

# **EXISTING LAND USE**

## **Inventory and Analysis**

## EXISTING LAND USE AND DEVELOPABLE LAND<sup>1</sup>

### 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 classifications<sup>2</sup>. 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

<sup>1</sup> 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.

<sup>2</sup> 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

<b>Land Use Categories as a Percentage of the Total Land Area City of Portland</b>				
	<b>Percent of Land Area</b>			<b>Acres</b>
	<b>1978</b>	<b>1989</b>	<b>1999</b>	<b>1999</b>
% 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 <sup>3</sup>	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.

<sup>3</sup> 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.

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%
<b>Totals Taxable</b>	<b>8,726.20</b>	<b>8,731.90</b>	<b>11,656.80</b>	<b>1.0%</b>	<b>33.5%</b>	<b>33.6%</b>	<b>87.671%</b>

**\*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

Comparison of 1978, 1989 and 1999 Land Use Report for Tax-Exempt Property							
	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%
<b>Total Tax Exempt</b>	<b>3,220.80</b>	<b>2,995.80</b>	<b>1,639.20</b>	<b>-7.0%</b>	<b>-45.3%</b>	<b>-49.1%</b>	<b>12.329%</b>

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.

**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).

#### 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

<b>Total Land Area in Each Zoning Classification</b>		
<b>ZONING</b>	<b>Total area/zone acres</b>	<b>Percentage of Total Land Area</b>
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%
<b>Business Zones Subtotal</b>	<b>1,643.8</b>	<b>13.95%</b>
<b>Contract Zones</b>	<b>83.9</b>	<b>0.70%</b>
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%
<b>Industrial Zones Subtotal</b>	<b>1,754.7</b>	<b>14.91%</b>
Office Park	166.6	1.42%
Residence Professional	76.8	0.65%
<b>Office Zones Subtotal</b>	<b>243.4</b>	<b>2.07%</b>
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%
<b>Residential Zones Subtotal</b>	<b>6,329.1</b>	<b>53.81%</b>
Recreation Open Space	1,013.9	8.26%
Resource Protection Zone	382.1	3.25%
<b>Open Space Zones Subtotal</b>	<b>1,396.0</b>	<b>11.87%</b>
Waterfront Central Zone WCZ	92.9	0.79%
Waterfront Port Develop.WPDZ	180.0	1.53%
Waterfront Special Use WSUZ	36.0	0.31%
<b>Waterfront Zones Subtotal</b>	<b>308.9</b>	<b>2.63%</b>

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.<sup>4</sup> 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

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<sup>4</sup> 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

<b>Vacant Land on the Islands</b>				
	<b>Percent of Total Island Area</b>			<b>1999 Vacant</b>
	<b>1978</b>	<b>1989</b>	<b>1999</b>	<b>Land</b>
				<b>Acres</b>
<b>Cushing</b>	40.4%	20.2%	24.1%	18.7
<b>Cliff</b>	39.0%	30.5%	21.2%	31.9
<b>Great Diamond</b>	37.2%	7.5%	43.0%	57.7
<b>Little Diamond</b>	24.1%	44.8%	28.2%	18.1
<b>Peaks</b>	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

<b>Vacant Land Suitable for Development</b>		
<b>Zone Classification</b>	<b>Number of Lots</b>	<b>Land with Potential for Development*</b>
<b>Business Zones</b>		
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
<b>Subtotal</b>		<b>125.59</b>
<b>Office Zones</b>		
OP	4	38.76
RP	6	0.52
<b>Subtotal</b>		<b>39.28</b>
<b>Waterfront Zones</b>		
WCZ/WPDZ/WSUZ	0	0.00
<b>Subtotal</b>		<b>0.00</b>
<b>Industrial Zones</b>		
IL	103	57.67
<b>ILb</b>	<b>8</b>	<b>3.15</b>
IM	120	183.03
Imb	3	4.05
IH	23	101.31
<b>Subtotal</b>		<b>349.21</b>
<b>Residential Zones</b>		
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
<b>Subtotal</b>		<b>616.89</b>
<b>Totals</b>		<b>1130.97</b>

## 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 time<sup>5</sup>, 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.<sup>6</sup> 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.

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<sup>5</sup> The islands are being surveyed and base maps created for the City's Geographic Mapping System. This project is not complete at this time.

<sup>6</sup> 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.

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.<sup>7</sup>

## **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.<sup>8</sup> 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.

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<sup>7</sup> 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.

<sup>8</sup> A New Vision for Bayside, Book One: The Plan. Mayor Nicholas Mavodones Jr. cover letter.

## **B. Environmental Conditions of the Brownfields Project Area**<sup>9</sup>

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 18<sup>th</sup>, 19<sup>th</sup>, and early 20<sup>th</sup> 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 (TCE), 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.

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<sup>9</sup> 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.

- **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 AREA<sup>10</sup>**

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

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<sup>10</sup> 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.