).

In addition to METRO, the Regional Transportation Program provides paratransit (door-to-door) service by advance reservation for several human service client groups. Intrastate and interstate is provided as follows:

1. *Vermont Transit*, whose terminal is at St. John and Congress streets;
2. *Concord Trailways*, which is based on Thompson's Point and provides nonstop service to Boston and Bangor and service to the midcoast;
3. *Mermaid Transportation*, which gives direct service between Portland and both the Logan Airport in Boston and the Manchester Air Port;
4. Biddeford-Saco-Old Orchard Beach Shuttle Bus operates a shuttle, the *ZOOM Bus*, to downtown Portland;
5. *Downeaster* is the new *AMTRAK* service operating daily between Portland and *Boston*. It should be noted that 56% of all rail travel on the Downeaster begins or ends at the Portland Terminal ;
6. *PORTLAND EXPLORER* is the inter-terminal shuttle linking the Jetport, two hotels, Portland Transportation Center (Amtrak & Concord Trailways),

¹⁷ Updated by Steve Linnell, Greater Portland Council of Governments.

Casco Bay Island Transit District, Vermont Transit on demand, and Scotia Prince twice each evening.);

7. Eight Portland-based *taxi companies* (with at least 4 vehicles and provide service 24 *hours/day*, seven days/week) also provide transit in and around Portland. They are an important part of the regional transportation mix, in that they allow easy shifts to and from air, rail, and sea travel. A number of limousine services are also available in the area; and
8. *Proposed commuter rail* to Pineland, Brunswick, and Lewiston/Auburn. With reintroduction of passenger rail, plans are underway to take advantage of this opportunity to provide and promote commuter rail service into Portland.

Regional Issue #5 - Ridesharing – Carpools and Vanpools¹⁸

Commuting within Greater Portland and into Portland is primarily via single-occupant auto. Given the low-density development of the suburbs, most mass transit options, especially in the second – and third-tier suburbs, may not be workable.

Ridesharing (carpools and vanpools) can work in low-density situations where mass transit may not. It refers to moving commuters from single-occupant vehicles to multi-occupant vehicles. Public agencies can help ridesharing by providing Park-and Ride lot facilities; matching services to connect commuters with similar origins, work-schedules and destinations; information about commuting options; and incentives to encourage carpooling. Private employers can promote ridesharing by promoting commute alternatives, assisting with carpool matching, and establishing vanpool service.

Park-and-Ride lots are an important element of the system that makes ridesharing work. They “concentrate” commuters from dispersed, low-density suburbs and make possible a switch from single-occupant vehicles to multi-occupant vehicles: a carpool, a vanpool, or, if the critical mass warrants it, a bus.

At present in Greater Portland there are 20 Park-and-Ride lots in Greater Portland¹⁹ with approximately 1,500 spaces. Four of these lots are located in Portland:

- I-295 Exit 7 at Marginal Way and Franklin Arterial – 142 spaces
- Marginal Way at Preble St. (USM commuters only)- 70 spaces
- Maine Turnpike Exit 7A (Portland Jetport) – 74 spaces
- Maine Turnpike Rand Road interchange (due to be completed late 2002) – 90 spaces planned

¹⁸ Updated by Steve Linnell and Carey Kisch, Greater Portland Council of Governments

¹⁹ This includes lots in Biddeford, Saco, Scarborough, South Portland, Portland, Westbrook, Falmouth, Yarmouth, Freeport, Gray, Gorham and Windham.

At present, five of the region's Park-and Ride lots are served by at least one means of public transit (local bus, intercity bus, rail). Five lots are also served by commuter vanpools. The Greater Portland Council of Governments has conducted a rideshare program and according to their figures, the number of carpools has increased from 7 in 1994 to 238 in 1999.²⁰ The Maine Department of Transportation and the Maine Turnpike Authority initiated a new statewide Commuter Transportation Resource Program in January 2002. The GO MAINE Commuter Connections program is operated by the Greater Portland Council of Governments, and is working with commuters, employers, planning agencies, transit operators, and other local and regional partners in the Greater Portland region and throughout Maine. The objectives of the program are to build awareness and increase demand for transportation options, such as carpools, vanpools, and public transit, in order to improve air quality, reduce traffic congestion and lower commuting costs.

Regional Issue #6 - Bicycle and Pedestrians

Bikeways and walkways are not viewed as legitimate elements of the regional transportation system but are essential to meeting the goals of this Plan.

PACTS first published a Regional Bikeway Plan in 1982, which was supplanted by PACTS Regional Bicycle and Interim Pedestrian Plan in 1995. The plan calls for a continuous network of bikeways from Scarborough on the south to Yarmouth on the north and to Gorham and Windham on the west. The plan identifies priority 1 and 2 bike corridor routes for commuting. As a result, the routes follow or parallel the regional arterials and, like the arterials, converge on Portland in the vicinity of Baxter Boulevard and on the peninsula. [insert map] The 1995 plan also identifies the potential facility types needed to create this network, such as off road paths, paved shoulders, wide curb land and designated bike lanes. Segments of the regional bikeways have been built for example, along Route 88 in Falmouth, Route 77 in Cape Elizabeth and Scarborough, and over the Casco Bay Bridge.

According to the PACTS study, most of the major commuting routes have continuous sidewalks in Portland. Experience elsewhere shows that where facilities are made available, a significant percentage of commuters will use them. In addition to bikeways and walkways, accommodations have to be considered for intermodal transportation (such as bike racks on buses) and at the point of destination (such as showers and lockers).

²⁰ PACTS 2025 Regional Transportation Plan, Draft 6/9/02, Prepared by: Wilbur Smith Associates and Greater Portland Council of Governments

Regional Issue #7 - Congestion

The City's arterials are increasingly congested, while controlled access highways may not be used to highest efficiency.

The issue is two-fold. First, the City's arterials are used simultaneously as through-roads and as local service roads. Second, interchanges governing access to highways and policies governing their use may not allow diversion of regional traffic to the fullest extent possible. As mentioned earlier, a toll free zone could encourage increased use of the highway system and lessen demands on the city's arterials.

Congestion on the City's arterials is increasing. Seven regional arterials converge on Portland, like spokes converging on their hub, from south, west, and north:

- Route 77 from the south
- Routes 22 and 25 from the west
- Routes 302 and 26/100 from the northwest
- Route 1 from the north and south
- Route 9 from the north (Route 9 joins Route 22 in Portland and later with Route 1 before regaining its identity in Scarborough to the south)

See Action Box No. R-7.

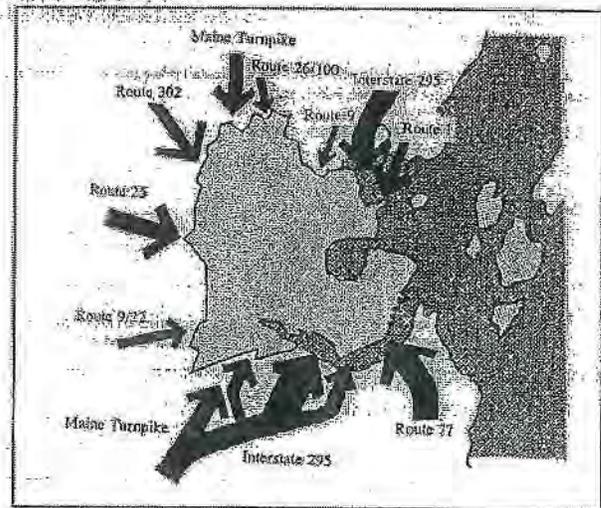
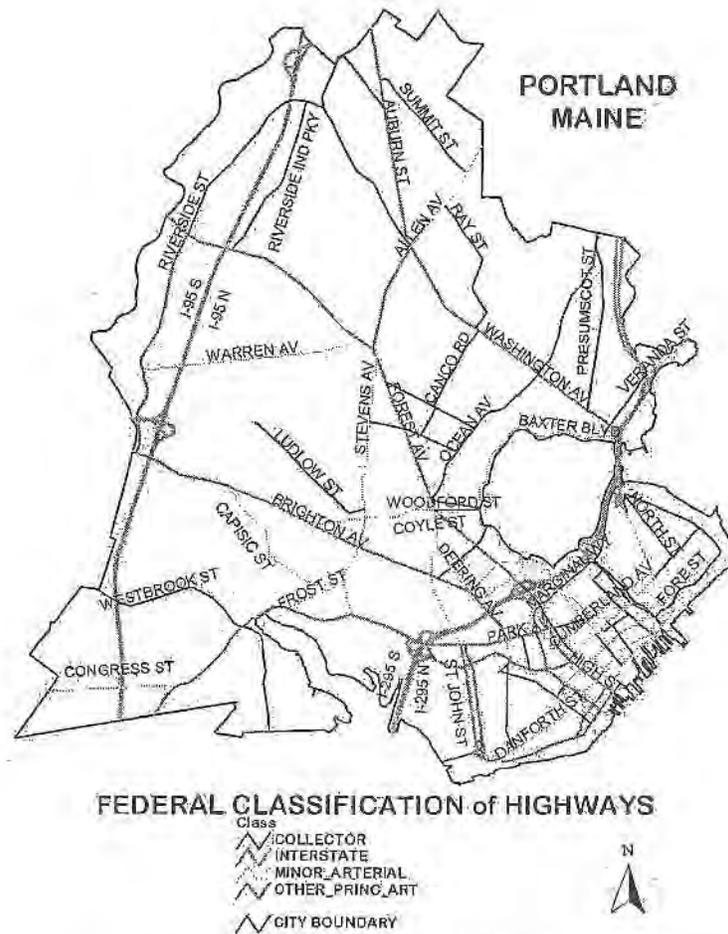


Figure VI-7: Regional traffic flows

In addition there are two interstate highways – The Maine Turnpike and I-295 that travel through Portland south and north. The Federal Classification of highways is shown on the next page.

Each of these arterials is an economic lifeline for Portland, connecting the city with regional and national markets and with workers and shoppers who live in the suburbs. In 1988, most of region's arterials had deficiencies in safety and mobility along parts of their lengths, according to the PACTS Arterial Study (Vanasse Hangen Brustlin, Inc. Jan. 1988, pgs. 18-19). Improvements to the system have eliminated many of these deficiencies. However, recent analyses²¹ indicate there are 30 intersections within Portland and 5 segments of arterials (including 2 segments of I-295) that are over capacity. The draft regional plan also identifies 40 intersections that are considered safety deficient (many are over capacity locations also). PACTS draft map of the peak hour congestion in the region is on the last page of this chapter. According to PACTS'

²¹ PACTS 2025 Regional Transportation Plan, draft map 4/2/01, Existing Peak Hours Congestion, based on MDOT'S database for 2000 and various planning studies, and draft map 2-12-01 Planning Level Signalized Intersection Analysis.



Map prepared by the City of Portland's Public Works, Design and GIS Workgroup July 2001

estimates, 45 Portland intersections will be deficient for mobility in 2025. Definitions of “safety” and “mobility” are specific, engineering definitions. For example, a “safety” deficiency exists where there have been more than eight accidents within three years and the number of accidents is higher than would be expected for this type of location. In less technical terms, safety has to do with how “safe” you feel walking along a street, or how “safe” parents feel letting their children cross a street. By these very human definitions, problems of safety may be much more widespread.

Existing and pending congestion is not merely or even primarily a mobility problem. It is also an air quality problem, the first solution to which is not more roadways but creative use of existing roadways and public transit. Portland is conducting the Peninsula Traffic Study to evaluate current and future traffic conditions for the peninsula and to identify necessary improvements for an integrated traffic system serving all users.

PUBLIC FACILITIES AND SERVICES

Inventory and Analysis

PUBLIC FACILITIES AND SERVICES¹

I. MUNICIPAL GOVERNMENT IN PORTLAND

The City operates under a charter adopted November 4, 1986, as amended (the "Charter"), providing for a Council-Manager form of government with a nine-member City Council. Each of the City's five voting districts elect one Council member, with four members being elected from the registered voters of the entire City at-large. The Council members are elected for three-year staggered terms. The Charter grants to the City Council all powers to enact, amend, or repeal rules, ordinances and resolutions relating to the City's property, affairs and government, to preserve the public peace, health and safety, to establish personnel policies and to authorize the issuance of debt. The entire Council, working as the Finance Committee, adopts an annual budget and provides for an annual audit. The City Manager is the administrative head of the City and is responsible to the City Council for the administration of all departments.

II. MUNICIPAL FACILITIES AND SERVICES

Portland provides general governmental services for the territory within its boundaries, including police and fire protection, construction and maintenance of highways, streets and sidewalks, parks, recreation and coastal areas, health and social services, planning and zoning and general administrative services. Public education is provided for grades Kindergarten ("K") through 12 and for applied technology education. The City employs approximately 1,371 full and part-time employees; in addition 1,396 people are employed by the School Department. Public Facilities Map #1 shows the location of municipal facilities in Portland.

The City owns and maintains its own sewer collection and interceptor system and is responsible for the costs of maintenance, improvements and expansion of the system to provide transmission of sewage to the Portland Water District's treatment plant. The Portland Water District owns and operates the treatment plant, the use for which the City pays a monthly fee. The Portland Water District also provides water service to the City's inhabitants.

A. Police Department

The Police Department is staffed by 223 employees who include one Chief of Police, two Deputy Chiefs, one Captain, 7 Lieutenants, 19 Sergeants, 130 Police Officers, 18 public Safety Dispatchers, three Police Dogs, two horses, and two Animal Control Officers. The Police Department operates from the downtown Public Safety Building. The Police Department maintains 54 vehicles, which are in good repair.

¹ Official Statement Dated March 21, 2002, City of Portland, Maine \$14,445,000 General Obligation Bonds, ABN-AMRO Financial Services, Inc. Duane G. Kline, Director of Finance, City of Portland, Maine. Entire Public Facilities and Services from this source unless otherwise noted, pages 20-30. Edited 2002.

In January 1994, the Portland Police Department opened the Parkside Neighborhood Center, initiating a long-term, department-wide commitment towards Community Policing.² The focus of that center, and the centers that have followed, is to pursue an aggressive, pro-active policing and prevention of recurring problems in the community. Since the initiation of Parkside, the Community Policing Program has opened additional centers located in the neighborhoods of Munjoy Hill, Midtown (which serves Bayside, Downtown and the Old Port), West End and the Portland Public Housing Communities. Officers assigned to these communities utilize foot and motor patrols as well as bike patrols in an attempt to maintain direct ties and contact with the individuals, which they serve. The program allow various degrees of response determined by the needs of the neighborhood, manages issues as they arise, enjoys a vast amount of positive interaction with members of the community, and develops many partnerships with organizations and associations.

B. Fire Department

The Fire Department is staffed by 236 employees who include one Fire Chief, five Deputy Chiefs, 12 Captains, 37 Lieutenants and approximately 146 firefighters. The Fire Department operates from nine fire stations and maintains approximately 40 vehicles or pieces of equipment, all of which are in good repair. Emergency Medical Service ("EMS") is provided by the EMS Division of the Fire Department. Service is provided by approximately 29 Paramedics. The EMS maintains nine MEDCU units, which are in good repair. The Fire Department operates fireboat service protecting the harbor area of Portland and the adjoining City of South Portland, including sixteen major islands of Casco Bay.

C. Public Works

The Department of Public Works is responsible for providing many of the essential services to City of Portland residents throughout the year. The department provides for the construction and maintenance of roads and sidewalks, the City's sewer collection and interceptor system, removal of snow from roads and sidewalks, as well as providing service to the four adjacent islands in Casco Bay, which are part of the City. Public Works is responsible for traffic control, street lighting, sanitation, and the removal and disposal of refuse and garbage. The City has centralized maintenance of all its vehicles, including the Public Works, Parks and Recreation, Police and Fire fleets. Public Works has a total of 150 employees with approximately 10 additional seasonal or on-call staff.

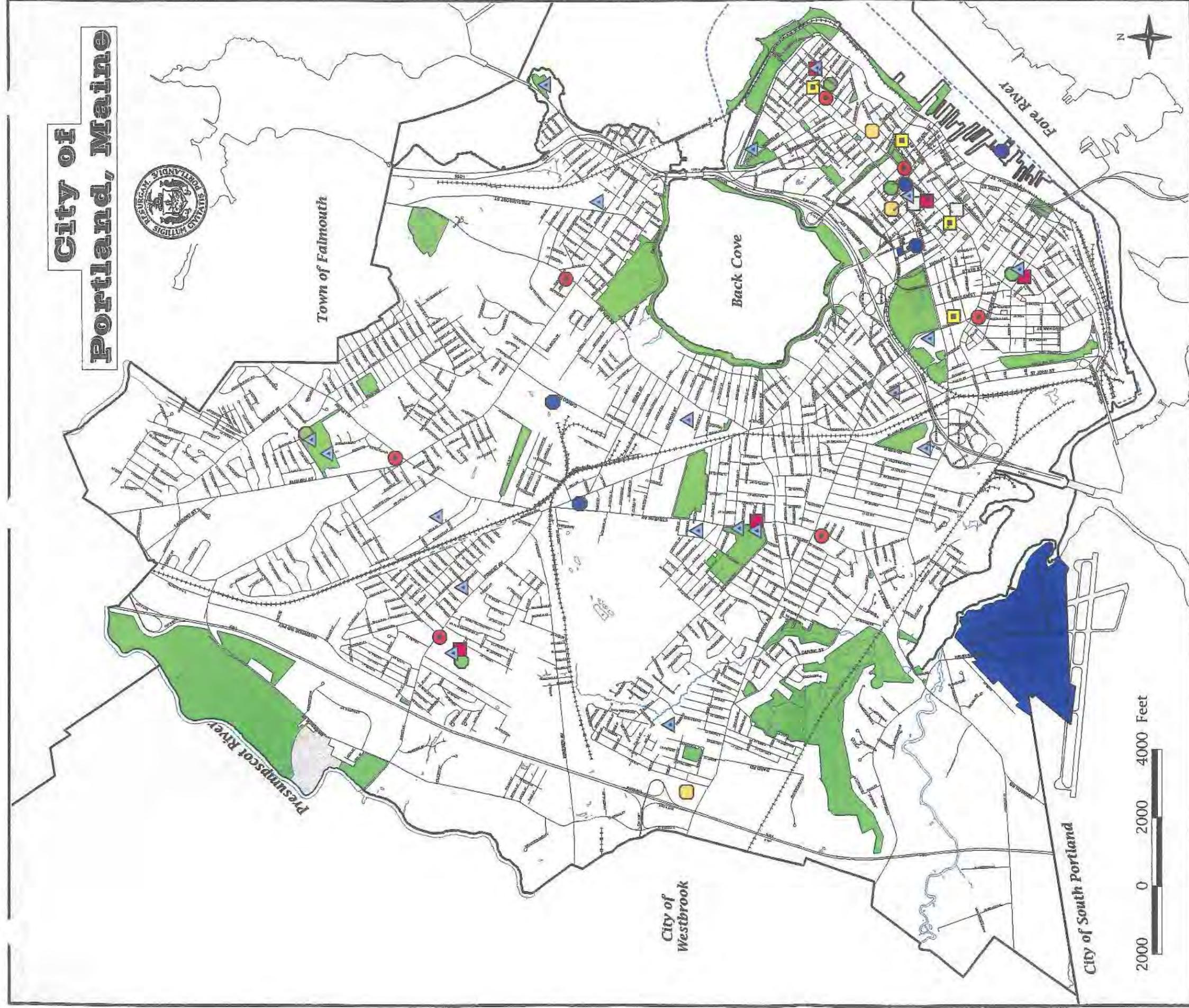
Waste Water Treatment

The Portland Waste Water Treatment Plant was constructed in 1979 and the Portland Water District operates it. During dry weather, the plant treats on averages 15 to 20 million gallons per day. It is permitted to provide secondary treatment (full waste treatment) of up to 36.8 MGD a day. During storm events, the facility is permitted to provide primary treatment of 80 MGD, however, in 2002 the number has been reduced to 50 MGD during construction. The combined sewer separation work that the City has been engaged in (see below), has removed significant quantities of storm water from the sewer system, thus increasing the capacity of the system to handle additional municipal sewage.³

² Ibid. Mayor Cheryl Leeman Transmittal Letter, Appendix A, page 4.

³ Information from Bradley Roland, Project Engineer, City of Portland. For more information about Portland's CSO program, refer to section C, Surface Water Quality of Environmental Resources.

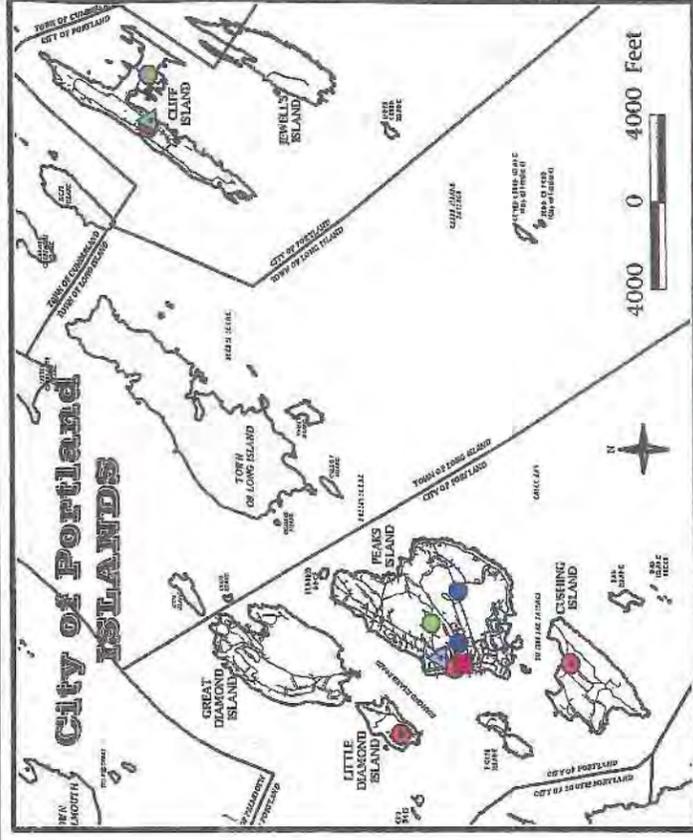
City of Portland, Maine



City of Portland FACILITIES

APPENDIX A: GIS DATA OPERATIONS AND DATA SOURCES

	CITY GOVERNMENT		PUBLIC SCHOOL
	FIRE		SOCIAL SERVICES
	LIBRARY		LANDFILL
	PARKING GARAGE		CITY FACILITY
	POLICE		PARKS & RECREATION
	PARKS & RECREATION		



In addition to the Capital Improvement Program (CIP), the City of Portland has a Combined Sewer Overflow (CSO) Master Plan containing a 15-year implementation abatement schedule that started in 1997.⁴ The total CSO capital costs were originally anticipated to equal \$52 million. A recent review indicates that the total cost may increase to \$80 million. The City anticipates issuing about five to nine million dollars of bonds for CSO projects in conjunction with the City's annual capital improvement program. Phase I of the CSO abatement plan was reviewed by the City Council and adopted on September 3, 1997. The II Phase will be reviewed later in 2002. The debt service for the projects will be paid from charges assessed to the users of the sewer system. The main CSO projects will impact six water bodies including: Casco Bay, Back Cove, Portland Harbor, Fore River and Capisic Brook

Solid Waste

Public Works provides curbside recycling and trash collection to residential properties within the boundaries of the City of Portland, serving approximately 23,000 households. The City does not provide service to commercial entities, many large apartment complexes or condominiums. The waste is delivered to facilities operated by Regional Waste Systems (RWS) located on Blueberry Road in Portland. In FY 2002, Portland delivered 13,675 tons of trash to RWS and 6,426 tons of recyclables.

Portland Public Works delivers bulky waste to the City owned Riverside Recycling Facility at 910 Riverside Street. This is a transfer station and waste processing facility that is located on top of a capped landfill. The facility accepts bulky waste and construction and demolition debris from other municipalities, residents and commercial waste haulers. The lifespan of this facility is indefinite. Annual waste deliveries from all sources to Riverside Recycling Facility total approximately 41,000 tons. The city delivers and Portland residents deliver a combined total of 6,600 tons of bulky waste and debris to the facility annually.

D. Parks and Recreation⁵

The Parks Department is currently organized in four divisions to facilitate better service delivery for constituents through a streamlined and efficient management of programs, parks and services.

- 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, rangers, ball fields, and special events.
- The **Parks and Cemeteries Division** manages parks operations and maintenance; forestry, horticulture, community gardens; operation and maintenance of the historic Evergreen Cemetery, Western Cemetery, Forest City Cemetery, Eastern Cemetery and several other inactive cemeteries; maintenance of the Portland Downtown District whose primary function is to beautify the City's downtown; and the planning, design, construction and renovation of parks projects.

⁴ Official Statement Dated March 21, 2002, City of Portland, Maine page 49. Refer to Environmental Resources, Surface Water Quality for more information on CSO program. Edited by Bradley Roland.

⁵ Green Spaces, Blue Edges: An Open Space and Recreation Plan for the City of Portland updated 2001.

- 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.
- The **Administration Division** manages the day-to-day operations and functions of managing the Parks and Recreation Department and oversees the financial, budgetary, personnel, payroll, benefits, customer service and staff support functions.

The Parks and Recreation Department employs 122 permanent staff members and 131 seasonal employees.

E. Merrill Auditorium⁶

Built in 1912 City Hall Auditorium is a classic example of colonial style. Cyrus Curtis donated the Kotzschmar Memorial Organ with 5,000 pipes that was incorporated into the stage. Although improvements were made in the 1960's, the auditorium continued to be haunted by dismal acoustics and poor sightlines. Plans proposed by Winton Scott Architects were accepted and renovations began in January 1996. Today, the renamed Merrill Auditorium is a 1900 seat performing arts facility in downtown Portland. During its first full year of operation, over 130 events were presented to 175,000 guests. The events offered at the facility cover a broad range of performing arts, including the Portland Symphony Orchestra, and PCA Great Performances. There is also strong community use as well with graduations, dance recitals, and lectures.

Merrill Auditorium is managed by the Department of Public Facilities, which has 35 permanent employees and 74 seasonal or on-call employees.

F. Public Education⁷

1) Portland School System

The City operates its educational program for grades K through 12 and for applied technology education under its own supervision. The Department of Education for the City is administered by a nine member School Committee, which performs all duties in regard to the care and management of the public schools. The School Committee submits its budget to the City Council. It is included in the city budget process. The Schools' staff consists of a Superintendent, a Director of Finance and Operations, four Directors, 18 full-time principals, 12 full-time assistant principals, 597 full-time equivalent teachers of which 571 are locally funded and 26 are federally or State funded, and 463 various other professional and non-professional staff.

⁶ Portland Department of Public Assembly Facilities, Merrill Auditorium, www.portlandevents.com/Merrill

⁷ Official Statement Dated March 21, 2002, page 21.

The City's current enrollment and capacity are listed as follows:

School	Grades	Estimated Capacity	Mar. 2001 Enrollment
Elementary Schools			
Marada Adams	K-3, P	210	98
Cliff Island	K-5	20	8
Percival P. Baxter	K-5, P	275	151
Nathan Clifford	K-5, P	400	205
Fred P. Hall	K-5	760	445
Longfellow	K-5	565	335
Peaks Island	K-5	125	48
Presumpscot	K-3	325	243
Harrison Lyseth Elementary	1-5	675	628
Jack Elementary	K-5	625	244
Howard C. Reiche Community	K-5	575	521
Riverton	K-5, P	650	482
		<u>5,205</u>	<u>3,408</u>
King Middle	6-8	650	578
Lincoln Middle	6-8	560	602
Lyman Moore Middle	6-8	475	694
West School	1-12	180	49
		<u>1,865</u>	<u>1,923</u>
High Schools			
Deering High	9-12	1,260	1,348
Portland High	9-12	1,300	1,085
Portland Arts & Technology School	9-12	-	-
		<u>2,560</u>	<u>2,433</u>
Total School Enrollment		<u>9,630</u>	<u>7,764</u>

Sources: State of Maine, Department of Education, "April 1 Census of Students Educated at Public Expense".
City of Portland

The City historical and projected school enrollment projections are as follows:

<u>April 1,</u>	<u>Grades</u> <u>K-5</u>	<u>Grades</u> <u>6-8</u>	<u>Grades</u> <u>9-12</u>	<u>Other</u> ¹	<u>Total</u> <u>Enrollment</u> ²
1992	3,804	1,467	1,848	429	7,548
1993	3,866	1,597	1,847	418	7,728
1994	3,957	1,580	1,817	404	7,758
1995	4,063	1,647	1,905	284	7,899
1996	4,188	1,717	1,971	214	8,090
1997	4,085	1,739	1,975	307	8,106
1998	3,877	1,861	2,057	318	8,113
1999	3,678	1,860	2,099	281	7,918
2000	3,473	1,881	2,172	383	7,787
2001	3,596	1,769	2,399	258	8,022

Sources: State of Maine, Department of Education, "April 1 Census of Students Educated at Public Expense", City of Portland

Notes: (1) "Other" includes: Elementary Special, Pre-Kindergarten (1987-1993 inclusive), Secondary Special and Post-Graduate Students.

2) Portland Arts and Technology High School

Title 20-A, Chapter 313 of the Maine Revised Statutes provides for "applied technology education" or a course or program of education, which is designed to create or improve job-related skills that are part of a secondary school curriculum. The programs may be offered via an applied technology center (a "Center"), which is governed by a single school administrative unit and its obligations are those of the unit.

As a Center, the Portland Arts and Technology High School is owned, operated and maintained by the Department of Education of the City of Portland. The school first opened to secondary students for grades 11 and 12 in September 1976 with an initial enrollment of 600 students. Area students may attend the school based upon a cooperative agreement assessment set by the State and negotiated by the City.

3) Renovating School Facilities

The City of Portland has taken a systematic approach to upgrading public educational facilities. Both high schools, Portland High and Deering High, were renovated in the past decade. Then the city upgraded Lincoln and King Middle Schools. Jack Elementary School was closed at the start of the 2001 and 2002 school year due to unhealthy conditions caused by mold. Students have been attending school at an interim facility located downtown. The State recently announced that Portland will receive State funds for the construction of a replacement school.

The Portland School Committee has established an Elementary Facilities Task Force to study options for renovating and improving Portland's 13 elementary schools. The estimated costs for various options to renovate all of the elementary schools are in the \$70 million range. Additional study of the options is underway, including the concept of consolidating some of the schools.

G. Public Library

The Portland Public Library was first established in 1867 as the Portland Institute. In 1889, the library incorporated as The Portland Public Library, a non-profit organization, which operated and maintained the newly built Baxter Library at 619 Congress Street. In August, 1979, the Library moved to its present 80,000 square foot facility at 5 Monument Square, which was financed by a \$6.2 million bond issue of the City. It is a modern facility, which includes an automated circulation system, an auditorium and conference rooms. The Portland Room contains the Library's special collections for display, reference use and preservation. In addition to a main library, there are five branch libraries.

The Portland Public Library is managed by a Board of Trustees, which currently consists of 26 Trustees (may have up to 30 members). As an independent and non-profit organization the Library is self-supporting through its own resources with additional grants from the City, Cumberland County and the State of Maine. For the year ended June 30, 1997, the City provided approximately \$2.0 million to support library operations. The City also owns the land and buildings in which the Library operates.

The Library's current collection includes approximately 315,603 volumes, subscriptions to approximately 1,880 periodicals of which 631 are current subscriptions, 400 phonograph records, 6,990 audio cassettes, 2,870 video cassettes and 2,450 compact discs. The Portland Public Library is managed by a Library Director, a Business Manager, a part-time personnel manager, a Development Director and approximately 15 professional librarians and 31 full-time equivalent personnel.

H. Health and Human Services Department

Health and Human Services undertakes the planning and coordination of human service activities in Portland. This department consists of three divisions: Public Health, Social Services and the Barron Center. The City's intent is to provide focus on the elderly care services issues and plan for future needs of that population. Much of the funding for Public Health and Social Service operations comes from state and federal grants. Most of the Barron Center's funding is from Medicare funded residents costs, in addition to some private pay residents.

The Barron Center, which prior to the fiscal year 1998 budget cycle, was accounted for as an enterprise fund of the City, has been combined with the Health and Social Services Department in the general fund, effective July 1, 1997. The Barron Center provides for long-term health care, both skilled and intermediate, with a 235-bed nursing home facility, which opened in 1982. The old facility of the Portland City Hospital is now congregate housing for the elderly and provides 110 units. An additional 50-bed Alzheimer's Care Facility on the 12-acre campus complex was completed and opened in March of 1992.

The Health and Human Services Department has 260 employees at the Barron Center with 77 additional persons on-call, 61 public health employees with 19 additional persons on-call, and 61 social service staff members with 7 individuals on-call.

I. Ports and Transportation Department

1) International Marine Terminal

Since 1998, Portland has become the largest port in New England in terms of tonnage with over 21 million tons of cargo landing in 2000. The Port has a dredged deepwater channel, excellent berthing for vessels of all sizes and the largest bascule type bridge in North America with a 196 foot horizontal span that can handle the widest vessels at the upriver terminals. In addition, the City recently became the operator of a 2.2 million dollar state of the art Mobile Harbor Crane. This crane was purchased with City, State and Federal funds and is leased for a fifty-year period to the Port. The International Marine Terminal has served as the facility for the international passenger ferry service (Scotia Prince) between Portland and Yarmouth Nova Scotia for many years. The terminal is expected to be used solely for cargo in the near future with the development of the intermodal passenger facility being planned at the former BIW site.

2) Portland Fish Exchange and Fish Pier

In addition, Portland is one of the largest fishing ports in New England and is the twentieth largest in the U.S. Despite declining stocks and increasing regulation, the fleet, as well as the many shore side industries continues to expand primarily through good management practices. The Portland Fish Exchange (the "Exchange") was incorporated by the Portland City Council as a local development corporation and began operations in February 1986. The City is the sole voting member of the Exchange and has the exclusive right to appoint the Board of Directors, amend its Articles of Incorporation and may cancel any amendment to the rules of operation adopted by the Board of Directors. The City also created the Portland Fish Pier Authority, a non-profit organization, for the express purpose of operating the City's 18 acre, \$18 million dollar Portland Fish Pier, established to promote fishing and fishing-related enterprises in the City. The City has leased to the Portland Fish Pier Authority its public fish pier facilities for a 60-year term and assigned its interest in all related operating leases, including the Fish Exchange lease. A full display wholesale fish auction was chosen as the principle means to attract fish sellers and buyers to the Port of Portland. The premises are devoted to public purposes only and use is restricted to the landing or processing of shellfish, finfish and other natural products of the sea, or for other activities directly related to these purposes, including, but not limited to, loading or selling these products and fueling.

3) Proposed Passenger Intermodal Facility

The cruise and international ferry business is growing at a steady pace. The Port had a total of 45 cruise ship calls in 2001 compared to 19 in 1999. Approximately 40,000 passengers arrive annually by cruise ship and approximately 162,000 additional passengers utilize the International Ferry. In response to this growing market (the New England cruise market continues to grow at an annual 15% rate), the City is embarking on the re-design and engineering of the Bath Iron Works Ship Repair Facility as a Marine Passenger

Intermodal Facility. The goal of the project is to combine all marine passenger operations, i.e. cruise ships, International Ferries and the Casco Bay Lines Ferry operation, on a single sixteen-acre site. The project is currently funded with \$9.7 million dollars of which 92% is from State and Federal sources. Refer to the Marine Resources for more information.

The City of Portland has been leasing a twelve-acre parcel of land for twenty years to Bath Iron Works for use as a Naval shipbuilding and repair facility. Bath Iron Works (BIW) returned the facility to the city upon termination of its lease in 2002. The State of Maine, through its Department of Transportation, and the City of Portland, through its Department of Ports and Transportation, will be developing this site as a multi-use waterfront transportation facility primarily for marine passenger operations serving the Southern Maine Region as a gateway hub to a variety of destinations. The property is located at the mouth of the Fore River in Portland Harbor. Because of the site's strategic location this facility will become a major gateway not only to the City, but also to the region and the State.

In 1999, the voters of the State of Maine passed a Transportation bond issue. The bond issue authorized \$8.97 million to support the waterfront conversion project. The City requested an additional \$7 million of federal funding for the conversion project. The City includes a \$1 million local match request in its capital improvement program.

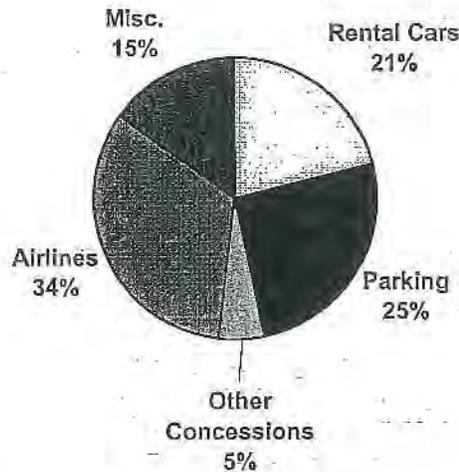
The entire site, nearly twenty city-owned acres is currently occupied by several marine operations, the Casco Bay Island Transit District (an intra-harbor ferry service that handles passengers and vehicles transiting to and from the islands in Casco Bay), and the city's fire and rescue vessels which provide emergency assistance to the islands and the Portland waterfront. Improvements to this property will meet the infrastructure needs of cruise ships, the international ferry service, local ferry service, high-speed ferry service, public and private vessel berthing and public access.

4) Portland International Jetport

The Portland International Jetport is designated as a Small Hub Airport by the Federal Aviation Administration and was ranked as the 98th largest airport for 2000 (US and Territories) During 2001 over 1.25 million passengers used the Jetport, with approximately 60% of those travelers being business passengers. The Jetport provides more than 100 daily airline departures and arrivals. The Jetport serves as an economic stimulus for the region as well as providing employment for approximately 1,500 people. For passengers, the Jetport is served by American Eagle, Continental Express, Delta, Northwest, United Express, and US Airways, and for cargo, the Jetport is served by Airborne Express and Federal Express.

The Jetport is fully self-funded generating its revenue from the airlines, rental car companies and other airport vendors as well as the travelers who use the airport (see chart). This revenue (as mandated by the Federal Aviation Administration) must remain with the Jetport and be used only for airport-related projects. Therefore, the Jetport neither receives nor depends upon local property tax dollars. Projects are funded through a combination of Federal and state dollars, and Jetport reserves.

Jetport Revenue (FY01)



J. Planning and Development

The Planning and Development Department has 40 employees within its three divisions: Planning, Housing and Neighborhood Services and Economic Development. The Planning Division administers development reviews, historic preservation program, public art, and a variety of comprehensive planning initiatives. Housing and Neighborhood Services Office conducts federal Housing and Community Development programs, such as rehabilitation loans and grants, homeownership programs, lead abatement, rental housing construction programs, and support for social service agencies. This division also includes the City's Inspections Office, which administers the building, housing, and health and safety codes of the city. The Economic Development Division provides a variety of services to assist and retaining existing businesses, to attract new businesses to the city and to provide technical assistance to entrepreneurs and small businesses as they progress through their business life cycle. The functions of the Downtown Portland Corporation and the Resource HUB are outlined below.

1) Downtown Portland Corporation

In December 1990 the City Council authorized the creation of the Downtown Portland Corporation (the DPC) to act as an arm of the Economic Development Department of the City. The DPC is a quasi-governmental, local economic development corporation established for the purpose of implementing and administrating economic development financial programs that enhance and create business and employment opportunities. To accomplish this task, the DPC has combined public and private community resources and initiatives that, together, have helped position downtown Portland for success.

In 1996, in response to the economic challenges of businesses outside the City's downtown, the City Council expanded the boundaries Citywide and the Board of Directors increased from 7 to 9 members. Since the inception of DPC, their financial programs and incentives have assisted with projects that contributed over \$149 million dollars in new investment and helped to create and retain more than 5,800 jobs in Portland.

Loans granted by the DPC have reached \$4.4 million to 65 small and medium sized business in Portland. The DPC and the City worked together with major developers seeking to invest in Portland, including the Libra Foundation in its development of the Portland Public Market, and UNUM in its construction of a new 300,000 sq. ft office building – the largest office building in the state of Maine.

2. The Resource Hub

The Resource Hub is a one-stop business assistance center for entrepreneurs and small businesses seeking to start or grow a business in Portland. Its storefront location on Congress Street is a convenient, non-threatening business environment, accessible to all including Portland's minority and immigrant populations. The Hub offers state of the art technology, current business assistance publications and timely and informative seminars and workshops – all interwoven with support from highly trained business counselors.

To accomplish this work, the Resource Hub has collaborated with 14 service partners and many more financial supporters. Along the way, the Hub has secured grants from the Economic Development Administration and the Maine Department of Transportation. It is also a satellite Business Information Center (designated by the U.S. Small Business Administration), which has allowed the Hub to receive numerous resources such as a video-conferencing unit, new computers, software, and updated business reference material.

To date, the Resource Hub has helped launch over 220 businesses. Since its inception in 1998, the Hub has helped over 1800 individual clients. In the past year, the Resource Hub logged a total of 1,762 hours for its services.

III. HEALTH CARE⁸

A. Maine Medical Center ("MMC")

Maine Medical Center (MMC) is located at 22 Bramhall Street in Portland. It is the largest hospital in Maine with 598 beds. MMC is a fully accredited, community oriented teaching hospital serving Portland, and a referral center for the entire State and much of northern New England. MMC is widely known for its expanding cardiac diagnostic and open-heart surgery programs, renal dialysis and kidney transplant, oncology, nuclear medicine, physical medicine and rehabilitation. It maintains a graduate medical education program, has residency-training

⁸ Official Statement Dated March 21, 2002, page 26. Source: Chamber of Commerce of the Greater Portland Region, "Greater Portland Data Book"; and Maine Health & Higher Education Facilities Authority, Official Statements.

programs in major specialties and is a teaching affiliate of the University of Vermont College of Medicine. There are 35 separate outpatient clinics and a highly regarded research department, programs in community medicine, and a Community Mental Health Center. MMC has a substantial diagnostic facility, which provides space for Pathology and Radiology departments. It is the home of the Barbara Bush Children's Hospital as well as the Southern Maine Radiation Therapy Institute, a cancer-treating consortium of 17 Maine hospitals. MMC operates seven facilities throughout the region, including Spring Harbor Hospital (the former Jackson Brook Institute) in Scarborough, Maine's only psychiatric hospital. MMC supports a staff of approximately 4,571 employees.

B. Maine Medical Center, Brighton Campus

The former Brighton Medical Center merged with Maine Medical Center. Located at 335 Brighton Avenue in Portland, the facility is a 150-bed community hospital serving southern Maine and employs more than 750 people. The center is a teaching hospital for medical students, interns and residents with accredited residency programs in Orthopedics, Family Practice, Internal Medicine, General Surgery, Proctology, Anesthesiology, and Ear Nose and Throat. Additionally, the hospital is a clinical training site for area nursing schools and various allied health programs. Physicians from the facility have been a major force in the development and continued growth of Maine's only medical school, the University of New England College of Osteopathic Medicine in Biddeford. The Medical Center also offers the Maine Physician Referral Service, Lifeline Personal Response System, and the Center for Health Promotion, which provides occupational medical management services for over 200 businesses throughout southern Maine.

C. Mercy Hospital ("Mercy")

Mercy Hospital is located at 144 State Street in Portland. It is a 200-bed community hospital established by the Sisters of Mercy in 1918, providing inpatient, outpatient and emergency services in medicine, surgery and obstetrics. Specialized programs include: The Birthplace providing labor, delivery and recovery in one of ten private childbirth rooms; The Recovery Center providing evaluation, detox, and residential rehabilitation for adults and adolescents who require drug or alcohol treatment; and the newly renovated Ambulatory Care Unit providing both day surgery and short-term medical procedures and treatment to over 6,000 patients annually. Mercy also has the only Phase II cardiac rehabilitation service in southern Maine, called "Upbeat!" for patients who have had a heart attack or cardiac surgery. Mercy is affiliated with the Maine Medical Center in training Family Practice physicians, has its own schools of x-ray and anesthesia and employs approximately 900.

D. New England Rehabilitation Hospital of Portland ("NERH")

NERH is Maine's only hospital specializing in physical rehabilitation. Located at 13 Charles Street in Portland, NERH is a fully accredited, 82-bed hospital providing comprehensive rehabilitation on both an inpatient and outpatient basis. NERH employs approximately 229 people.

IV. HIGHER EDUCATION FACILITIES⁹

A. University of Southern Maine ("USM")

USM is a state-supported, comprehensive educational institution, originally founded in 1878 as the Western Maine Normal School, and is the second largest of the seven institutions that comprise the University of Maine System. Dual campuses comprise more than 120 acres combining an urban environment in Portland with suburban/rural characteristics in Gorham, located ten miles inland. The campuses' facilities consist of 48 buildings, including 60 classrooms and 35 laboratories. Gorham is the major residential campus of USM with nine residential halls housing nearly 1,200 students. Approximately 350 upper class and graduate students are housed in Portland Hall in downtown Portland. The USM library's collection of over a million books, documents, journals and microforms is maintained at the USM Library in Portland and Bailey Hall in Gorham. USM's total enrollment is approximately 9,522 with 8,305 being undergraduate students. The student-faculty ratio is approximately 15:1. The university offers three associate degrees, 36 bachelor's degrees and 16 graduate degrees through its College of Arts and Sciences, College of Education, School of Business, Economics and Management, School of Applied Science, School of Nursing and its School of Law. USM is a member of the NCAA, with intercollegiate athletic programs classified as Division III.

B. Andover College

Andover College is a proprietary, coeducational post-secondary college that awards terminal associate degrees. Founded in 1966, the college is located on a two-acre campus in Portland and an urban campus in Portland's downtown. Andover College offers majors in accounting, business administration/commerce/management, computer programming, computer science, legal secretarial studies, medical assistant technologies, medical secretarial studies, paralegal studies, secretarial studies/office management, child care/child and family studies, fashion merchandising, real estate, tourism and travel. The schools enrollment is approximately 839 students, and faculty includes approximately 49 full or part-time members.

C. University of New England (UNE)

Previously Westbrook College, UNE is an independent, four-year, coeducational college. The school is located on a 40-acre campus in a residential section of Portland, approximately two miles from the City's center. In addition to classrooms, laboratories and five dormitories, the school's facilities include the Finley Recreation Center, dedicated in 1990; the Academic Computer Center; the Children's Center at Westbrook; and the recently renovated Josephine S. Abplanalp Library, a modern facility that holds 50,000 bound volumes, 540 periodical subscriptions, CD-ROM Titles and an all-night study area. With student enrollment of approximately 354, Westbrook College's student-faculty ratio is approximately 10:1. The college offers baccalaureate programs in the following majors: American studies, business management, dental hygiene, early childhood education, English, human development, individualized major, medical technology, nursing, pre-professional programs, and psychology, and an associate degree

⁹Official Statement Dated March 21, 2002, page 27. Source: Chamber of Commerce of the Greater Portland Region, *Greater Portland Data Book*; Peterson's *Guide to Four-Year Colleges* (1995); and Peterson's *Guide to Two-Year Colleges* (1995).

in a dental hygiene program. The school is a member of the NAIA (District V) for its intercollegiate athletic programs.

D. Maine College of Art (MECA)

MECA is a private, non-profit, coeducational institution located in the downtown of Portland. Founded in 1882 as the Portland School of Art, the college changed to its present name in 1992. The school's physical plant currently includes six buildings; of these, three house the institutional and studio activities and two serve as residence halls. In 1993 Maine College of Art acquired the five-story, 150,000 square foot Porteous building in the center of the City, which will allow the college to unite all departments into one facility with greater studio and future expansion space than it currently enjoys. The Maine College of Arts Library's collection includes over 18,000 books and subscriptions to approximately 144 periodicals. With approximately 45 full or part-time faculty and student enrollment of approximately 305, the school's student-faculty ratio is approximately 10:1. The college offers a four-year Bachelor of Fine Arts degree in ceramics, graphic design, metal smithing and jewelry, painting, photography, printmaking, and sculpture.

V. OTHER SERVICES¹⁰

A. Greater Portland Transit District

The Greater Portland Transit District (the GPTD) is a joint venture with Portland and the City of Westbrook, Maine providing public transportation services to the residents of both cities. The City of South Portland had also participated as a member of the GPTD through December 31, 1982. The GPTD is managed by a Board of Directors selected by the municipal officers of each of the two participating municipalities. More information regarding routes and ridership is found under Transportation resources.

B. Portland Water District

The City is also served by the Portland Water District (the "PWD"), a wholly separate quasi-municipal entity whose operations are not part of the City, for treatment of its wastewater. The City owns and maintains the infrastructure sewer lines and is responsible for the cost of their maintenance, improvements and expansion. The PWD owns and operates a treatment plant for sewage delivered to the plant by the City, for which the City pays a monthly fee. All City users of the wastewater system pay monthly or quarterly fees, based upon water volume, to support expenditures from the Enterprise Fund, which paid for these services.

C. Regional Waste Systems, Inc.

Regional Waste Systems, Inc. (the "RWS"), a Maine Corporation with 20 participating member municipalities, including the City of Portland, has issued bonds to fund the design, construction and start-up of a resource recovery system ("RRS"). The participating municipalities are obligated to deliver certain amounts of the solid waste produced within each participating municipality to RWS for processing. During the year ending June 30, 2000, the City paid RWS \$1,425,089 in tipping fees and assessments for solid waste disposal services. In addition, RWS has estimated that landfill closure and post closure costs at June 30, 2000 (latest available information) amounted to \$25,591,619 of which Portland's share, based on estimated tonnage to be delivered, amounted to 30.16% or \$6,350,618.

¹⁰ Ibid. Page 47.

RECREATION RESOURCES

Inventory and Analysis

RECREATION RESOURCES¹

I. PORTLAND'S OPEN SPACE AND RECREATIONAL FACILITIES

A. Parks and Open Space Inventory

Portland has over 1,500 acres of public open space—1,183 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 Riverton and Deering, both with close to 300 acres. North Deering has 118 acres, which includes the recent acquisition of about 48 acres along the Presumpscot River. East Deering (7 acres) and Oakdale (9 acres) have the smallest amount of public open space for mainland neighborhoods. Until recently, Stroudwater had only 2 ½ acres of city-owned open space, but the City recently purchased 19 acres of land between Rand Road and Westbrook Street and is working with Portland Trails to develop public access. Stroudwater also adjoins the 80-acre Fore River Sanctuary owned by the Maine Audubon Society. 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, update 2002).

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.

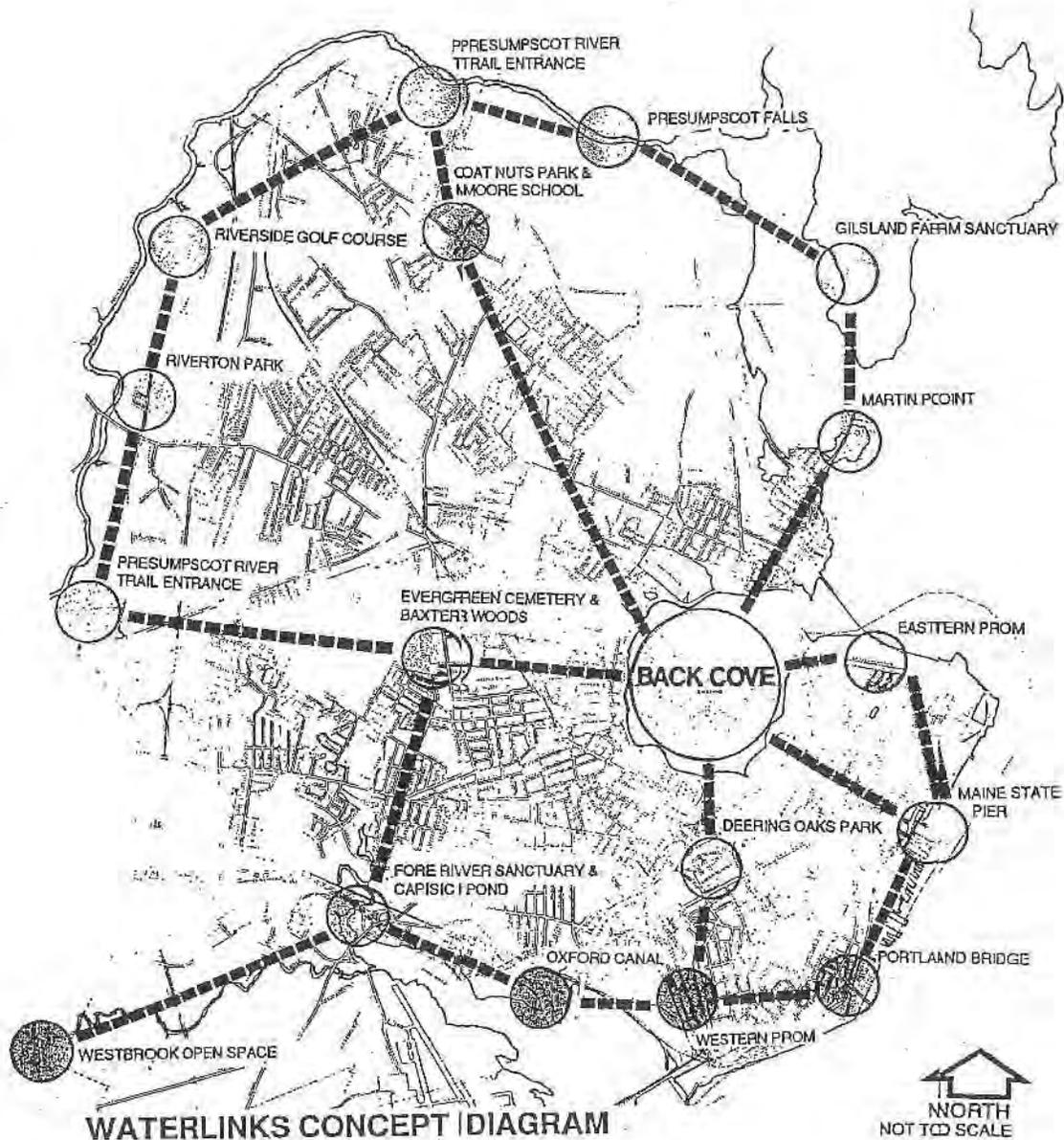
An inventory of all the open space and recreation facilities by neighborhood is included in the appendix. The inventory provides the name, location, facility type, acres, use type, and other facility details. A map of Portland identifying the location of Portland's parks and open space is included as Recreation Map #1.

B. Waterlinks Concept - Trails in Portland

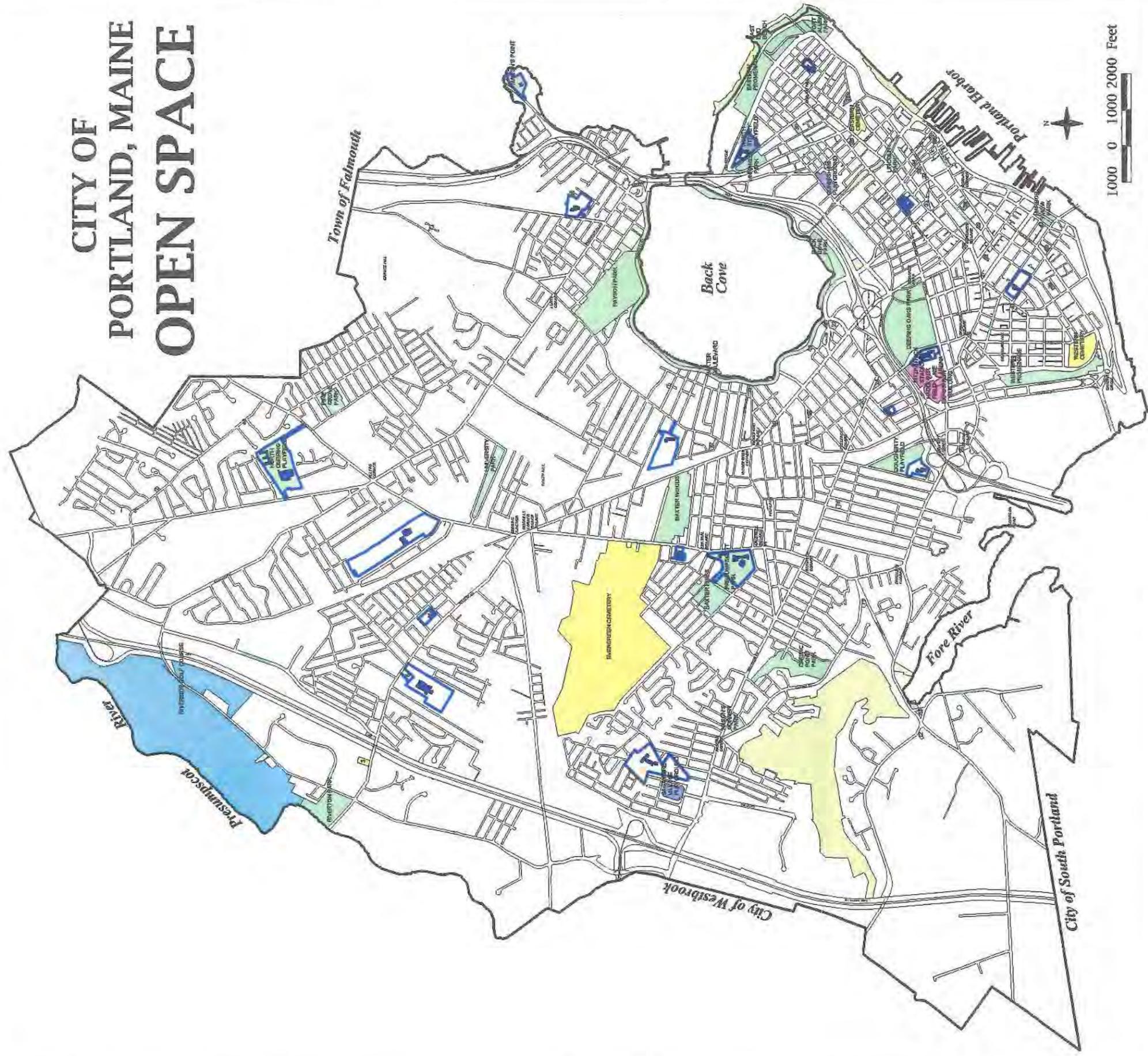
In 1987, the Portland Shoreway Access Plan presented an inventory of open spaces and public access points along water bodies and identified opportunities to expand the City's open space system through an idea called Waterlinks. The Waterlinks Concept expands upon the vision of J.P. Baxter and the General Plan for Park System prepared by the Olmsted Brothers Landscape Architects, which sought to link Deering Oaks with the Eastern and Western Promenades. The Waterlinks Concept (see figure # for the map)

¹ Green Spaces, Blue Edges: An Open Space and Recreation Plan for the City of Portland, updated 2001.

includes a series of open spaces and public recreation areas within neighborhoods, joined by linkages radiating from Back Cove. The plan identifies public access opportunities throughout the city, while respecting the integrity of existing neighborhoods. The outer ring takes its form from the Stroudwater, Fore, and Presumpscot Rivers, as well as the Portland Waterfront. The plan is a long-range view that addresses the potential for an interconnected park system throughout the City. The Shoreway Access Plan (included as a reference) provides shore way access site plans for four island sites and 19 sites along river corridors, coastline and Back Cove.



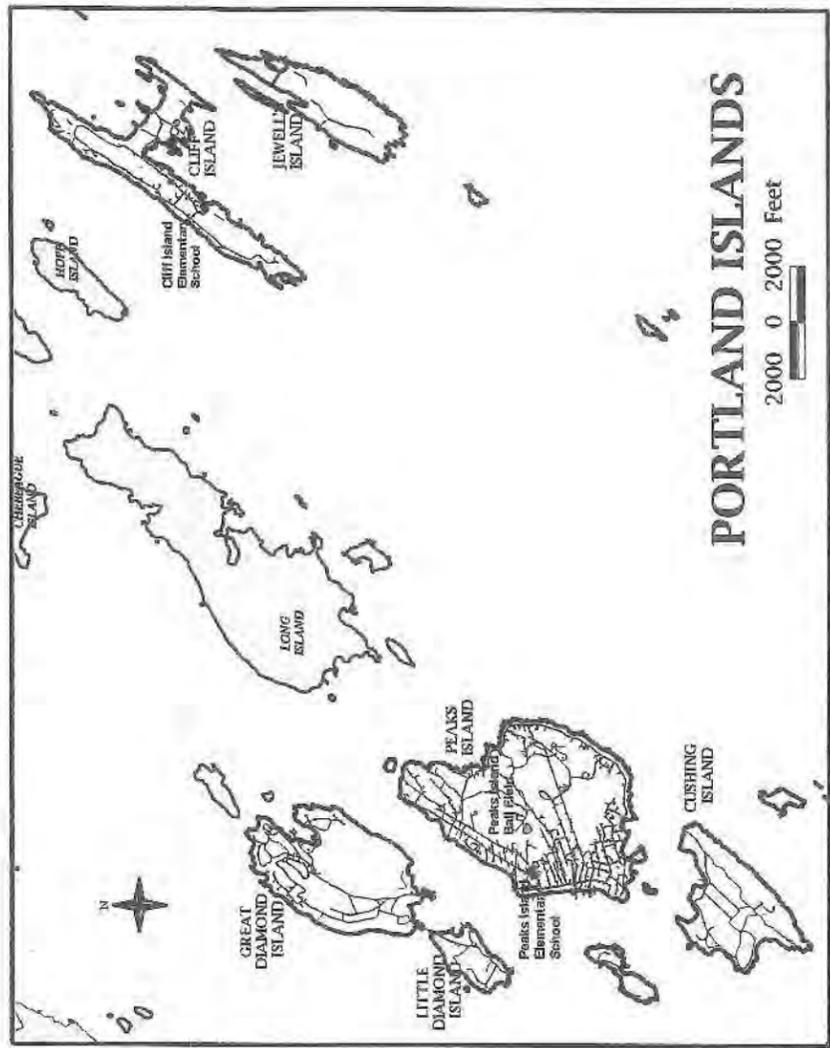
CITY OF PORTLAND, MAINE OPEN SPACE



1000 0 1000 2000 Feet

	Cemetery
	Golf Course
	Open Space
	Park
	Playground
	Sports Center
	Square
	School
	School Property

1. Summit St. Cemetery
2. Old Frost Cemetery
3. City Cemetery
4. Quaker Park
5. Bailey Cemetery
6. Maplewood Cemetery
7. George St. Compety
8. Hasalline Park
9. Burrow's Park
10. Trinity Park
11. Caldwell Square
12. Stroutwater Cemetery
13. School Site
14. Stroutwater Park
15. Unnamed Park
16. Longfellow Cemetery
17. Devonshire Park
18. Longfellow Park
19. Belvedere Park
20. Burrow's Park
21. Winslow Park
22. Oakleigh Park
23. Fessenden Park
24. Bedford Park
25. Lowell St. Park
26. Bramhall Park
27. Longfellow Square
28. Congress Square Park
29. Spring Street Park
30. Pleasant St. Playground
31. Monument Square
32. Lobsonian Park
33. Tommy's Park
34. Post Office Park
35. Boothby Square
36. Peppermint Park
37. Munjoy Playground
38. Fort Summer Park
39. Taylor St. Playground
40. Clark St. Park
41. Tais-Tying Tok Lot
42. Rose Tru School Playground
43. Andrews Square
44. Hamlin Cemetery
45. Grand Trunk Cemetery



PORTLAND ISLANDS

2000 0 2000 Feet

Since the adoption of this plan there have been numerous trails and linkages completed in the overall system. Many of these accomplishments are attributable to the creative, collaborative, and diligent work of Portland Trails. Portland Trails is a non-profit trails organization, which uses the waterlinks concept as the base for their master plan. Following is a list of trail accomplishments by the City, Portland Trails and other partners.

1. Completed Trails

- **Back Cove** – now there is a complete loop which follows the circumference of the Cove - Length: 17,455 feet, 3.3 miles
- **Eastern Prom Trail** -extends from the Maine State Pier to Tukey's Bridge- Length: 9,510 feet, 1.8 miles
- **Tukey's Bridge Connection** -walkway connection under the bridge connects the Eastern Prom to Back Cove - Length: 4570 feet, 0.9 miles
- **Capisc Pond Trail** – Improvements to trail – Length: perimeter of pond is 5,680 (City owns land around the pond, but the trail is only located on the easterly side)
- **Stroudwater River Trail**- runs from Stroudwater Village to a point north of the Maine Turnpike – Length: 12518 feet, 2.4 miles of river frontage
- **Fore River Trail** off Hobart Street – Length: 975 feet (water edge)
- **Waterfront Trail** – extends down Maine State Pier, through a small park at the ferry terminal, along Commercial Street to Portland Pier and Chandlers Wharf – Length: 3600 feet, 0.7 miles
- **Portland Trails** has added 13 miles of public trails in Portland and has a goal to create 30 miles of trails.²
- **The Fore River Sanctuary**- Maine Audubon Society owns and maintains a network of public trails from Stroudwater Village to Jewells Falls (owned by Portland Trails) with connections to surrounding neighborhoods. Length: 2 miles of trails³

2. Trails Currently Being Planned

- **Presumpscot River Property** – recently bought 48 acres along the Presumpscot River with the financial assistance of Land for Maine's Future: Length of river frontage: 709 feet
- **Trail through Bayside** to connect Eastern Prom Trail and Deering Oaks Park
- **Trails along the Capisc and Fall Brooks**

² Nan Cummings, Executive Director, Portland Trails, May, 2002.

³ Bob Savage, Property Manager, Maine Audubon Society, June 2002.

3. Other Publicly Owned Water Frontage

- **Riverton Trolley Park** – Length of Presumpscot River frontage: 1013 feet, 0.2 miles
- **Riverside Golf Course** – Length of Presumpscot River frontage: 10,470 feet, 2.0 miles

II. TRENDS IN RECREATION

A. General 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

<u>Year</u>	<u>Population</u> ⁴	<u>Portland School Enrollment</u> ⁵
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. This was largely attributed to more girls and boys participating in sports, putting increased demand on Portland's athletic fields. Below is a summary of the report findings (b. Athletic Fields).

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.

⁴ 2000, 1990, 1980 – US Census

⁵ Patrick Dow, Maine Dept of Education, Personal Communication, June 2000.

B. Athletic Fields

In 2001, Portland Athletic Fields Task Force reported that Portland public schools and recreational sports leagues are major users of Portland athletic field and their use is growing. Their findings include:

- The number of school teams has increased from 35 to 63 since 1983 and is expected to expand to 90 teams by 2005.
- Recreational teams have expanded from 274 to 364 since 1983 and are projected to expand to 414 teams over the next five years.
- This growth has occurred in large part because of the tremendous increase in women's and girls' participation in sports.
- Soccer continues to grow, lacrosse is gaining popularity, and new sports such as ultimate Frisbee are taking hold. Little League continues to be popular in East Deering and Deering Center. It has increased steadily in North Deering, but declined in the West End.
- The scheduled use of Portland's athletic fields has almost doubled since 1983 from 10,378 to 21,563 hours. Much of this growth has been in sports that use rectangular or multi-purpose fields.

While the demand for athletic field time has almost doubled, the city has lost a baseball field, a multipurpose field and 4 softball fields. More teams playing on fewer fields translate into overused and deteriorating playing fields. Most of Portland's athletic fields are not constructed to today's standards. The soil profiles are variable and drainage is poor. This affects the quality and resilience of the turf particularly when they are used intensively and at inappropriate times.

With increased demand for use on Portland's athletic fields, maintenance of fields is vital. Fields must be well maintained to support the intensive use they currently receive. While the city has increased the funding level for the Ballfield Division over the last four years, maintenance is still not adequate for the intensity of use. Additional seasonal staff is required, even with the current number of fields. However, over the long term, adding more fields, upgrading fields and using new technologies in some locations can lower maintenance costs per hour of use.

III. 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.

IV. 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 and 5 are underway (Table 2). Following is a summary of completed master plans to highlight how those plans envision the future of those properties.

Park and Cemetery Master Plans Completed

Property	Year
Byergreen 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

A. 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.

B. 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.

C. 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.

D. Payson Park

The Edward Payson Park Master Plan was developed over two years and adopted in 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.

E. 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 maintenance, 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.

F. Dougherty Fields

The Dougherty Fields Master Plan is a three or four 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.

G. Fall/Capisc Brook Greenway Master Plans

Fall Brook and Capisc 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 Capisc 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.

H. 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. Their findings are summarized above in Section B Portland Athletic Fields.

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.

V. PORTLAND PARTNERS: CITY COMMISSIONS AND PRIVATE ORGANIZATIONS

A. Portland Commissions

1) Land Bank Commission

In 1999, the City Council created the Land Bank Commission, elevating the status of open space protection 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, Stroudwater and Riverton areas, established an account to accept donations and gifts, and recommended zoning changes to clarify open space and preservation status of several parcels.

2) Friends of the Park Commission

In 1983, the City Council created the Friends of the Park Commission, although it was not operating 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.

B. 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.

1) 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 Presumpscot River, 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.

2) 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.

3) 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 rope 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.

C. 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.

1) 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.

2) 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.

3) Friends of Riverton Trolley Park

Since 1997, this organization has organized memorabilia for the park and conducted tours.

4) 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.

5) 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.

WATERFRONT RESOURCES

Inventory and Analysis

WATERFRONT RESOURCES

I. INTRODUCTION

Portland is a waterfront city. Its harbor is one of the deepest on the East Coast and served as the staging area for the Atlantic Fleet during World War II. Today, it accommodates the largest petroleum trans-shipment operation on the East Coast. The inner harbor is very limited in geography; it is only about two miles in length from Portland Ocean Terminal (POT) to Merrill's Marine Terminal. The wharves that serve the needs of water-dependent businesses are both publicly and privately owned. Over the course of its long history, the Portland waterfront has served as a center of commerce, shipbuilding, cargo and passenger transport, fishing and defense. It has also supported a range of mixed uses, the character of which has changed over time as the City of Portland and its waterfront have evolved.

II. PROFILE: PORT OF PORTLAND¹

A. General Description of the Port

The Port of Portland is located on the Fore River at southwest end of Casco Bay, 100 nautical miles northeast of Boston. Situated approximately 10 miles from the open ocean, the port is protected from heavy seas and ocean storms. The upper harbor formed by the island archipelago is used as an anchorage for large vessels. The main harbor is the mouth of the Fore River where most of the wharves are located and the inner harbor is the area inside the Casco Bay Bridge. The Fore River roughly splits the harbor in half with the City of Portland on the northern shore and the City of South Portland on the southern shore. The Port of Portland covers approximately 2,000 acres of land and has a main channel mean-low-water depth (MLW) of 35 feet.

There are more than 50 wharves, piers and docks in the Port of Portland – roughly 30 are on the Portland side of the Harbor. The Portland side of the Harbor is host to the majority of the Port's general cargo, passenger and ferry, and commercial fishing operations with four significant freight and passenger terminals. The City of Portland Department of Ports and Transportation manages three of these terminals – The Portland Ocean Terminal at the Maine State Pier (transient deep water berthing and general marine support), the Portland Fish Pier (commercial fishing) and the International Marine Terminal (container, international ferry and cruise ships). The privately owned Merrill Marine Terminal handles general bulk cargo.

There are seven petroleum terminals in the Port of Portland – seven are located on the South Portland side of the Harbor and the eighth is located in Yarmouth.² Five handle various petroleum products. With the exception of the Portland Pipe Line, the petroleum

¹ Technical Memorandum: A Niche Market Analysis of Comparable East Coast Ports, Prepared for Portland Department of Transportation and Waterfront, Prepared by Greater Portland Council of Governments, Portscape, March, 2001. Entire Profile is from this source. Edited 2002.

² Ibid, page 28

terminals each have one berth that can accommodate vessels between 700 and 900 feet in length. Portland Pipe line has two active berths, each of which may accommodate a vessel up to 910 feet in length. The total storage capacity of the eight terminals is 8.6 million barrels.

B. Land Access to the Port

1) Rail

The Guilford Rail System provides rail access to the Port, linking it with major rail lines to the south at Albany, New York, to the west at Buffalo, New York, and to Canadian rail at Danville Junction and Mattawankeag, Maine. Merrill Marine has sidings linking them directly to Guilford's main Line.

2) Highway and Air

Interstate 295 (I-295) connects the Port with points to the north and south via the Maine Turnpike (I-95). Three exits (Exits 4, 6 and 7) off of I-295 are one mile or less from the Port. The construction of the I-295 Connector Road in the next several years will connect the Port directly with I-295. State Route 1 and 1A also provide access to the Port. The Portland International Jetport is a 10-minute drive from the Port.

C. Terminals

The majority of the Port's cargo (including petroleum), commercial fishing and passenger operations occur at four terminals on the Portland side of the Port and at six terminals on the South Portland side. Portland's major terminals are described below.

1) International Marine Terminal

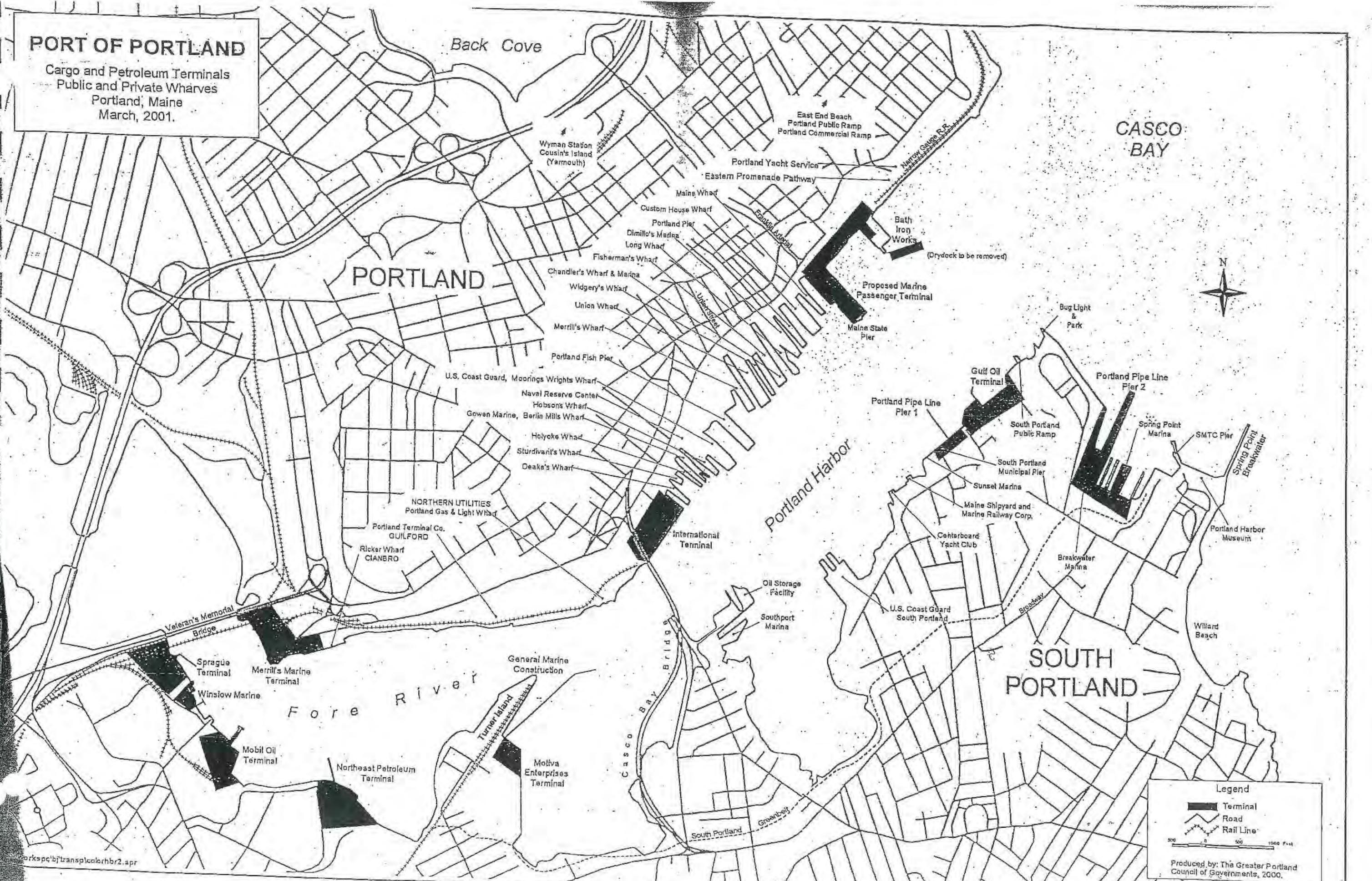
The International Marine Terminal has a 900-foot concrete wharf able to accommodate vessels up to 710 feet in length. The MLW berthing depth is 35 feet. Rated at 1,000 p.s.f.³, the wharf is capable of supporting heavy mobile cranes and the handling of multiple cargoes. The 14.34-acre terminal is also equipped with a 50-ton roll-on-roll-off ramp.

The Port's container operations take place at the Terminal. Hapag Lloyd, America Inc., one of the world's largest ocean carriers, provides weekly feeder container service between Halifax, Nova Scotia and Portland. In 2000, the City acquired a 110-Ton Leibherr 302 mobile harbor crane to load and off-load containers. To meet increasing container movements at the terminal as well as in Boston, the SPM Container Line deployed a larger (5,000-ton), faster container ship to service Portland. The new ship will have a capacity of 400 containers

³ p.s.f.= pounds per square foot

PORT OF PORTLAND

Cargo and Petroleum Terminals
Public and Private Wharves
Portland, Maine
March, 2001.



CASCO BAY

PORTLAND

SOUTH PORTLAND



Legend

- Terminal
- Road
- Rail Line

0 500 1000 Feet

Produced by: The Greater Portland Council of Governments, 2000.

versus the 230-container capacity of the current vessel.⁴ The terminal is also used for the berthing of cruise ships. Conversion of the terminal into a dedicated cargo terminal is expected to be completed by 2004. The IMT is an international border crossing point and houses U.S. Customs personnel for inspection of both passenger and cargo vessels.

Guilford Transit Industries (GTI) provides rail service to within one half mile of the terminal. Improved rail access to the International Marine Terminal would improve movements from ship to rail.

2) Maine State Pier

The City-owned Maine State Pier is used for a variety of maritime uses and is home to the Portland Ocean Terminal (POT). It is the former site of Bath Iron Works (BIW). Currently, the Portland Ocean Terminal provides berthing for port of call cruise ships and marine construction support for Cianbro Inc. Refer to the implementation section of this document for the plans to reuse the BIW site, pier two, and redevelop the Eastern Waterfront.

Casco Bay Ferry Lines operates on the western side of the terminal. There is berthing for four passenger ferries plus additional berthing with an associated transfer bridge for the roll-on-roll-off freight ferry. The Casco Bay Ferry Facility includes a passengers terminal, a small freight facility and an intermodal transfer plaza. A 300-foot visiting vessel berth, a town dock for passenger tenders from visiting cruise ships and the Harbor's Fire and Rescue Boat are also on the pier's western side. The pier also has a municipal parking garage and City Park.

The Portland Ocean Terminal provides tugboat berthing for six (6) tugboats. Tugs berthed at the POT handle ships at terminals within the port.

3) Merrill Marine Terminal

The privately owned Merrill Marine Terminal handles the majority of the Port's bulk and break-bulk cargo, and also handles project cargo and heavy lifts. The Merrill Marine Terminal has 1,050 feet of berthing space with a MLW depth of 35 feet, and a one and three-quarter acre concrete wharf. There are 200,000 square feet of dry warehouse space on-site with additional space available within a 10-minute drive. The terminal provides a complete line of cargo services including stevedoring, stockpiling, accumulation, distribution, warehousing, transfer lashing, re-stowing services, planning and monitoring.

⁴ Hapag Lloyd, Portland Department of Transportation

In 2000, the Merrill Marine Terminal handled cargo with a value of approximately \$150 million that was transported by approximately 5,000 rail cars, 20,000 trucks and 8- vessels. The Terminal had a direct impact on the regional economy of roughly \$15 million when land transportation, vendors, capital contractors, savings to forest products industry, payroll, and debt service are considered.

Merrill's dry bulk and break-bulk cargo volume for 2000 is estimated at 600,000 tons. This represents roughly 70 percent of the Port total and 40 percent of the State total. The terminal is expanding its pulp business, which may result in higher bulk cargo volumes. This expansion has been made possible with the opening of the new Casco Bay Bridge, which allows larger pulp vessels to navigate the inner harbor and access the Terminal.

The Terminal has a continuous capital improvement plan in place. Currently, this plan entails a \$1 million upgrade to the facility with projects to extend and dredge around the facility's berthing, redevelop the warehousing, and secure off-site storage for the growing pulp operations.⁵

4) Portland Fish Pier

The Fish Pier Authority (FPA) operates the Portland Fish Pier, under a 60-year lease with the City of Portland. Currently, the Portland Fish Pier is the home of four fish processing facilities, Vessel Service Inc. (a fishermen owned ice and fuel company), the Marine Trade Center (a three-story office building with marine related tenants) and the Portland Fish Exchange.

There are approximately 2,500 feet of berthing space provided on an annual lease basis and as transient vessel berthing and repair space. Approximately 300 commercial fishing vessels regularly use services provided at the pier – 150 of these call Portland their home port,.. The Pier can accommodate vessels between 45 and 80 feet (LOA length overall). There is little available ground space remaining on the Fish Pier for additional facilities.

The Exchange holds year-round daily auctions of fresh fish and seafood, services approximately 300 vessels and provides a complete line of services. Recognized throughout the fish and seafood industry as a leader in innovation, quality and integrity, the Portland Fish Exchange plays an important role in supporting the commercial fishing industry and handles roughly 90 percent of the ground fish that passes through the Port. The auctions are the only public fish and seafood auctions in New England.

⁵ Merrill's Marine Terminal

D. Cargo Overview – Port of Portland

Total cargo shipments continue to increase at the Port. Each of the individual components of the total cargo handled- petroleum, container, non-container, bulk and break-bulk, cargo – are also increasing.

By total tonnage, petroleum is the largest type of cargo handled at the Port. Between 1995 and 1999, petroleum accounted for 95-97 percent of the Port's total volume. Bulk and break-bulk cargo that is not containerized accounted for between three and four percent (3.0%-4.1%) of the Port's volume between 1995 and 1999. Containerized cargo and commercial fish landing volumes were each less than one percent of the Port total between 1995 and 1999 (0.2%-0.4% for containers, 0.1-0.3% for fish). Table 5 summarizes the cargo tonnage by type and Table 6 summarizes cargo tonnage by percent of the Port's total. Not included in either table is the estimated total bulk and break-bulk cargo volume handled for 2000, which is estimated at 814,000 tons.

Table 1

Port of Portland - Cargo Tonnage by Type - 1995-1999 (in 000s of short tons)					
	1995	1996	1997	1998	1999
Petroleum	10936	14706	15718	14582	20200
Non-Container Bulk & Break-bulk Cargo	494	587	615	461	579
Container Cargo	50	54	39	31	N/A
Commercial Fish Landings	33	39	37	22	26
Port Total	11513	15386	16409	15096	20805

Source: 1995-1998 data is from the United States Army Corps of Engineers
 1999 petroleum data is from the Maine DEP. All other 1999 data is from the City of Portland
 Non-container cargo data is from Merrill Marine Terminal

Petroleum is both the Port's largest commodity and its most rapidly growing both in absolute tonnage and in percent increase. Between 1995 and 1999, petroleum volumes increased by 9.3 million tons or 85 percent.

Table 2

Port of Portland - percent of Total Cargo by Cargo Type -1995 -1999					
	1995	1996	1997	1998	1999
Petroleum	95.2	96.2	96.0	96.7	96.5
Non-Container Bulk & Break-bulk Cargo	4.1	3.2	3.5	3	N/A
Container Cargo	0.4	0.4	0.2	0.2	N/A
Commercial Fish Landings	0.3	0.3	0.2	0.1	0.1
Port Total					

Source: 1995-1998 data is from the United States Army Corps of Engineers
 1999 petroleum data is from the Maine DEP. All other 1999 data is from the City of Portland
 Non-container cargo data is from Merrill Marine Terminal

Total break and break-bulk cargo volumes (container and non-container) increased by 35 percent between 1995 and 1999 although as a percentage of the total cargo handled the volume decreased from 4.5% to 3.3% (decline due to large increase in petroleum). The increase in total break and break-bulk cargo was entirely due to increases in non-containerized cargo. The estimate for total bulk and break-bulk cargo in 2000 is slightly more than 800,000 tons. This represents an increased of almost 300,000 tons since 1995, or a 57 percent increase.

Containerized cargo tonnage steadily rose between 1991 and 1996, and then experienced widely fluctuating container volumes between 1997 and 2000. The overall containerized cargo tonnage declined by 38 percent between 1995 and 1998 from 50,000 to 31,000 tons.

Commercial fish landings, although just a fraction of the Port's total cargo, represent an important part of the port waterfront. The combined economic value of fish landings, processing and support industries were estimated at between \$300 and \$400 million in 1999.

E. Passenger Ferry and Cruise Ship Operations

1) Casco Bay Island Transit District

The Casco Bay Island Transit District (CBITD) is owned and operated by the residents of six Casco Bay Islands (see Transportation Resources). CBITD carries over 940,000 passengers, their freight and 18,000 vehicles annually. CBITD also carries the U.S. mail, transports school children, and offers incidental tour, cruise and charger service.

2) Cruise Ships in Portland

Between 1995 and 2000 cruise ships made between 13 to 45 visits to Portland carrying between 8,000 and 40,000 passengers. Refer to section the implementation plan of this report regarding plans for a passenger terminal.

III. INVESTING IN PORTLAND'S WORKING WATERFRONT⁶

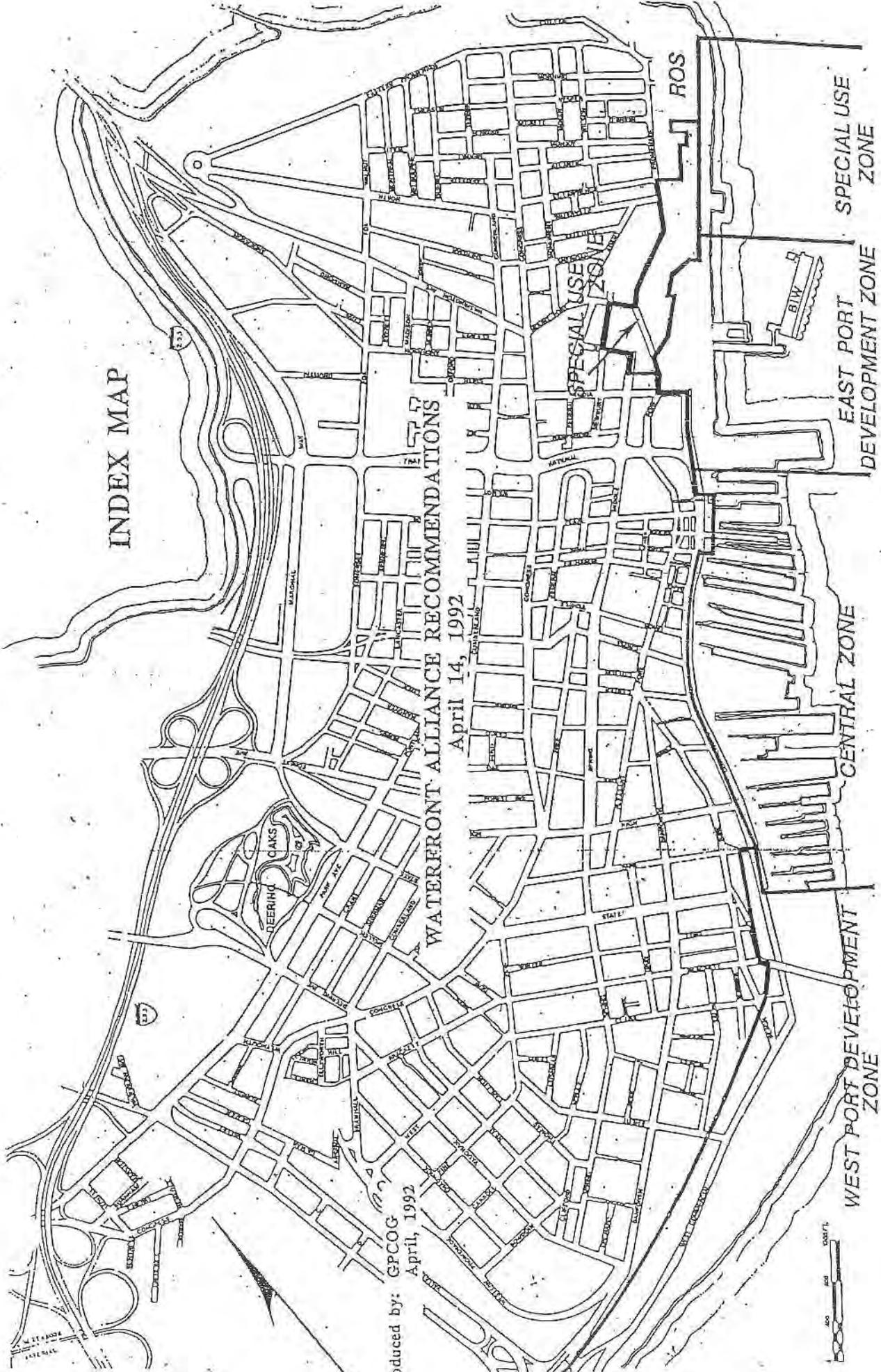
A. Historical Perspective

Portland has a 30-year history of commitment to its working waterfront. The City began planning the future of its waterfront in the early 1970's, culminating in 1982 with multi-faceted development strategies, including zoning amendments, construction of public facilities, and policies to address berthing and public access. Despite these initiatives, the emergence of the Old Port as a vital retail center and tourist attraction threatened to drive traditional industries from their waterfront locations. A citizen-initiated referendum in 1987, passed by a 2-1 margin, clearly demonstrating the public's commitment to a working waterfront, and placed significant limitations on development of the waterside of Commercial Street.

Before the development moratorium expired in 1992, the City asked waterfront interests to review the zoning and recommend any changes that might provide more flexibility in renting space, while protecting water-dependent and marine-related uses. The Waterfront Alliance Recommendations included the following:

⁶ Investing in Our Working Waterfront, Final Report of the Mayor's Waterfront Task Force on Economic Development, October, 2000, Prepared by the Greater Portland Council of Governments, Staffed by GPCOG and the City of Portland.

INDEX MAP



Produced by: GPCOG
April, 1992

WATERFRONT ALLIANCE RECOMMENDATIONS
April 14, 1992



- Preserve the entire perimeter of the Harbor from Tukey's Bridge to the Veteran's Memorial Bridge for berthing.
- Recognize that property with direct water access is limited and should be reserved exclusively for marine use.
- Allow marine compatible use of other property that does not interfere in any way with the activities of water-dependent users.
- Divide the waterfront into four zones that reflect the type of berthing or land use that each zone can accommodate. (see Map ? for the recommended configuration)
- The City should renew its commitment to promoting public access to the Port and ecological safety through the promotion of environmentally sound practices.

The zoning recommendations are incorporated in the City's zoning code and map. While some may argue otherwise, the existing zoning structure strikes a reasonable balance between preserving the "working waterfront" and allowing property owners necessary flexibility in managing their assets.

B. Recent Planning Initiatives⁷

1) Portland Cargo and Passenger Study (CAPS)

In 1998, the city and State of Maine Department of Transportation received the Cargo and Passenger Study (CAPS) for the Portland waterfront, which concluded that the passenger (particularly the Scotia Prince activities) and cargo handling (particularly the container shipping operations) should be separated and improved with facilities better suited for the operations of each. That study examined the potential of several sites for this activity.

2) Waterfront I

In 1998, The Mayor's Waterfront Task Force concluded that the existing International Marine Terminal (IMT) should be dedicated to an expanded container facility, and its passenger ferry operations and cruise ship services relocated to the Maine State Pier. Waterfront I recommended the following implementation steps:

- reacquire the Maine State Pier at the expiration of the Bath Iron Works lease;
- budget for the redevelopment required to relocate the ferry and cruise ship activities to the State Pier;
- propose a bond issue procedure to fund the redevelopment budget,
- create a development plan for the eastern area of the waterfront and the redeveloped city facilities in the area; and
- conduct a master planning effort for the remainder of the waterfront.

⁷ Final Report of the Community Development Committee Recommending A Master Plan for Redevelopment of the Eastern Waterfront, Representing the work of The Waterfront Development and Master Planning Committee and The Marine Passenger Terminal Facilities Committee, June 3, 2002, page 1.

The "Working Principles" are the Waterfront I redevelopment principles to guide future planning in both the redevelopment of the eastern waterfront and the master plan pertaining to the balance of the waterfront. The principles are contained in the policy section of this report.

Bath Iron Works waived their right to purchase the property and allowed the property to revert to city ownership on September 15, 2001. This plan was presented to the State and a first phase was included in the transportation bond passed by the voters in November, 1999. Deleted from the proposed budget for state funding were certain operation facilities, funding for Casco Bay Island District facilities upgrades, and funding for a facility to alleviate parking congestion in the area.

3) Waterfront II

The City continued master planning on the waterfront by examining prevailing economic and business conditions in the Central areas of the waterfront. The findings and recommendations are found below under section C (Economic Challenges of Portland's Waterfront).

4) Waterfront Master Planning (Waterfront III) : Facilities Committee and Master Planning Committee

Starting in 2000, Facilities Committee studied the redevelopment of Maine State Pier and adjoining public property as a central passenger terminal facility. The Master Planning Committee prepared an Eastern Waterfront Redevelopment Master Plan for the underutilized uplands near the proposed passenger facility. The recommendations from both of these reports are under D. Redevelopment of Waterfront East.

C. Economic Challenges of Portland's Waterfront⁸

Since the 1980's, Portland and the State of Maine have invested significant public dollars in supporting traditional waterfront activities such as ship repair, commercial fishing, and cargo transfer. At the same time, some private property owners have, for a variety of reasons, lacked the revenues to maintain their piers. This has resulted in a serious infrastructure problem threatening the viability of certain piers as elements of the waterfront economy. Despite investments in publicly owned waterfront facilities, the City has done little to assist private owners of waterfront property, the uses of which have been limited by public policy, as noted above.

⁸ Investing in Our Working Waterfront, Final Report of the Mayor's Waterfront Task Force on Economic Development, October, 2000, Prepared by the Greater Portland Council of Governments, Staffed by GPCOG and the City of Portland.

1) Economic Findings⁹

The private piers suffer from a limited return on capital in relation to the most critical resource and marine heritage related uses -- the water-dependent, or so-called "working waterfront" uses. The piers are in various states of repair or disrepair, and suffer to a greater or lesser degree from obsolescence and disinvestments. Infrastructure for the piers, such as modern sewerage, electrical service or structural support, is expensive, requires permitting or environmental reviews, and, as with the piers and buildings themselves, is subject to rapid degradation from natural elements.

In a preliminary engineering assessment performed by TEC Associates, 14 wharves were examined for short-term and long-term maintenance and repairs. In the short term, four of the 14 wharves were in good condition and would probably require no repairs over the next three years. Six of the wharves required repairs and maintenance that was estimated to cost between \$15,000 and \$100,000. The remaining four wharves required short-term investments in repair and maintenance estimated at more than \$100,000. Two of these wharves needed maintenance and repairs estimated at nearly \$500,000 over the next three years. The assessment indicated a total need of approximately \$1.4 million in repairs over the next three years.

Over the next 10 years, an additional estimated \$1.8 million in investment is needed in repairs and maintenance for the 14 wharves included in the inventory. It should be noted that these estimates are for repairs and maintenance. The estimates do not include costs for any improvements or additions to the wharves. They do not take into consideration needed machinery or other types of marine-related infrastructure that may be needed to support marine-related industries.

2) Private Piers Dredging

Alongside the piers, the complexities of dredging, and most particularly, the expense and difficulty of obtaining permits and approval for means of dredged material disposal, has resulted in an ongoing decrease in water depths. Dredging has been a long-term problem. Hopes that the pier dredging could be addressed when the Federal Channel was dredged were dashed upon the shoals of the environmental permitting process. The private pier owners identified the soil contamination caused by combined sewer overflows (CSO's) and stormwater runoff as a major cost in environmental permitting for dredging. This contamination is beyond the control of the property owner and, therefore, the public

⁹ Information Sources: Refer to document for methodology, resources, results on interviews and 3 surveys directed to businesses, waterfront property owners and fishing vessel owners/operators, inventory of waterfront businesses, past waterfront studies, inventory of financing programs, results of physical survey of wharves and piers, and public comment.

shares some responsibility for the permitting and dredge disposal designation problems. The City's Waterfront Department is exploring State and federal participation in addressing this problem. Contamination caused by CSO's and stormwater runoff is a significant future economic roadblock and one appropriate for public participation in determining a solution.

3) Parking Issues

Traffic and parking has been repeatedly and currently identified as a burden on conducting business on the piers. It is certainly one likely to increase in scope and severity as the eastern waterfront is redeveloped and the current islander parking area is converted to other uses. The need to accommodate on-site parking, even at the reduced levels specified for the waterfront in our zoning ordinances, contributes to the low equity return on piers by consuming, perhaps unnecessarily, large and valuable areas at the water's edge.

4) The Fishing Industry

The fleet of the Port of Portland may never recover to the degree that it will operate again in the range of its historic highs. The industry faces competition from other ports in attracting participants to the fishing industry. Research revealed a willingness by private lenders to participate in the capitalization of this industry, and there is clearly a public role in assuring a steady and economical flow of capital on a consistent and long-term basis. However, this has changed due to the federal lawsuit. Capital is drying up as fishermen face further losses of days-at-sea and other regulations. An important strategy for the long-term health of the port is investing in infrastructure that supports waterfront businesses. Examples of infrastructure investment could include the development of fish freezing capability on the Portland waterfront, the exploration of aquaculture enterprise, the addition of more berthing space and the rehabilitation of area clam beds.

5) Fiscal Analysis

The intention of the Task Force has been to develop a long-term means of addressing persistent infrastructure and business development problems. Avoiding duplication of already existing programs or administrative capabilities and minimizing, if not eliminating, impact on the City budget are additional important considerations.

The proposals have a low impact on the City budget and depend on revenues from anticipated growth as the primary means for financing the public share of lending and capital projects. As capital projects come on-line with associated revenues, and as loan funds are repaid and re-loaned, we hope that the economic impacts will combine with fund repayment

cash flows and operational revenues (such as from the fish freezer or parking garages) to create a positive impact on the city budget.

6) Invest in Our Working Waterfront Recommendations¹⁰

The following actions are recommended to address the economic development needs of the Portland waterfront:

- Encourage private and public sector waterfront investments through lending programs and a capital improvements program.
- Create a waterfront-centered economic development outreach program to ensure that waterfront businesses have access to needed programs and services.
- Support the current use taxation referendum to provide property tax relief to waterfront property owners.
- Support clean, working harbors through addressing the negative effects of combined sewer overflows (CSO's) and stormwater runoff on the waterfront economy. In particular, explore ways to share the expense of dredging caused by contaminants resulting from CSO's and stormwater runoff.

Since the adoption of the Waterfront II in 2000, the development activities have been initially funded through a partnership grant to Coastal Enterprises, Inc. from the State of Maine and Bath Iron Works¹¹. To support the city's role in a redevelopment loan program, the city administration is seeking technical and funding assistance for dredging through state and federal sources. The redevelopment zone process is slated to begin during 2002.

IV. REDEVELOPMENT OF WATERFRONT EAST

A. Redevelopment Principles

The overall redevelopment of the Eastern Waterfront includes water dependent uses, a major passenger transportation facility for ferries and cruise ships, public open space, CBITD's passenger and freight facility, and compatible mixed-use development. To guide changes in this area there are four adopted principles for the redevelopment of the

¹⁰ Investing in Our Working Waterfront, Final Report of the Mayor's Waterfront Task Force on Economic Development, October, 2000, Prepared by the Greater Portland Council of Governments, Staffed by GPCOG and the City of Portland., Task Force Recommendations page 21 through 27.

¹¹ Final Report of the Community Development Committee Recommending, A Master Plan for Redevelopment of the Eastern Waterfront, Representing the work of The Waterfront Development and Master Planning Committee and The Marine Passenger Terminal Facilities Committee, June 3, 2002, page 3.

Eastern Waterfront established by the Waterfront Development and Master Planning Committee:

Character and Impact of Development

Development within the eastern waterfront will be compatible with the surrounding areas, neighborhoods, natural environment and maritime uses.

Mixed Use

Development within the eastern waterfront will create a vital and active mixed use urban area that generates life and use every day of the year and all hours of the day.

Maritime Resources

Development in the eastern waterfront on piers, bulkheads, and on land within 75 feet of mean high water line will give priority to compatible water-dependent and maritime uses.

Economically Responsible Development

Development in the eastern waterfront will provide a significant benefit to the City and regional economy.

B. Ocean Gateway – Passenger Terminal Facility¹²

Following the recommendations of the Cargo and Passenger Study (CAPS) and the subsequent Waterfront I, Mayor's Taskforce, the City formed a *Marine Passenger Terminal Facilities Committee* to plan a new intermodal facility in Portland's Eastern Waterfront. The Ocean Gateway project concentrates passenger facilities at the east end of the waterfront at Maine State Pier and the former Bath Iron Works ship repair facility (now sometimes referred to as the Portland Ocean Terminal.) As recommended by the *Marine Passenger Terminal Committee*, the Ocean Gateway project proposes new and improved marine infrastructure to:

- Move the Scotia Prince and the international ferry terminal from its existing facility near the Casco Bay Bridge;
- Improve and expand the Casco Bay Island Ferry terminal at its present location;
- Provide improved cruise ship landing and debarkation pier space; and,
- Provide pier and terminal space for a future inter-coastal ferry service.

Bath Iron Works returned the Portland facility back to the City on September 15th 2001. The conversion of the facility into a cruise ship and international ferry terminal is expected to be open for business under control of the City in 2005.¹³ The State of Maine has included \$8.976 million in a Transportation Bond issue passed by the Maine voters on November 2, 1999. Bond proceeds will also be used to convert the existing international Marine Terminal into a dedicated container terminal. BIW has recently completed the sale and removal of the facility's dry dock facility.

¹² Summary Statement prepared by William Needelman, Senior Planner, June 2002.

¹³ Official Statement Dated March 21, 2002, City of Portland, Maine \$14,445,000 General Obligation Bonds, ABN-AMRO Financial Services, Inc. Duane G. Kline, Director of Finance, City of Portland, Maine. Entire Public Facilities and Services from this source unless otherwise noted, pages 48. Edited 2002.

C. Master Plan for Redevelopment of the Eastern Waterfront¹⁴

Recognizing the potential for a major intermodal marine passenger facility to spur both marine and non-marine development on underutilized lands on Portland's eastern peninsula, the City simultaneously engaged in a master planning process for waterfront and uplands adjacent to the Portland Ocean Terminal site. The charge of the *Waterfront Development and Master Planning Committee* was to:

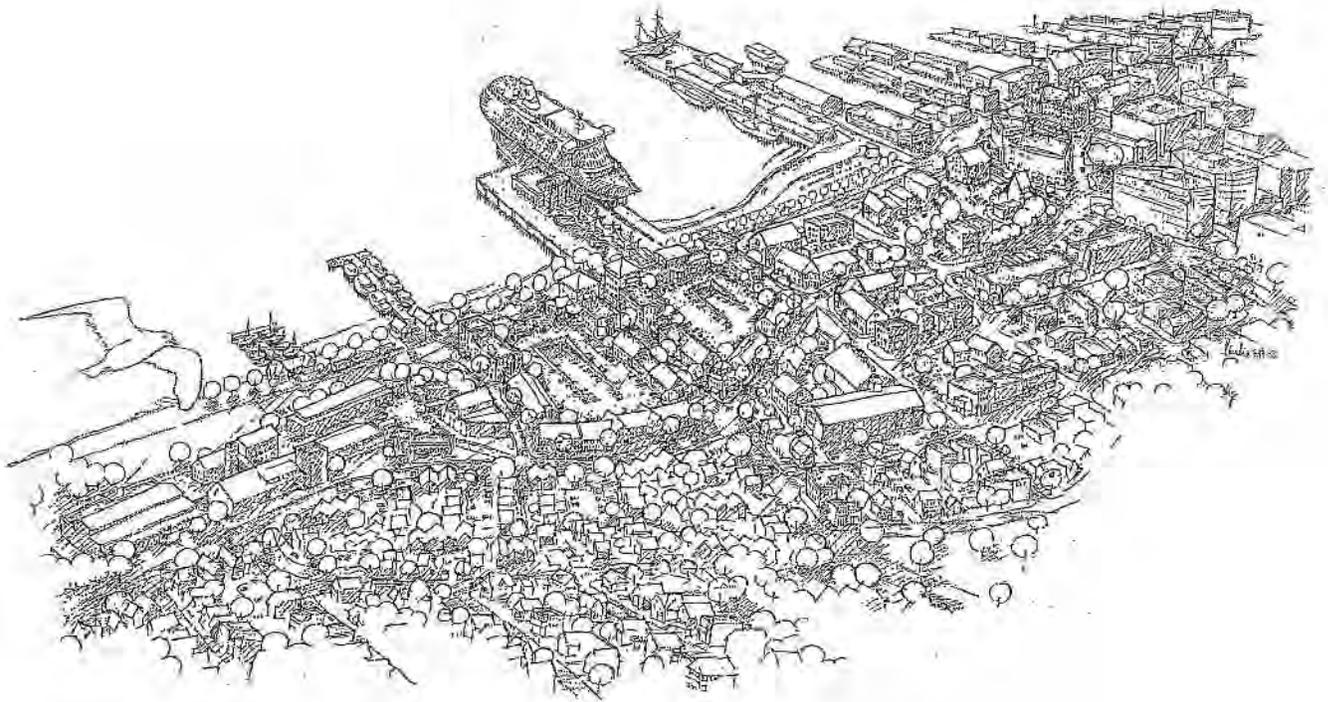
- Develop a master plan for the waterfront adjacent to and to the east of the Marine Passenger Terminal Project,
- Analyze impacts and opportunities to other areas adjacent to the Marine Passenger Terminal Project,
- Collaborate with the Marine Passenger Terminal Project Committee to achieve optimal integration of the new facility into the broader context of the City, and
- Establish the context for a comprehensive master plan for the entire Portland Waterfront.

Following the work of the *Marine Passenger Terminal Committee* and the *Waterfront Development and Master Planning Committee*, the *Community Development Committee* (CDC) of the City Council reviewed the integrated master plans prior to final action by the full City Council. After review of both waterfront committees' work, the CDC recommended both plans. Community Development Committee's recommendation of the *Master Plan for Redevelopment of the Eastern Waterfront* and the *Phase One Ocean Gateway* reports was founded in part on the following aspects of the plans:

- Preservation and enhancement of existing marine infrastructure including:
 1. Retention of Maine State Pier deep water berthing and the 100,000 square foot transit shed.
 2. Retention and enhancement of the Atlantic Pier (BIW dry dock pier) for large vessel passenger service.
 3. Retention of shallow water berthing potential and increased public access along the shoreline east of the Atlantic Pier.
- Potential for high value mixed-use development on adjacent upland that is compatible with the marine use of the piers and the shoreline including:
 1. Zoning recommendations to increase opportunities for a mix of residential, commercial, and office uses for those properties without direct water access.
 2. Design guidelines that promote compatible development with the traditional patterns of development and building forms in this area.

At the present time, the City Council has approved the Ocean Gateway project for final design development and permitting, and has forwarded the Redevelopment Master Plan to the Planning Board for review and recommendation for adoption for inclusion as an element of Portland's Comprehensive Plan.

¹⁴ Summary Statement prepared by William Needelman, Senior Planner, June 2002.



*Concept of Eastern Waterfront Redevelopment and the Marine Passenger Terminal
ICON Architects, Boston MA*

NATURAL ENVIRONMENT

Inventory and Analysis

NATURAL ENVIRONMENT¹

PORTLAND'S LANDSCAPE

Participants in community forums held in 2001 were asked, "What makes Portland distinctive?" Portland's natural setting was the number one response. The geographic diversity of Portland as a coastal community with rivers, estuaries, streams, islands, and hills is highly valued by citizens. The natural beauty, scenic views, and accessibility of natural resources are cited as significant attributes of the city.² For this inventory, Portland's environment is divided into three basic categories: I) Physical Elements; II) Wildlife and Critical Resource Elements; and III) Natural Resource Elements. The final section (IV) is a summary of conservation efforts, including environmental regulations and issues.

I. PHYSICAL ELEMENTS

A. Regional Context

According to Bennett's Maine's Natural History, Portland is located within the Coastal Region, and more specifically, within the Transitional Coastal Sub-region. A highly convoluted, irregular and rocky coastline characterizes this sub-region, extending from Scarborough to Penobscot Bay. These coastal waters, with their varied temperature, salinity, and complex currents support a tremendous assortment of marine and terrestrial animals and plants. This Sub-region marks the changeover from the white pine and hardwoods forests typical of central eastern United States to the northern boreal forests characterized by red and white spruce and balsam fir. Portland is more closely aligned to the more temperate forests with hardwood species comprising a significant portion in the native forest.

B. Geologic and Glacial History

Portland's underlying bedrock began as sediment laid down under the ancient Iapetus Ocean. The tectonic plate collision of Avalonia and North America caused the characteristic folding of the bedrock seen in the geologic band called the Casco Bay Group. The bedrock's parallel folds are in a distinctive southwest-northeast orientation, which are revealed in the shape and position of the Casco Bay Islands and the Portland peninsula.

The Wisconsin Age glacier extended out onto the continental shelf. It depressed bedrock, as much as 2,000 feet into the earth's fluid mantle and tied up so much water that sea level was 300 feet below its current level. As global temperatures rose, the glacier began

¹ Excerpt from Green Spaces, Blue Edges: An Open space and Recreation Plan for the City of Portland, Chapter Three, Portland's Natural Environment. Edited in 2002.

² Edited and updated 2002 for Comprehensive Plan Certification.

to melt and recede. The sea followed the glacier landward to a point at least 15 miles inland of the current coastline. Glacial sediments and marine deposits became Portland's soils.

C. Topography

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 city with its islands extends 12 miles, north to south, and 15 miles, west to east. Portland's total area is approximately 46,100 acres (72 square miles); however, the land area is only 14,100 acres (22 square miles) and the remainder is water, primarily Casco Bay and Back Cove. The mainland portion of the city extends over 4.9 miles, north to south, and stretches over 6 miles, east to west with approximately 11,150 acres. The 17 islands or parts of islands within Portland's city limits add approximately another 2,950 acres of land area.

The Portland Peninsula is dominated by a 1-mile by 3-mile southwest-northeast oriented double-topped ridge. 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 low hills and ridges. These highpoints include Summit Hill (180), Rocky Hill (150 feet), outer Washington Avenue (168 feet), Graves Hill (174 feet), and Deering Highlands (126 feet). A shaded relief map of Portland's watersheds depicts the topography on Portland's mainland (Environmental Map #2). 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. 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 of the precipitous edges where land meets water.

D. Bedrock and Soils

Portland 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, which extends from Stroudwater through the USM campus to Martins Point. There are no indications that this fault has been active in modern times.

The Cumberland County Soil Survey (U.S. Department of Agriculture, Soil Conservation Service) divides soils in Portland into two general classes or associations.³ The peninsula and areas near and south of Brighton Avenue are generally classified in the

³ Refer to appendix for brief description of soil characteristics and for the specific descriptions of the soil types found in Portland.

Hollis-Windsor-Au Gres Association. The off-peninsula areas and areas north of Brighton Avenue are generally classified in the Suffield-Buxton-Hollis association.

These associations frequently overlap and elements of each association are found throughout 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.

The peninsula has been subject to extensive filling. A swath of filled land up to 200 feet in width was created along the waterfront (the Fore River), which supports the entire length of Commercial Street. Similarly, the existing northern bank of the Fore River, from the Casco Bay Bridge to Thompson's Point, was created with fill. Much of what we know as Bayside today was previously part of Back Cove. The east-west diameter of Back Cove was approximately 1.5 miles in the early 19th century- the present east-west diameter is approximately 0.8 miles. The perimeter of Back cove area was filled with soil and demolition debris (including debris from the Great Portland Fire of 1866) from the 18th to the 20th centuries. The filling of the southeastern bank facilitated the construction of Marginal Way and I-295. Because of the variability of material used for fill, it is not possible to characterize the soil and its limitations without on-site investigation.

E. Surface Waters and Wetlands

1) Overview

Casco Bay, Back Cove, and the Fore, Stroudwater, and Presumpscot Rivers surround over 80 percent of Portland's mainland. The City's total area includes the water between the mainland and the islands, thus Portland has more acreage of water (32,000 acres) than land (14,100 acres).

2) Principal Surface Waters (refer to Environmental Map #1, Principal Water Bodies)

Casco Bay covers 229 square miles from Two Lights in Cape Elizabeth to Cape Small in Phippsburg with more than 200 islands. The Bay has 578 miles of irregular shoreline with an 18-mile wide entrance and an average width of 12 miles. Closer to Portland, the Hussey and Luckse Sounds offer sheltered, deep, and spacious anchorages for ocean-going vessels.

Portland occupies a prominent location within the Casco Bay Watershed.⁴ The watershed includes four major rivers: the Fore; Stroudwater; Royal; and Presumpscot Rivers. All of these rivers, except the Royal, pass through or about Portland and empty into Casco Bay here. The watershed, covering 985 square miles, extends approximately 60

⁴ 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.

miles to the north, and reaches its terminus in Bethel at the Crooked River's northern-most extent. The watershed includes forty municipalities, and several major water bodies, including Sebago, Little Sebago, Long and Highland Lakes. Sebago is Maine's second largest lake and serves as the principal water supply for Portland. Due to the hydrological relationship of this watershed, activities such as industry, agriculture, development and wastewater treatment in communities as far away as Bethel can impact the quality and character of resources in Portland and Casco Bay.

Portland Harbor, the westernmost portion of Casco Bay, is a deep-water, year-round, sheltered harbor, only 3 ½ 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.

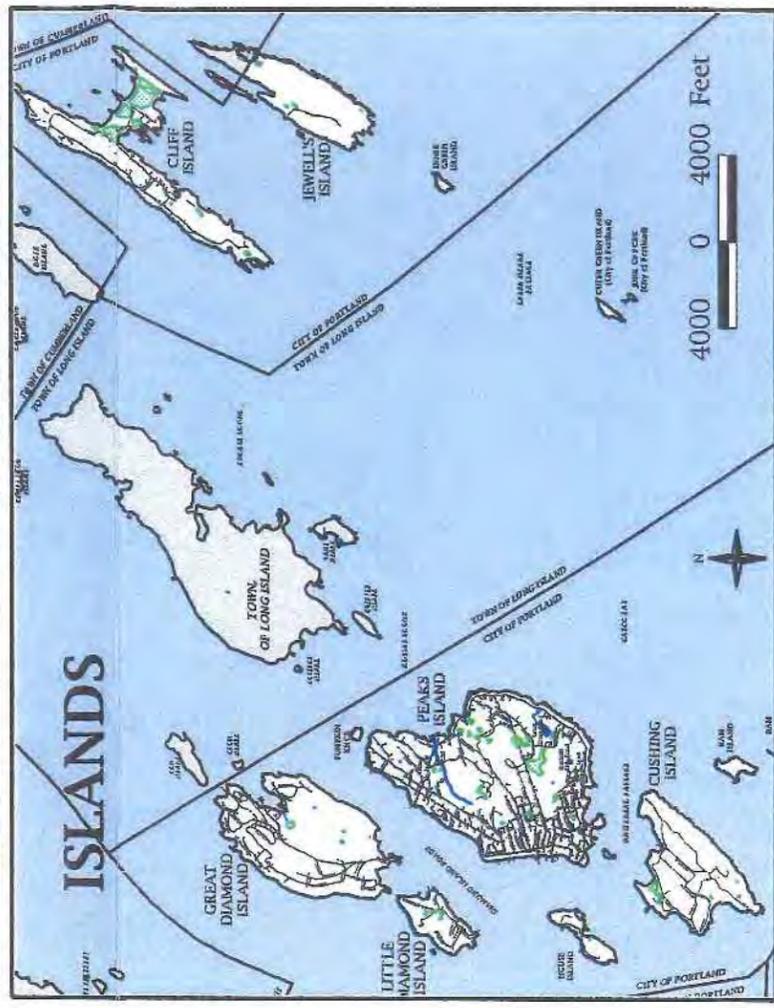
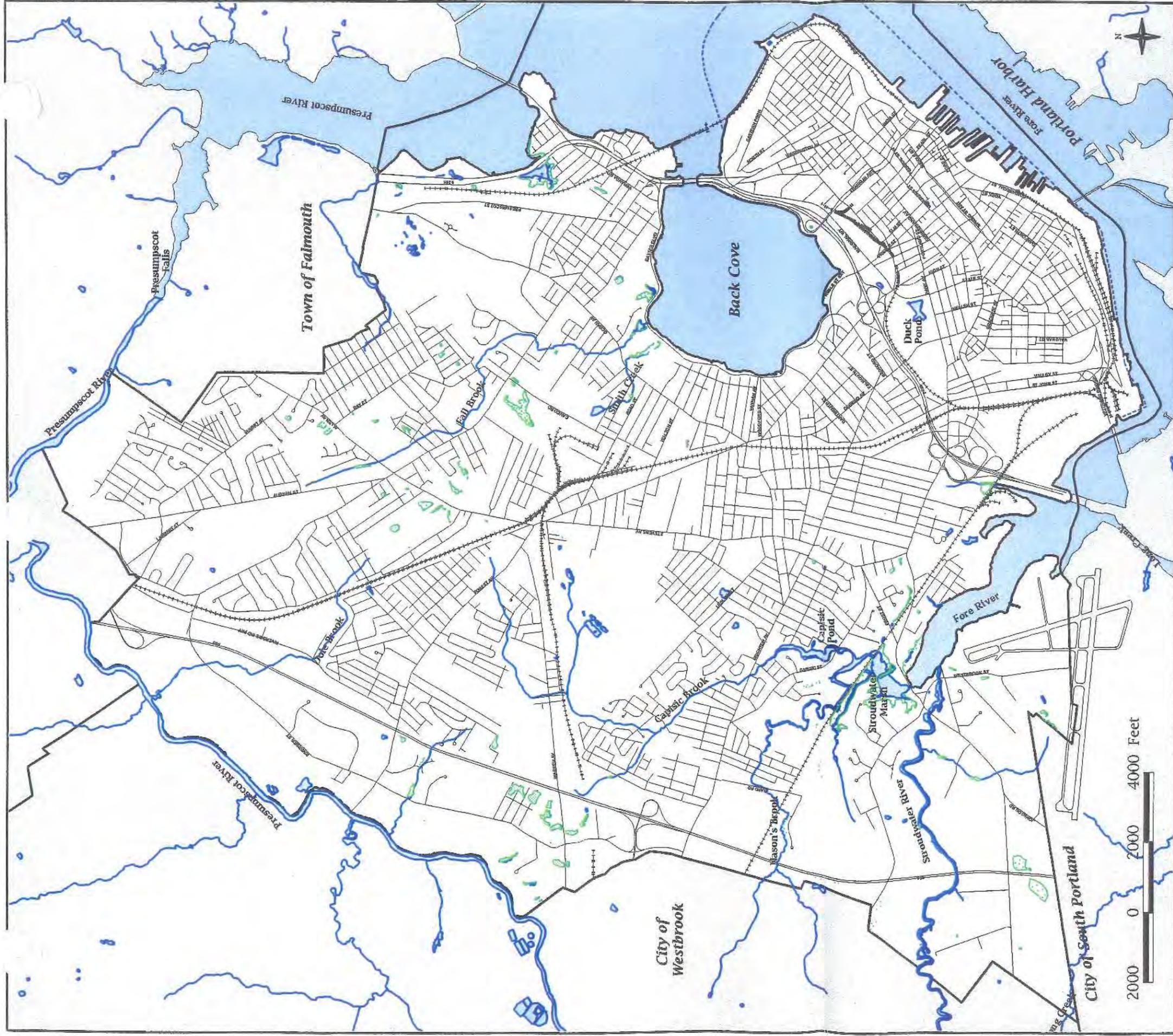
Back Cove is a semi-enclosed tidal cove covering approximately 660 acres. Its narrow, bottleneck opening empties into Portland Harbor. Today its use is primarily recreational, such as windsurfing, and its shoreline is ringed with a walking/jogging/biking path.

The Fore River serves as the inner portion of Portland Harbor, running from the Stroudwater River into Casco Bay. While the Fore River has an important water transportation function, it is also a highly productive estuary with its associated tidal marshes.⁵ West of Thompson's Point, there is an extensive area of salt marsh cord grass and salt marsh hay, including the Fore River Sanctuary, which contributes to the productivity of the estuary. In 2000 and 2001, the Resource Protection Zone for the Fore River Estuary was enlarged to incorporate and protect over 112 acres of additional land held by Maine Audubon Society, Portland Trails, the City of Portland and Union Water and Power Company.

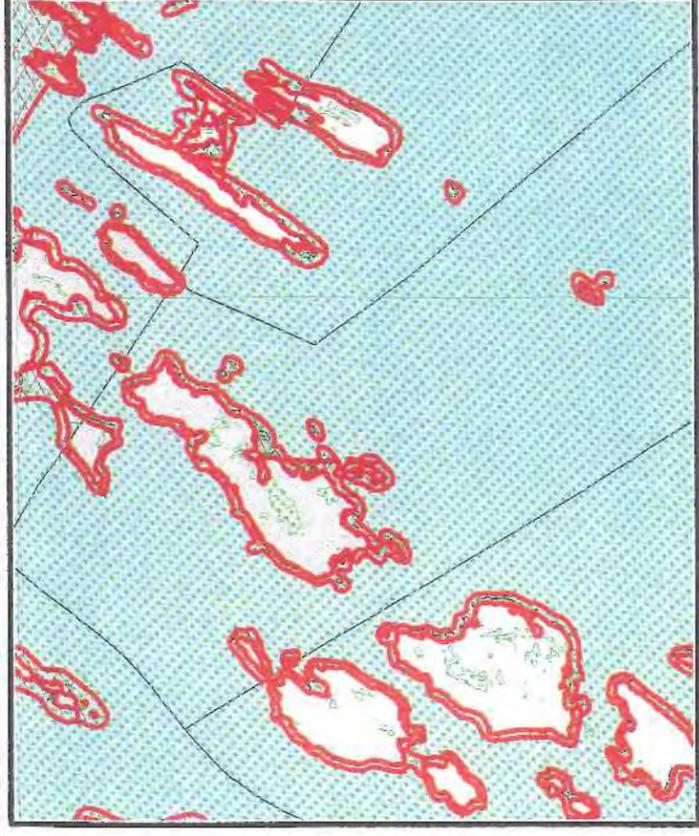
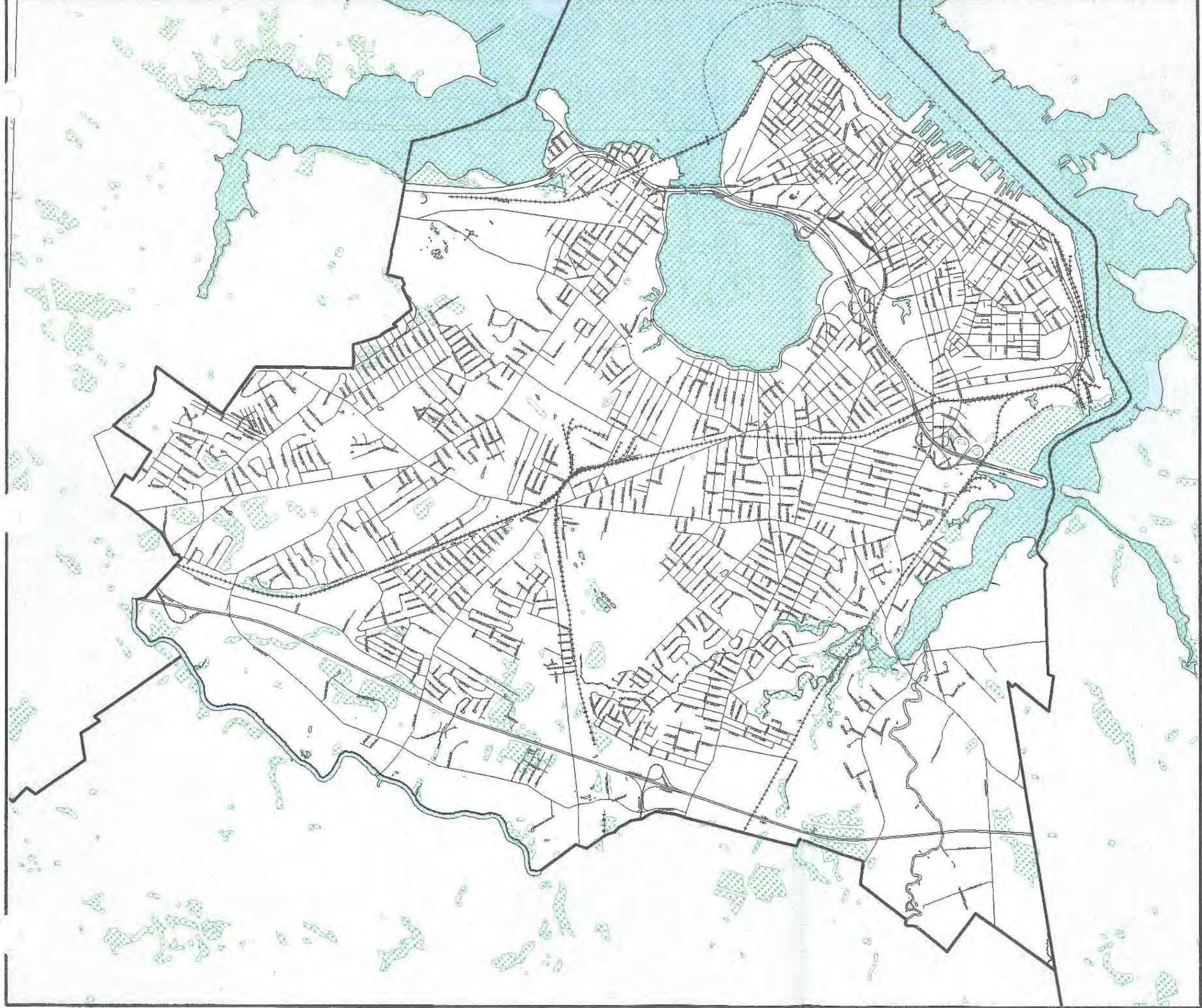
The Stroudwater River empties into the Fore River in the Stroudwater neighborhood of Portland. This river's watershed includes sections of seven communities: Buxton, Cape Elizabeth, Gorham, Portland, Scarborough, South Portland and Westbrook.

The Presumpscot River is the longest river traversing Portland and it has the largest watershed. The watershed comprises the northern reaches of the Casco Bay watershed, beginning with the Crooked River in Bethel, through Standish, Windham, Gorham, Westbrook, Falmouth and Portland. The river is also an estuary at its outlet in Falmouth. In 2003, The Smelt Hill Dam is scheduled to be removed from the lower reaches of the Presumpscot River in Falmouth. The removal of the dam will result in a significant environmental shift for the river and open it up to fisheries that have long been excluded from the Presumpscot.

⁵ Estuary is an aquatic region where fresh and salt-water mix, characterized by fluctuations in salinity, tidal action, and typically, high biological diversity and productivity.



City of Portland SURFACE WATER



City of Portland National Wetlands Inventory (NWI)

LEGEND

 NWI Wetlands

3) Four Major Streams

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 Westbrook/Portland border, just north of Exit 8 of the Maine Turnpike (heavily developed area), and runs under the Turnpike to connect with the other branch just north of the Hall School. From there, it flows south, crossing Brighton Avenue to Capisic Pond, then under Capisic Street into the Fore River Sanctuary and empties into the Fore River.

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. A portion of the brook between Allen and Maine Avenues flows within an underground culvert.

Nason's Brook begins in Westbrook, runs under the Maine Turnpike near the Pine Tree Industrial Park, under Rowe and Rand Avenues, and flows over Jewell Falls. It also enters the Fore River Sanctuary and empties into the Fore River. Jewell Falls was recently rezoned to Resource Protection Zone (RPZ) as part of the environmental conservation efforts for the Fore River Estuary.

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

4) Inland Wetlands (refer to Environmental Map #2)

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 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 (refer to Sec IV) on Allen Avenue near Northfield Green. There also are several wetlands on Peaks Island that are afforded this protected status.

5) Groundwater Resources

Drinking water for the mainland is piped from Sebago Lake by the Portland Water District, which serves nine other area communities. The Portland Water District maintains large reserves, so the city has not been impacted by any water shortages during the 2001-2002 drought. The islands 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 and there are also a number of private wells.

Groundwater on the islands and the mainland originates from rain and snow that falls on the land surface. The water then filters 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 (roughly from Rankin Street to the Maine Turnpike and along St. John Street (roughly from Danforth Street to Congress Street).

The City of Portland had Robert G. Gerber, Inc. prepare a ground water management study for the islands.⁶ The islands studied included Peaks, Cliff, Great Diamond and Little Diamond. The consultants assembled data on the island ground water resources, undertook reconnaissance-level investigations and developed simulation modes to describe the way in which ground water originates and moves on the islands, located known and potential sources of ground water contamination, and proposed ground water management goals, objectives and implementation measures. There are two types of aquifers on the islands:

1. **"Surficial" deposits** or those in the soil. It is determined that as little as 5% of the precipitation and snow melt will infiltrate clay soils and almost all of the water will infiltrate in gravel soils, although almost half of annual precipitation is lost to plants and evaporation.
2. **Bedrock aquifers** absorb water into cracks or fractures. On the average, about 8% of the precipitation falling on the Portland islands moves through the fractures to become ground water flow in the bedrock aquifer. The water moves through narrow openings, through planes of sedimentary rock (which may now be vertical), or larger cracks from rock breakage. The groundwater entering the rock at the highest point of the island flows nearly straight down, deep into the earth, before turning sideways, then upwards to discharge at the saltwater interface. Groundwater entering the rock near the edge of an island stays shallow and will discharge just above or below the high tide line.

Saltwater intrusion is a particular concern on the islands. Freshwater has a lower density and will float on top of salt water. A thick zone of brackish ground water occurs near the saltwater interface, due to mixing caused by tidal fluctuations and by ground water moving along the saltwater interface. The saltwater interface is located about 40 times the depth below Mean Sea Level, with ground water elevated above Mean

⁶ City of Portland Island Groundwater Management Study, prepared by Robert G. Gerber, Inc., Consulting Civil Engineers and Geologists, adopted 1989, financially supported by a grant from Maine's Coastal Program through funding provided by the U.S. Dept. of Commerce, Office of Coastal Zone Management, under the Coastal Zone Management Act.

Sea Level. Therefore, the saltwater interface is very deep under the center of an island where the ground water may be close to 80 feet above Mean Sea Level. The closer to the shoreline, the shallower the saltwater interface becomes. When a well is being pumped and draws down the ground water surface, salt water is displaced upward toward the well.

The principal soils on the islands include: a) thick silty, stony soil called "glacial till"; b) thin stony, sandy soil developed by water washing through glacial till; c) stratified sand or gravelly sand deposited by glacial meltwater streams; and d) interbedded fine sand, silt, and clay. The stratified sands and gravels make the best surficial aquifers, the tills are intermediate in favorability; and clay-silts are least productive. Dug wells are only reliable where soils are relative thick (10 ft or more). Soils are typically less than 5 ft thick in large areas on the west shore of Peaks Island and relatively thin soils cover most of the islands. Surficial aquifers are only of minor importance to the islands as a water source. The study includes a map locating site of surficial deposits with above-average thickness and coarse texture, which favor developing wells.

Bedrock geology is complex on the islands. The bedrock aquifers are divided according to different bedrock types. The rock type, called Cape Elizabeth Formation, produces more water when pumped than other rock types. On Cliff Island the rock types naturally produce more iron and manganese (which stains laundry and smells like sulfur). Cliff Island wells produce above average yields and the ground water quality did not show much human-generated contamination. Typical bedrock well depth on the island is about 100 feet, whereas 175 feet is average depth for the coast as a whole. The study identifies where subsurface sewage disposal systems and other potential sources are suspected of contaminating wells. There were very few cases of reported saltwater intrusion in the island wells. It was found that contaminants could spread rapidly in the bedrock.

The Ground Water Management Study recommended measures to preserve the quantity of groundwater by preserving the recharge rate, so the ground water table is not lowered and saltwater intrusion does not occur. The study also provided recommendations to preserve the quality of water, so that it meets or exceeds the State of Maine Primary Drinking Water Standards. The measures adopted to preserve the ground water resources on the islands are found in section IV, Conservation Issues and Efforts.

II. WILDLIFE AND CRITICAL NATURAL RESOURCE ELEMENTS

A. Wildlife Habitats

1) "Beginning with Habitat" Inventory

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 inter-tidal flats, mussel reefs, and eelgrass beds provide large acreages of many habitats. Similarly, the occurrence of many near shore islands (approx. 400) provides additional 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, US Fish and Wildlife Service.)

In 2001, a cooperative effort of environmental organizations and government agencies⁷ introduced a program call "Beginning with Habitat, An Approach to Conserving Open Space." Maps and data identifying valued habitats and rare species locations are being provided to municipalities. The significant habitats for Portland are shown on Environmental Map #3, which is an excerpt of the "High Value Plants and Animal Habitat Map for the Towns of Gorham, Windham, Falmouth, Portland, and Westbrook." A summary of the map information regarding Portland is as follows:

1. **Maine Natural Areas Program -MNAP Rare or Exemplary Natural Communities⁸:** Portland does not have any rare species or natural communities, except that a spotted turtle habitat in Falmouth touches the municipal boundary (northerly boundary line) in the vicinity of the Presumpscot River.
2. **U.S. Fish and Wildlife Service – High Value Habitat for USFWS Priority Trust Species (> 5 acres)⁹:**
 - a. **Grass, shrub, and bare ground:** On the mainland, areas of this habitat are found along the Stroudwater

⁷ Cooperative effort with Maine Department of Inland Fisheries and Wildlife, Maine Natural Areas Program, Maine Audubon Society, Maine State Planning Office, United States Fish and Wildlife Service, Maine Cooperative Fish and Wildlife Research Unit, Southern Maine Regional Planning Commission and Wells National Estuarine Research Reserve. Maps prepared by Maine Natural Areas Program.

⁸ The Maine Natural Areas Program tracks natural communities that are either rare types or outstanding examples of more common types. In addition, they track rare plant species.

⁹ Priority Trust Species: Trust species of the USFWS include all migratory birds, anadromous/catadromous and certain coastal fishes, and federally listed endangered and threatened species. The map identifies important habitat for 64 trust species that regularly occur in the gulf of Maine watershed and are considered a priority for protection because they: are listed as federally endangered or threatened, and or are exhibiting significant declining population trends nationwide, and or have been identified as endangered or threatened by two or more of the three states in the Gulf of Maine Watershed.



City of Portland, Maine WILDLIFE HABITAT

	Tidal Wading Bird / Waterfowl Habitat		Buffer of Rare Animal
	Shorebird Roosting		Deer Wintering Area
	Important Seabird Nesting Islands		

*Source:
Unpublished*



River, within Evergreen Cemetery and Payson Park, along the Presumpscot River, within the Riverside Golf Course, and two undeveloped locations in the vicinity of the Maine Turnpike.

- b. **Forest (Includes Forested Wetlands):** There are only two identified high value forested areas in Portland. One is off Ocean Avenue near the Falmouth line and the other is on Peaks Island.
 - c. **Marine/Estuarine Intertidal Wetland:** The high value Marine/Estuarine Intertidal wetlands are identified along the Fore River, Back Cove, Portland Harbor, Presumpscot Estuary and surrounding all of the Islands. In 2001, the Resource Protection Zone (RPZ) for the Fore River Sanctuary was expanded to encompass a much larger land area in order to conserve this resource and the adjoining wildlife corridors.
 - d. **Freshwater Wetlands (non-forested) and lakes and rivers:** There are no freshwater wetlands exceeding 5 acres noted on the map. Portland's has the following freshwater rivers and streams: Fore River, Stroudwater River, Presumpscot River, Fall Brook, Capisic Brook and Capisic Pond, Nason's Brook, and a fourth unnamed brook.
3. **Maine Department of Inland Fisheries and Wildlife – MDIFW Mapped Habitats and Confirmed Species Locations¹⁰:** There are no essential wildlife habitats in Portland; however, the Significant Wildlife Habitats are as follows:
- a. **Deer Wintering Area¹¹:** There is a deer wintering area that is west of the Turnpike and encompasses both sides of the Stroudwater River. This area extends into Westbrook.

¹⁰ Maine's Endangered Species Act protects Essential Wildlife Habitats, which are areas currently or historically providing physical or biological features essential to the conservation of an Endangered or Threatened Species and which may require special management. Maine's Natural Resources Protection Act (NRPA), which became effective on August 4, 1988, was intended to prevent further degradation or destruction of certain natural resources of state significance. Within the Act are certain provisions for protecting significant wildlife habitats.

¹¹ A deer wintering area (DWA) is defined as a forested area used by deer when snow depth in the open/hardwoods exceeds 12 inches, deer sinking depth in the open/hardwoods exceeds 8 inches, and mean daily temperatures are below 32 degrees Fahrenheit. Non-forested wetlands, non-stocked clearcuts, hardwood types, and stands predominated by Eastern larch are included within the DWA only if they are less than 10 acres in size. Agricultural and development areas within DWA are excluded regardless of size. This coverage has not been officially adopted as a regulated NRPA habitat.

- b. **Shorebird Habitat¹²**: Shorebird habitat is noted on the State habitat map along the Fore River west of the Million Dollar Bridge, in back cove, within the Presumpscot Estuary east of I-296, several small locations along the Eastern Promenade, and on Ram Island (conserved under State ownership).
- c. **Tidal Waterfowl/Wading Bird Habitat¹³**: According to the State map tidal waterfowl and wading bird habitats are found around each of the islands, at several points off the Eastern Promenade, within the Fore River and its estuary starting at the westerly tip of the peninsula, in Back Cove, and in the Presumpscot Estuary including shore frontage between B&M Baked Beans factory and Martin's Point.
- d. **Seabird Nesting Islands¹⁴**: There are three islands in Portland identified as seabird nesting sites: House Island, Ram Island, and Outer Green Island. The latter two islands are conserved under State ownership.

B. Local Wildlife Assessments¹⁵

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-back heron. Resident or visiting mammals included moose, deer, river otters and mice.

The Capisic Brook Greenbelt/Stormwater Abatement Study recommended employing an integrated approach to address stormwater management, which includes habitat and

¹² The shore bird data layer from the State specifically addresses migratory shorebird coastal staging areas. Staging habitat is defined as areas that meet shorebird feeding and roosting requirements, during migration. Shorebird staging habitat consists of coastal areas, which provide both tidal mud flats rich in invertebrates for feeding, and areas such as gravel bars and sand spits for roosting. This coverage has not been officially adopted as a regulated NRPA habitat.

¹³ Waterfowl habitats characterized both seasonally and behaviorally as: breeding habitat, migration and staging habitat, and wintering habitat. Wading bird habitats consist of breeding, feeding, roosting, loafing, and migration area. Habitats can include: seaweed communities, reefs, aquatic beds, emergent wetlands, mudflats, and eelgrass beds. Any area around a seabird nesting island (with at least 25 nesting pairs of Common Eiders) and areas documented as wading bird rookeries are also included. This coverage has not been officially adopted as a regulated NRPA habitat.

¹⁴ Seabird nesting islands are an island, ledge, or portion thereof in tidal waters that has documentation of (a) 25 or more: nests, adult seabirds associated with nests or combination thereof (single species or aggregate of different species) in any nesting season during, or since 1976; or (b) one or more nests of a seabird that is a Maine endangered or threatened species in any year during or since 1976, provided that the island, ledge or portion thereof, continues to have suitable nesting habitat. This coverage has been officially adopted as a regulated NRPA habitat.

recreation improvements. The inventory for this study described the brook's habitat. The Capisic Brook Greenway Master Plan and the Fall Brook Greenway Master Plan are more detailed studies of using the integrated approach for storm water management in both stream watersheds. First, the natural conditions (watershed, flood zones, slopes, and soils) of each brook were identified. Then, the consultants analyzed the vegetation, stream, and wildlife habitats along each segment of the streams. From this information base, recommendations are presented that combine the required engineering improvements for stormwater management and flood mitigation with opportunities for habitat enhancements.

The removal of the Smelt Hill Dam in Falmouth (scheduled for 2003) should improve the Presumpscot River's fisheries habitat and allow a broader range of species access to the river. The Presumpscot River Task Force, a subcommittee of the Casco Bay Estuary Project, is currently studying the potential environmental impacts, habitat improvements, public access demands, and water quality considerations that will result from the removal of this and other dams along this corridor. Their work will be important in understanding this large watershed and enhancing the Presumpscot, which flows through seven communities. The Land for Maine's Future and the City of Portland are partners in the purchase of 48 acres along the Presumpscot River (northerly tip of Portland), which will provide public access (trail and canoe launch) and conserve wildlife habitats.

III. NATURAL RESOURCE ELEMENTS

A. Forestry Activities

Portland is known as the "Forest City". The city's 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. Portland's native forest was largely intact until the early 1800's when settlers cleared the land for farming and pastures. Currently, the only timber harvesting in Portland is taking place on Cliff Island, on one of the two properties listed under the Maine Tree Growth Law for managed wood lots. The 31-acre parcel on Cliff Island contains mostly Spruce and 55 acres near the Stroudwater River has seen forestry related activity in the past five years.

Deering Oaks and Baxter Woods Parks represent the best examples of Portland's original forest. The City purchased Deering Woods (now known as Deering Oaks) in 1879 as a park with the "crowning glory" being its ecologically significant stand of white oaks. Baxter Woods was purchased by then Governor Percival Baxter and given to the City as a nature preserve in 1946. Another old-growth stand is a small pocket of pine and hemlocks (among the tallest in the city) on Davis Farm Road at the Verizon facility (formerly New England Telephone site).

A variety of trees may be found along the Presumpscot and Stroudwater Rivers, including Red Oak, Red Maple, White Pine, Black Willow, Alders, Shadblow or Anelanchier. Vegetation along stream corridors includes large Black Willows, which help slow floodwaters and minimize erosion. The Islands are more rural and have more substantial tree cover than the mainland. 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.

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 and expanded to off-peninsula neighborhoods in the 1900's. Tree planting along Baxter Boulevard was initiated in 1921. Four hundred lindens were planted and remain an essential element of one of Portland's most enduring designed landscapes, which is a designated historic landscape district. The factors contributing to the decline of the Lindens are documented in the Baxter Boulevard Master Plan along with recommendations to preserve the trees. These factors include cultural impacts, root collar disorders, and environmental impacts.

Dutch Elm disease devastated Portland, like the rest of the Northeast in the 1960's, and 20,000 Elm trees were lost on the peninsula. Only about 100 elm trees are left today. During the 1970's, a massive tree-planting program was initiated (up to 2,000 trees a year planted) to diversify the tree stock by using a mix of species. Today, it is estimated that there are 20,000 street trees in the city.

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 and park resources are shown on Recreation Map #1 in that the chapter on recreation resources:

- **Deering Oaks** –There are 1,000 trees including old growth White and Red Oaks. Deering Oaks is a designated Historic Landscape District.
- **Evergreen Cemetery** – It 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 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. Governor Baxter planted a plantation of Red Pines in 1947.
- **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 firm in the 1905 plan for Portland's park system. They proposed a tree-lined green belt, connecting the Eastern Prom with Deering Oaks, Baxter Boulevard and the Eastern Prom. Baxter Boulevard is a designated Historic Landscape District
- **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.

- **Pine Grove Park** – located between Ray and Virginia Streets near Allen Avenue. This 6.5-acre park contains a mature stand of White Pine. Set aside in 1926, Pine Grove Park also contains related natural groundcover of woodland wildflowers.
- **Fore River Sanctuary** – located in the Stroudwater area this 85 acre preserve owned by Maine Audubon contains stands of mature White Pine and Hemlock.
- **Oaknuts Park** – located on Summit Street in North Deering this area connects to the Presumpscot Preserve and contains stands of Red Maple, Beech, Red Oak, White Pine and Hemlock.
- **Presumpscot Preserve** – Portland and Land for Maine's Future recently purchased this tract located along the Presumpscot River at the end of Overset and Cutis Roads. The 50-acre preserve contains stands of primary White Pine, Hemlock, Red Maple, along with more rare Shagbark Hickory (the northern fringe of the range for this species) and Moose Maple, *Acer Pensylvanicum*.
- **Cushing Island** – The area conserved by the Cushing Island Conservation Corp. (private holding) has White Spruce trees and native shoreland vegetation including large specimens of American Mountain Ash *Sorbus americana*.
- **Peaks Island** – The forested areas owned by the State of Maine near Brackett Avenue along with Peaks Island Land Trust property contains forest of mature Red Oak and Shagbark Hickory.

The Forestry Division of Parks & Recreation was formed in 1889 to care for municipal street and park trees. Portland became a Tree City USA in 1978 and has continued to meet or exceed standards set forth by the National Arbor Day Foundation. In 1993 the Forestry Division along with Oakhurst Dairy developed a strong public/private partnership initiative to plant trees in our gateways, parks and public grounds known as the 'Oakhurst Tree Challenge'. The City of Portland has over 12,000 street trees along with 5,000 park and public grounds trees. In addition, to trees on the city's mainland, the Forestry Division also cares for municipal trees on Peaks, Little Diamond, Great Diamond, and Cliff Islands.

B. Agricultural and Resource Extraction Activities

Agriculture had a significant presence in Portland up until the first half of the twentieth century and the islands were used extensively for grazing. The 1914 Richards Atlas indicated vast tracts of open land in North Deering, Riverton, and Stroudwater that presumably were 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 and the last farm closed in the 1980's. While there are no working farms in Portland, approximately 265 acres of land are listed under Maine's Farm and Open Space Law taxation program. Below is a chart of the conservation groups and property owners, along with the acreage designated as open space under the State program. Today, Portland's commercial agricultural endeavors include several nurseries scattered throughout the city, the Farmers Market held twice a week, and the Portland Public Market.

Portland Properties Participating in Maine's Farm and Open Space Law Taxation Program				
<u>Location</u>	<u>Owners</u>	<u>Open Space Land Square Feet</u>	<u>Acres</u>	<u>First Year Listed</u>
Cliff Island	Cliff I Corp	700,282	16.08	1984 & 2002
Cliff Island	Land Assoc. of Cliff Island	1,009,542	23.18	1994
Cliff Island	Belknapp	1,263,240	29.00	1990
Cushing Island	Cushing I Conserv Corp	6,058,025	139.07	1979 & 1997
Diamond Island	Diamond Island Assoc.	125,316	2.88	1992 & 1993
Peaks Island	Clark	158,500	3.64	1996
Along Stroudwater R.	Rogers	1,702,164	39.08	1990
Along Stroudwater R.	Barris	512,546	11.77	1992
Total		11,529,615	264.7	

Source: Portland Tax Assessor Record as of 4/1/01

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 no longer 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.

C. Scenic View and Vistas

Being virtually encircled by water, Portland owes much of its beauty to the surrounding water bodies, including freshwater rivers, the ocean, a working harbor and an enclosed cove. Portland's waters were recognized early in the city's history as scenic resources. The Eastern Promenade and the Western Promenade were acquired in the 19th century to provide open space on these promontories and to protect the majestic views. Baxter Boulevard was planned as a parkway because of the unique view of Back Cove. Evergreen Cemetery, Baxter Woods and Fore River Sanctuary are prime examples of individual open spaces that have outstanding visual attributes.

a) Gateways

The basic visual identity of the city as a unit is 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. The most obvious gateways are the major transportation routes into Portland, 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 from surrounding towns and from one neighborhood to the next.

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 (all are designated historic landscapes). Interstate 295 and the Franklin Arterial are scenic roads with their landscaped medians and dramatic water and city skyline views. Other major streets, including portions of Park Avenue, State Street, Forest Avenue, Capisic Street and Stevens Avenue, 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.

b) Vistas from Promenades and High Points

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

c) River Corridors

River corridors offer picturesque views of the City and its natural features. Many of the areas directly adjacent to these river corridors have retained their natural features and vegetation. The upper reaches of the Fore River include freshwater and salt-water marshes, nestled in the dense surrounding transitional vegetation. The Fore River Sanctuary, owned by Maine Audubon Society, has a trail system that offers scenic views of this sensitive environment and visual access into the estuary is possible from several public streets, such as Congress, Frost and several residential streets. 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. 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 view of the river and the Westbrook landscape beyond, and pastoral, peaceful open fields." In addition, the City and Land for Maine's Future have purchased 48 acres of river frontage along the northerly tip of Portland adjoining Falmouth. This area is designated as a scenic location in the Shoreway Access Plan. The acquisition will preserve the natural environment and extend public access along this beautiful stretch of the river.

d) Portland Waterfront¹⁶

The Portland Waterfront Public Access Design Study identified major visual corridors and viewing points, suggested measures to protect and enhance these resources, identified opportunities for recreation and suggested waterfront linkages. The inventory of views are classified as follows:

- A View – Foreground or mid-ground view of Portland's waterfront or the water's edge, plus background views of Casco Bay or South Portland (shown with wide dashed lines).
- B View – Mid-ground or background view of Casco Bay or the Fore River and the opposite shore, with the Portland Waterfront obstructed by grade changes or buildings. (shown with narrower dashed line).
- C Views – Water is not visible, but the observer has a sense of being near the water. (shown with open squares in a line).
- Panorama – Panorama viewpoints are noted with an arrow, the larger the arrow the greater the significance of the panorama in terms of angle of view, position of observer, and degree of obstructions. A panorama is generally assumed to be a point or area offering the street level observer the opportunity to view water and waterfront activities in a cone of vision greater than 45 degrees.

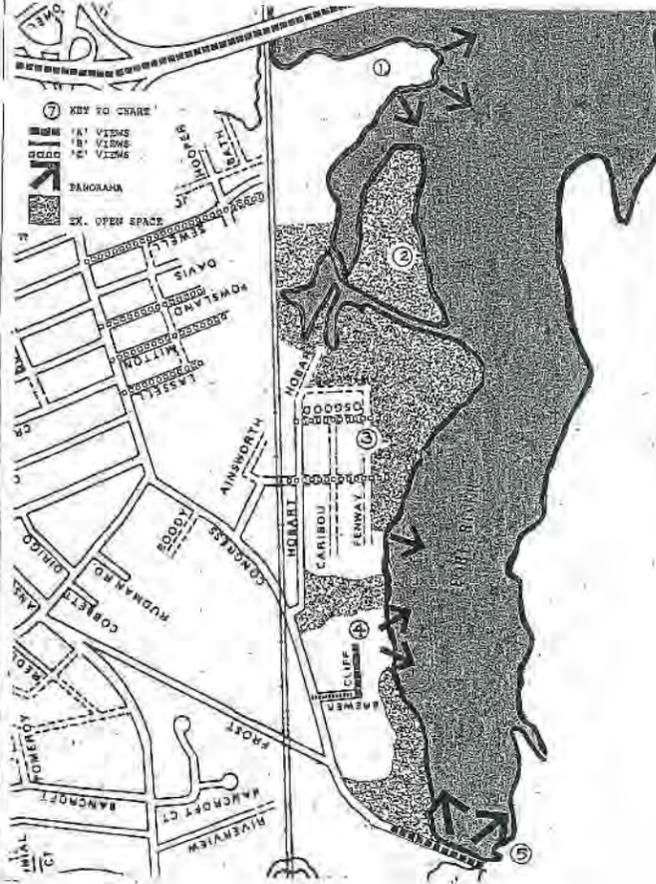
The view corridors identified for Eastern Prom, Commercial Street Waterfront Core, Western Prom and the Fore River are included as figures #.

The accomplishments of the Portland Waterfront Public Access Design Project include the following:

- Waterfront Trail: Public access along the waterfront is achieved by a marked trail that runs along the edge of some piers and provides open space along Commercial Street.
- Maine State Pier: The pier is part of the trail system and offers a large public open space at the end of the pier where views of Casco Bay and Portland Harbor are unparalleled.
- The Eastern Prom Trail: It connects with the Waterfront Trail.
- Portland Maine Downtown Height Study: The study is an outgrowth of the Waterfront Public Access Plan. The Study incorporated the public access inventory and developed building height regulations to preserve view corridors in the downtown.

¹⁶ Portland Waterfront, Public Access Design Project, Terrien Architects and Mitchell-Dewan Assoc., 1983

VISUAL CORRIDORS
Fore River



VISUAL CORRIDORS
Western Prom

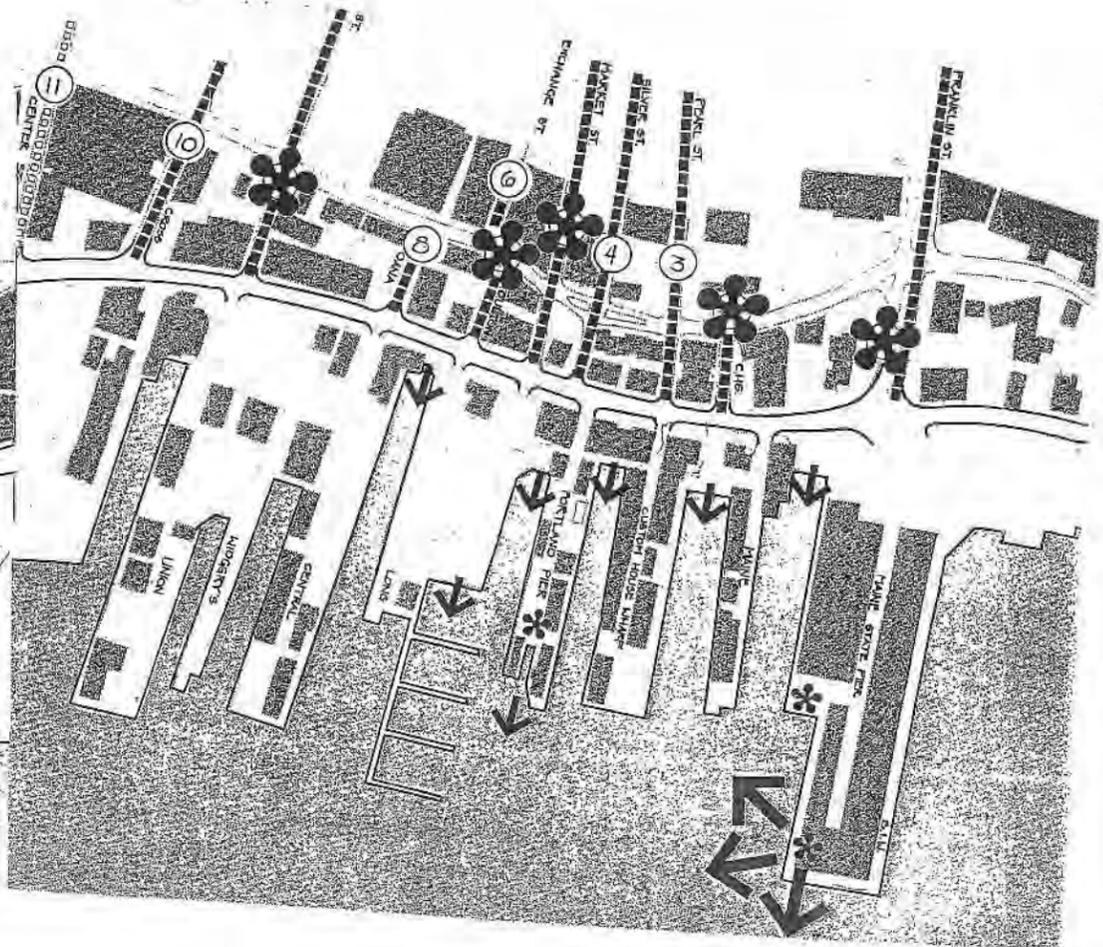
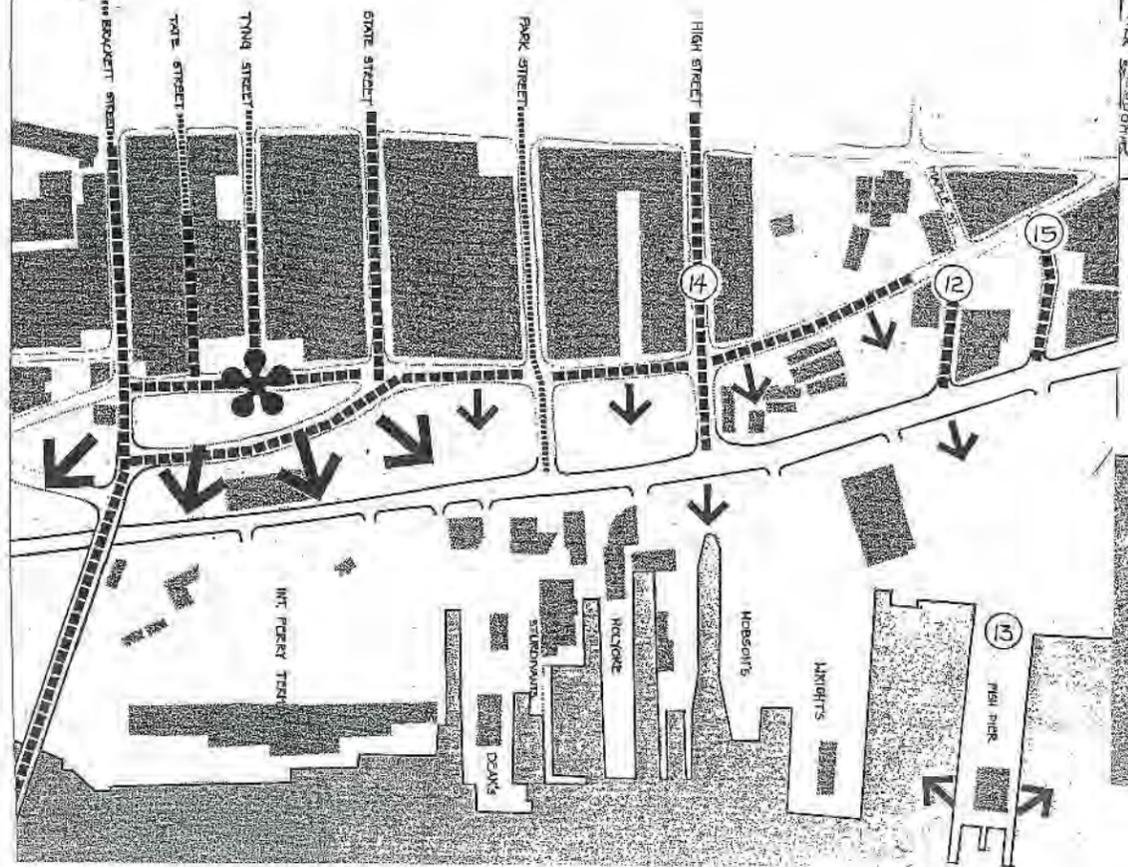


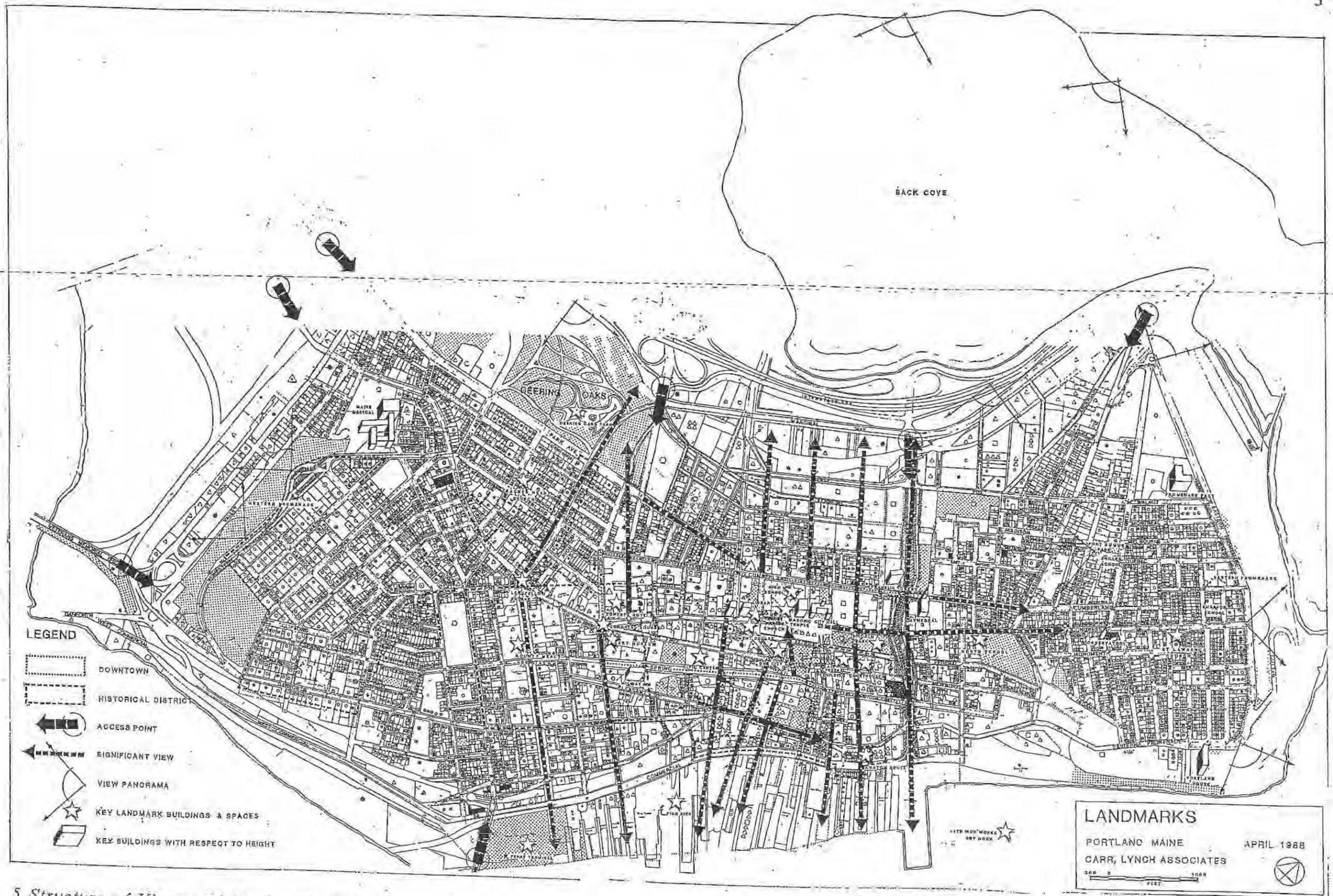
VISUAL CORRIDORS
Eastern Prom



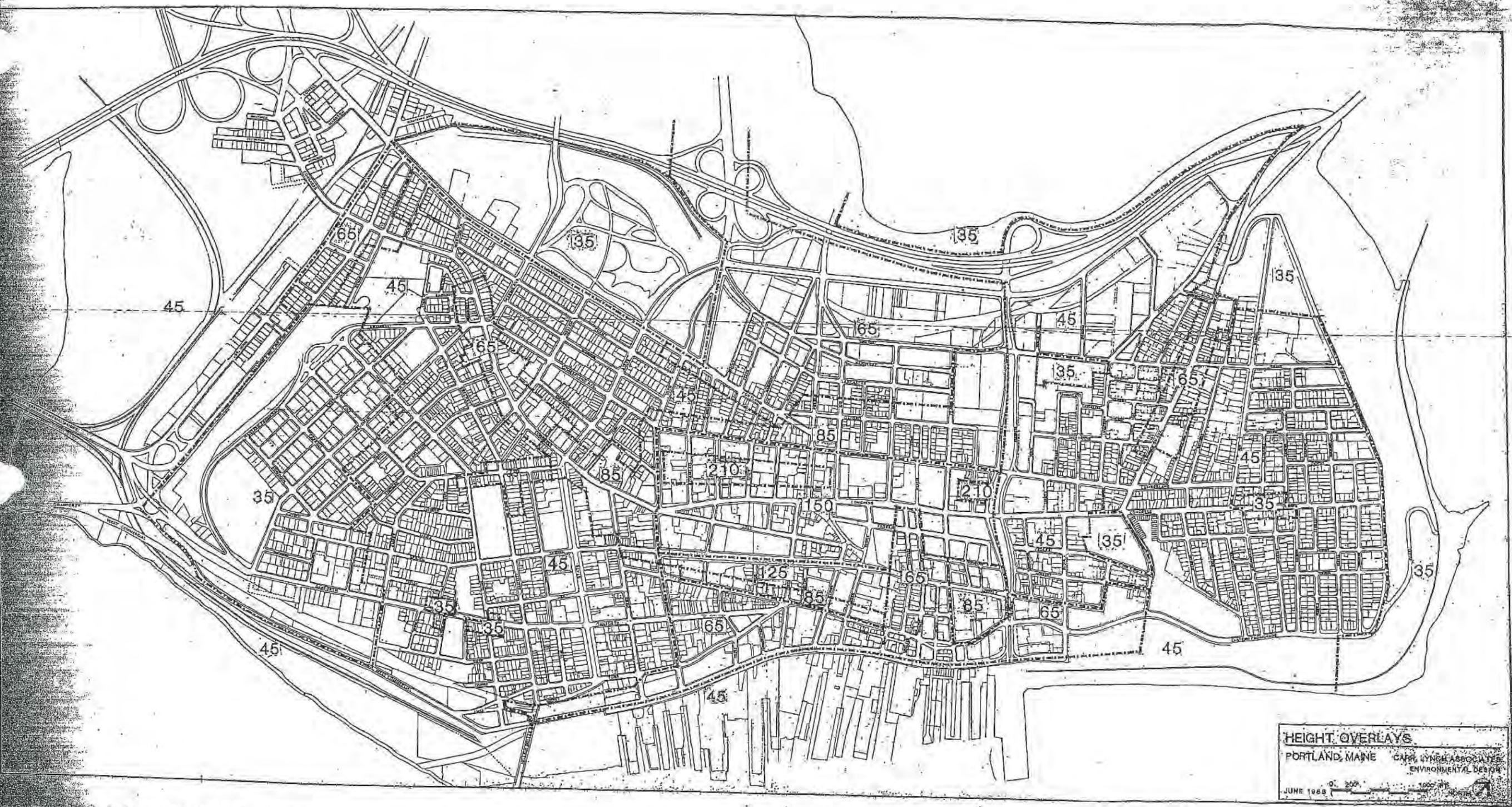
VISUAL CORRIDORS
Commercial Street Waterfront Core

- KEY TO CHART**
- 'A' VIEWS
 - 'B' VIEWS
 - 'C' VIEWS
 - PANORAMA
 - SIGNIFICANT VIEWPOINTS





5 Structure of Views and Landmarks in Downtown Portland



HEIGHT OVERLAYS
PORTLAND, MAINE CARR, LYNCH ASSOCIATES
 ENVIRONMENTAL DESIGN
JUNE 1988 0' 200' 1000' 

26 Proposed Overall Height Limits

e) Downtown

The graduated topography of the peninsula maximizes opportunities for scenic views. The sloping public streets that traverse the peninsula offer numerous public views of the harbor, Back Cove and the Fore River. Further, the elevated peninsula with the double ridge provides a virtual stage for the most urban portions of the city. The City conducted a downtown height study¹⁷ (as a follow-up to the Portland Waterfront Study and as part of Downtown Vision) and established building height limits in the zoning ordinance that are intended to preserve the views and unique topography of the peninsula. In preparing the recommendations, the study examined the contextual relationship, the skyline, view corridors, architectural massing, pedestrian environment, and open space. Included is a map identifying the views and landmarks in Downtown Portland. The consultants used computer modeling to envision Portland's skyline and view corridors using several development scenarios. Height limits were incorporated into the City's zoning ordinance, which support the study's recommendations.

f) Waterlinks Concept¹⁸

In 1987, Portland studied existing and potential open spaces and pedestrian access opportunities on Portland's waterfront along the Stroudwater, Fore and Presumpscot Rivers, as well as on the islands. The Portland Shoreway Access Plan identifies public access opportunities throughout the city, while respecting the integrity of existing neighborhoods. Refer to the recreation section of this report for more information.

¹⁷ Portland Maine Downtown Height Study, by Carr, Lynch, Hack and Sandell, February 1989.

¹⁸ Portland Shoreway Access Plan, Mitchell-Dewan Associates for City of Portland, financial assistance from Maine's Coastal Program. 1987. Updates 2002

IV. CONSERVATION ISSUES AND EFFORTS

The previous three sections of this chapter describe Portland's environment, addressing the basic building blocks of the city's landscape. Within that context, there are many specific areas of environmental concerns that warrant a focused discussion. Generally, these areas and issues of conservation interest are concerned with the protection or preservation of natural resources. Addressing these areas and issues of conservation interest provides yet another level of context and information.

A. Shoreland Zones

Portland first created shoreland zones in the 1970's and then updated these provisions in the zoning code in 1991 to comply with State regulations. Shoreland Zones are designated in the zoning ordinance as areas 250 feet inland from the normal high water line of rivers and Casco Bay. Shoreland areas are vegetated buffers, which protect water quality by filtering out toxins and excess nutrients from stormwater run-off. Land development activity is not prohibited within the shoreland zone, but stricter development standards must be met. For example, all new structures must be set back a minimum 75 feet from the high-water line; piers and docks are regulated, and tree clearance is limited. Environmental Map #4 shows the Shoreland Zones, Resource Protection Zones, and Flood Plains.

In 1991, the State rules required that the Resource Protection Zone (RPZ) be expanded to incorporate the 100 year flood plain along rivers and saltwater. To comply with the 1991 regulations, Portland rezoned the floodplains to RPZ along the Presumpscot, Stroudwater and Fore Rivers, except those areas that are intensely developed, such as the working waterfront, or are protected under Recreation and Open Space, such as the Riverside Golf Course. In 2000 and 2001, the City rezoned over 100 acres of property to RPZ allowing only low impact uses, as recommended in an adopted neighborhood plan. This rezoning encompassed all of the Fore River Estuary (a portion was already RPZ and included a shoreland zone), Jewell Falls, and adjoining wildlife corridors. Maine Audubon Society, Portland Trails, City of Portland, Union Water Power, and CMP own the rezoned property.

The Capisic, Fall, and Nasons Brooks are subject to a Stream Protection Zone, which extends 75 feet from the normal high water mark on each of the waterways. The zone 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 freshwater wetlands of 10 acres or greater in size are protected under its provision. Few wetlands in Portland meet these criteria. Only a wetland located off Allen Avenue near Northfield Green is designated for shoreland zoning protection on the mainland. On Peaks Island, there are two wetlands that require protection under the law. One is located near the intersection of Brackett Avenue and Whaleback Road and the second one is in the Trout Pond area. In addition, five smaller wetlands on Peaks Island have been afforded shoreland zoning protection exceeding the state's minimum protection requirements.

Portland maintains a strong Shoreland Zoning Program. The Zoning Administrator provides all applicants a summary of the shoreland regulations and reviews each application. For 2000 and 2001, there were a total of 39 applications received and permits approved. There were no variances granted by the Zoning Board of Appeals and enforcement actions were conducted for three complaints.

B. Floodplain Zones

Portland's river corridors, coastal areas, Fall Brook, and Capisic Brook are subject to periodic flooding, and thus have been designated as flood plain areas (see Environmental Map #5). A flood plain area is defined as the region periodically inundated with floodwaters during the largest flood event that can be expected within a span of 100 years (such storms can occur more than once a century). Flooding during this type of storm swells the banks of these waterways as well as the lower elevation of surrounding areas. Flood plain areas help store excess water during major floods so that other areas are not inundated with water.

C. Surface Water Quality

Over the last two decades there have been dramatic improvements in water quality of our nation's and Maine's waters due to the implementation of Public Law 92-500, known as the Clean Water Act. Development of water quality standards, construction of secondary, and in some cases, advanced wastewater treatment facilities, management of wastewater sludge, and investment in wastewater conveyance systems have gone a long way toward restoring the beneficial uses of our water resources.¹⁹ The surface water classifications established by the Maine Department of Environmental Protection are listed below for Portland's waters. Following the classifications is a section on Combined Sewer Overflows and Storm Water Management.

1) Surface Water Classification

The Maine Department of Environmental Protection (DEP) classifies surface water bodies under State law (Title 38 Water and Navigation, Chapter 3 Protection and Improvement of Waters) to establish water quality goals for the State. The intent is to improve and protect water quality in Maine. As stated on DEP's web page, "The classification system is used to direct the State in the management of its surface waters, protect the quality of those waters for their intended management purposes, and where standards are not achieved, direct the State to enhance the quality to achieve those purposes." Marine and freshwater bodies have separate classifications and the Portland classifications are 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

¹⁹ Combined Sewer Overflow Abatement Study, Master Plan, 1993.

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. The classification drops to Class B between the confluence of the Pleasant River and Sacarappa Falls. From the Falls, the classification drops further to Class C (the lowest classification). The river carries this classification through Westbrook and into Portland to tidewater. 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; hydroelectric 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 biological community.”

2) Combined Sewer Overflows and Stormwater Management

Portland operates and maintains the combined sewer collections system, while the Portland Water District is responsible for the combined sewer interceptors and the WWTF. The Portland sewerage system consists of over 200 miles of sewer, 25 pump stations, and the Portland WWTF.

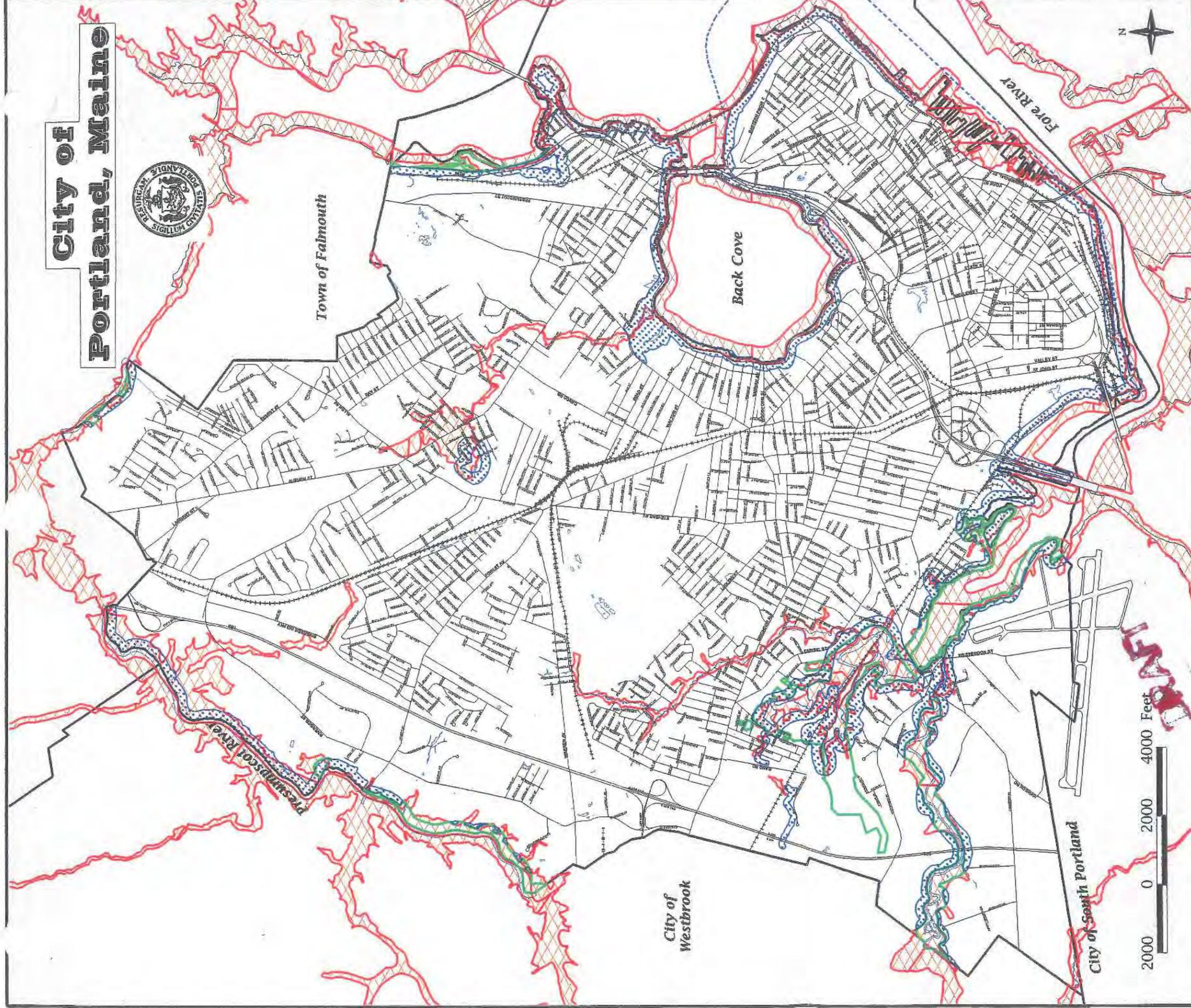
N-19

CSO's are permitted by the State of Maine under the National Pollutant Discharge Elimination System (NPDES). The Portland Water District has permit responsibility for 25 CSO's and the City maintains responsibility for the remaining 17 CSO's. As a result of the Abatement Study and the city's efforts to eliminate CSO's, the original 42 CSO's identified in the city reduced to 34 with the elimination of 8 CSO's.

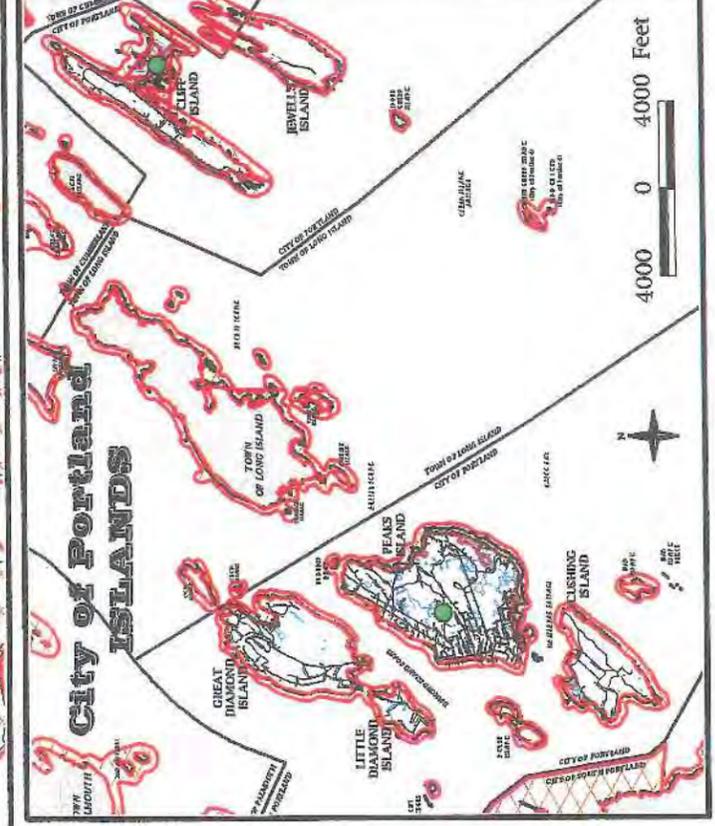
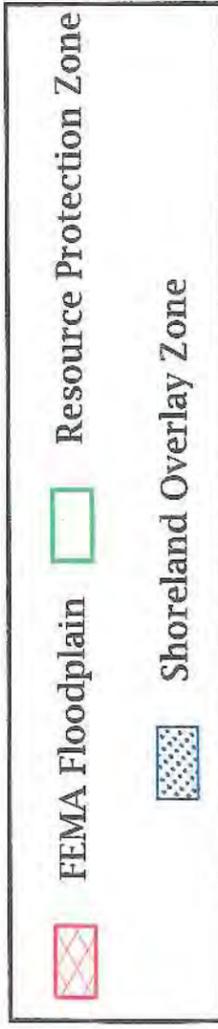
In January 1991, the City and the Portland Water District (PWD) entered into an Administrative Consent Agreement with the State of Maine Department of Environmental Protection (DEP).²⁰ This agreement

²⁰ Combined Sewer Overflow Abatement Study, Master Plan, 1993.

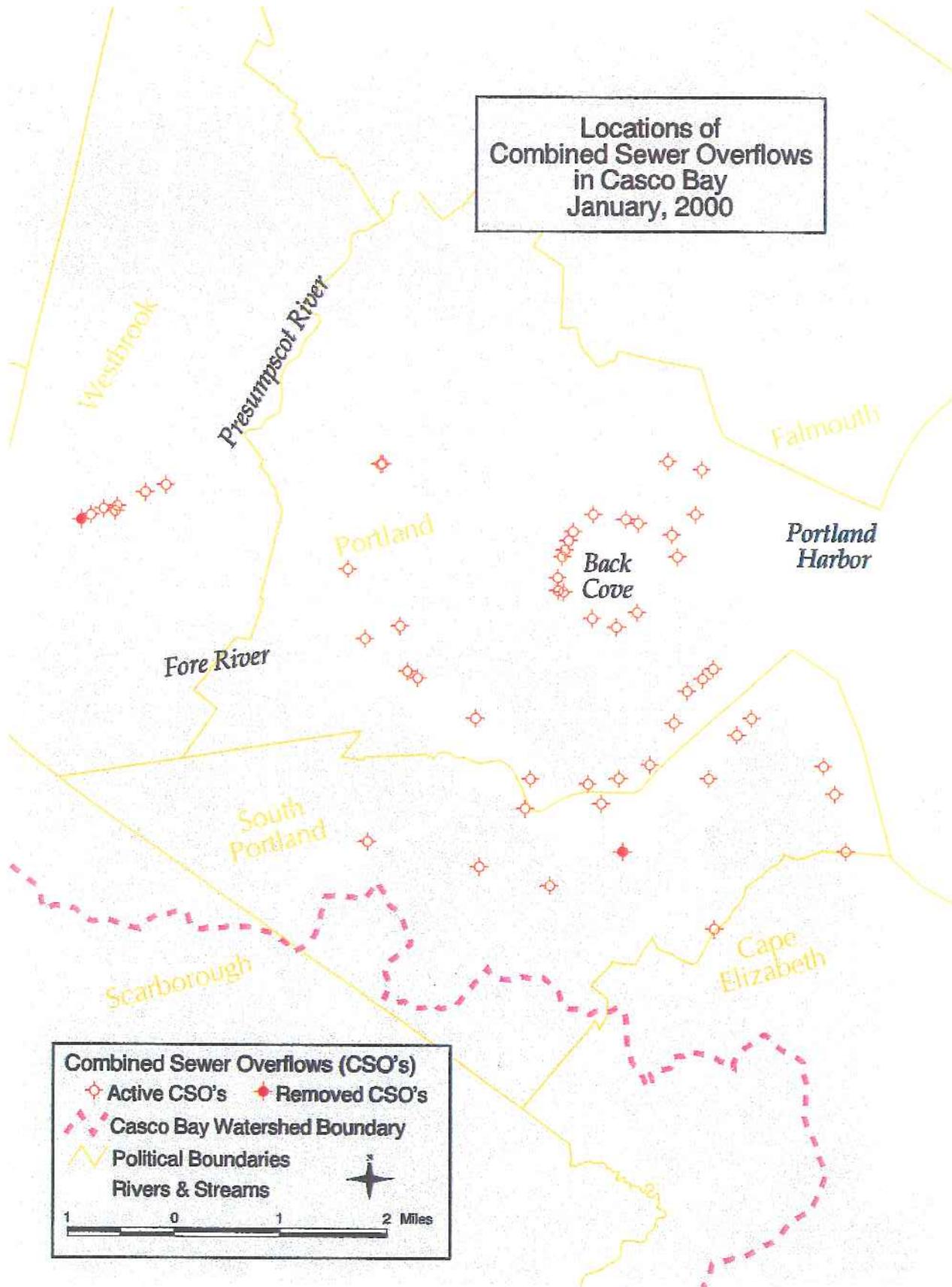
City of Portland, Maine



City of Portland Resource Protection and Shoreland Overlay Zones & Floodplains



**Locations of
Combined Sewer Overflows
in Casco Bay
January, 2000**



Combined Sewer Overflows (CSO's)

- ◊ Active CSO's
- ◆ Removed CSO's
- - - Casco Bay Watershed Boundary
- ▭ Political Boundaries
- ▭ Rivers & Streams

1 0 1 2 Miles

cbc.prio.pdf

required the City and PWD to begin a prioritized, long-term program (15 years) to abate combined sewer overflows (CSO's)²¹ in Portland. During dry weather, the combined sewer system transports a combination of sanitary flow and groundwater infiltration to the Portland Wastewater Treatment Facility (WWTF). During wet weather, storm water runoff flows to the combined sewer system, resulting in overflows of combined sewage at one or more of 34 locations (refer to Environmental map #6). CSO's degrade the quality of the riverine and coastal waters by carrying pathogens, bacteria, sanitary sewage "floatables," and elevated nutrient levels (phosphorous and nitrogen) that contaminate and limit use of the receiving waters.

Today, Portland system serves 14,965 residential users, 1419 commercial/industrial users, and 214 governmental users. The average residential user is charged \$48.80/month for sewer use, which is approximately 1.9% of the median household income. The City has an on-going implementation program to reduce CSO's. The first steps to system-wide improvements were implemented in 1995 by PWD by increasing the treatment and pumping capacity of the WWTF, the Northeast Pump Station and the India Street Pump Station. Since the start of the abatement study, the City has eliminated 6 of the 39 CSO's (a 15.4% reduction) and separated sewers so the combined sewer system is reduced from 75% to 54.7% of the total system. Portland has achieved these results through a series of sewer separation projects, removal of catch basin connections, installation of hydrobrakes in catch basins to allow first flush to be treated with the remainder separated from the system, and sewer lining installations to reduce infiltration. Portland conducts a thorough maintenance program, which includes frequent catch basin, sewer, and pump station cleaning. The City also worked with private property owners in 1992 and 93 to remove roof leaders and basement sump pump connections to the combined system. Other pollution prevention programs include public information campaigns, do not dump logos on catch basins, additional trash receptacles in the downtown, an active street sweeping program, and instituting a recycling and trash bag program that has reduced curbside litter.

Portland is nearing the end of its first phase to complete designated improvements under the DEP Consent Decree. The City is developing its second phase implementation plan for review and approval by DEP. The City allocates roughly \$5.7 million per year in the Capital Improvement Budget for on-going improvements for the CSO program. The City has expended \$38 million and has \$52 million planned for the next tier of projects. In addition, the sewer user fees support upgrades in the system to complete required improvements.

²¹ Combined Sewer Overflow (CSO) means a discharge of excess wastewater from a municipal or quasi-municipal sewerage system that conveys both sanitary wastes and storm water in a single pipe system and that is in direct response to a storm event or snowmelt. Combined sewer overflow discharges do not include dry weather discharges that occur as a result of nonstorm events or are caused solely by groundwater infiltration. [Maine State Statutes, Title 38, Chapter 3, Sec 466]

In addition to the efforts listed above, Portland has also focused on cost effective infrastructure improvements for the Capisic and Fall Brook watersheds, in order to reduce two of the City's largest CSO's in sensitive watercourses. Work has been completed on the dam at Capisic Pond, sewer separation projects have progressed in the Capisic Brook area, and culvert expansions have occurred in both watersheds. Sewer separation work is scheduled to occur in the Fall Brook Watershed between 2002-2012. In addition, the City conducted the Greenway Studies for each watershed.²² The studies examine the integration of additional stormwater into the natural system with flood mitigation, habitat enhancements, and opportunities for recreation. This planning process included an extensive public participation process to discuss improvements for water quality, habitat, and recreation opportunities. Required storm water improvements in these watersheds will be designed to reflect the recommendations of the greenway studies.

Portland has invested in its infrastructure in order to improve surface water quality. The above measures have improved the quality of surface water in Portland, as evidenced by the fact that in 2001 the East End Beach was available for swimming and recreation use all summer. However, none of the shellfish areas in or near Portland were open for harvesting in 2001.

The development review process in Portland uses best management practices for storm water management and the city is designated by DEP to conduct the State's Site Location reviews. Development proposals undergoing either minor or major review under Portland's site plan and subdivision ordinances must meet the review criteria and technical standards that comply with best management practices.

The Maine DEP is currently developing a stormwater program with standards to implement the Stormwater Phase II rules under the National Pollutant Discharge Elimination System (NPDES), which will apply to small construction sites, urbanized areas (MS4's²³) and industrial activities. Portland is one of the designated "urbanized areas", which is defined as an area having a population of at least 100,000 and a population density of 1,000 people per square mile. A regulated MS4 must develop, implement and enforce a program to reduce the discharge of pollutants to the "maximum extent practicable." The program must include six elements:

- Public education and outreach
- Public involvement and participation

²² Capisic Brook Greenway Master Plan and Fall Brook Greenway Master Plan, consultants Carol R. Johnson Associates, Inc., CH2M Hill, and Eco Analysts.

²³ MS4 is a Municipal Separate Storm Sewer System, which is a conveyance or system of conveyances owned or operated by a state, city, town or other public entity that discharges to waters of the U.S. and is: 1) designed or used for collecting or conveying stormwater; 2) not a combined sewer, 3) not part of a Publicly Owned Treatment works; and 4) located in an "urbanized area" ("automatic nationwide designation").

- Illicit discharge detection and elimination
- Construction site runoff control
- Post-Construction stormwater managements
- Pollution prevention measures for municipal operations.

Portland is working with DEP in the development of program standards and is required to submit an application (Phase II Notice of Intent) no later than March 10, 2003. The application must include a five-year program that defines the actions Portland will take to meet the terms of the general permit requirements.

3) Oil Spills

Portland remains a major port for oil tankers and the potential for spills is another major concern. In September of 1996, the *Julie N* struck the "Million Dollar" bridge and spilled 93,000 gallons of intermediate fuel oil and 86,000 gallons of #2 heating oil.²⁴ This major spill impacted 14 miles of shoreline, which included 8 miles of salt marsh. The area around the bridge and Thompson's Point was most heavily impacted and oil did enter the upper Fore River and Stroudwater Marsh. The 700 personnel and volunteers from 60 organizations quickly responded to the spill. A total of 140,994 gallons of oil was recovered, which is a 78% recovery rate. Typically there is a 10 to 15% recovery rate for spills. The two types of oil that entered the environment posed different threats to the environment. The #2 diesel fuel evaporates quickly but also disperses rapidly in the water column and the heavier oil creates a black oil ring on everything it touches.²⁵ Studies of the sediments and benthic community (bottom dwellers) still find evidence of the spill, but the marshes are recovering naturally.

One million dollars in compensation has supported the following restoration efforts in Casco Bay:

- Restored 130 acres of saltwater marsh in the Scarborough Marsh that would provide habitat for seabirds that frequent the Fore River marshes;
- Supported the construction of the Fore River Nature Trail;
- Purchased oil and grease separators for the Portland storm sewer collection system; and
- Contributed to the purchase a seabird-nesting island in Casco Bay.

²⁴ "A Review of the *Julie N* Oil Spill, A Report by the Oil Spill Advisory Committee, prepared by Gro Flatebo, 1998.

²⁵ "*Julie N* Spill Five Years Later", The Casco Bay Bulletin, Autumn 2001, page 4.

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

To protect both the quantity and quality of groundwater on the islands, residential density provisions were adjusted to support a safetyfield of groundwater. A finding of the groundwater management study was that the bedrock aquifers on the islands would supply only enough water to support an average overall island density of about 1 dwelling per acre. To achieve this sustainable density balance, revisions to the zoning code were adopted regarding the grandfathered lot size provision, densities for the island business zone and the IR-3 Residential Zone (with projects lacking public water). Not all of these provisions were enacted for Peaks Island. On Peaks Island, residents have been collecting well data for long term monitoring.

5) Land Bank Commission

The Land Bank commission was established in 1999 to ensure the conservation and preservation of open space in Portland. Refer to the Recreation Resources and Implementation Initiatives sections, which outline the purpose and recent work of the Commission.

**HISTORIC, ARCHEOLOGICAL AND
CULTURAL RESOURCES**

Inventory and Analysis

HISTORIC, ARCHEOLOGICAL AND CULTURAL RESOURCES

I. PORTLAND'S HISTORY¹

A. Early Settlements

People have lived in what we now call Portland for a very long time, with evidence of Native American settlements dating back 5,000 years. The first Europeans from England and France arrived during the 1620's, attracted by the excellent fishing and access to lumber. It did not take long for the English and French to bring their Old World quarrels to the New World, and Falmouth Neck (now the Portland peninsula) was in the crosshairs of this rivalry. The settlement was wiped out repeatedly, first during King Philip's War in 1675, and again in 1690 and 1703. The area was resettled in 1716 and became part of the Town of Falmouth, organized in 1718. The settlement grew prosperous as a port with the core of the village centered along the four principal streets: King (now India), The Fore, The Middle, and The Back (now Congress Street). By 1727, Colonel Thomas Westbrook (mast agent for King George II) established the first permanent settlement at the confluence of the Stroudwater and Fore Rivers. Mills for processing lumber and other goods were located along the Capisic Brook and the lower falls of the Presumpscot River. The British Fleet bombarded the town in 1775 for its support of Boston and its refusal to outfit and launch a ship for the British. This left the village and ships in ruins.

After the American Revolution the port rose from the ashes, and the peninsula was incorporated as the Town of Portland on July 4, 1786. During the next 14 years, Portland's population grew to 3,700 residents. Development moved westward on the peninsula, four homes were built on Peaks Island², William Vaughan bought 400 acres on Bramhall Hill, and Tukey's Bridge (a toll bridge) served as an the travel corridor between East Deering and Munjoy Hill.

B. Transportation Hub and State Capital

By 1806, Portland was the sixth largest port in the country with vigorous exports of lumber and imports of sugar and molasses from the Caribbean. Coastal steamships provided regular passenger and freight service between Portland, Bangor, New York and Boston. The waterfront was expanded with extensive filling for the creation of Commercial Street (one mile long and 100 feet wide) and new wharves lined the street. Portland also became an important shipbuilding center, and ranked seventh in tons of ships constructed in America in 1855. The partial filling of Back Cove was completed by 1857, thus Cumberland Avenue no longer bordered the cove and Kennebec and Lincoln streets are built over the flats. Portland enhanced its position in the

¹ Sources: Portland, Greater Portland Landmarks, Inc., first edition, 1972, second edition, 1986. "Exploring Portland", Viola and Frederick Sheehan, Greater Portland Landmarks, 1991. Green Space, Blue Edges: An Open Space and Recreation Plan for the City of Portland.

² Peaks Island was originally called Mitton Island, then Brackett, and then Pond Island.

shipping industry by actively pursuing rail connections. In 1840, the Atlantic and St. Lawrence Railroad terminated in Portland and the city became the winter port for Canada.

Statehood was granted to Maine in 1820 and Portland served as its first Capital from 1820 to 1832. During this time period, Portland's population grew from 8,000 to 13,000. Development in the West End began with the construction of new streets and houses. Residential development also began to occur off-peninsula in neighborhoods such as Libbytown, Rosemont, and East Deering. Peaks Island added fifty homes, several hotels, and an elementary school. The economic boom time of the mid-1800 was briefly interrupted when Confederate raiders destroyed most of the commercial fleet in 1863. Portland quickly recovered during the ante-bellum prosperity as a port with good rail connections to New York, Boston, upstate Maine, New Hampshire, Vermont and Montreal. Portland's role as a transportation center was enhanced in 1880 with the filling of Thompson Point for a large railroad repair facility and the completion of the Great Eastern Wharves and Piers built at the foot of Munjoy Hill.

C. The Great Fire

The Great Fire of 1866 was a major catastrophe that destroyed more than a third of Portland and yet, citizens once again rebuilt the city to be a strong and prosperous community. A Fourth of July celebration ignited the fire in a Commercial Street boatyard and it spread through the waterfront to Back Cove and Munjoy Hill. The Great Fire destroyed 1800 buildings and left nearly 10,000 residents homeless. Under the direction of Mayor August Stevens, a tent city was created on Munjoy Hill for the homeless and rebuilding of the city began immediately. Portland's downtown (now referred to as the Old Port) was reserved for businesses. The streets were widened and the area was rebuilt with brick Victorian structures. Lincoln Park was created as the city's first park and it was designed to serve as a firebreak. Since homes were excluded from the downtown in this redevelopment scheme, residential construction occurred in Parkside, Munjoy Hill, West End and Western Promenade. East Deering and Deering Center also experienced growth, as citizens sought housing off the peninsula. The Great Fire accentuated the need for an adequate supply of water, so Mayor Stevens entered into a contract in 1868 to pipe Sebago Lake water to Portland.

D. Annexation and Community Growth

Native Americans called the peninsula Machigonne, "great knee" or "great bend". In 1718, Falmouth was separated from the District of Cape Elizabeth.³ Falmouth included what is Portland today and the peninsula was referred to as The Neck. On July 4th 1786, the Neck was incorporated as Portland. Stroudwater was separated from Falmouth on February 14, 1814 and less than four months later the town's name was changed to Westbrook. In 1845, Portland annexed a portion of Westbrook and annexed Crotch Island (Cliff Island) from Cumberland.

Deering was set off from Westbrook in 1871 and incorporated as a city in 1891. The City of Deering encompassed all of what is considered Portland today, except for the peninsula and the Casco Bay Islands. Nine years later, the State Legislature approved a petition by Portland to

³ Counties Cites towns and Plantations of Maine, A handbook of Incorporations, dissolutions and Boundary Changes, Maine State Archives, 1940.

annex Deering, despite the protests of Deering residents. Portland's municipal boundaries have remained relatively the same since 1880, except for the cessation of Long Island in 1992 and the annexation of 37.73 acres of Falmouth in 2002.

Between 1889 and 1930, trolley car lines were extended along major roads promoting residential expansion, referred to as streetcar suburbs. Portland's streetcar suburbs include Coyle Park (between Woodford Street and Belmont), Oakdale and Rosemont. Single and two-family homes were built in these neighborhoods, generally within a block of the main thoroughfare, and strict subdivision covenants were imposed regarding setbacks and building quality. Portland also gained a resort along the Presumpscot River as a result of the entrepreneurial efforts of the Portland Railroad Company to increase trolley ridership. Riverton Park was created as a recreational destination, which offered a casino, bandstand, steamboat landing, outdoor theater, trout pond and picnic shelters.

At the turn of the century, immigrants were rushing to America with as many as 1,000 immigrants a day entering through Portland. The Custom House could no longer handle all the processing, so House Island served as the immigration station for 17 years. This influx of population prompted the construction of apartment buildings and "triple deckers" in both the Parkside and Munjoy Hill neighborhoods. Large tracts of land were also subdivided in Riverton including Central Park, Avalon Highlands, Woodfords Gardens and Forest Avenue Terrace.

The Casco Bay Islands experienced significant growth at the end of the 19th century. The U.S. Government bought 70 acres of Great Diamond Island for a military fortification, which was developed with 125 buildings, including massive batteries, housing for 700 personnel, a power plant, hospital, school, recreation building and other services. The Diamond Island Association was formed in 1882 to subdivide 214 acres into house lots. By 1900, there were 57 cottages and 300 summer residents on Great Diamond Island. The Roman Catholic Archdiocese purchased the northern end of Little Diamond Island for a children's summer camp, which it operated for 100 years. In 1883, Frederick Law Olmsted prepared a development plan for Cushing Island and John Calvin Stevens designed the shingle style cottages. John Calvin Stevens also designed the cottages for the 40-lot subdivision on Little Diamond Island, which included a casino and other amenities. Frequent ferry service from three steamship companies made Peaks Island attractive for more homes, hotels and boarding houses. The prime tourist attractions on Peaks included the Greenwood Garden amusement park and a large roller-skating rink, called The Gem, which was later converted to Maine's first summer stock theater.

E. Early 20th Century

Portland grew into an industrial, business and financial center. The financial and commercial district shifted from the waterfront to Congress Street. Fidelity Trust Company, built on Monument Square, was the city's first skyscraper. As the district's prominence grew, more businesses located along Congress Street and the Eastland Hotel was built. In the 1920's, Forest Avenue in the Oakdale neighborhood became known as "Auto Row", since the thoroughfare was lined with automobile showrooms and suppliers. Many civic improvements were spearheaded at this time including development of Baxter Boulevard and Payson Park; construction of Deering High School; Portland Junior College purchased the remainder of the Deering Estate in Oakdale; and the city developed a municipal golf course on 242 acres of Riverton Park.

Residential development began in North Deering between Washington Avenue and Virginia Street around 1920. The homes were modest sized on lots of 3,000 to 4,000 square feet. Parkside entered a new phase of development with the construction of larger apartment buildings. Munjoy Hill and Parkside were the neighborhoods for many recent immigrants from southern and eastern Europe, and many French-Canadians settled in Parkside.

The loss of Canadian freight, due to the competition from Nova Scotia, combined with the Great Depression proved disastrous for Portland's economy during the 1930's. However, the New Deal brought relief and funded new parks, streets, water and sewer systems, and a municipal airport. World War II brought an expansion of Portland's harbor defenses, the establishment of a Naval Station, and the creation of a huge shipyard in Portland Harbor to build Liberty ships. Sagamore Village (200 units) was built as wartime housing for shipbuilders and continues as public housing today. These installations closed after the war, but with the building of a new petroleum pipeline between Portland and Montreal, Portland became a major oil port.

F. Post War Development

After WWI, several subdivisions were built in the Nason's Corner and Ocean Avenue neighborhoods with compact building lots. The rate of residential development increased in the 1950's with large tracts of land subdivided and built quickly. This included development off Capisic Street, Commonwealth Drive and near Stroudwater Village. In 1955, the Minat Corporation announced its plans for Longfellow Woods, the largest single-family housing development built in Portland with 110 acres of land located between Brighton Avenue and the Evergreen Cemetery.

The development of an interstate system around and through Portland brought changes to Portland's development patterns. The Maine Turnpike was constructed in the 1950's and Pine Tree Shopping Center, the city's first shopping center, was built near the Turnpike's Exit 8. The construction of I-295 through Portland required filling a portion of Back Cove and severing Bayside, one of the peninsula's oldest neighborhoods, from the waterfront. Following the national trend, the emphasis on the automobile and movement to the suburbs led to a decline of the city center and the business district. The demolition of Union Station in 1961 became the "low-water" mark for this period of decline, but spurred the beginning of Portland's historic preservation movement. Another notable conservation effort that began in the 60's was preservation of 100 acres of natural areas (part of a military reservation) on Peaks Island by the Casco Bay Island Development Association.

G. Recent Development

Portland began rebuilding its downtown and waterfront in the 1970's and 80's, with the revival of the Old Port district leading the way. UNUM established its corporate headquarters in an office park off Congress Street and other businesses followed to that part of the city. There were two civic projects of note completed in the late 1970's: the Cumberland County Civic Center opened; and Portland's new sewage treatment plant began operation. The conversion of two working wharves for residential development during the 1980's boom resulted in a community-initiated moratorium on waterfront construction and began a debate that continues today on balancing the needs of the historic working waterfront with the demands of residential, commercial, and business interests.

In the 1980's North Deering attracted significant residential development due to the extension of sewer lines and the presence of shopping centers. Following national trends, the traditional subdivision designs (smaller lots and grid street pattern) changed to curvilinear streets with larger lots and condominium developments (also referred to as planned unit developments). Riverton experiences significant residential and industrial development during the 80's.

In the early 1990's, Portland's downtown experienced a significant decline with the closing of the Porteous department store and the loss of many retail businesses along Congress Street. However, emphasis on the growing arts industry, renovation of Merrill Auditorium, the conversion of the Porteous Building to the central facility for the Maine College of Art, and the reuse of buildings and storefronts by new businesses have transformed Congress Street into a vibrant commercial district.

Today, Portland remains Maine's largest city with more than 20% of the state's population residing in the greater metropolitan area. Portland is Maine's undisputed center for business, retail, and arts and culture. The influx of three thousand recent immigrants has enriched the city's cosmopolitan spirit. The waterfront remains a bustling working port with one of the largest commercial fishing operations on the East Coast, and sometimes exceeds Boston for cargo imports/exports.



Allen's Corner - 1940 and early 1990's



II. HISTORIC AND ARCHEOLOGICAL RESOURCES

A. Portland's Historic Preservation Program⁴

The City of Portland's historic preservation program, as outlined in the ordinance adopted by the City Council in 1990, encompasses numerous functions, including development review, survey and planning, technical assistance, and enforcement. When the ordinance was approved in 1990, approximately 1000 buildings and sites were subject to the provisions of the ordinance. Following a comprehensive review in 1997, the City Council reconfigured and expanded historic district boundaries. Today, the regulations apply to roughly 1500 properties in the city, including buildings and sites within seven (7) designated historic districts, 57 individual landmarks, and five (5) historic landscape districts. The district names are as follows and the boundaries are shown on the historic resources map #1:

Historic Districts

West End (formerly Western Prom
And Spring Street Districts)
Deering Street
How Houses
Old Port
Stroudwater
Westbrook College (UNE)
Fort McKinley

Historic Landscape Districts

Deering Oaks
Eastern Promenade
Western Promenade
Baxter Boulevard
Lincoln Park

The historic preservation office of the Planning Department maintains a Historic Resources Inventory, which is a file of information on every designated historic property protected under the ordinance. Documentation includes a detailed architectural description, a copy of a 1924 tax photo of the building, and a 1990 view (the year the ordinance went into effect).

The historic preservation office has also published a Historic Resources Design Manual as a reference for both affected property owners and members of the Historic Preservation Committee and Planning Board in interpreting the ordinance. The Manual includes a list of individual landmarks and an illustrated designation report on each of the City's historic districts and historic landscape districts that outlines the historical and architectural significance of these areas. The Manual also includes design guidelines that elaborate on the intent and application of the ordinance's review standards, which include standards for review of 1) exterior alterations; 2) new construction; 3) relocation; 4) signage; and 5) streetscape and pedestrian improvements. Through the use of photographs and text, these guidelines illustrated how the ordinance review standards are to be applied in a variety of circumstances. These guidelines are specifically cited in the historic preservation ordinance and are therefore a formal component of the preservation regulatory program.

⁴ Sources: Historic Resources Design Manual. Prepared by Department of Planning and Urban Development of the City of Portland and the Greater Portland Landmarks, 1990. Program Description and updates prepared in 2002.

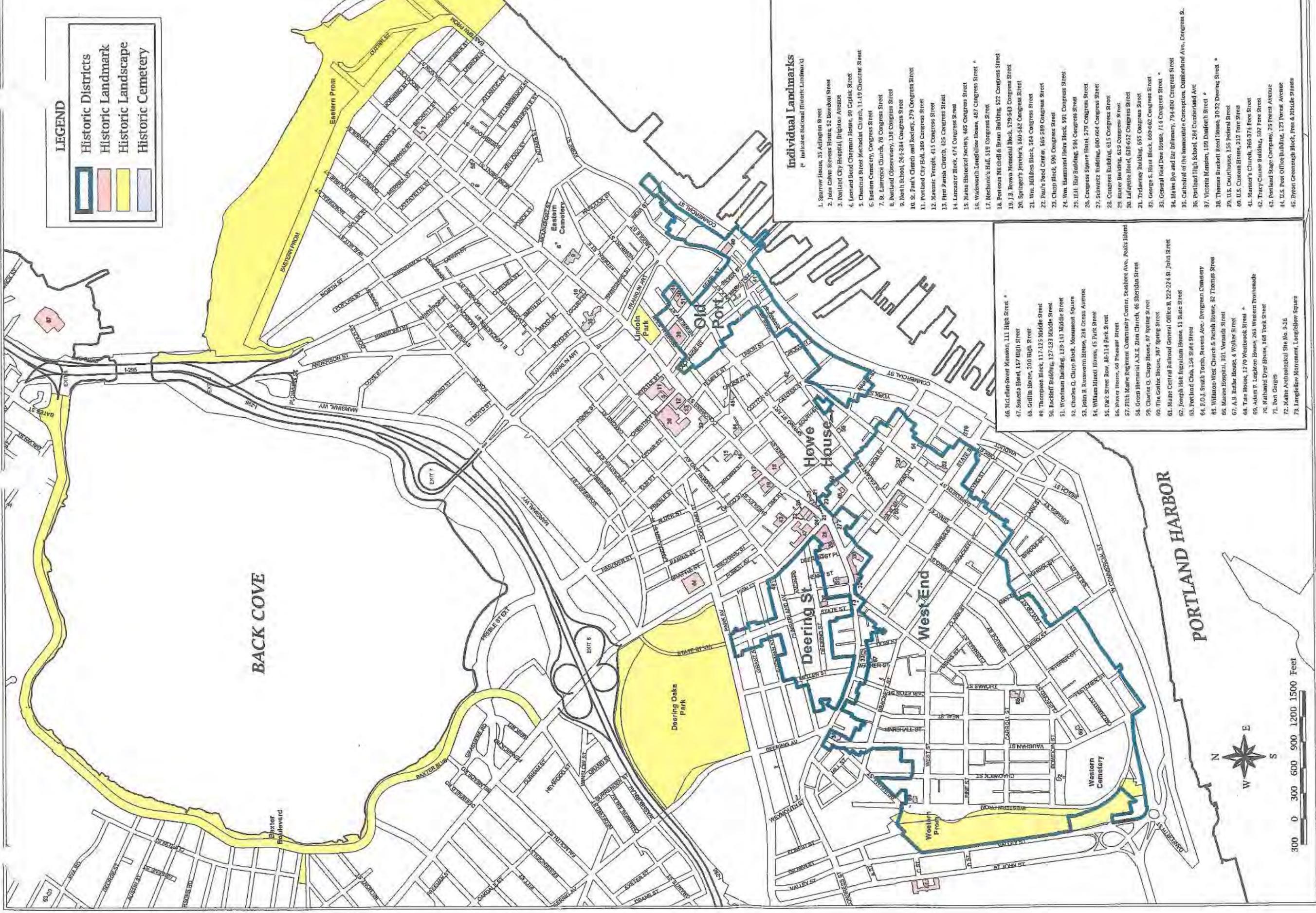
The standards contain photographs of architectural details, buildings, and sites along with illustrations to demonstrate both successful and unsuccessful responses to the standards. The standards are shown for their application to vernacular buildings as well as high style buildings, for commercial and residential structures, and for streetscapes in historic districts and historic landscape districts.

The Historic Preservation Committee and City staff administer the preservation program. The Committee is composed of seven members appointed by the City Council for three-year terms. The Committee meets on a semi-monthly schedule to review proposed projects and to make recommendations to the Planning Board for projects subject to both historic preservation and site plan review. The Committee also participates in the planning activities for the program. Staff members provide technical assistance to the Committee, conduct minor development reviews, and provide technical assistance to the public. A total of 218 applications were reviewed during the calendar year of 2001. The Historic preservation staff is also involved in the planning of all capital improvement or HCD-funded projects that will impact an historic resource or district. Following is a list of recent City projects of note that entailed historic preservation planning and review:

- St. Dominic's Church and School Reuse
- Deering Oaks Castle Complex Treatment Plan
- Boothby Square Redevelopment
- Portland Observatory Restoration (received a 2001 National Preservation Award from the National Trust for Historic Preservation)
- Fort Allen Park Gazebo Restoration
- Baxter Boulevard Master Plan
- Deering Oaks Ravine Project
- Old Port Lighting Program
- Downtown Lighting Program
- Western Cemetery Master Plan (winner of an award from the Boston Society of Landscape Architects)
- Sidewalk Material Policy Revisions
- City Hall Window Replacement.

B. On-going Identification of Historic Resources

Ongoing identification and designation of additional historic resources that are worthy of protection is a responsibility of the division. Currently, Portland is conducting a citywide reconnaissance level architectural survey to identify potential individual landmarks and concentrations of buildings or neighborhoods that warrant consideration as potential historic districts. The community-wide survey began with a survey of the Bayside neighborhood. More in-depth surveys have been conducted for India Street, Coyle Park, Fessenden Park, and the lower Parkside neighborhood. In addition, documentation on approximately 35 buildings has been prepared for potential designation as individual landmarks.



LEGEND

- Historic Districts
- Historic Landmark
- Historic Landscape
- Historic Cemetery

Individual Landmarks
(# indicates National Historic Landmark)

1. Sparrow House, 35 Adlington Street
2. John Calvin Stevens House, 52 Bowdoin Street
3. Portland City Hospital, Brighton Avenue
4. Lemond Bond Chapman House, 90 Capitol Street
5. Church Street Methodist Church, 11-19 Church Street
6. Eastern Cemetery, Congress Street
7. St. Lawrence Church, 78 Congress Street
8. Portland Observatory, 139 Congress Street
9. North School, 264-284 Congress Street
10. St. Paul's Church and Rectory, 279 Congress Street
11. Portland City Hall, 305 Congress Street
12. Marconi Temple, 411 Congress Street
13. Holy Family Church, 425 Congress Street
14. Lancaster Block, 474 Congress Street
15. Maine Historical Society, 445 Congress Street
16. Wadsworth-Longfellow House, 487 Congress Street
17. Mechanic's Hall, 519 Congress Street
18. Penrose Mitchell & Bran Building, 572 Congress Street
19. J.B. Brown Memorial Block, 579-549 Congress Street
20. Sprague's Jewelers, 540-542 Congress Street
21. Wm. Milliken Block, 564 Congress Street
22. Paul's Food Center, 585-599 Congress Street
23. Chubb Block, 590 Congress Street
24. Wm. Hammond Hays Block, 591 Congress Street
25. E.H. Eddy Building, 594 Congress Street
26. Congress Square Hotel, 579 Congress Street
27. Schwartz Building, 600-604 Congress Street
28. Congress Building, 615 Congress Street
29. Baxter Building, 632 Congress Street
30. Lafayette Hotel, 638-632 Congress Street
31. Tredway Building, 655 Congress Street
32. George S. Hain Block, 660-662 Congress Street
33. General Neal Dow House, 714 Congress Street
34. Maine Eye and Ear Infirmary, 794-800 Congress Street
35. Cathedral of the Immaculate Conception, Cumberland Ave., Congress St.
36. Portland High School, 264 Cumberland Ave
37. Victoria Mansion, 105 Daughforth Street
38. Thomas Brackett Reed House, 30-32 Deering Street
39. U.S. Courthouse, 135 Federal Street
40. U.S. Custom House, 312 Fore Street
41. Marmer's Church, 365-374 Fore Street
42. Tracy-Causser Building, 507 Fore Street
43. Portland Stage Company, 25 Fore Street Avenue
44. U.S. Post Office Building, 125 Fore Street Avenue
45. Byron Greenough Block, Free & Middle Streets

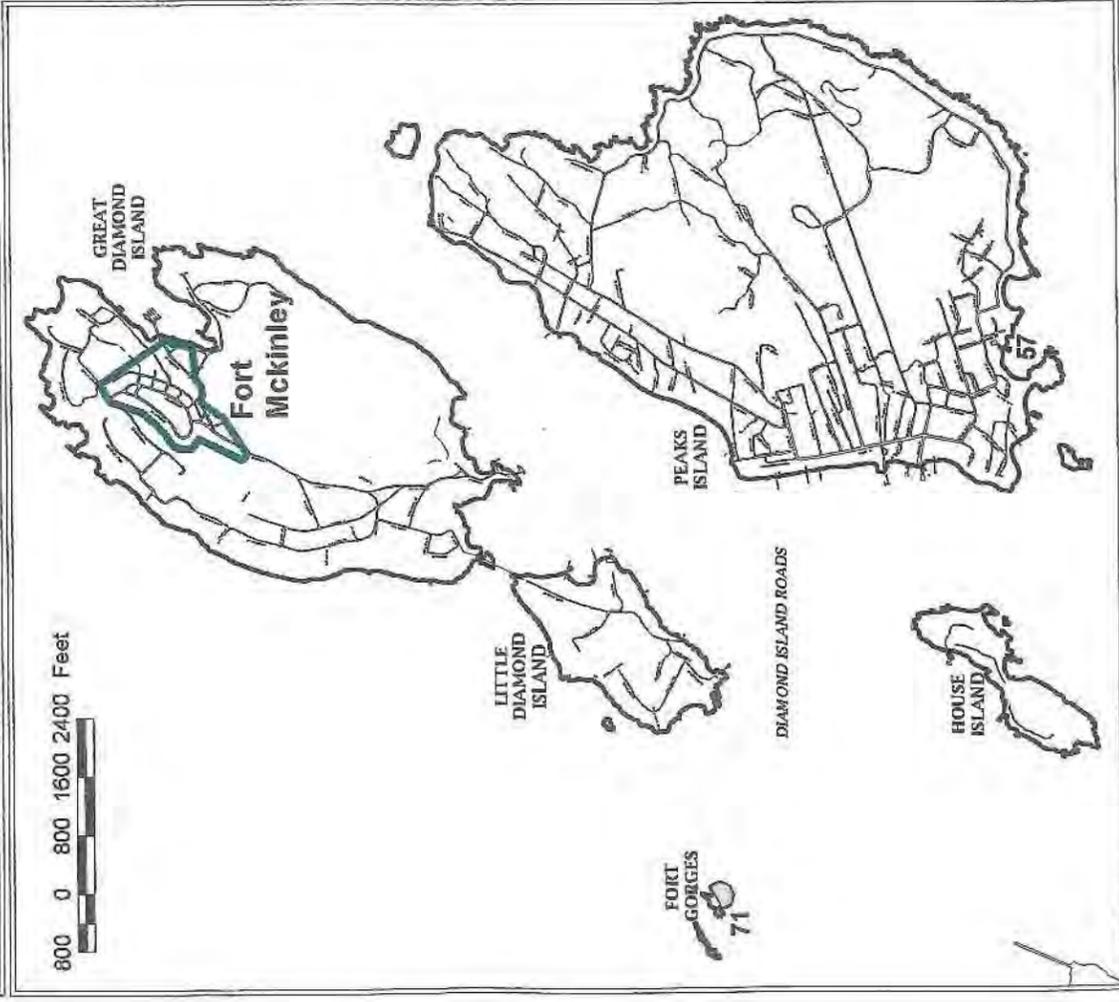
46. McClellan-Sweet Mansion, 111 High Street
47. Sauter Block, 157 High Street
48. Griffin House, 200 High Street
49. Thompson Block, 117-125 Middle Street
50. Backleff Building, 127-133 Middle Street
51. Woolman Building, 135-141 Middle Street
52. Charles O. Chittick Block, Monument Square
53. John B. Russwurm House, 238 Ocean Avenue
54. William Stead House, 45 Park Street
55. Park Street Row, 88-114 Park Street
56. Water House, 60 Treasurer Street
57. Fifth Maine Regiment Community Center, Seaborn Ave., Peaks Island
58. Green Memorial A.M.E. Zion Church, 46 Sherfish Street
59. Charles O. Clapp House, 87 Spring Street
60. The Gothic House, 387 Spring Street
61. Maine Central Railroad General Office B, 222-224 St. John Street
62. Joseph Holt Ingraham House, 51 State Street
63. Portland Club, 156 State Street
64. P.O. Smith Tomb, Sevens Ave., Divignon Cemetery
65. William-West Church & Parish House, 32 Thomas Street
66. Maine Hospital, 351 Verona Street
67. A.B. Butler House, 4 Walker Street
68. Tans House, 1270 Westbrook Street
69. Adam F. Leighton House, 203 Western Promenade
70. Mahan-Dyer House, 168 York Street
71. Fort Gorges
72. Maine Archaeological Site No. 9-16
73. Longfellow Monument, Longfellow Square

Historic Districts with Individual Landmarks & Historic Landscape Districts

Eastern Mainland
 May 2002

Map produced by the City of Portland's Department of Planning and Urban Development & the GIS Workgroup





Historic Districts with Individual Landmarks & Historic Landscape Districts

Western Mainland and Islands

May 2002



LEGEND

- Historic Districts
- Historic Landmark
- Historic Landscape
- Historic Cemetery

Individual Landmarks
 (*) Indicates National Historic Landmark

1. Sparrow House, 35 Arlington Street
3. Portland City Hospital, Brighton Avenue
4. Leonard Hotel Chapman House, 90 Caple Street
53. John B. Rusworm House, 238 Ocean Avenue
57. 75th Maine Regiment Community Center, Seaside Avenue, Peaks Island
64. F.O.I. Smith Touch, Stevens Ave. - Evergreen Cemetery
68. Tate House, 1270 Westbrook Street *
71. Fort Gorges

Map produced by the City of Portland's Department of Planning and Urban Development & the GIS Workgroup

C. Archeological Resources

Just as above ground resources – buildings, structures, objects – contribute to our knowledge of the past, below ground archaeological resources enable us to understand significant patterns and events in history and prehistory that are no longer visibly evident. Portland has forty-one historic archaeological sites and eighty-two shipwrecks. There are also twenty-six prehistoric sites within Portland, most of which are shell middens on islands in Casco Bay. One of the prehistoric sites is on the National Register and is located on Great Diamond Island. The 9.16-acre site, known as Maine Archaeological Site No. 9-16, is listed in Portland Historic Resources Manual and is subject to the protections of Portland's Historic Preservation Ordinance.

To protect prehistoric and archaeological resources, Portland's Shoreland Zoning Ordinance includes the following standard:

"Archaeological sites: Any proposed land use activity involving structural development or soil disturbance on or adjacent to sites listed on, or eligible to be listed on, the National Register of Historic Places, as determined by the department of planning and urban development, shall be submitted by the applicant to the Maine Historic-Preservation Commission for review and comment at least twenty (20) days prior to action being taken by the building authority. The building authority shall consider comments received from the Commission prior to rendering a decision on the application. Such sites shall also comply with all applicable provision of Article IX of this chapter. " The article then states, "The proposal will protect archaeological and historic resources."

The City's site plan ordinance regulates major and minor development within Portland. The ordinance requires a written narrative "describing any unusual natural areas, wildlife and fisheries habitats, or archaeological sites located on or near the project site and a description of the methods that will be used to protect such area or sites." In addition, the site plan ordinance requires a written list of all state and federal regulatory approvals to which the development may be subject, the status of any pending applications, and the anticipated time frame for obtaining such permits or that that a determination of no jurisdiction from the agency will be requested.

Portland's Historic Preservation Ordinance also addresses archaeological resources. Standard #8 of the Standards for Review of Alterations addresses protection of archaeological resources. The intent of Standard #8 is explained in the Historic Resources Design Manual as follows:

"Every reasonable effort shall be made to protect and preserve archaeological resources affected by, or adjacent to any project."

Prior to construction, the Portland Planning Department and the Maine Historic Preservation commission should be consulted to determine the likelihood or existence of an archaeological site. If any cultural artifacts are uncovered during construction, trained archaeologists should be called in to evaluate the site and make recommendations regarding the recording and/or protection of any artifacts. Portland's Subdivision Ordinance requires as part of an application, a narrative describing any archaeological site located on or near the project site and a description of the methods that will be used to protect such areas or sites.

In addition to Portland's Land Use Code requirements, the City has contracted with consultants for three archaeological studies recently. A survey was conducted for the area surrounding the "Castle" at Deering Oaks Park. Surveys have also been completed for the Bayside neighborhood

(a designated redevelopment area) and the proposed site for Marine Passenger Terminal. In both cases, these were conducted in advance of any specific development activity, but were commissioned based on information that these areas were likely to yield archaeological artifacts.

III. CULTURAL RESOURCES

A. Portland's Public Art Program⁵

Portland's Public Art Program was established as an initiative from Downtown Vision to promote public art throughout the city. The ordinance created a Portland Public Art Committee (PPAC) to review temporary and permanent public art installations. The ordinance also required development projects assisted by the City to include a public art component.

In 2000, the City Council replaced the initial ordinance, eliminating the requirement of private development to contribute to public art. Instead, the new ordinance establishes a percent-for-art provision, which sets aside ½ of 1% of the City's annual Capital Improvement Project budget to preserve, restore and enhance the City-owned art collection. The nine-member committee is now appointed by the City Council and Portland's Urban Designer is the designated staff member to provide support and technical expertise for the overall program. PPAC's has the following key responsibilities:

- Develop and present to the City Council an Annual Art Plan which recommends expenditures from the percent-for-art allocation for the purposes of preserving, restoring and/or expanding the public art collection;
- Review potential gifts of art to the City's collection and make recommendations to the City Council on whether to accept or not accept the gifts;
- Seek private donations for preserving, restoring and/or expanding the Portland public art collection; and
- Recommend appropriate locations for the installation of public art.

The Committee utilizes the Guidelines for the Public Art Ordinance for direction in administering their responsibilities.

Since the adoption of the new Public Art Program ordinance, PPAC has completed a professional conservation assessment of all nineteen objects in the Public Art Collection. (This process was completed in two phases, and was largely paid for through a grant from **Save Outdoor Sculpture!** - a Heritage Preservation program of the Smithsonian Institutions.) The assessment reports rate each object into one of four priority levels:

- Priority 1: Object is in need of immediate conservation treatment;
- Priority 2: Treatment is needed in the next 1-5 years;
- Priority 3: Stable condition;
- Priority 4: Treated and maintained.

⁵ Portland Public Art Committee Annual Report, 2001.

Fourteen objects from the Public Art Collection are categorized as Priority 1 or Priority 2. The 2001 Annual Art Plan allocated funds for conserving several pieces from the Collection. As of spring 2002 the City has contracted with a professional art conservator to do object treatment eight of the sculptures, with a scheduled completion date of July 1, 2002. The 2002 Annual Art Plan, which is being formed as of spring 2002 and scheduled to go to Council for consideration in June 2002, will include recommendations to complete conservation of all Priority 1 and Priority 2 objects.

The 2001 Annual Art Plan, the first Annual Plan recommended by PPAC and adopted by Council, established the official Portland Public Art Collection. Portland's Public Art Collection contains nineteen works of art that are permanently installed in public, accessible locations throughout the city. The collection contains artwork of historical significance that date from the nineteenth century, as well as contemporary pieces. The inventory of Portland Public Art collection⁶ includes the following:

- The Ravine in Deering Oaks, by Carole Hanson, Mohr, and Sereden, 1999, *Location:* Deering Oaks Park *Materials:* Stone, Water, Plant Materials
- Thomas Brackett Czar Reed, by Burr C. Miller, 1910 *Location:* Western Promenade *Materials:* Bronze on Granite Base
- Longfellow Monument, by Franklin Simmons, 1888 *Location:* Corner of State and Congress Streets *Materials:* Bronze on Granite Base
- Stone Dragon by Carole Hanson, 1997 *Location:* Congress Square *Materials:* Granite
- Our Lady of Victories, by Franklin Simmons, 1888 *Location:* Monument Square *Materials:* Bronze on Granite Base.
- Lillian M.N. Steven Memorial Fountain, or Temperance (The Little Water Girl) by George E. Wade, 1917 *Location:* Portland Public Library, 5 Monument Square, Stevens Memorial Fountain *Materials:* Bronze on Granite Base.
- Michael by John Raimondi, 1974 *Location:* One City Center Plaza *Materials:* Corten Steel.
- The Lobsterman, by Victor Kahill, original plaster cast, 1939, Norman Therrien, bronze cast, 1974. *Location:* Temple Street Garage *Materials:* Bronze.
- Charles J. Loring Jr. Veterans Memorial Park by Ann Uppinton with Richardson and Associations, 1999 *Location:* Eastern Promenade *Materials:* Carved granite and brick.
- Fireman Statue, by Edward Souther Griffin 1898 *Location:* Pearl, Federal, and Congress Streets *Materials:* Bronze on granite base.

⁶ "Walking tour of Outdoor Sculpture, City of Portland", funded by Maine Arts Commission, The Davis Family Foundation, The Maine Arts Commission, the City of Bangor, The City of Portland, and The Maine Humanities Council. Portland Public Art Committee Annual Report, 2001.

- Obelisk Memorial to George Cleeves, artist unknown, 1883 *Location:* Eastern Prom and Congress Street. *Materials:* Carved granite.
- Stanley Pullen Foundation Memorial, by George Burnham, executed by N.H. Granite Co., 1910. *Location:* Federal and Pearl Streets *Materials:* Carved granite fountain.
- Milkweed Pod, by Clark Fitzgerald, 1975. *Location:* Back Cove. *Materials:* carved wood and concrete.
- Civil War Monument, artists unknown, 1885. *Location:* Eastern Cemetery *Materials:* Bronze on granite base.
- Spanish War Veterans Monument or The Hiker, Theodora Alice Ruggles Kitson, 1898-1902. *Location:* Deering Oaks Park, Park Street. *Materials:* Bronze on granite base.
- John Ford Memorial by George Kelly, 1997 *Location:* Corner of Pleasant, Danforth and Center Streets *Materials:* Bronze on Cement, Stone and Granite Base.
- Common Ground Gazebo, by Alan Holt, artist in residence, USM Art Department and USM students, 2000. *Location:* Payson Park *Materials:* Wood, steel, ceramic tile and Plexiglas.
- Untitled, by Patrick Plourde, 2000. *Location:* Eastern Prom Trail @ Franklin Arterial. *Materials:* Steel.
- Union Station, by Don Thayer, 1979. *Location:* Mural in Expo lobby. *Materials:* Acrylic Paint.

B. Community Diversity⁷

Portland has a rich history as a maritime center and urban community. Historically Portland's population was white Anglo-Saxon, with a substantial minority of Irish, Italians, Jews, Greeks, Armenians, and other immigrants. In the 1980's Portland was designated a Refugee Resettlement community. Today, there are approximately 42 languages spoken in the Portland public schools with most of the recent immigrants coming from Cambodia, Vietnam, Eastern Europe, Africa, and Islamic nations.

During the past decade, Portland has participated in cultural planning to celebrate our shared history and to instill pride in our cultural diversity. *Celebrating Community: A Cultural Plan for Portland Maine* includes the following definition of culture by James Bau Graves, a Steering Committee member and ethnologist:

⁷ Source of information from Celebrating Community: A Cultural Plan for Portland, Maine. 1998, Prepared by the Celebrating Community Steering Committee with Financial Support from UNUM Foundation, National Endowment for the Arts (NEA), New England Foundation for the Arts, Maine Community Foundation, Maine Humanities Council and the City of Portland.

Culture is the enactment of community. It is the way communities select to express themselves, the glue that binds them together internally, and the displays that represent them to the world. Culture is expressed in what we wear, what we eat, how we dance, who we revere, how we worship. It is an Indian woman's sari, Italians making pasta, fishermen's knowledge of how to read the weather signs, the etiquette of a society wedding, French people dancing *Lady of the Lake*, and the stories refugees tell their children about their homelands. Every community has its own culture that interacts with and influences every other culture with which it coexists. This ongoing process of cross-fertilization is part of what keeps cultures and communities dynamic and healthy.

Although not every city includes a cultural plan in its comprehensive plan, Portland recognizes the importance of cultural vitality to the community. The mission of Portland's cultural planning program is to promote awareness and access to arts and culture, to encourage greater community participation, to increase the sustainability of the arts, and to strengthen community through our arts and culture.

Celebrating Community is the third phase of an effort that began with the *Downtown Vision* plan and continued with *A Plan for Portland's Arts District*. The *Arts District Plan* identifies and makes recommendations for Portland's \$33 million arts industry, which produces 2,000 events and serves over 900,000 people annually. To develop *Celebrating Community* 63 personal interviews were conducted with Portland leaders representing various ethnic, religious, cultural, political and neighborhood groups. In addition, a series of public forums were held to discuss cultural needs with educators, artists, social service agencies, and arts organizations. As a companion to the plan, five professional photographers were commissioned to capture images of cultural expression within a distinct Portland community of their choosing. The project, entitled *Expressions of Culture*, reveals the soul of a community and speaks as much as all the printed words about the people and places that make Portland a community. *Celebrating Community* is viewed as the step to linking the diversity of our people, the identity of our neighborhoods, and the expressions of our cultures to the strengthening of our community.

C. Portland's Cultural Initiatives⁸

- Merrill Auditorium (formerly City Hall Auditorium): The City of Portland in collaboration with private contributors undertook a substantial renovation of this historic 1910 auditorium, which improves the acoustics, the utility of the facility for artists, and the physical comfort of audience members (1900 seating capacity). The renovation was completed in 1997.
- Congress Square Programming: Portland provides funding for extensive outdoor programming in Congress Square. A wide variety of events including ethnic markets, professional and community-based performing arts events and visual arts exhibitions are offered in coordination with PACA (Portland's Art and Cultural Alliance) and Maine Arts, Inc. The City has invested in the Square to improve the performance space and to disseminate information about events in the Square and throughout the City.

⁸ A Plan for Portland's Arts District, 1996, Arts and Cultural Steering Committee, Consultants Herbert Sprouse Consulting and The Wolf Organization, Inc. Edited and updated 2002.

- Maine College of Art: The Maine College of Art invested more than \$10 million dollars, including financial assistance from the City, for the renovation and reuse of the former Porteous department store. The 5-story Beaux Arts building was the flagship department store in downtown Portland. The building had been vacant for several years and reopened as the central facility for the College in 1998. The facility houses the instructional programs, as well as providing gallery space and one small auditorium. The College also maintains the Baxter Library (former public library on Congress Street) as a library and classrooms for its students.
- Portland Art and Cultural Alliance: Portland designated the Portland Art and Cultural Alliance (PACA) as the city's local arts agency in 1996 to assist in the implementation of the Arts District Plan and Community Cultural Plan.
- Center for Cultural Exchange: Through an RFP process, the City of Portland sold a tax acquired building at Longfellow Square to the non-profit arts organization for the conversion of the building to the Center for Cultural Exchange. The Center offers programming, public education, and master teaching programs for the diverse cultural communities and students in Portland.
- The Children's Museum of Maine: Portland provided funding to the Children's Museum, for its move downtown and the renovation of its on Free Street. The museum is a major educational and cultural resource for families in Maine.
- The Maine Narrow Gauge Railroad: City funds assisted in the purchase of the historic train collection, which provides educational opportunities and scenic rides along the waterfront and Eastern Promenade.

EXISTING LAND USE

Inventory and Analysis

EXISTING LAND USE AND DEVELOPABLE LAND¹

I. INTRODUCTION

Portland is the largest city in Maine and is the urban center for Cumberland County. Its rich history of development and redevelopment has created well-established land use patterns throughout the city.

Portland is a leader in planning for its future and enacting land use policies. The City's first zoning ordinance was adopted in 1926. The code established eight zoning classifications². In 1974, Portland adopted a Land Use Plan that is the basis for the current zoning code. Updates to the City's Comprehensive Plan and codes reflect Portland's land use goals and guide current development standards and practices.

Within Portland's compact 22 square miles is the urban peninsula comprised of high density housing and commercial development. Off the peninsula, intensive commercial development is concentrated in nodes along arterial streets. Traditional neighborhoods ring the peninsula and toward the outer city limits and along the river valleys, farmlands have given way to subdivisions of a suburban character. The islands are developed in a more rural pattern contrasting with the intensity of the mainland city.

One way to comprehend the City's development patterns is to tabulate how the land itself is used. How much of Portland's land area is consumed by various activity types and how much vacant land is available, provides a base of information that is helpful for future planning. There are few large undeveloped areas left within Portland, particularly in comparison with surrounding suburban municipalities. Portland does have scattered vacant lots throughout the urban area with some larger parcels in the outer ring of neighborhoods. Redevelopment of under-utilized land is a major focus of Portland's current land use strategies.

II. PORTLAND'S EXISTING LAND USES - CITY-WIDE

A. General Overview of the Quantity of Land According to Existing Land Uses

Portland is an extensively developed city with a diverse mix of uses. The Tax Assessor's figures for 1978, 1989, and 1999 are used to identify and to compare land use changes during the past two decades. These two decades have seen a substantial pace of land absorption suggesting that the city of Portland will soon be close to fully developed. Even when "full" however; land use will remain a dynamic force of change with reuse, infill and redevelopment continually changing the face of the city. Table 1 is a summary of the general land use categories and the percentage of land area devoted to each

¹ Prepared by Planning and Urban Development Department in 2002 with the assistance of the GIS Workgroup and using the Portland Tax Assessor's Data for 1978, 1989, and 1999.

² The eight zoning classifications included: unrestricted, industrial, general business, limited business, local business, apartment house, general residence, and single residence zones.

classification. The Existing Land Use Map #1 illustrates the city's interwoven pattern of residential, commercial, industrial, institutional, and recreation uses.

Table 1

Land Use Categories as a Percentage of the Total Land Area City of Portland				
	Percent of Land Area			Acres 1999
	1978	1989	1999	
% Residential	28.3%	32.1%	61.2%	8137
% Seasonal	1.7%	3.2%	2.0%	269
% Accessory	1.6%	1.8%	0.5%	65
% Commercial	6.8%	8.5%	8.0%	1063
% Industrial	7.8%	9.7%	5.8%	782
% Vacant	26.8%	18.9%	10.1%	1341
% Tax Exempt ³	27.0%	25.5%	12.3%	1639

Source: Portland Planning & Development Department based on Tax Assessor's Data 1978, 1989, & 1999

In 1999, 61.2% of Portland's land area (8,137 acres) was devoted to residential uses. This is a significant change from 1989 when 32.1% of the land (3,766 acres) was in residential use and in 1978 the figure was 28.3% (3,386 acres). Seasonal units represent approximately 2% of the City's land area.

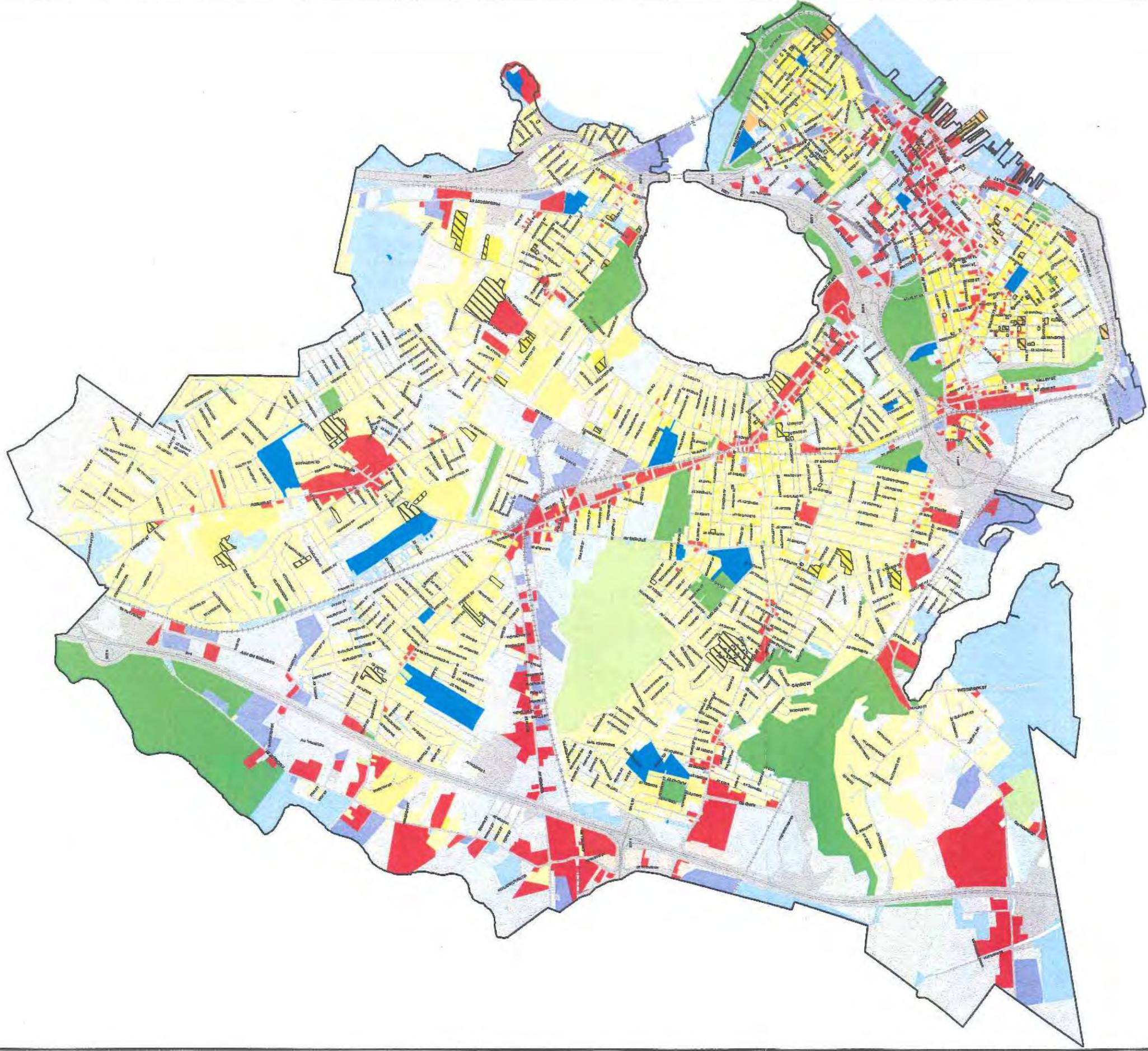
Portland's Downtown is the central hub for retail, office and institutional uses, but the city also has a variety of large-scale business areas and neighborhood service areas. Commercial uses occupy 8% of Portland's total land area, or 1,063 acres, in 1999. This percentage is an overall increase from 6.8% in 1978, but a slight decline since 1989. Industrial uses rose from 7.8% to 9.7% in 1989 (a high of 1,149 acres), but have declined to 5.8% in 1999. Most of the industrial uses are located in the vicinity of major transportation and rail corridors.

The percentage of vacant land to the total area has dropped each decade. In 1978, 27% of the City's land area was considered vacant. This figure declined to 19% in 1989 and then to 10% (1,341 acres) in 1999. Tax-exempt property declined to less than half of its 1978 figure and is now only 12.3% of the city's land or 1,639 acres.

B. Detailed Breakdown of Existing Land Uses in Portland

A more detailed breakdown of the City's land uses illustrates Portland's range of land uses. An inventory of land uses is presented in Table 2, which identifies the quantity of land occupied by these uses, the percentage of the total land area devoted to each classification, and the change between 1978, 1989 and 1999. These figures are based on Portland's Tax Assessor's records. Table 3 provides the same information for tax-exempt property.

³ Government listings include schools, parks, open space, municipal facilities, tax acquired property, State land and federal property. Portland has 1,500 acres of public recreation and open space.



City of Portland, Maine EXISTING LAND USE



Table 2

Comparison of 1978, 1989 and 1999 Land Use Report for Taxable Property							
Land Use Categories	Land Area in Acres			Percent Change in Land Area			1999 % total Area by use
	1978	1989	1999	1978-89	1989-99	1978-99	
Multi-Use Residential			0.1			100.0%	0.001%
Residential Hotels							
Apartments and Rooms			0.1			100.0%	0.000%
Rooming Housing		0.1	1.4		956.7%	100.0%	0.011%
Condominiums	9.7	191.5	0.3	1875.9%	-99.8%*	-96.6%*	0.003%
Single Family	2476.6	2599.4	5363.3	5.0%	106.3%	116.6%	40.338%
Two Family	382.8	349.7	1934.4	-8.7%	453.2%	405.3%	14.549%
Three Family	95.0	107.9	521.3	13.5%	383.4%	448.5%	3.921%
Four Family	36.4	45.3	40.1	24.4%	-11.4%	10.2%	0.302%
Five to Ten Family	71.7	91.0	69.2	26.9%	-24.0%	-3.5%	0.521%
Eleven to Twenty Family	16.3	20.7	23.5	27.0%	13.9%	44.6%	0.177%
Twenty-one plus Family	296.9	360.1	182.9	21.3%	-49.2%	-38.4%	1.376%
Seasonal	203.4	379.5	268.8	86.6%	-29.2%	32.1%	2.021%
Accessory Buildings	194.6	206.4	65.1	6.1%	-68.5%	-66.5%	0.490%
Commercial Condos		17.4	5.7		-67.5%		0.043%
Retail & Personal Services	403.4	448.6	420.0	11.2%	-6.4%	4.1%	3.159%
Office & Business Services	405.7	236.8	336.0	124.1%	41.9%	218.0%	2.527%
Hotels & Motels	35.2	38.2	34.9	8.7%	-8.6%	-0.6%	0.263%
Wholesale	165.0	169.2	127.2	2.5%	-24.8%	-22.9%	0.957%
Parking Lots	69.0	77.2	90.7	11.9%	17.5%	31.4%	0.682%
Private Clubs	22.5	21.8	13.0	-3.3%	-40.4%	-42.4%	0.098%
Multi-use Commercial	13.4	5.4	35.5	-59.8%	561.0%	165.9%	0.267%
Manufacturing & Constr.	295.8	308.1	309.7	4.2%	0.5%	4.7%	2.329%
Warehouse and Storage	146.3	325.6	288.8	122.5%	-11.3%	97.4%	2.172%
Transport. & Public Util.	486.7	505.2	170.6	3.8%	-66.2%	-64.9%	1.283%
Communication		9.9	9.9		0.0%	100.0%	0.075%
Extraction							
Multi-Use Industrial			2.9			100.0%	0.022%
Vacant	3,199.70	2,217.00	1,341.20	-30.7%	-39.5%	-58.1%	10.087%
Totals Taxable	8,726.20	8,731.90	11,656.80	1.0%	33.5%	33.6%	87.671%

***Note:** Portland's Tax Assessor changed the methodology used for capturing the land area of condominiums after 1989, so the dramatic drop in condominium land area for 1999 is misleading. Using the Tax Assessor's current list for condominiums, the GIS Workgroup estimates that condominiums occupy 204 acres of land (referred to as planned residential unit developments on the Existing Land Use Map).

Source: Portland Planning & Development Department based on Tax Assessor Data. 1978 and 1989 figures have been adjusted to exclude Long Island.

1) Residential Land Uses

Residential uses represent the largest single land use category in Portland. Within the residential classification, uses such as multi-use residential, residential hotels, rooming housing and condominiums constitute a small percentage of Portland's overall land area. Single-family units occupy 40.3% of Portland's land area and grew in area by 106% between 1989 and 1999. While the number of units created in the past decade (over 800) is considered to be modest, the amount of land devoted to single-family housing increased significantly. These figures may reflect the trend for larger lot subdivisions, particularly in off-peninsula neighborhoods. Two-family buildings represent 14.6% of the City's land area and three-family dwellings occupy 4%. Both of these categories grew dramatically between 1989 and 1999 with increases in land area well over 300 percent.

The other multi-family residential classifications (four, five to ten, eleven to twenty, and twenty-one plus units) represent roughly 2.4% of the city's total land area in 1999. The percentages for each of these uses grew by over 20% between 1978 and 1989, however, only four unit and eleven to twenty unit uses continued to expand in the 1990's. The other two categories (5 to 10 units and 21 plus) declined.

Seasonal units represent approximately 2% of the city's land area and these units are found on the islands. Between 1978 and 1989, the land devoted to seasonal units increased by 86.6%, but a decline of 29% occurred after 1989. While the percent change appears large for this land classification, the overall use of city land under this category remains close to 2%.

2) Commercial Land Uses

Commercial uses occupy 8% of Portland's total land area, as shown on Table 1, which is a slight decline from the high of 8.5% in 1989. The three commercial sectors that grew between 1978 and 1999 are retail and personal services, office and business services, and multi-use commercial. The area used for parking lots has increased also significantly from 12% to 31% since 1978. The retail uses constitute over 3% of Portland's land use and offices occupy over 2.5%. Less land is accounted for in the business categories of hotels and motels, wholesale, and private clubs.

3) Industrial Land Uses

Industrial uses reached a high of 9.7% of Portland's land area in 1989, but this percentage declined to 5.8% in 1999. The manufacturing and construction sector in Portland has grown since 1978, with most of the growth occurring between 1978 and 1989. A significant increase of 122.5% in the warehouse sector occurred between 1978 and 1989, but this is followed by an 11.3% decrease by 1999. The transportation and utility sector shows a significant decline between 1989 and 1999, due to a reclassification of uses. A new category of communication was created, which accounts for close to 1% of Portland land area. The multi-use industrial is also a new classification, which represents .022% of the City's land area in 1999.

4) Tax-Exempt Land

The amount of land area classified as tax-exempt has declined to less than half of the 1978 percentage. It is down from 27% to 12.3%. Within this classification, significant declines have occurred in the following sub-categories: religious; literary and scientific; governmental; and other exempt uses. While the government category declined, it currently represents 9.5% of the City's total land area. The category of benevolent and charitable institutions grew with a 58% increase since 1978 and this use constitutes 1.3% of the City's land area.

Table 3

	Land Area in Acres			Percent Change in Land Area			1999 % total Area by use
	1978	1989	1999	1978-89	1989-99	1978-99	
Religious	190.4	124.4	112.2	-34.6%	-9.8%	-41.1%	0.844%
Benevolent & Charitable. Inst	106.6	130.0	168.7	22.0%	29.7%	58.2%	1.269%
Literary & Scientific Inst	127.2	157.4	76.3	23.7%	-51.5%	-40.0%	0.574%
Governmental **	2647.2	2543.8	1257.8	-3.9%	-50.6%	-52.5%	9.460%
other exempt by law	149.4	40.1	24.3	-73.1%	-39.5%	-83.7%	0.183%
Total Tax Exempt	3,220.80	2,995.80	1,639.20	-7.0%	-45.3%	-49.1%	12.329%

Source: Portland Planning & Development Department based on Tax Assessor Data. 1978 and 1989 figures have been adjusted to exclude Long Island.

III. EXISTING LAND USE BY NEIGHBORHOODS

The Tax Assessor's data divides the city into 14 neighborhoods on the mainland and five of the islands. The land areas devoted to the general land use categories within each neighborhood and island are shown on the Table 4. For comparison purposes, the neighborhoods are listed as Off-peninsula neighborhoods (with both inner-ring and outer-ring neighborhoods), Peninsula neighborhoods, and Islands.

A. Off-Peninsula - Inner Ring Neighborhoods – Existing Land Uses

The inner ring neighborhoods experienced increases in the land area devoted to residential uses since 1978 (refer to table 4 below). Over 89% of Woodfords land area is in residential use, followed by Deering/Rosemont with 86%, East Deering with 78%, Oakdale with 68%, and Morrill's Corner with 51%. In all of these neighborhoods, the most significant changes occurred between 1989 and 1999. These neighborhoods have a mix of low and medium density developments, which generally are designed with traditional street grid networks. Concurrently, the amount of vacant land area found in these neighborhoods declined, except in Oakdale.

Oakdale is unique among the inner ring neighborhoods in that it experienced an increase in the amount of land used for commercial use since 1989. In general, the inner ring neighborhoods gained commercial uses between 1978 and 1989 and then lost a portion of these businesses. Thus, constant or net decrease of land area in business use is documented since 1978. Many of the smaller scaled neighborhood business areas, such as Deering Center and Rosemont Corner, are situated within these neighborhoods. A

larger portion of Morrill's Corner is intensively developed with commercial and industrial uses. The industrial uses in these neighborhoods followed the same trends as commercial uses. Tax-exempt property declined as a percentage of the total land in all of the inner ring neighborhoods.

B. Off-Peninsula - Outer Ring Neighborhoods – Existing Land Uses

The outer ring neighborhoods grew significantly with residential development, but the percentage of land devoted to residential uses is less than found in the inner neighborhoods. It is important to note that vacant land accounts for a larger share of each neighborhood's total land area. Over 77% of North Deering is developed in residential use followed by Riverton with 71%, Nason's Corner with 63% and Riverside with 44%. Stroudwater has only 17.5% of its land area developed in residential use. The development patterns are varied with both traditional grid pattern neighborhoods and the more typical suburban style with curvilinear streets and larger lots. Vacant land in the outer ring neighborhoods has declined to less than half of its 1978 share. Stroudwater has the largest percentage of vacant land (24%) and Riverton has the least with 2%.

Commercial uses have remained relatively stable in the outer ring neighborhoods, except for Stroudwater where commercial uses grew by 9% in 1989 and 23% in 1999. A new airport access road and a new Maine Turnpike Interchange have spurred new business development within Stroudwater. Several of the larger scale commercial districts serving a regional market, such as outer Brighton Avenue, outer Washington Avenue, and Riverside Street, are located in these outer-ring neighborhoods. The industrial uses in Nason's Corner, North Deering, and Riverton remained constant or declined slightly during the 20-year time frame. Industrial uses expanded in Riverside and Stroudwater to 21% and 10.4% of the total neighborhood land area, respectively. Tax-exempt property declined as a percentage of the total land area in all of these neighborhoods, except Stroudwater.

C. Peninsula Neighborhoods – Existing Land Uses

The peninsula neighborhoods include the Central Business District, East End, St. John Street, and the West End. Land devoted to residential uses increased in each of these urban neighborhoods; however, the gains are more modest than the off-peninsula neighborhoods. The exception to this is the West End. The percentage of land devoted to residential use grew from 53.7% in 1978 to 55.4% in 1989 and then to 78.2% in 1999. Vacant land in the West End declined from 4.9% in 1978 to 1.1% in 1999. The amount of vacant land in the other peninsula neighborhoods is less than 7%.

Since 1978, the percentage of land occupied by commercial uses in the central business district increased from 30.8% to 40.2%, while at the same time the percentage of land area in industrial uses declined to 10.5%. The St. John Street area follows similar trends as the downtown with more land occupied by commercial uses (up to 30.6% in 1999) and less land devoted to industrial use (down from 70% in 1989 to 11% in 1999). The amount of land occupied as tax-exempt uses grew from 16.2% to 42.6% in the St. John Street neighborhood. The shift to more tax-exempt property in this neighborhood is due to the new Cumberland County jail and other institutional expansions.

Table 4
Percent of Total Land Area Occupied by each Land Use Category for 1978, 1989, and 1999
Listed According to Neighborhood and Island
Portland, Maine
Based on Portland Tax Assessor Reports

	East Deering			Deering Rosemont			Morrill's Corner			Oakdale			Woodfords		
	1978	1989	1999	1978	1989	1999	1978	1989	1999	1978	1989	1999	1978	1989	1999
% Residential	35.5%	39.1%	77.6%	46.4%	48.8%	86.2%	13.2%	16.6%	51.2%	41.7%	42.4%	67.8%	56.6%	57.5%	89.4%
% Seasonal	0.3%	5.6%	0.2%	0.9%	0.5%	0.3%	2.5%	1.1%	0.5%	0.2%	0.3%	3.0%	0.5%	0.2%	0.1%
% Accessory	7.9%	11.6%	5.4%	3.6%	4.5%	3.5%	8.3%	12.1%	9.1%	10.7%	10.2%	17.4%	4.6%	4.7%	1.6%
% Commercial	14.4%	10.1%	6.5%	0.5%	1.8%	1.7%	21.4%	27.8%	16.1%	0.2%	0.2%	0.4%	1.7%	10.8%	4.6%
% Industrial	24.3%	19.1%	3.9%	10.6%	6.3%	2.8%	18.5%	21.2%	14.7%	1.5%	1.2%	1.7%	13.0%	7.5%	2.5%
% Vacant	17.6%	14.5%	6.4%	37.9%	36.7%	5.4%	36.0%	21.2%	8.5%	45.6%	45.7%	12.4%	23.5%	19.3%	1.9%
% Tax Exempt															

	Nason's Corner			North Deering			Riverside			Riverton			Stroudwater		
	1978	1989	1999	1978	1989	1999	1978	1989	1999	1978	1989	1999	1978	1989	1999
% Residential	43.2%	49.0%	63.1%	39.9%	52.3%	77.7%	15.2%	5.9%	44.1%	30.2%	36.5%	70.8%	14.6%	16.7%	17.5%
% Seasonal	0.2%	0.2%	0.2%	1.5%	0.5%	0.3%	1.1%	0.1%	0.1%	0.4%	0.1%	0.2%	16.0%	0.2%	0.0%
% Accessory	13.1%	15.8%	12.6%	3.4%	3.7%	2.5%	11.7%	15.9%	14.3%	6.7%	9.0%	7.1%	17.1%	9.9%	23.1%
% Commercial	7.5%	8.4%	6.5%	1.1%	1.2%	0.2%	11.5%	23.0%	20.8%	7.7%	14.1%	7.7%	6.9%	9.8%	10.4%
% Industrial	22.6%	14.2%	7.1%	36.5%	22.9%	11.4%	22.7%	15.8%	10.0%	44.9%	32.1%	11.9%	47.7%	36.5%	24.3%
% Vacant	13.3%	12.4%	10.5%	17.7%	19.4%	7.8%	37.8%	39.3%	10.7%	10.2%	8.2%	2.2%	24.6%	26.9%	24.7%
% Tax Exempt															

Table 4 Continued

	Central Business District			East End			St. John			Westend		
	1978	1989	1999	1978	1989	1999	1978	1989	1999	1978	1989	1999
% Residential	7.9%	8.5%	10.5%	30.9%	31.3%	32.8%	4.8%	5.3%	11.7%	53.7%	55.4%	78.2%
% Seasonal	0.1%	0.01%	0.04%	0.8%	0.4%	0.6%	0.1%	0.1%	0.0%	0.6%	0.6%	0.3%
% Accessory	30.8%	28.3%	40.2%	12.0%	13.1%	12.6%	10.7%	12.5%	30.6%	10.0%	10.7%	5.6%
% Commercial	17.9%	13.3%	10.5%	7.2%	8.0%	7.7%	65.9%	69.8%	10.9%	2.6%	0.9%	0.6%
% Industrial	4.5%	2.3%	3.7%	10.3%	9.4%	7.0%	2.3%	2.4%	4.3%	4.9%	3.3%	1.1%
% Tax Exempt	38.9%	47.6%	35.0%	38.9%	37.8%	39.3%	16.2%	9.9%	42.6%	30.0%	29.2%	14.2%

PENINSULA

	Cushing Island			Cliff Island			Great Diamond Island			Little Diamond Island			Peaks Island		
	1978	1989	1999	1978	1989	1999	1978	1989	1999	1978	1989	1999	1978	1989	1999
% Residential	3.0%	23.0%	19.9%	26.0%	32.0%	25.9%	53.4%	53.7%	14.9%	0.2%	5.9%	9.9%	9.3%	21.8%	27.9%
% Seasonal	20.8%	23.6%	39.9%	24.2%	27.3%	48.7%	6.3%	35.7%	29.2%	22.0%	22.7%	29.1%	11.1%	16.8%	18.8%
% Accessory	35.6%	53.0%	16.1%	0.9%	2.00%	2.50%	0.4%	0.40%	7.40%	0.0%	1.20%	2.4%	2.8%	3.1%	1.30%
% Commercial	0.2%	0.0%	0.0%	0.2%	0.2%	0.3%	0.1%	0.1%	0.0%	0.3%	0.3%	2.4%	0.8%	1.1%	1.0%
% Industrial	40.4%	20.2%	24.1%	8.7%	7.4%	0.1%	37.2%	7.5%	43.0%	24.1%	44.8%	28.2%	0.2%	1.1%	0.4%
% Vacant	NA	NA	NA	39.0%	30.5%	21.2%	2.6%	2.6%	5.5%	53.6%	25.0%	25.2%	35.3%	33.3%	23.0%
% Tax Exempt	NA	NA	NA	0.9%	0.8%	1.4%	2.6%	2.6%	5.5%	53.6%	25.0%	25.2%	40.3%	23.3%	27.7%

Islands

D. Islands – Existing Land Uses

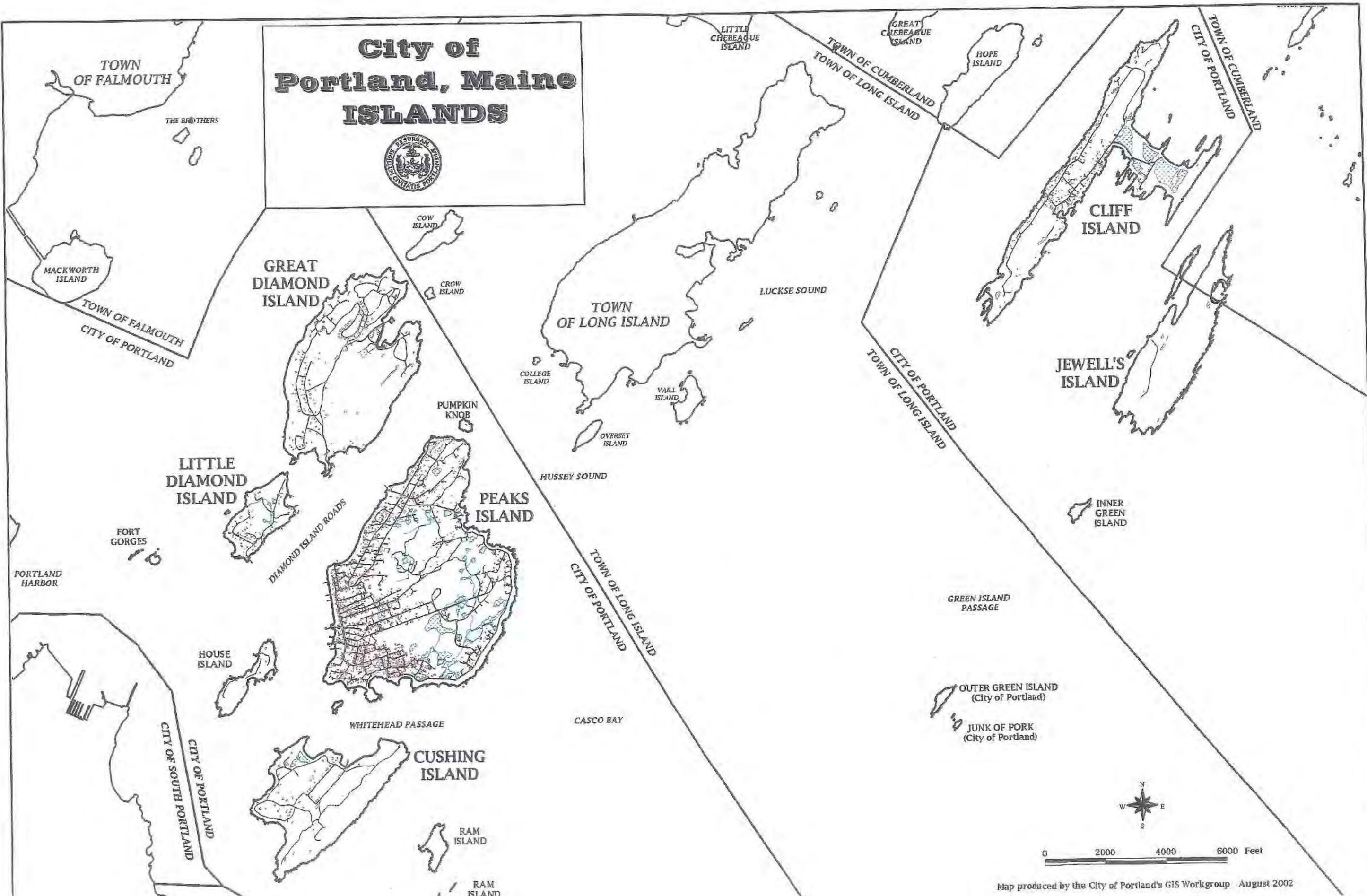
Seasonal housing is the primary land use on the islands and the amount of land dedicated to this use has increased since 1978. On Cliff Island the percentage of land in seasonal use doubled from 24% in 1978 to 49% in 1999 and Great Diamond Island's seasonal use rose significantly from 6% to 29% with the conversion of Fort McKinley to private use. Cushing Island also experienced a significant increase from 21% to 40% since 1978. Little Diamond Island and Peaks Island experienced more modest increases.

Cliff and Peaks Islands have the largest percentage of their total land area categorized under residential use and both of these communities have more year-round residents. The percentage of residential use is 26% on Cliff Island and 28% on Peaks Island. Cushing and Great Diamond Islands have less than 20% of their land in residential use and Little Diamond Island has less than 10%. All of these figures represent a significant increase in the amount of land on islands occupied by residential uses. The rising trend of residential and seasonal use on the islands is reflected in the diminished amount of vacant land on Cushing, Cliff and Peaks Islands. Both Great Diamond and Little Diamond Islands show an overall increase in the amount of vacant land since 1978.

Commercial uses represent a small percentage of the total land area on Cliff, Great Diamond, Little Diamond and Peaks Islands. There have been fluctuations in the amount of land dedicated to business uses, but overall the figures have been relatively stable. Industrial uses on Cliff and Peaks Island have declined. Tax-exempt property increased slightly on Cliff, Great Diamond, and Little Diamond Islands. This may be attributable to recent land conservation efforts on these islands. Peaks' now has 23% of its land as tax-exempt, which is down from 35% in 1978.

An aerial flight of the region in 2000 shows the development patterns on the islands, which is presented for each island on the following four maps (Map #2 Islands, Map #3 Peaks, Map #4 Great Diamond and Little Diamond, Map #6 Cliff, Map #7 Cushing).

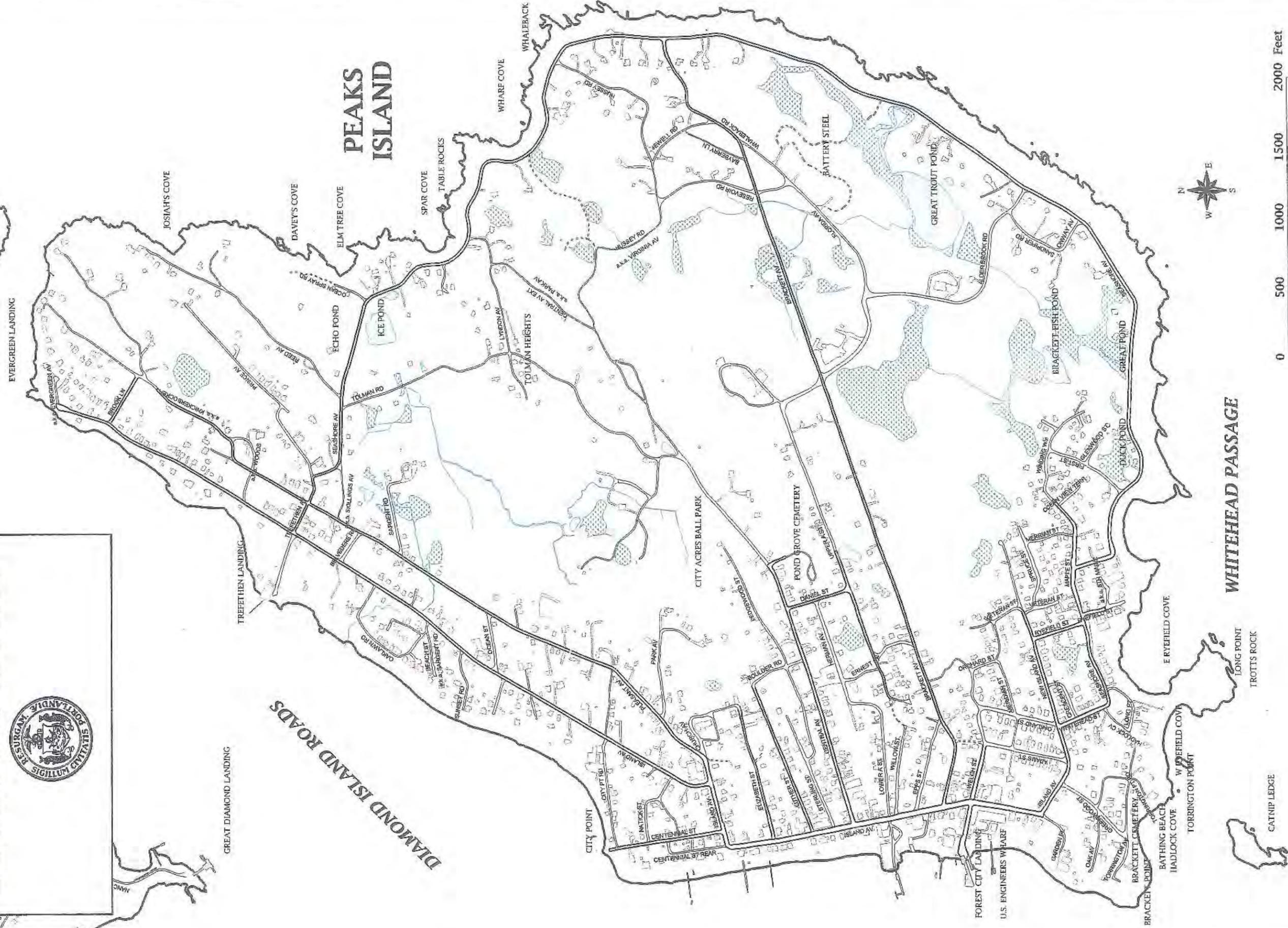
City of Portland, Maine ISLANDS



PEAKS ISLAND Portland, Maine

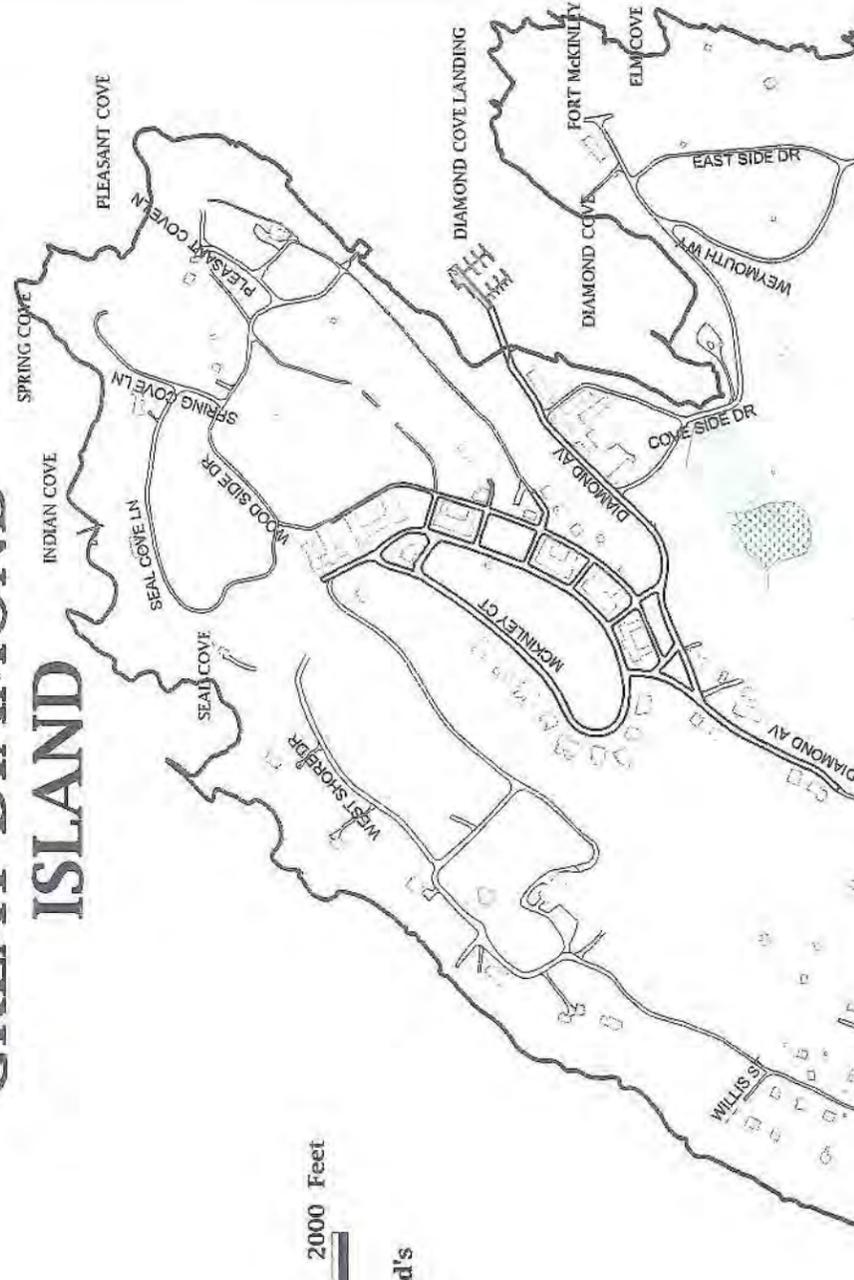


DIAMOND ISLAND ROADS



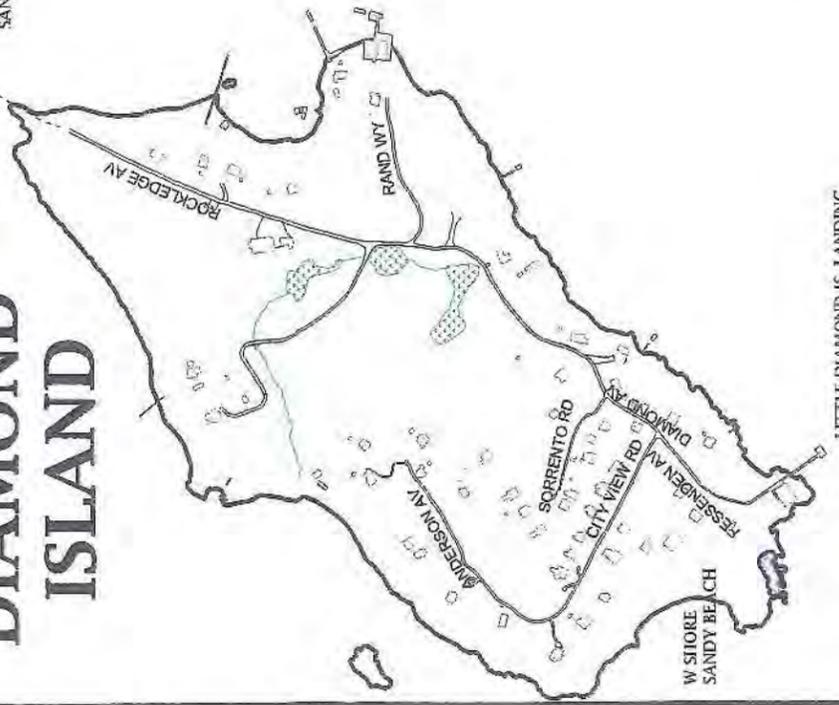
Map produced by the City of Portland's GIS Workgroup
April 2002

GREAT DIAMOND ISLAND



Map produced by the City of Portland's
GIS Workgroup April 2002

LITTLE DIAMOND ISLAND



PEAKS ISLAND



DIAMOND ISLAND ROADS

LITTLE DIAMOND ISLAND & GREAT DIAMOND ISLAND Portland, Maine

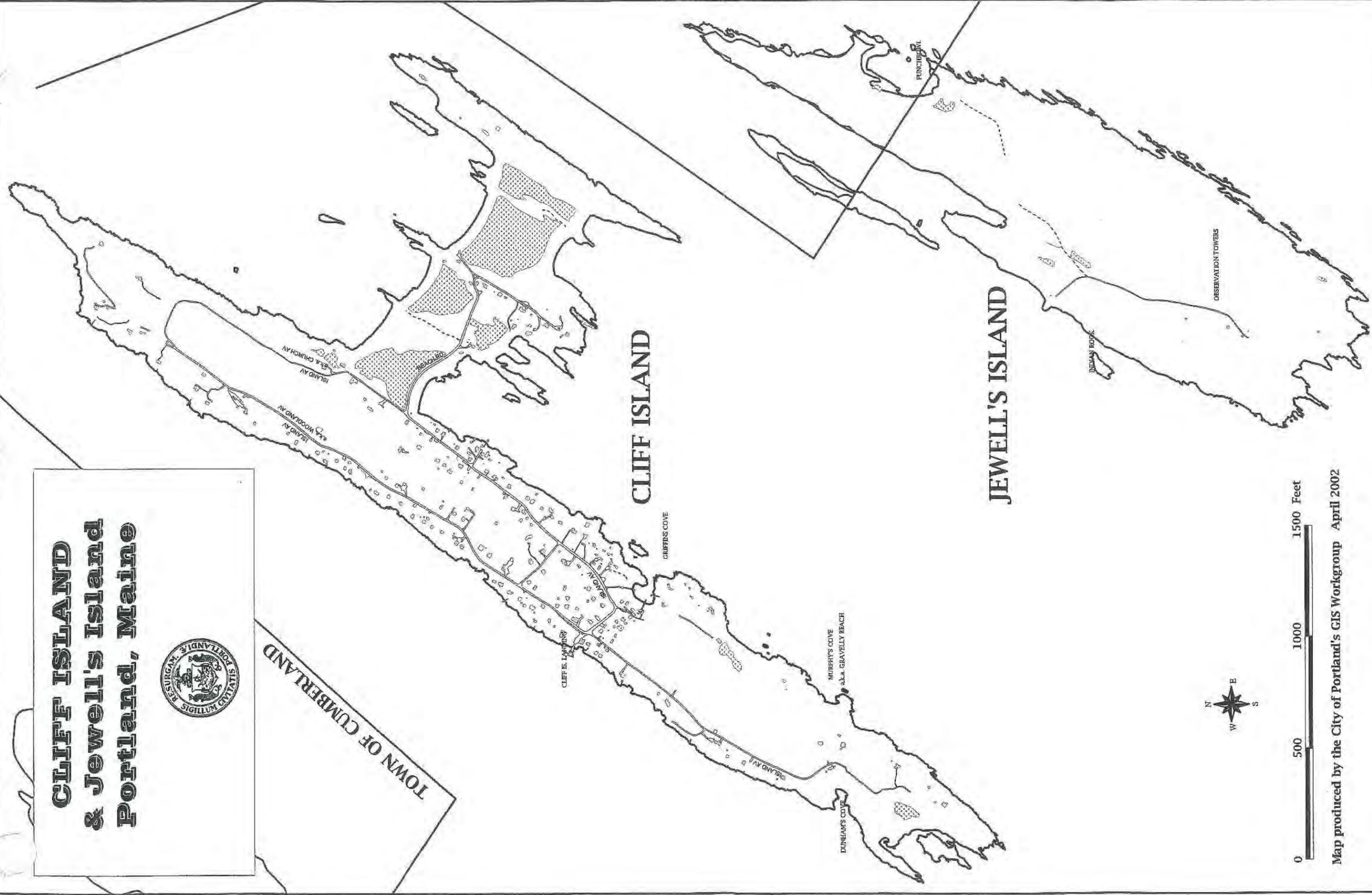


LITTLE DIAMOND IS. LANDING

CLIFF ISLAND & Jewell's Island Portland, Maine



TOWN OF CUMBERLAND



0 500 1000 1500 Feet



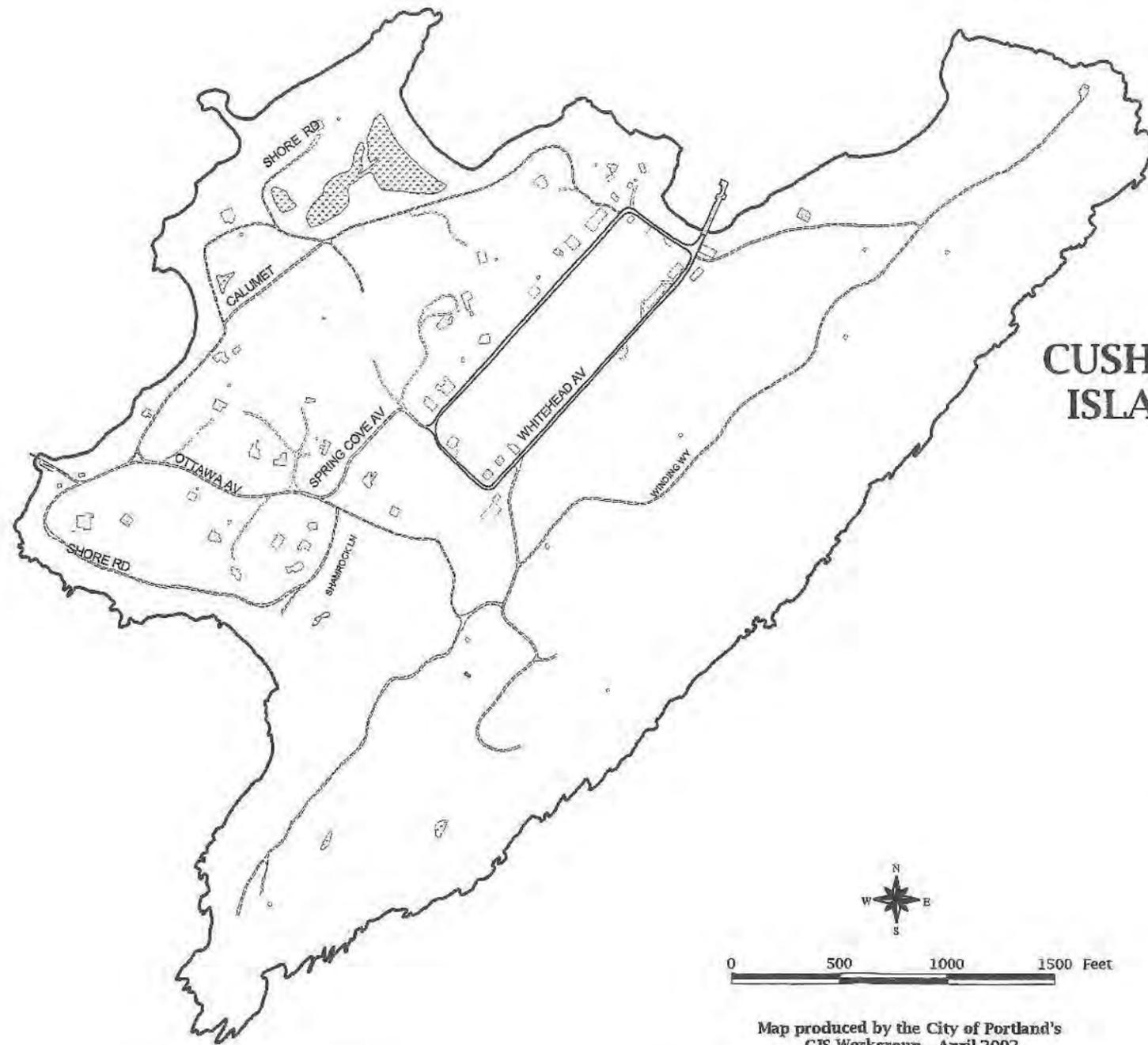
Map produced by the City of Portland's GIS Workgroup April 2002

**CUSHING ISLAND
& RAM ISLAND
Portland, Maine**



**CUSHING
ISLAND**

RAM ISLAND



0 500 1000 1500 Feet

Map produced by the City of Portland's
GIS Workgroup April 2002

IV. TOTAL LAND AREA BY EXISTING ZONING CLASSIFICATION

Portland's zoning code has grown from eight zones in 1926 to 30 classifications, plus contract zones, in 2002. Table 5 on the following page presents the total land area within each zone on the mainland. Map #8 is the zoning map, as of June, 2002.

Table 5

Total Land Area in Each Zoning Classification		
ZONING	Total area/zone acres	Percentage of Total Land Area
Airport Business AB	231.1	1.96%
Neighborhood Bus. B-1	61.4	0.52%
Neighborhood Bus. B-1b	1.5	0.01%
Community Bus. B-2	383.7	3.26%
Community Bus. B-2b	119.2	1.01%
Downtown Bus. B-3	198.0	1.68%
Downtown Bus. B-3c	5.1	0.04%
Commercial Corridor B-4	405.0	3.44%
Urban Comm. Mixed Use B-5	215.8	1.83%
Urban Comm. Mixed Use B-5b	23.0	0.20%
Business Zones Subtotal	1,643.8	13.95%
Contract Zones	83.9	0.70%
Industrial IH	65.2	0.55%
Industrial IL	329.7	2.80%
Industrial ILb	31.0	0.26%
Industrial IM	1,307.7	11.21%
Industrial IMb	21.0	0.18%
Industrial Zones Subtotal	1,754.7	14.91%
Office Park	166.6	1.42%
Residence Professional	76.8	0.65%
Office Zones Subtotal	243.4	2.07%
Residential R1	166.2	1.41%
Residential R2	959.8	8.16%
Residential R3	3,014.8	25.64%
Residential R4	78.2	0.66%
Residential R5	1,525.0	12.97%
Residential R5a	16.7	0.14%
Residential R6	568.4	4.83%
Residential Zones Subtotal	6,329.1	53.81%
Recreation Open Space	1,013.9	8.26%
Resource Protection Zone	382.1	3.25%
Open Space Zones Subtotal	1,396.0	11.87%
Waterfront Central Zone WCZ	92.9	0.79%
Waterfront Port Develop.WPDZ	180.0	1.53%
Waterfront Special Use WSUZ	36.0	0.31%
Waterfront Zones Subtotal	308.9	2.63%

Source: GIS Workgroup within the Department of Public Works. Table 5 only includes mainland information. Island data is under development.

The zoning map for the islands is included as Map # 9. There are three island residential zones, one island business zone, and the island transfer station overlay zone. The other zones located on the islands include the Recreation and Open Space Zone, the Resource Protection Zone, and the Shoreland Protection Zone. The majority of the land on each island is zoned for residential uses.

V. VACANT LAND AND DEVELOPABLE LAND

A. Total Vacant Land

Portland has a limited supply of vacant land for future development. Portland has 4,050 vacant parcels with a total area of approximately 1,277 acres.⁴ The vacant parcels range in size from a tiny piece of land with 140 square feet to the largest parcel with 855,388 square feet (roughly 20 acres). The average size of a parcel is 13,735 square feet. These numbers reflect the small and scattered nature of vacant sites in Portland, although there are some opportunities to combine lots to create larger parcels. The distribution of vacant parcels in Portland is shown on Vacant Land and Constraints Map (Land Use Map # 10). Except for a significant sized area at the western end of the peninsula (proposed site for Mercy Hospital and 1-295 connector), most of the larger parcels or adjoining vacant lots are found in the outer-ring neighborhoods.

B. Land Suitable for Development

1) Mainland

Using the City's GIS system, vacant land within each zoning category was determined and land that may potentially be constrained for development was deducted from the total. It should be noted that all of the following calculations are estimates based on parcel-based statistics. Where over half of a parcel was constrained by one or more of the following constraints, the area of the parcel was deducted from land suitable for development. This information is very general in nature and is to be used for comprehensive planning purposes only. More detailed assessments and land surveys of properties are required prior to any regulatory determination about the suitability or the lack of suitability of land for development.

The factors deducted as possible constraints include the following:

- Areas potentially constrained by the presence of wetlands identified by the National Wetlands Inventory (NWI);
- Land within the 100 year floodplain;
- Land zoned for Resource Protection or Recreation and Open Space;
- Areas within the first 75 feet of the Shoreland Zone; and
- Land with steep slopes.

Based on this analysis of constraints, the total amount of vacant land potentially suitable for development is 1131 acres, which is 89% of the total amount of city land classified as vacant. Soil suitability was not evaluated as a potential constraint, because most of Portland's mainland is served by a sewer system. The City requires that any development within 200 feet of a sewer line be connected into the system. The City calculated the quantity of vacant land located beyond 200 feet of a sewer line as a potential additional constraint to development. It is estimated that of the 1,131 acres of

⁴ Vacant land estimates prepared by Jon Giles, GIS Coordinator, Department of Public Works, based on 1998 Tax Assessors figures for vacant land. All new developments built or under construction since 1998 were removed from these figures, thus this number is lower than the 1999 Tax Assessor's figures on the previous charts. This lower figure is used for the assessment of land suitable for development.

suitable land for development, only 275 acres lies beyond 200 feet of a sewer line. Thus, 875 acres or 77% of the developable land can easily connect into the City's sewer system. The City encourages new development to extend lines and connect into the City's system where possible. There is sufficient capacity to accept more development. The vacant land suitable for development is shown on Map # 10 and a tally is found in Table 7.

2) Islands

Based on the Tax Assessor's records, the percent of total land area classified as vacant and the total amount of acreage of vacant land for each island in 1999 is listed in Table 6. As stated earlier, the amount of vacant for Cushing, Cliff and Peaks has declined over the decades. Peaks Island has the largest quantity of vacant land with 128.2 acres. Great Diamond Island has 57.7 acres and Cliff has 31.9 acres. Both Cushing and Little Diamond have roughly 18 acres of vacant land. A mapping analysis of land constraints on the islands, similar to the one above for the mainland, is not available at this time. However, the potential impacts of development were evaluated in the Island Groundwater Study and the recommendations to manage development in order to preserve water quantity and quality are incorporated in the zoning code.

Table 6

Vacant Land on the Islands				
	Percent of Total Island Area			1999 Vacant
	1978	1989	1999	Land Acres
Cushing	40.4%	20.2%	24.1%	18.7
Cliff	39.0%	30.5%	21.2%	31.9
Great Diamond	37.2%	7.5%	43.0%	57.7
Little Diamond	24.1%	44.8%	28.2%	18.1
Peaks	35.3%	33.3%	23.0%	128.2

Source: Portland Planning & Development Department based on Tax Assessor's Data 1978, 1989, & 1999

C. Vacant Land Suitable for Development by Zoning Classification

1) Mainland

The majority of the vacant land suitable for development is found within residential zones. Within all of the residential zones, there is a total of 617 acres of vacant land suitable for development or if land beyond 200 feet of a sewer is excluded, then there is 525 acres. The R-3 zone has the largest share of vacant land with 397 acres, followed by 106 acres in R-5 and 92 acres in R-2. The other zones have very limited amounts of vacant land. The amount of vacant land suitable for development is listed in Table 7.

Portland does have vacant land in all of its non-residential zones, except for the waterfront. The next largest quantity of vacant land falls within the industrial zones with 350 acres of land. Roughly 125 acres of the total are beyond 200 feet of the sewer line. The medium intensity I-M zone has the largest share of vacant land with 183 acres, followed by 101 acres in the I-H and 58 acres in the I-L. Within the business zones there is 126 acres of vacant land. The business zones are well served by sewer, since only 2 acres extend beyond 200 feet. The two office zones have the least amount of vacant land and these parcels have sewer service. The waterfront zones do not have any vacant parcels according to the Assessor's records, but redevelopment of under-utilized sites is occurring.

Table 7

Vacant Land Suitable for Development		
Zone Classification	Number of Lots	Land with Potential for Development*
Business Zones		
AB	3	3.78
B1	24	4.07
B1b	0	0.00
B2	27	8.59
B2b	33	3.13
B3	39	2.99
B3c	1	0.03
B4	94	86.17
B5	56	16.57
B5b	2	0.27
B1b	0	0.00
Subtotal		125.59
Office Zones		
OP	4	38.76
RP	6	0.52
Subtotal		39.28
Waterfront Zones		
WCZ/VPDZ/WSUZ	0	0.00
Subtotal		0.00
Industrial Zones		
IL	103	57.67
ILb	8	3.15
IM	120	183.03
Imb	3	4.05
IH	23	101.31
Subtotal		349.21
Residential Zones		
R1	4	1.87
R2	637	91.77
R3	1935	397.16
R4	9	1.33
R5	510	106.47
R5a	4	2.53
R6	182	15.75
Subtotal		616.89
Totals		1130.97

2) Islands

Most of the islands are included within island residential zones, with limited business areas on each island. Refer to Map #9 for the official island zoning. The distribution of vacant land in each zone on the islands cannot be determined at this time⁵, however, it is assumed that the majority of the vacant land on the islands is located within one of the three island residential zones.

Public concerns about development and impacts on water quality on the islands were evaluated in the Island Groundwater Study. In general, septic systems are used for island homes, except for portions of Peaks and Great Diamond Islands that are served by sewers. The City conducted an Island Groundwater Study in order to protect this island resource in terms of both quantity and quality. One of the major considerations in this report is the impact of septic systems on groundwater quality. Based on this report, a series of island zoning amendments were enacted to guide development, establish appropriate lot sizes, and eliminate undersized lots (known as grandfathered lots). Refer to the chapter on Environmental Resources for a more in-depth discussion of this report.

D. Residential Growth Projections and Build-out Scenario for Residential Uses based on Vacant Land on the Mainland

A straight-line projection of current population trends indicates that if Portland maintains its current trend of a stable or no-growth population, then Portland's share of Cumberland County's population would drop to 22%. Portland's trend mirrors what is occurring in Maine's other service centers.⁶ Concurrently, there is an on-going increase in the number of households forming in Portland, particularly one and two-person households. Under the existing trends, approximately 1,800 new housing units (both renter and owner-occupied) would be needed to meet the growing demand for housing units and to maintain reasonable vacancy rates. The population and housing growth rates for the current trends, moderate growth and high growth are presented in Table #8.

Vacant land suitable for development is limited in Portland, thus, infill development will be the primary form of new residential development in the city. To determine the residential build-out potential in Portland, the vacant land suitable for development as defined above is estimated for each residential zone and several business zones that permit housing. The Estimated Build Out of Residential Units, Table #9, lists the number of parcels, land area, minimum lot size requirements and the estimated number of single-family, two-family and multi-family units that could be created in each zone. The projection assumes each vacant parcel will be developed to its maximum potential for housing units. Based on these assumptions, it is estimated that there is land to support the creation of 5,273 additional units of housing under the current residential zoning provisions.

⁵ The islands are being surveyed and base maps created for the City's Geographic Mapping System. This project is not complete at this time.

⁶ Maine's Economic Growth Council recently published *Measures of Growth 2002* (by the Maine Foundation), which reports that Maine's service centers are losing their share of a region's population, as households leave urban centers. In 2000, only 44% of Maine's population lived in service centers, which is down from 60% forty years ago. The Council is recommending that Maine strive to attract people to live in service centers and raise the percentage from 46% in 1995 to 50% in 2010.

Table 8

Population & Housing Benchmarks in the City of Portland

Factors	2000	2010 - Current Trends	2010 Moderate Growth	2010 High Growth
Population of County	265,612	289,517	289,517	289,517
Population	64,358	65,141	72,379	75,274
% of County Living in Portland	24.2%	22.5%	25.0%	26.0%
Population in Group Quarters	2,443	1,954	2,171	2,258
% of Population in Group Quarters	3.8%	3.0%	3.0%	3.0%
Population in Households	61,915	63,187	70,208	73,016
Total Occupied Units	29,714	31,303	33,694	35,042
Total Units available for Year Round Occupancy	30,592	32,385	34,859	36,253
Occupied Rental Units	17,097	18,011	19,387	20,163
Total Rental Units Available	17,895	18,959	20,407	21,224
Owner Occupied Units	12,617	13,292	14,307	14,879
Total Owner Units Available	12,697	13,426	14,451	15,030
Persons per Household	2.08	2.02	2.08	2.08
Persons in Rental Units	1.84	1.78	1.84	1.84
Persons in Owner Occupied Units	2.41	2.34	2.41	2.41
Population in Rentals	31,493	32,140	35,711	37,139
Population in Ownership Units	30,422	31,047	34,497	35,877
% of Population in Rentals	51%	51%	51%	51%
% of Population in Ownership Units	49%	49%	49%	49%
Rental Vacancy		5%	5%	5%
Owner Vacancy		1%	1%	1%
Total Units		1,793	4,267	5,661
Needed Rental Units		1,064	2,512	3,329
Needed Owner Occupied Units		729	1,754	2,333
Rental Units	58.5%	58.5%	58.5%	58.5%
Home Ownership Units	41.5%	41.5%	41.5%	41.5%
Rental Occupied Units	57.5%	57.5%	57.5%	57.5%
Ownership Occupied Units	42.5%	42.5%	42.5%	42.5%

Table 9

Estimated Build Out of Residential Units in Residential and Business Zones											
Based on the Amount of Vacant Land without Constraints and Existing Zoning Densities for Residential Development											
Zone Type	Count	Area (sq.ft.) including land beyond 200 feet of a sewer line	Area (acres)	Minimum lot size Single Family Detached	New Constr. 2-family	Multiplex	Mixed use	Estimated # of Single Family Units	Estimated # of 2-Family Units	Estimated # of Multi-Family Units	Estimated Maximum number of SF units of SF and MF
Residential Zones											
R1	1	81,428.62	1.87	15,000				5.43			5.43
R2	320	3,997,557.63	91.77	10,000				399.76			399.76
R3	1592	17,300,493.19	397.16	6,500				2,661.61			2661.61
R4	9	58,093.90	1.33	6,000	6,000	000-3000/unit		9.68	19.36	19.36	19.36
R5	391	4,637,742.64	106.47	6,000	6,000	3 A.-3000/unit		772.96	1545.91	1545.91	1545.91
R5a	1	110,162.85	2.53	6,000	6000 (2 & 3 fam)	3A.- 1600/unit		18.36	36.72	68.85	68.85
R6	188	686,267.78	15.75	4,500	4,500	1000 /1200*		152.50	305.01	571.89	571.89
SUBTOTALS								4,020.30	1907.01	660.11	5272.81
Business Zones											
B1	25	177,257.78	4.07				1,000			177.26	
B1b	none	none	none								
B2	21	374,183.50	8.59				1,000			374.18	
B2b	33	136,243.54	3.13				1,000			136.24	
B3	78	130,243.06	2.99								
B3c	1	1,218.44	0.03								
RP	6	22,723.02	0.52								
SUBTOTALS								Subtotals			
								687.68			
TOTALS											
								TOTALS RESIDENTIAL AND BUSINESS			
								5,960.49			

* 1000 sq. ft/ unit for first 3 and then 1200 for each additional unit. Used 1,200 for calculation.

Housing is also permitted in some of the city's business zones. An estimated 688 units could be created in business zones, thus the projected new residential capacity total number rises to 5,960 housing units. This is a conservative projection in that it does not include any estimates for high density development that could occur in the downtown (B-3 zones do not have any minimum residential requirements), nor any estimates for the RP zone which takes its minimums from the adjoining residential zone. Table #9 presents the estimated vacant land amounts and potential build out according to current zoning regulations. Based on build-out scenario for residential uses, Portland could accommodate up to 5,900 new housing units in its residential zones under current regulations.⁷

VI. REDEVELOPMENT POTENTIAL

Portland is taking a pro-active role to encourage redevelopment of areas that are underutilized. Specifically, there are plans for the redevelopment of Bayside and the Eastern Waterfront. Each plan supports more intensely developed areas with a mix of residential, business, and non-residential land uses. The underutilized lots are not counted within the vacant land inventory, so the reuse of these areas adds to Portland's land area suitable for development. Following is a brief summary of the existing conditions found in Bayside and the Eastern Waterfront.

BAYSIDE REDEVELOPMENT AREA

A. Bayside General Description

A New Vision for Bayside envisions the transformation of Bayside from an area characterized by disinvestments and urban blight to a new urban gateway for the Portland Peninsula.⁸ The redevelopment of Bayside, a land area larger than the Old Port and core downtown area of Portland combined, is not only important for maintaining a sustainable and competitive local economy, but also to provide good jobs, adequate housing and a reasonable tax burden for Portland citizens.

Bayside presents an opportunity to shape a large land resource of the Portland Peninsula. Bayside is located between I-295, Cumberland Avenue, Franklin Arterial, and Forest Avenue. The Bayside neighborhood has a variety of uses ranging from industrial to commercial and residential. For example, uses include scrap metal yards, warehouse operations, apartment buildings and single-family homes, offices, social service agencies, public works facility, retail facilities, industrial uses, and parking garages/lots. Environmental conditions inhibit further investment, but can be overcome with reasonable and attainable remediation measures. Market forces are favorable as evidenced by recent development, and the community is activated to seize the moment.

⁷ The estimate of vacant land suitable for development includes deductions for the following: flood plains, 75 foot shoreland setback, NWI classified wetlands, steep slopes, and areas beyond 200 feet of a sewer line. Thus the estimate for suitable vacant land is a conservative estimate of Portland's buildable area. This is a very preliminary estimate and more refinement of this information is needed.

⁸ A New Vision for Bayside, Book One: The Plan. Mayor Nicholas Mavodones Jr. cover letter.

B. Environmental Conditions of the Brownfields Project Area⁹

In 1996, the City of Portland obtained funding from the U.S. Environmental Protection Agency to undertake a Brownfields Pilot Project. The Brownfields initiative provides an opportunity to assess environmental conditions and revitalize industrial land that is underutilized or idle. The City of Portland designated a 10 lot, 14 acre parcel between Lancaster Street and Marginal Way as the Brownfields project area. Much of the area has an industrial heritage and is vacant or underutilized. The Brownfield Project area is within the Bayside neighborhood.

Site Assessment: The site assessment included soil borings drilled at seven locations in November 1997 and test pits were excavated at ten locations in October 1998. Soil samples were subjected to field observation and screening, and selected samples were analyzed for volatile organic compounds (VOC's), polycyclic aromatic hydrocarbons (PAHs), PCBs, total petroleum hydrocarbons (TPH), and metals.

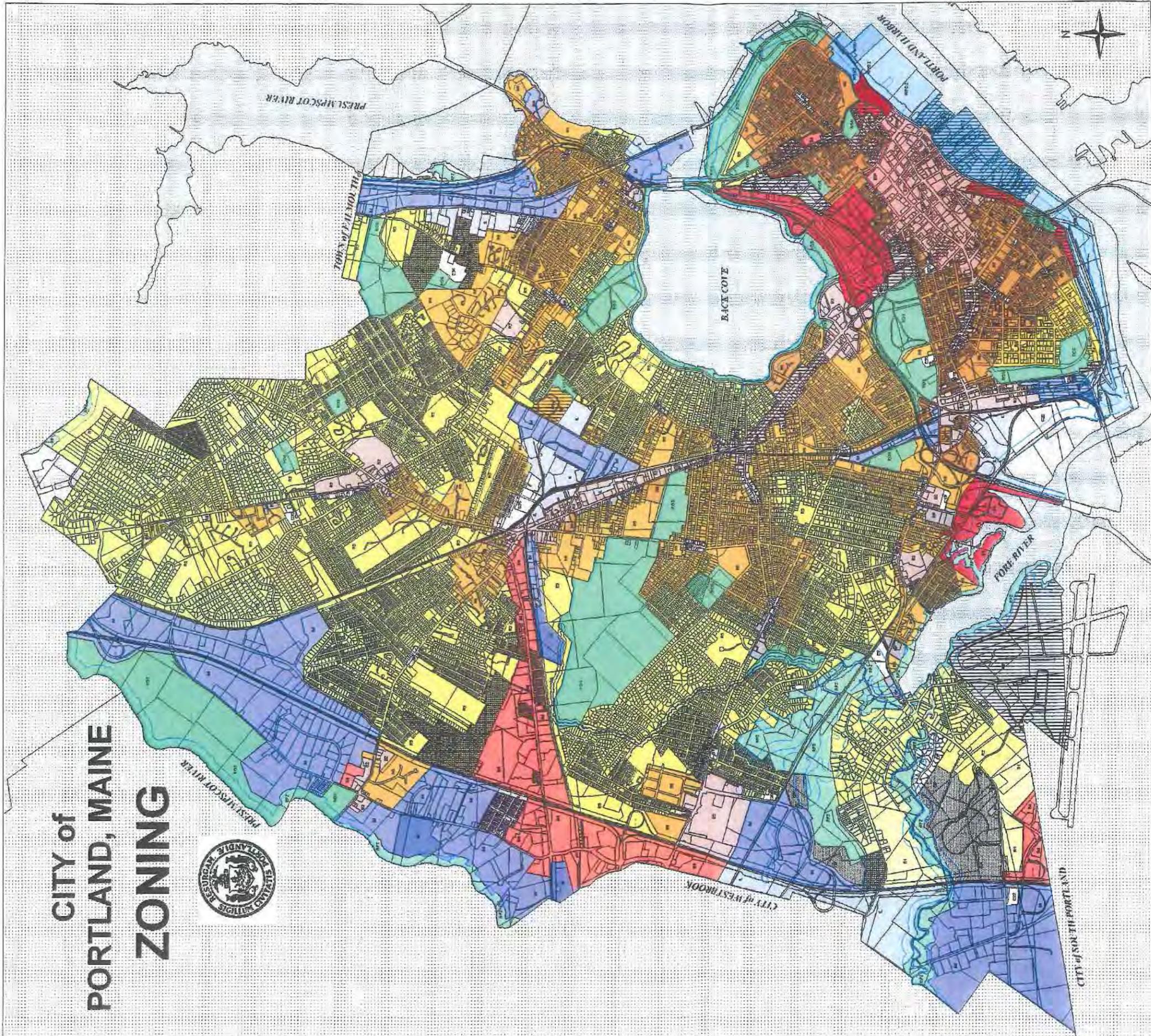
Hydrogeologic Conditions: The geology of the Brownfields site consists of three units: 1) mixed fill deposits that represent materials dumped into Back Cove in the 18th, 19th, and early 20th centuries; 2) natural deposits of sand and gravel that represent former beach and bay deposits; and 3) glacial marine silt and clay which were deposited during glacial retreat 13,000 years ago. The depth of the water table ranges from 6 to 10 feet and it flows to the west toward Back Cove

Environmental Conditions: Subsurface soil data collected at the site in 1997 and 1998 indicate that historic and ongoing industrial operations have lead to the following site conditions:

- **PAHs** are present at low to moderate concentrations in shallow fill soils. The presence of coal, coal ash, petroleum residue, creosote, and burn debris have imparted a black color and elevated levels of PAH to shallow soils. The dark color and concentration of PAHs tends to diminish with depth. The silt/clay unit appears to be relatively free of contamination.
- **TPH** is ubiquitous in shallow fill soils. TPH levels tend to be highest in samples from the right-of-way of former railroad tracks and from within former scrap metal yards.
- **VOCs** are present at elevated concentrations in shallow soils at one boring location on the east side of Kennebec Street. The principal VOC detected was trichlorethylene (TCB), a degreasing solvent. The presence of TCE at that locations is attributed to former or present scrap metal recycling operations.
- **Metals** occur naturally in soils. Concentrations of arsenic and lead that exceed background levels are present at boring locations on Kennebec Street and in test pits on Somerset Street.

⁹ Bayside-Environmental Assessment. The three-firm team of Tewhey Associates (environmental), Terrance J. DeWan & Associates (redevelopment) and Pierce Atwood (legal) undertook a multi-phased assessment and planning process which is the Portland Brownfields Project.

CITY of PORTLAND, MAINE ZONING



ZONING

RESIDENTIAL
R1 R2 R3 R4 R5 R6

RESIDENTIAL PROFESSIONAL
RP

NEIGHBORHOOD BUSINESS
NB1 NB2 NB3 NB4

COMMUNITY BUSINESS
CB1 CB2 CB3 CB4

DOWNTOWN BUSINESS
DB1 DB2 DB3

COMMERCIAL CORRIDOR BUSINESS
CB

URBAN COMMERCIAL BUSINESS
UB1 UB2 UB3 UB4

AIRPORT BUSINESS

AB

OFFICE PARK

OP

INDUSTRIAL - LOW IMPACT

IL1 IL2 IL3

INDUSTRIAL - MODERATE IMPACT

IM1 IM2 IM3

INDUSTRIAL - HIGH IMPACT

IH

WATERFRONT

WF1 WF2 WF3 WF4

RECREATION OPEN SPACE

ROS

RESOURCE PROTECTION ZONE

RPZ

CONDITIONAL CONTRACT ZONING

TYPE	DATE	ADDRESS	STATUS
C1	1988	1000	Active
C2	1988	1000	Active
C3	1988	1000	Active
C4	1988	1000	Active
C5	1988	1000	Active
C6	1988	1000	Active
C7	1988	1000	Active
C8	1988	1000	Active
C9	1988	1000	Active
C10	1988	1000	Active
C11	1988	1000	Active
C12	1988	1000	Active
C13	1988	1000	Active
C14	1988	1000	Active
C15	1988	1000	Active
C16	1988	1000	Active
C17	1988	1000	Active
C18	1988	1000	Active
C19	1988	1000	Active
C20	1988	1000	Active
C21	1988	1000	Active
C22	1988	1000	Active
C23	1988	1000	Active
C24	1988	1000	Active
C25	1988	1000	Active
C26	1988	1000	Active
C27	1988	1000	Active
C28	1988	1000	Active
C29	1988	1000	Active
C30	1988	1000	Active
C31	1988	1000	Active
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C33	1988	1000	Active
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C36	1988	1000	Active
C37	1988	1000	Active
C38	1988	1000	Active
C39	1988	1000	Active
C40	1988	1000	Active
C41	1988	1000	Active
C42	1988	1000	Active
C43	1988	1000	Active
C44	1988	1000	Active
C45	1988	1000	Active
C46	1988	1000	Active
C47	1988	1000	Active
C48	1988	1000	Active
C49	1988	1000	Active
C50	1988	1000	Active

OVERLAY ZONES

FLEXIBLE HOUSING
FH

RESIDENTIAL R-7
R7

SHORELAND ZONING
SZ

STREAM PROTECTION DISTRICT
SPD

The address of the described zoning districts, and their relative locations are shown on this map. The City Engineer's Office has no responsibility for the accuracy of the information shown on this map. The City Engineer's Office is not responsible for the accuracy of the information shown on this map. The City Engineer's Office is not responsible for the accuracy of the information shown on this map.

STREET

UNSUBSIDIZED STREET
PARCEL
RAILROAD
AIRPORT RUNWAY

Adopted by Portland City Council
January 17, 2001
Effective February 17, 2001
Last revised March 9, 2005

SCALE: 1 INCH = 950 FEET

Map produced by the City of Portland's Department of Planning and Development and the GIS Workgroup

ZONING MAP OF THE CITY OF PORTLAND, ISLANDS

- IR-1
- IR-2
- IR-3
- IR-3B
- L-1
- L-2
- RPZ
- RPZ-1

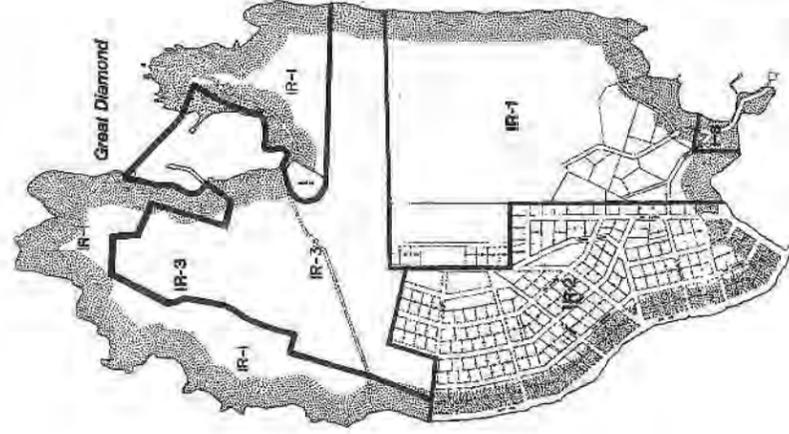
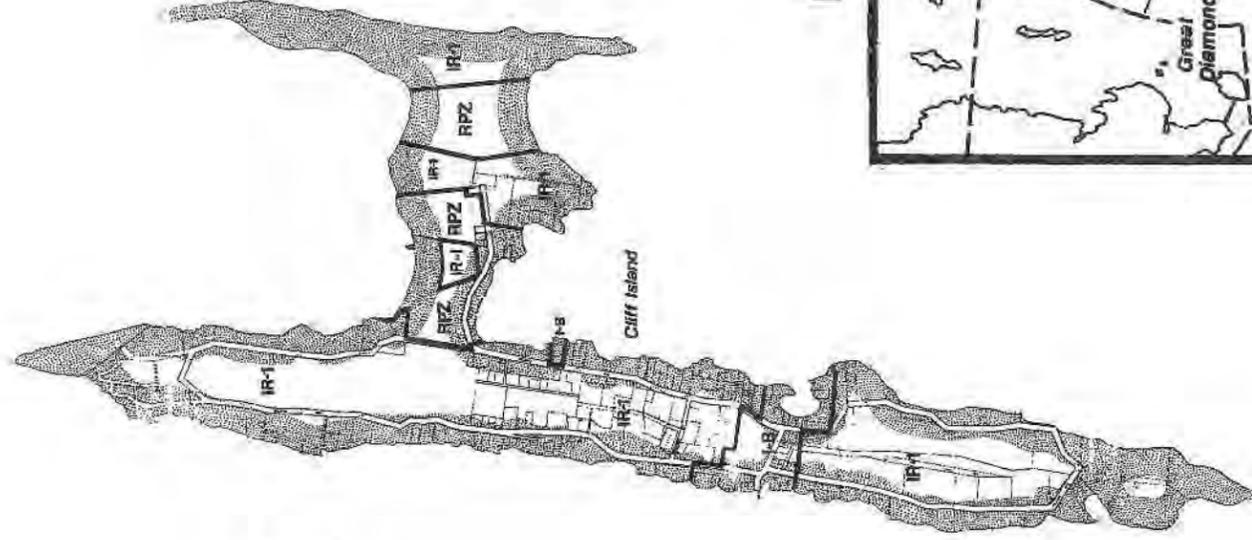
- Island Residential Zone 1
- Island Residential Zone 2
- Island Residential Zone 3
- Island Business Zone
- Recreation and Open Space Zone
- Resource Protection Zone
- Shoreland Protection Zone
- 250 ft. Island from normal high water mark unless otherwise noted

Zoning designations for islands not shown are indicated below:

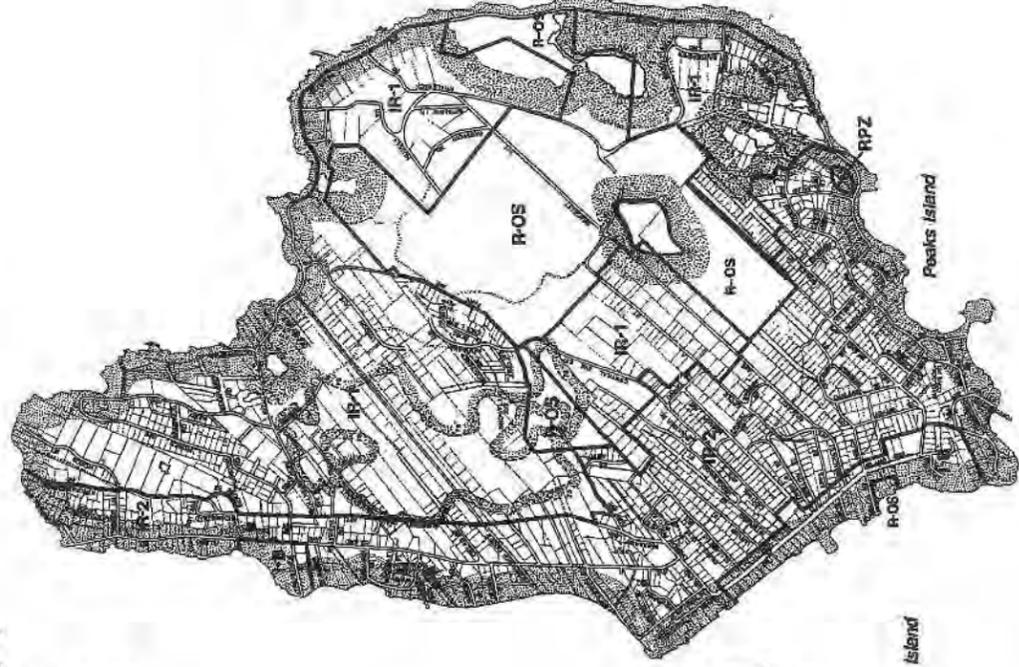
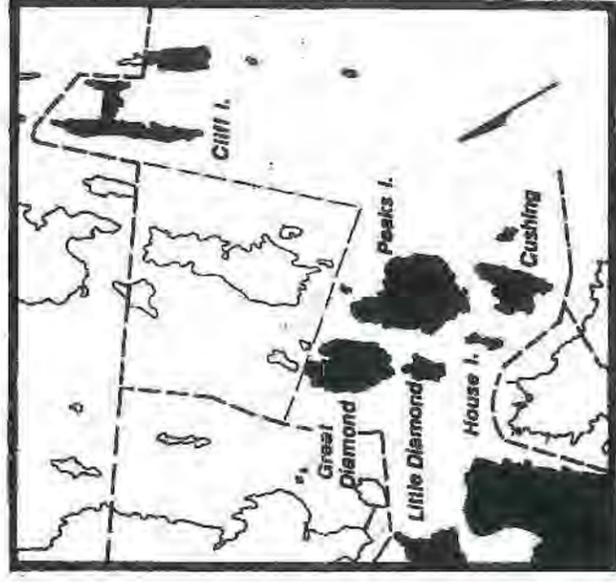
- RPZ -Cats Whiskers
- Diamond Island Ledges
- Fort Georges
- Hope Island
- Inner Green
- Junk of Park
- Marsh Island
- Culter Green
- Rain Island
- R-OS Jewell Island
- IR-1 Pumpkin Knob

Redrawn: 3/19/90
Amendments: 7/15/85
8/17/92

NOTE: THE LOCATION OF THE SHORELAND ZONING DISTRICTS AND STREAM PROTECTION DISTRICTS ARE ILLUSTRATIVE OF THE GENERAL LOCATION OF SUCH ZONES. THE ACTUAL BOUNDARIES OF THESE ZONES ARE SHOWN ON THE SHORELAND ZONING MAP. THE DISTANCE INDICATED ON THE MAP FROM THE NORMAL HIGH WATER LINE OF THE WATER BODY OR THE UP-LAND EDGE OF WETLAND VEGETATION WHERE SUCH DISTRICTS BEGIN TO APPLY IS THE DISTANCE FROM THE LOCATION OF THE BOUNDARIES ON THE ZONING MAP. THE DISTANCE INDICATED SHALL CONTROL UNLESS THE ZONING MAP INDICATES THAT THE ZONE BOUNDARY SHALL FOLLOW AN EXISTING PROPERTY LINE.

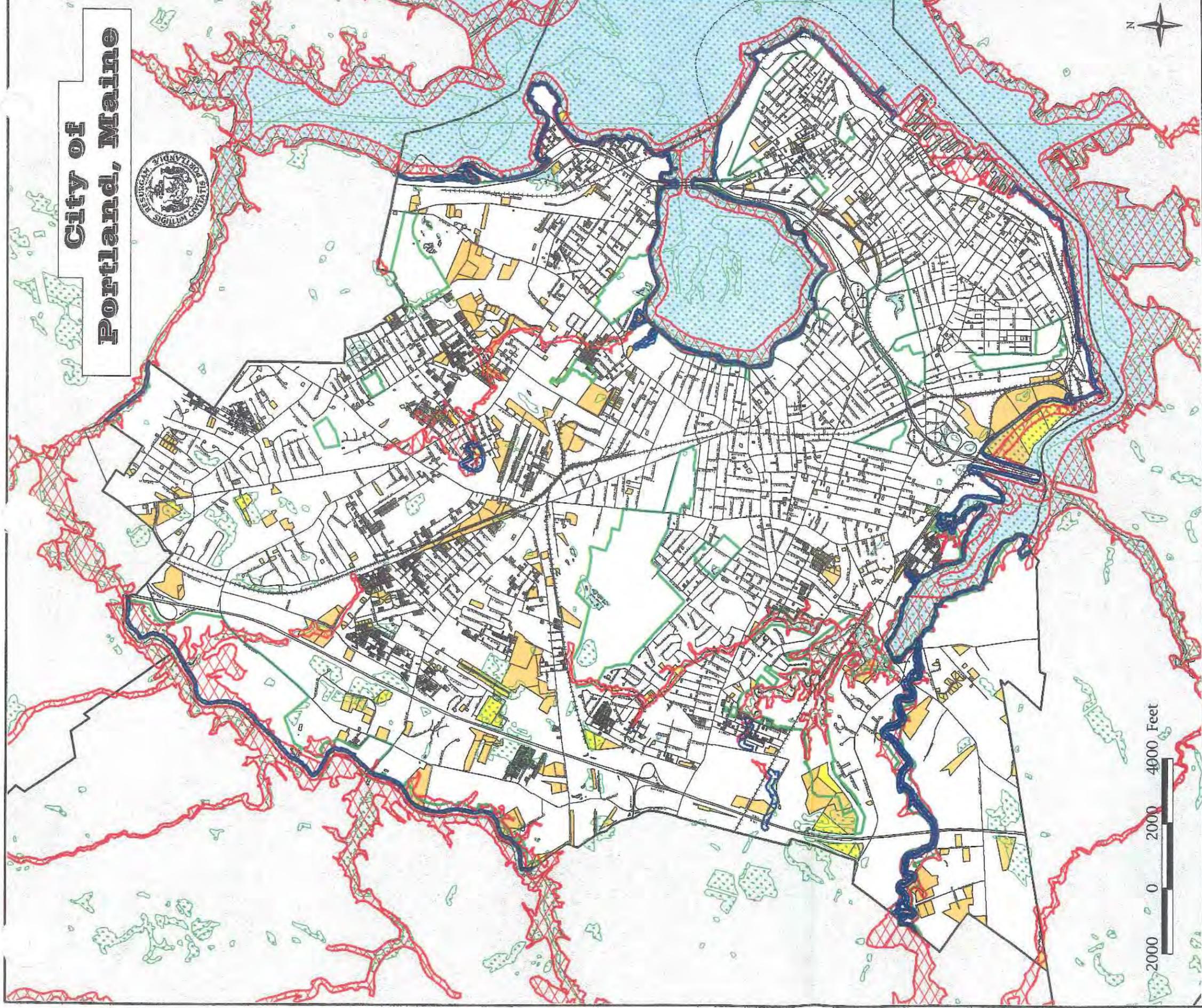


MAP INDEX



Prepared by: DRACON
Graphic Division
March 1990

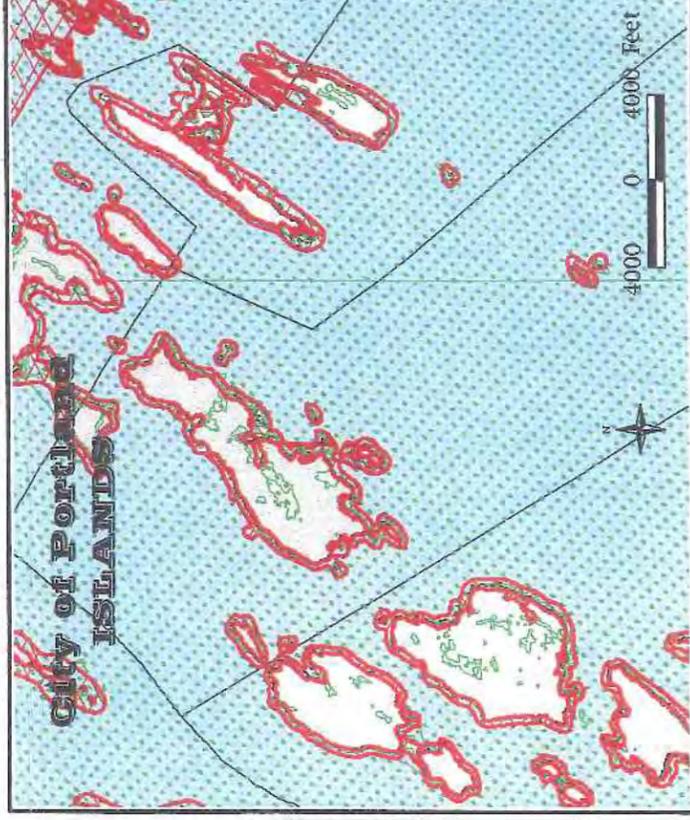
**City of
Portland, Maine**



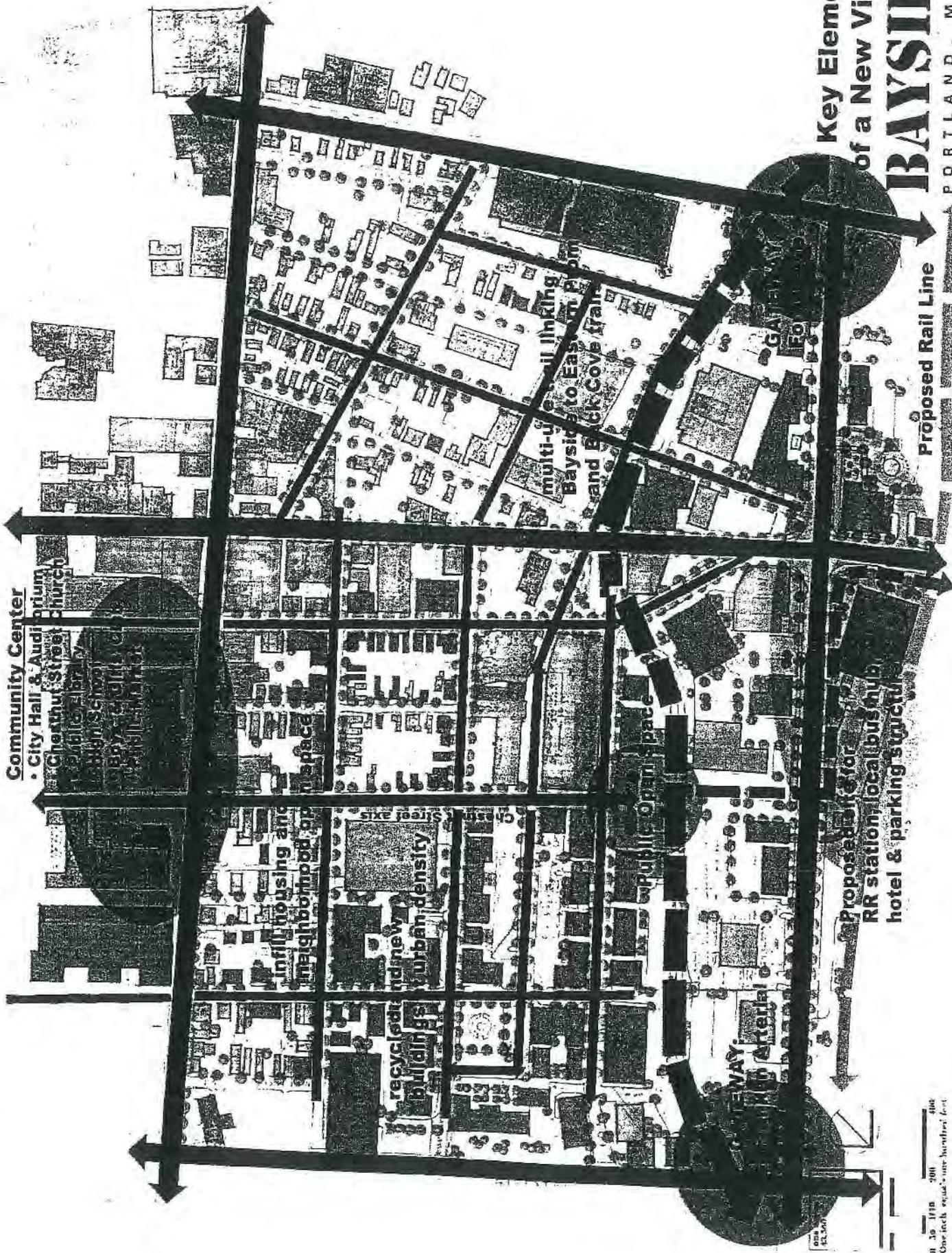
**City of Portland
Vacant Land and
Development Constraints**

LEGEND

- | | | | |
|---|-----------------------------|---|---------------------------------|
|  | 75 ft. Shoreland Buffer |  | ROS/RPZ Zoned Land |
|  | 100 Year Flood Hazard Zones |  | Vacant Land with Constraints |
|  | NWI Wetlands |  | Vacant Land without Constraints |



Key Elements
of a New Vision
BAYSIDE
PORTLAND, MAINE



Community Center

- City Hall & Auditorium
- Chestnut Street Church
- Public Library
- High School
- Boys' and Girls Club

Infill housing and neighborhood open space

recycling buildings

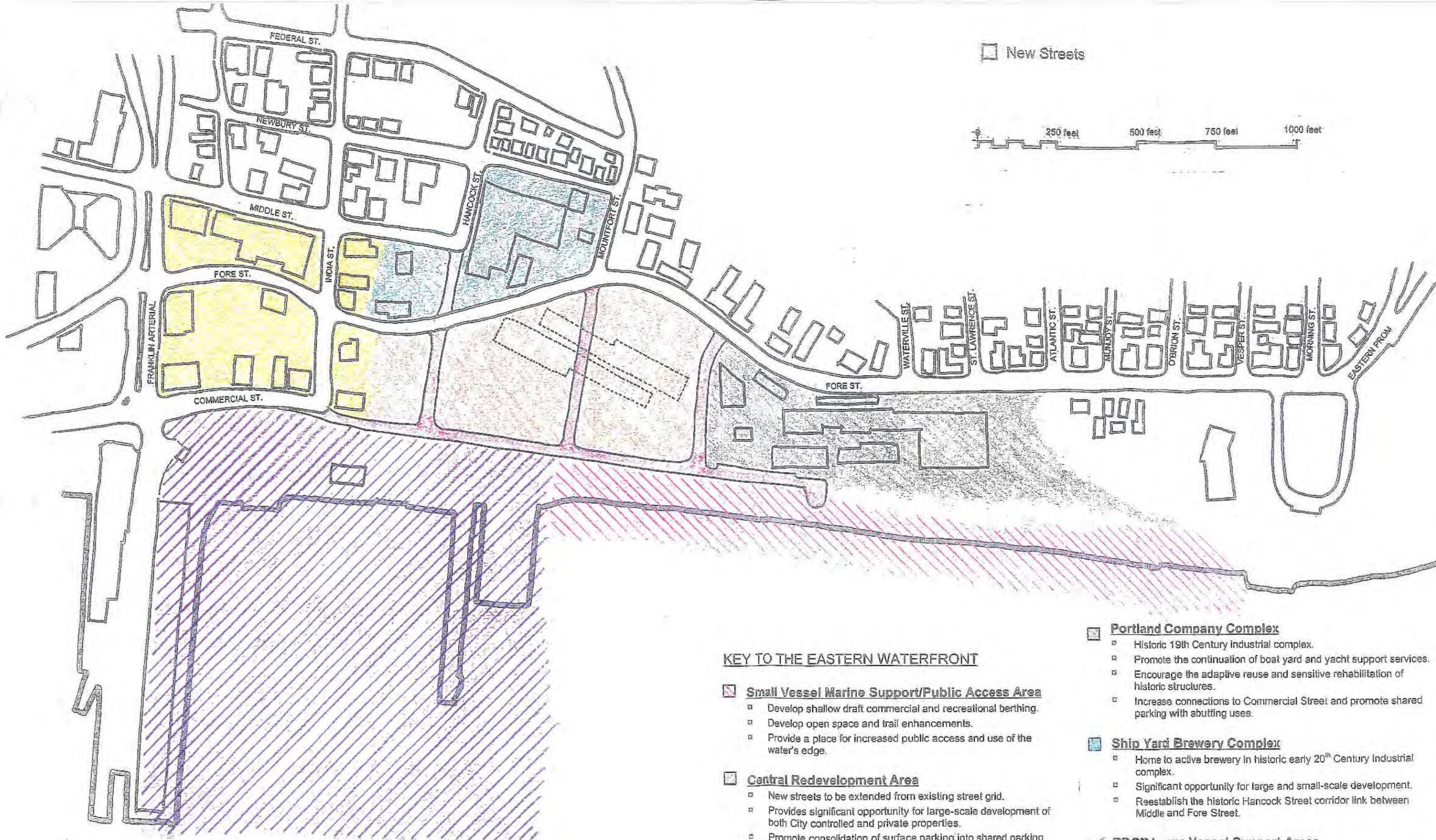
medium density

Public Open Space

Proposed site for RR station, local bus hub, hotel & parking structure

multi-use mall linking Bayside to Eastman Point and Back Cove Train Station

Proposed Rail Line



□ New Streets



KEY TO THE EASTERN WATERFRONT

- Small Vessel Marine Support/Public Access Area**
 - Develop shallow draft commercial and recreational berthing.
 - Develop open space and trail enhancements.
 - Provide a place for increased public access and use of the water's edge.

- Central Redevelopment Area**
 - New streets to be extended from existing street grid.
 - Provides significant opportunity for large-scale development of both City controlled and private properties.
 - Promote consolidation of surface parking into shared parking structures.

- India Street Corridor**
 - Established historic commercial district.
 - Opportunity for adaptive reuse of significant buildings.
 - Promote sensitive infill development.

- Portland Company Complex**
 - Historic 19th Century industrial complex.
 - Promote the continuation of boat yard and yacht support services.
 - Encourage the adaptive reuse and sensitive rehabilitation of historic structures.
 - Increase connections to Commercial Street and promote shared parking with abutting uses.

- Ship Yard Brewery Complex**
 - Home to active brewery in historic early 20th Century industrial complex.
 - Significant opportunity for large and small-scale development.
 - Reestablish the historic Hancock Street corridor link between Middle and Fore Street.

- PDOT Large Vessel Support Areas**
 - Future home to marine passenger terminal and expanded cruise ship berthing.
 - Potential for terminal building to provide significant architectural statement for Portland's waterfront.
 - Promote utilization of deep water berthing.
 - Plan for the redevelopment of Maine State Pier.

- PCBs are present in low concentrations on the Brownfields site. PCB levels were highest in the borings on Kennebec Street.

The levels of PAHs, VOCs, and metals found on the Brownfields site exceed MDEP guidelines for soil. The Phase 3 Remediation Plan for the Brownfields project has been developed on the basis of the data and analysis. The Voluntary Remedial Action Program (VRAP) of the MDEP has regulatory review and jurisdiction for the project.

C. Recent Development

Since the adoption of Bayside Vision, new development has occurred in the area and additional plans are underway. Unity Village was built on former City Hall parking lots and adds 33 units to Portland's housing stock. A new four-story office building was constructed along Marginal Way for the Department of Human Services. The City relocated its salt shed and sold the site (corner of Marginal Way and Preble Street) for construction of a second office building. A vacant warehouse on Marginal Way has been renovated for reuse by a natural food store chain. The City is also working with the State and federal agencies to bring commuter rail service to Bayside and develop the area as a transportation center with adjoining transit oriented development.

As New Vision for Bayside states, "It is time to shed the back door image of Marginal Way, to recast Bayside as a productive and connected urban neighborhood, the front and center of the Portland peninsula. Bayside can support development of housing, commerce, and community resources, and represent the pride and the quality of the City of Portland."

EASTERN WATERFRONT REDEVELOPMENT AREA¹⁰

The Eastern Waterfront is a largely underutilized portion of Portland's urban waterfront currently dominated by empty pavement and surface parking. The area is blessed with water views, proximity to urban amenities, reasonable vehicular access, excellent port access, and integration with the City trail system. Given its location and proximate attractions, significant potential for mixed use redevelopment exists within the Eastern Waterfront. The concept of mixed use includes residential, commercial, industrial, marine, institutional, and public uses. Surface parking uses could be aggregated into parking structures, providing surplus parking for new structures, more intensive reuse of historic buildings, replacement of non-historic structures, and open space enhancement.

The Eastern Waterfront district can be generally separated into six areas which are described below and shown on the attached map.

A. Central Redevelopment Area

The core of the of the Eastern Waterfront centers around the lands extending north of the water between the Maine State Pier (Pier 1) and the Marine Passenger Terminal Pier (Pier 2) to the southerly side of Fore Street. The site historically was home to railroad and port related industry. From 1982 to 2001, the site was used by Bath Iron Works for military

¹⁰ Eastern Waterfront Master Plan, adopted December 2004.

ship repair. Gravel and paved surface parking and lay down areas currently dominate the upland core of the Eastern Waterfront. The City of Portland is the current owner of this property. Two private parcels south of Fore Street have significant potential for redevelopment and integration with the City land. The parcels contain large one-story block warehouses, which have been adapted for a variety of commercial uses.

B. India Street Corridor

The India Street Corridor transitions to a more consistently developed urban fabric, with an established business corridor flanking both sides of India Street. Historic brick structures, surface parking lots, and light industrial uses occupy the properties between India Street and Franklin Arterial. The Jordan Meats manufacturing plant dominates the block bounded by Franklin Arterial, Middle, Fore, and India Streets. The interiors of city blocks contain large amounts of surface parking.

The Waterfront Historic District begins in this area, extending from the former Grand Trunk administrative building at the terminus of India Street, running west along Commercial Street and up Franklin to Middle Street. The India Street area has long been considered for a potential historic district expansion.

C. Portland Company Complex

The Portland Company complex, a mid-nineteenth century manufacturing facility, occupies the easterly end of the Eastern Waterfront. The site contains 160,000 square feet of existing structures. There are several architecturally significant brick and granite industrial buildings and the complex is designated as eligible for inclusion in the National Register of Historic Places.

The property is highly developed, but in need of significant structural and cosmetic repair. It is the only private property in the study area with direct water access. Currently, the Portland Company houses a variety of commercial uses, including a marina, boatyard, boat repair, general office, exhibition space, and the Narrow Gauge Railroad Museum.

D. Ship Yard Brewery Complex

The Ship Yard Brewery occupies an early twentieth century industrial building along Hancock and Newbury Streets. The site extends south to Fore Street, where it is largely vacant or abandoned along the street. While a small cluster of historic residential structures occupy the Newbury and Mountfort Street corner, underutilized industrial buildings and commercial parking occupy the lands adjacent to Fore Street.

E. Portland Department of Transportation (PDOT) Large Vessel Support Areas

The Portland Department of Transportation will retain control of the majority of the former BIW ship repair facility as the Marine Passenger Terminal Facility. This large vessel support area includes two working deep-water piers. Maine State Pier (Pier 1) is City owned with a 100,000 square foot cargo shed along its easterly perimeter that is adjacent to a 1000-foot deepwater berth. The shed is in need of considerable repair, but provides the potential for continued use as deepwater berthing support and other uses.

The Casco Bay Island Ferry Terminal is located on the westerly side of the Maine State Pier and is under the control of the Casco Bay Island Transit District (CBITD). The facility handles 900,000 passengers per year and is the primary point of entry and departure for the Casco Bay island community.

The Atlantic Pier (Pier 2) is a 600-foot finger pier that was developed to serve the BIW dry dock. Pier 2 is in excellent condition and is constructed with full utilities in place. It is proposed to be expanded to house the marine passenger terminal and provide berths for the Scotia Prince and the primary cruise ship. The land between the Maine State Pier and Pier 2 is entirely paved for parking and circulation support for the berthing and warehouse functions of the piers.

There is an area of filled land east of Pier 2 extending into the harbor that poses potential environmental risks. The "containment area" is composed of contaminated dredge spoils retained within a wooden piling structure. The containment area has been capped under the "VRAP," voluntary remediation action plan, and is currently limited to pedestrian use. Any long-term development plan for the Pier 2 area will need to address the maintenance and safety of the containment area and work within the regulatory restrictions of the VRAP program.

F. Small Vessel Marine Support/Public Access Area

The land east of Pier 2 and adjacent to the water currently serves as back lot parking and exterior storage areas remaining from the BIW use of the site. The water in this area is shallow and the southerly exposure receives extreme weather during the winter months. The lands adjacent to the water east of Pier 2, provide opportunity for seasonal small vessel berthing and marina development, public access to the water, open space and trail enhancements, and the possibility for a tug boat pier.

FISCAL CONDITION

Inventory and Analysis

FISCAL CONDITION¹

I. Portland Budgetary Process

Article VII of the City's Charter provides for a budget process. The fiscal year (or "budget year") of the City begins on the first day of July and ends on the thirtieth day of June of the following year. The Charter provides that the City Manager submit a budget to the Council not later than two months before the end of the fiscal year. The Council holds a public hearing before its subsequent final passage of the appropriation resolve ("Appropriation Resolve" or "Resolve").

The following table sets forth the trends in the General Fund's budgets for the City for the last four fiscal years and the current fiscal year:

	Fiscal Year Ending June 30, (000)				
	1998	1999	2000	2001	2002
REVENUES					
Taxes	\$ 86,575	\$ 90,888	\$ 94,603	\$98,684	\$105,202
Licenses and Permits	1,890	1,835	1,758	2,225	2,321
Fines, Forfeits and Penalties	734	735	741	766	785
Use of Money and Property	4,399	4,556	4,390	5,132	5,180
Intergovernmental	6,198	6,570	6,726	7,775	7,431
Current Services	15,140	15,839	15,972	17,532	17,744
School	17,830	18,484	18,372	19,947	20,068
Reimbursements & Other	2,220	2,189	2,516	2,515	2,929
Interdepartmental	15,634	15,441	18,964	19,221	18,943
Fund Balances (City)	1,500	2,700	2,700	3,150	2,400
Fund Balances (School)	1,800	1,000	1,800	1,735	0
TOTAL REVENUE	\$153,920	\$160,217	\$168,743	\$178,682	\$183,003
EXPENDITURES					
General Government	\$ 10,789	\$ 14,265	\$ 13,147	13,815	\$13,736
Public Safety	17,090	18,358	19,374	20,503	21,218
Public Works	8,955	9,465	11,383	10,782	10,506
Health and Human Services	13,114	13,785	14,789	15,944	16,134
Parks and Recreation	3,480	3,806	4,631	5,389	5,072
Public Library	2,102	2,182	2,305	2,458	2,474
Pension and Insurance	15,368	15,314	13,874	14,722	10,706
Education	60,848	63,126	65,519	69,249	71,382
Other/County Tax & Metro	7,174	4,525	5,867	6,793	7,104
Debt Service	<u>15,352</u>	<u>15,871</u>	<u>17,854</u>	<u>19,027</u>	<u>24,671</u>
TOTAL EXPENDITURES	\$154,272	\$160,697	\$168,743	\$178,682	\$183,003
Other Financing (Sources) Uses	(352)	(480)	0	0	0
TOTAL EXPENDITURES &					
TRANSFER	\$153,920	\$160,217	\$168,743	\$178,682	\$183,003

Note: (1) Totals may not add due to rounding.

¹ Official Statement Dated March 21, 2002, City of Portland, Maine \$14,445,000 General Obligation Bonds. ABN-AMRO Financial Services, Inc. Duane G. Kline, Director of Finance, City of Portland, Maine. Entire Fiscal Conditions chapter from this source, pages 31-41. Edited 2002.

The City continues to meet its responsibility for sound financial management.² Actual revenues, on the budget basis for the combined general and enterprise fund operations, exceeded revenue estimates by \$441 thousand, and departmental and enterprise fund expenditures on the budget basis were less than appropriated amounts by \$3.6 million.

II. Capital Improvement Program

The City of Portland has a multi-year Capital Improvement Program ("CIP"). The CIP is a ten year plan which includes the Capital Budget for the current year, and the projected expenditures for capital projects for the next nine years. The City develops its capital needs based upon an inventory of the City's facilities, property and equipment. The present condition is evaluated, a useful life expectancy is estimated and replacement, if necessary, is projected. The following displays the current CIP schedule:

Fiscal year	2000 City of Portland Ten-year Capital Improvement Program (000's)										Total
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	
Roadways	2,715	3,349	1,300	2,500	2,000	2,000	3,000	3,000	1,500	3,000	24,364
Utility/infrastructure	1,650	2,780	2,000	2,000	2,000	1,500	1,500	2,000	2,000	1,500	18,930
Downtown infrastructure		150	200	200	400	-	350	-	200	500	2,000
Public facilities											
buildings/garages	925	735	850	800	500	500	800	500	1,500	1,500	8,010
schools		-	-	-	500	5,000	5,000	500	-	-	11,000
Schools	950	1,000	1,000	500	500	250	700	500	500	1,000	6,900
Elementary Schools		-	-	4,000	4,000	4,000	-	4,500	5,000	3,000	24,500
Ports	1,000	535	800	800	12,000	750	1,000	750	750	1,000	7,685
Parks & Recreation	1,075	545	600	800	800	600	1,000	750	1,000	800	7,970
Equipment	1,020	611	3,000	700	700	200	200	500	500	500	8,281
Public Art (.5%) ¹	19	48	49	62	63	74	69	65	65	64	598
TOTAL	7,924	9,753	9,799	12,362	12,663	14,874	13,919	13,065	13,015	12,864	120,238
CSO Projects	5,140	5,725	5,500	5,700	5,500	5,500	5,500	5,000	5,000	5,000	53,565
Grand Total	13,064	15,478	15,299	18,062	18,163	20,374	19,419	18,065	18,015	17,865	173,803

(1) The City Council appropriated an amount equal to one-half of one percent of the annual CIP for City art projects.

The City's CIP is an indication of future projects which may be financed through the issuance of bonds. The CIP excludes the combined sewer overflow program. The issuance of debt, however, is subject to the prior review and approval of the City Council.

Major capital asset events during the 2000/2001 fiscal year included the following:³

- Street and sidewalk construction projects throughout the city. Completed projects during the year totaled approximately \$2,270,000.
- Jetport capital improvements for its parking, terminal and runway facilities (\$3743,000).

² Ibid. Management's Discussion & Analysis, page 22.

³ Ibid. Management's Discussion & Analysis, page 27

- The city is in the midst of a multi-year combined sewer overflow abatement program. During the current year \$5,771,000 was spent on these and other capital asset projects.
- Approximately \$2,124,000 was transferred from construction in progress to land improvements for completed projects during the year and at the end of the current year projects under construction totaled \$3,618,000.

On January 7, 2002, the Portland's City Council unanimously passed a resolution adopting a fiscal policy limiting new long-term capital improvement plan debt to a maximum of \$10 million per fiscal year unless an emergency is declared by the City Council. The \$10 million capital improvement plan debt limitation policy excludes the combined sewer overflow (CSO) projects.

III. Property Taxation

The following table sets forth the trends for the City's state equalized value, local assessed value, tax rate, and tax collections rates for the last ten fiscal years and current fiscal year.

Fiscal Yr. End June 30,	Equalized State Valuation (000)	Local Assessed Valuation ¹ (000)	Tax Rate (Per/000)	Tax Levy (000)	Collections (after Supplements and		
					Year End (000)	% of Levy Collected	
2002	\$4,305,150	\$3,990,000	\$24.31	\$96,995	-----	To Be Collected	----
2001	3,873,900	3,770,000	24.00	89,789	\$88,340	98.39%	99.14%
2000	3,577,800	3,332,691	25.29	86,077	84,816	98.53	99.77
1999	3,358,800	3,246,414	25.29	82,101	82,776	98.61	100.56
1998	3,333,000	3,263,921	24.56	80,161	78,496	97.92	100.05
1997	3,229,700	3,202,269	24.56	78,647	76,800	97.65	100.69
1996	3,111,350	3,162,788	24.56	77,696	75,627	97.34	101.42
1995	3,079,950	3,139,009	24.56	77,093	73,321	95.11	99.85
1994	3,157,150	3,160,476	24.66	77,937	73,888	94.81	100.20
1993	3,347,250	3,212,357	24.66	79,218	74,023	93.44	100.68
1992	3,661,150	2,744,375	29.25	80,273	73,912	92.08	96.47

Note: (1) Market Adjustment valuation for 2001 and 2002.

The principal tax of the City is the tax on real and personal property. There is no limit as to rate or amount. A single tax applies for each fiscal year to the assessed value of the taxable real or personal property. The City's Tax Collector receives the tax commitment from the City Assessor, with assessed values as of April 1 of each year, after which time the tax bills are mailed. For fiscal 2001/2002 the tax due dates are September 2001 and March 2002. The distribution of property taxes between the general fund, county tax, transit district and education is shown on the following chart.

Property Taxation (Per \$1,000 of Assessed Value)

<u>Fiscal</u> <u>Yr. End</u> <u>June 30,</u>	<u>General</u> ²	<u>County</u> <u>Tax</u>	<u>Transit</u> <u>District</u>	<u>Enterprise</u> <u>Fund</u>	<u>Education</u>	<u>Total</u>
2002	10.16	.75	.52	.02	12.86	24.31
2001 ³	10.35	.71	.54	(.22)	12.62	24.00
2000	10.70	.73	.58	(.15)	13.43	25.29
1999	10.66	.81	.58	(.15)	13.39	25.29
1998	10.45	.82	.59	(.11)	12.81	24.56
1997	10.14	.83	.59	(.07)	13.07	24.56
1996	10.00	.86	.58	.05	13.07	24.56
1995	10.05	.74	.56	.07	13.14	24.56
1994	10.05	.76	.51	.10	13.24	24.66
1993 ¹	10.15	.61	.48	.11	13.31	24.66
1992	12.00	.80	.57	.27	15.61	29.25

Note: (1) Revaluation; (2) General Fund and Debt Service Tax Rates combined. (3) Market Adjustment valuation effective for year 2001 and 2002.

IV. Tax Increment Financing Districts

Tax increment financing ("TIF") pursuant to Chapter 207 of Title 30-A of the Maine Revised Statutes, enables a municipality to finance development by borrowing against the future increased property tax receipts attributable to that development. The municipality may designate, or "capture", all or a portion of the increase in assessed value resulting from development within the district and dedicates the increased property taxes it receives in future years generated by the "captured" assessed value to payment of the costs of the Development Program, which may include debt service on borrowing to fund such costs. The City has designated several tax increment financing districts and is actively considering proposals for other districts on an ongoing basis. (Shall we list them?).

V. State Aid

The State of Maine provides aid to the City in a number of areas including education, welfare assistance, road maintenance and revenue sharing. The amount of aid in each category is based upon a number of formulas, many of which change annually, and dependent upon provisions of State law and/or appropriation by the State legislature. Educational subsidies include general purpose aid, financing costs relating to certain school construction projects and categorical aid. The State annually estimates State aid but actual payments may vary from the estimate. The following table displays State aid received by Portland for the last five fiscal periods and budgeted year:

Fiscal Yr. End June 30,	State Revenue Sharing	School Aid	Welfare Assistance	Other State Aid	Total From State
2002 ¹	\$6,800,000	\$22,900,000	\$1,517,875	\$2,282,125	\$33,500,000
2001	7,123,035	23,046,963	1,456,063	1,736,574	33,362,635
2000	7,287,368	22,722,547	1,516,441	1,550,373	33,076,729
1999	6,600,820	22,918,902	1,392,940	1,724,421	32,637,103
1998	6,331,920	21,766,089	1,357,251	1,759,156	31,214,416
1997	5,623,254	21,022,886	1,569,784	2,172,957	30,388,881
1996	5,254,091	19,401,972	1,775,058	2,736,681	29,167,802
1995	5,062,206	10,036,127	1,663,749	1,909,065	18,671,147

(1) Budgeted for fiscal year 2002

VI. INDEBTEDNESS

A. Limitations and Exclusions⁴

As of June 30, 2001 the City's long term debt outstanding was \$124,380,000 or 3.21% of its 2001 equalized State Valuation. The City of Portland's 2002 equalized state valuation is \$4,305,150,000. The 15% total debt limit is \$645,772,500. The 7.5% general debt limit is \$322,886,250. Upon issuance of the Bonds, the City will certify that it has not exceeded any of the established debt limits.

B. Enterprise Funds

There are eight services provided by the City, administered by four departments, which are established as Enterprise activities. The intent of the City is for the respective activity to provide services on a continuing basis financed primarily through user charges and therefore be self-supporting. The Transportation and Waterfront Department administers four enterprise operations including the Portland International Jetport and the International Ferry Terminal. Public Works administers the City's sanitary sewer operations and Parks and Recreation administers the City's ice arena and two municipal golf courses⁵. Revenues for the City's combined enterprise operations increased by \$504, or 1.9%. The ice arena was the only enterprise fund that has an actual decrease in revenues during the year. Except for certain Jetport and Auditorium debt as described below, all Enterprise fund debt is general obligation debt of the City, which is backed by its full faith and credit, ad valorem taxing power.

As of June 30, 2001 the Jetport issued a limited obligation bonds payable from Passenger Facility Charges. The amount borrowed under the \$7,500,000 line of credit equaled \$2,237,413 as of June 30, 2001. As of December 2001, the Jetport entered into an agreement with Fleet National Bank to borrow up to \$10,000,000 under a line of credit. The line credit is a limited obligation payable from revenues of the Jetport.

⁴ Ibid., refer to page 40 and 41 for details on limitations and exclusions provided under relevant State laws.

⁵ Ibid. Management's Discussion & Analysis, page 26.

At June 30, 2001, the City has \$1,971,053 of Merrill auditorium revenue bond outstanding. These bonds are not general obligation bonds of the City or a pledge of the full faith and credit of the City. Repayment of the bonds will be made from revenues generated by a surcharge on tickets or rental of the City's Merrill auditorium. Not being general obligation debt of the City, that portion of the bonds is not included in the calculation of the debt ratios below.

The table below displays a summary of Enterprise Fund debt payable as of June 30, 2000 and 2001 for these activities:

<u>Activity</u> <u>6/30/2001</u>	<u>Department</u>	<u>Debt A/O 6/30/2000</u>	<u>Debt A/O</u>
Fish Pier	Transportation and Waterfront Facilities	\$ 762,783	\$811,384
Sewer	Public Works	21,664,098	22,349,854
Jetport	Transportation and Waterfront Facilities	1,710,311	1,532,204
Parking Garage	City Manager	447,823	410,458
Golf Courses	Parks	535,835	593,044
International Ferry Terminal	Transportation and Waterfront Facilities	1,254,111	1,129,982
Dry Dock and Ship Repair Facility	Transportation and Waterfront Facilities	2,049,750	1,366,500
Ice Arena	Parks	408,262	323,331
		<u>\$28,832,973</u>	<u>28,516,75</u>

C. Overlapping Debt

1) County of Cumberland

The City is subject to an annual assessment of its proportional share of the County of Cumberland (the "County") expenses, including debt repayment, as determined by the percentage of the City's equalized State Valuation to the County's equalized State Valuation. At June 30, 2000 the City's equalized State Valuation of \$3,577,800,000 was 20.7% of the County's equalized State Valuation. Thus, the City's share of debt was 20.7%, or \$4,561,245 of Cumberland County's \$22,035,000 long-term debt outstanding as of June 30, 2000.

2) Greater Portland Transit District

The Greater Portland Transit District (the "GPTD") is a joint venture with Portland and the City of Westbrook, Maine to provide public transportation services to the residents of both cities. The GPTD's long-term debt outstanding will be repaid from subsidy payments to be received from participating municipalities. The City of Portland's proportional share of the debt subsidy payments made to the GPTD during the year ended June 30, 2000, is included in the city's member assessment of \$205,463 or 87%, of GPTD's \$236,165 debt as of June 30, 2000

3) Portland Water District

The City is also served by the Portland Water District (the "PWD"), a wholly separate quasi-municipal entity whose operations are not part of the City, for treatment of its wastewater. The City is also served by the Wastewater Division of the Portland Water District. The City owns and maintains the infrastructure sewer lines and is responsible for the cost of their maintenance, improvements and expansion. The PWD owns and operates a treatment plant for sewage delivered to the plant by the City, for which the City pays a monthly fee. The City is responsible for the entire debt service required to finance the PWD's treatment plant in Portland (the "Wastewater System Debt"). All City users of the wastewater system pay monthly or quarterly fees, based upon water volume, to support expenditures from the Enterprise Fund which are paid for these services. At June 30, 2000 the City was responsible for 100%, or \$8,638,500 of its portion of PWD's Wastewater System Debt. The Portland Water District is planning to issue bonds in 2001.

D) Contingent Debt

1) Portland Water District

The Water Division of the PWD provides water to the inhabitants of ten cities and towns within the Greater Portland Area (the "PWD Municipalities"), including the City. The Water Division's debt is not a debt or obligation of the City. However, under Title 35-A, Section 6103 of the Maine Revised Statutes (the "Act") and pursuant to an agreement with nine of the ten PWD Municipalities, the PWD possesses authority for taxation in the event of default in the payment of the indebtedness of the PWD incurred for water purposes. In the event of a default by PWD in the payment of the principal of, or interest on, its Water System. At June 30, 2000 the City was responsible for 32.29%, or \$12,680,404 of the PWD's \$39,275,000 Water System Debt.