overview

Arts & Culture

Arts and culture are an essential component of a thriving and sustainable city. Art gives a place spark. Public art, cultural amenities and events enliven public spaces, help grow our economy and tourism industry and can help build a sense of community.

The purpose of the Portland Plan Arts and Culture Background Report is to provide Portlanders with enough information about arts and culture in Portland, and about the city's existing role in supporting arts and culture, to begin the community discussion of:

- long-term goals for strengthening cultural infrastructure;
- improving access to the arts and arts education; and
- investing in creative talent.

The Arts and Culture Background Report includes:

- **Summary of existing conditions** regarding arts and culture - programs and policies, current conditions and trends in Portland today
- **Emerging issues and challenges** Portland faces now which, if they continue to go unaddressed, will affect the future of arts and culture in the city.
- **Recommendations** for potential policy choices that expand upon, re-emphasize and complement existing plans and coordinated strategies.
- **An appendix of the best practices** and successful strategies undertaken by cities around the world.

The report is not intended to be a complete survey of arts and culture in Portland or a catalog of artistic achievements. Instead, it focuses on the City of Portland's role supporting arts and culture in the city. The report relies heavily on information provided by Act for Art: A Creative Action Plan for the Portland Metropolitan Region as well as much existing documentation on economic development, arts education and public art programs.

Why is arts and culture in the Portland Plan?

Typically, long-range city development plans address topics like economic development, community design and environmental health, to name a few common planning themes. While those themes and topics are essential to creating a prosperous and healthy city, Portlanders are concerned about more than typical planning issues.

Creative expression is important to Portlanders. The VisionPDX community project noted this, and we see it in many of Portland's cherished and emerging traditions—Saturday Market, Sunday Parkways; events like Time Based Art and countless other arts, music and film festivals. With such strong interest, it seems necessary to address the role that the city plays, over the long-term, in supporting arts and culture in Portland.

City of Portland Bureau of
Planning and Sustainability
Sam Adams, Mayor | Susan Anderson, Director

Arts and culture contribute to a thriving city in complex and varied ways. Many Portland neighborhoods, including Alberta and the Pearl District, have experienced a dramatic revitalization partly attributed to their vibrant arts community. Artists choosing to make a particular neighborhood home tends to have positive, regenerative effects on the neighborhood.

Organizations also play an important role in the arts and culture of a thriving city. Two Portland groups that have been particularly involved in advocating for the arts are described below.

- **Regional Arts and Culture Council (RACC) –** RACC is an independent non-profit organization that was established in 1995 to integrate arts and culture into all aspects of Portland's community. RACC is responsible for public investment in the arts in the Portland Metropolitan area, including Multnomah, Clackamas, and Washington counties. Over 60% of RACC's budget is a contract with the City of Portland for the full integration of arts and culture into the community.
- **Creative Advocacy Network (CAN) –** The Creative Advocacy Network (CAN) was established in 2008 as an independent non-profit to build stronger grassroots support for arts and culture, and to take a lead role in securing sustainable, dedicated funding for the arts.

Challenges and Opportunities

The Portland Metropolitan Region's last big master plan for the arts was Arts Plan 2000, written in 1992. Much progress has been made since then, and Portland certainly has a strong and vibrant arts community to show for its efforts. But there remains a persistent, systemic problem of inadequate public funding for the arts in our region and today's economic crisis has only exacerbated the situation. In order for the true creative capacity of our City and region to be realized, a dedicated, stable funding mechanism for local arts and culture and arts education must be created.

Additionally, this pursuit of dedicated funding is only possible with the continued diligence, coordination, and organization of a historically fragmented arts and culture community.

Key Findings

Many aspects of the current state of arts and culture in Portland are crucial to address in order to meet community needs and desires for this part of city life. The following summarizes key factors, which are described further in the background report.

The arts are a significant part of Portland's economy.

According to the Metropolitan Exposition Recreation Commission's (MERC) Economic and Fiscal Impact Analysis, (Oct. 2008), there are 1,500 firms employing 14,000 'creatives' in Portland. The average salary in creative industries is $66,600 compared to the regional average wage of $40,600. Further, according to RACC and the Arts and Economic Prosperity Report III from 2007, nonprofit arts and cultural organizations themselves represent a $318 million industry in the Portland metro area, supporting over 10,300 full time equivalent jobs. The Portland metro region's 111 arts-related nonprofit organizations produced $206 million in personal or business income in 2006. State and local governments collected more than $27 million in taxes and fees as a result of this activity, more than 3 times what they invested.

Portland has a successful public art program.

The last three decades of development and progress with regard to public art have consistently improved the public's access to art throughout the city. RACC, the Regional Arts and Cultural Council, has played an important role in that success, as the primary non-profit working with government funds to involve communities in arts and culture. Increasing investment in the Percent for Art program will continue to encourage vibrant neighborhood spaces.

Portlanders are interested in supporting the arts with public dollars.

In a recent phone survey done through Creative Capacity Strategy, 77% of local voters say that having opportunities to enjoy the arts, and creative learning is essential to their families. 70% stated that arts and cultural organizations need additional, dedicated funding. This support has not waned even during economic recession. The VisionPDX process revealed that people want Portland, at all levels including local government, to become a national leader in community support for the arts. The community also calls for more public art throughout the city, not just downtown.

Significant work is already underway.

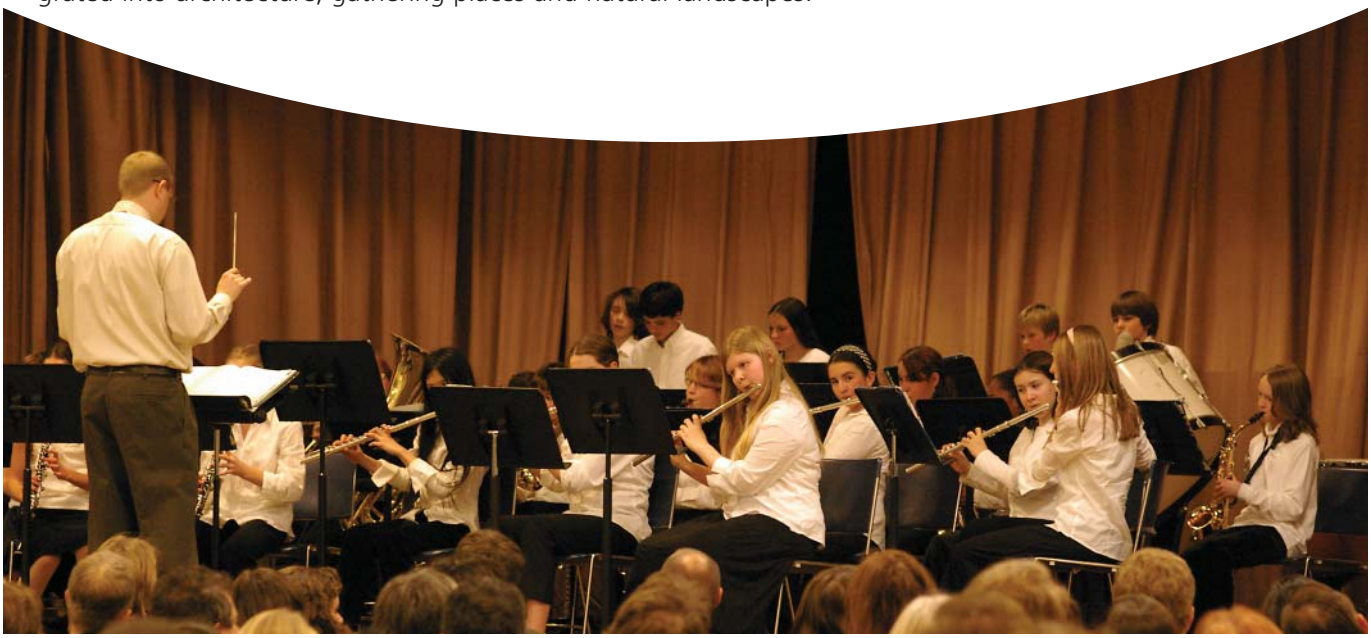
The spring 2009 publication of *Act for Art: The Creative Action Plan for the Portland Metropolitan Region* finalized several year's worth of best practice research and community input. The full implementation of this plan is a 5-year process and should serve as the foundation for any planning efforts during the next decade.

Recommendations

The *Arts and Culture Background Report* reiterates recommendations derived from the Creative Capacity Initiative and published in *Act for Art: The Creative Action Plan for the Portland Metropolitan Region*. Some recommendations come from the creation of this background report or are derived from a study of best practices in other cities and regions. All recommendations below are secondary to the satisfaction of the **primary recommendation: create a dedicated, reliable, public funding source**. This need was identified earlier in the Challenges and Opportunities part of this overview, and bears repeating, as it is the over-arching recommendation of the *Arts and Culture Background Report*.

Strengthen Cultural Infrastructure

- **Improve Public Funding:** Implement a dedicated, sustainable public funding mechanism for arts and culture that will yield $15-$20 million per year.
- **Maintain or increase current funding base for public art:** Policies like the Percent for Art programs are crucial to the public's access to art and should be vigorously protected and examined for proper maximization.
- **Increase private sector giving:** Leverage public funds to stimulate more giving from the private sector.
- **Help art spaces flourish:** Support public and private efforts that make our region's performance and exhibition venues, rehearsal and office spaces, studios, and live/work sites more exciting, more affordable and more accessible.
- **Create a public art master plan:** A master plan would set out a vision for public art, as well as basic principles for how public art can be integrated into architecture, gathering places and natural landscapes.



- **Incorporate different art forms into the City's streets and public spaces:** Encourage Portlanders' use of public space, including outdoor dining, entertainment, street theatre, and new media showcases and art displays. Promoting and activating public spaces can energize entire districts by getting more people out of their cars and onto public sidewalks or plazas. Integrate more artwork into City building projects that are compatible with their settings.
- **Consider creating arts and cultural overlay zones:** Use zoning overlays to promote and sustain arts districts. Ensure that arts overlay zones are consistent with other district zoning regulations and that incentives for arts related uses are not precluded by other provisions of zoning. Commercial and nonprofit cultural organizations could benefit from clustered office spaces, rehearsal and performance spaces, retail boutiques and galleries, and studio living spaces for individual artists.
- **Encourage neighborhoods to develop their own cultural plans:** Support neighborhoods in the development of cultural plans by creating public/private partnerships and collaborations between individual communities and artists. Doing so will help to create identities for neighborhoods and a pride-of-place.
- **Support temporary reuse of vacant buildings:** Temporary installations and art exhibits within vacant or underutilized storefronts can maintain visual interest for the public.

Improve Access to the Arts and Arts Education

- **Increase Access to the Public:** Provide more free and reduced-cost arts and culture experiences for the citizens of the region.
- **Support accessibility for all citizens:** Particular consideration should be given to making sure new policies, assessments and investments include the pursuit of increased access for individuals with disabilities.
- **Expand Arts Education:** Integrate arts learning into the education of every K-8 student in the region, and support arts learning throughout the community.
- **Build the Brand:** Position the Portland metropolitan region as a center of excellence for art and design.

Invest in Creative Talent

- **Support Artists:** Eliminate barriers and support the basic needs of artists and other creative professionals in the region.
- **Network:** Create opportunities for artists to network with other artists, creatives, supporters, and consumers – locally, nationally and internationally.
- **Buy Local:** Increase the purchase of locally produced art and create more cultural consumers. Support collaborations that help the entire creative services sector thrive.

overview

Economic Development

Portland gets high marks for livability, but at some point livability for most of us includes having to work for a living. Does Portland's quality of life provide high quality jobs? What choices should we make today to support Portland's economic prosperity in the years ahead? The economic development background research projects will inform our choices.

The research aims to position Portland so that we can ensure the strong local economic base that will enable us to be healthy as a city and as individuals. Reports are summarized below and described in more detail on the pages that follow in this Overview.

The background reports on Economic Development consist of four separate reports. The first summarizes the others:

The Economic Development Summary Background Report - compiles the highlights of three previous background reports examining citywide economic conditions and trends related to the following specific topics:

- **Policy evaluation:** *Economic Development Technical Working Group Draft Report* - are our current regulations and programs suitable for today's (and tomorrow's) economic environment? This report evaluated economic development policies in the City's Comprehensive Plan in light of current trends, emerging issues, and findings from visionPDX, a 2-year community visioning project.
- **Growth capacity:** *Economic Opportunity Analysis - do we have the space for the new jobs being projected?* This report analyzed the 25-year growth capacity of the city's employment areas, to evaluate needs and opportunities for changes to the Comprehensive Plan map, public investments, and development incentives.
- **Economic specialization:** *Evaluation of Economic Specialization - what specific niche businesses is our City's Economic Development Strategy targeting Portland to grow in?* This report identified and analyzed the specializations of the city's economic base, to inform target industry programs and new directions for future competitiveness. The project was done primarily to inform the Portland Economic Development Strategy, which was prepared by the Portland Development Commission (PDC) and adopted in July 2009.

City of Portland Bureau of
Planning and Sustainability
Sam Adams, Mayor | Susan Anderson, Director

The Portland Economic Development Strategy sets out a focused, five-year action plan of priorities for economic development projects in the city. The Economic Development Strategy focuses on business development programs that facilitate growth as it occurs. Four employment specializations were identified as target industries for job growth:

- clean technology and sustainable industries
- activewear
- software
- advanced manufacturing

Policy Evaluation

Although the local economy is driven primarily by private sector decisions, the City has a history of intentional public investment and policy support in its economy. Transit investments, regional growth management policies, the City's 1980 industrial sanctuary policy and urban renewal have all contributed to the economic vitality that has kept Portland the region's urban and commercial center.

Also, the economic strength represented by Portland's growing talent base is linked in part to the success of the City's urban livability initiatives, in the form of land use planning, distinctive neighborhoods, extensive open spaces and multimodal transportation systems.

The Economic Development Technical Working Group Draft Report identified the following issues and trends, among others:

- **Neighborhood prosperity is highly valued in Portland, but not all neighborhood commercial corridors are equally prosperous.** City residents commonly see economic prosperity as something that occurs at the neighborhood level, especially in neighborhood commercial diversity, distinctiveness and walkability. However, performance is uneven among Portland's 93 neighborhood commercial corridors. For instance, Montavilla retail and service businesses along SE Stark and 82nd drew more customers from a broader area than did businesses in the Hillsdale area, served by SW Capital Highway.
- **The income gap is growing.** Portland is a comparatively middle class city nationally, but there has been a growing equity gap in who benefits from economic growth, which mirrors the national trend. In addition to declining affordability of housing, income gains (statewide) since 1980 have been concentrated in the highest earning quintile of households.
- **Adjusting to climate change and rising energy costs will change how the city develops.** Alternative energy and green development are emerging as propulsive growth industries, and Portland has an early competitive edge in core niches of these industries.

Related trends toward globalization include:

- Rapid growth of world trade
- Asian-led economic growth
- Off-shoring of production and outsourcing of services to lower-cost locations
- New decentralization technologies (such as the Internet)
- Trade blocs such as NAFTA (North American Free Trade Agreement)
- Consolidation in international firms

- **The city has lagged in its share of the region's job growth, despite our growing share of the region's housing.** Factors such as a tightening land supply and infrastructure deficiencies are limiting opportunities to increase job growth in the city. Section 2 of this report focuses on evaluating the current growth capacity of the city's business and industrial districts.
- **Economic globalization since 1990 has put increasing pressure on cities to be competitive and adaptable in order to remain prosperous.** Local responses to globalization trends have emphasized "traded sectors" (those firms that compete in markets outside the region) and competitive local strengths that attract and keep them. Section 3 of the *Economic Development Technical Working Group Draft Report* focuses on identification and analysis of the city's traded sector specializations.

Growth Capacity

Even in this age of globalization, digitalization and the internet, jobs still take up physical space. And if our population grows, we need not only more jobs but also the space for those jobs. The type of land available for new jobs is key: where is it located? how is it zoned? how large are the available parcels? These questions are crucial to whether land in Portland accommodates the region's new jobs or not.

As the Policy Evaluation report noted, recent trends show an expanding city share of regional housing but a declining share of regional jobs. One factor for that is perhaps that the era of Portland adding land by annexation has ended. Now, lands annexed in 1980s and 1990s are being built out, and Portland's situation as a land-locked city in the middle of a metropolitan area limits the land supply for job growth to vacant land and redevelopment at higher densities.

Urban growth strategies have proven effective for accommodating local housing development, but they pose new expansion challenges for most types of employment land, which often opt for larger, unencumbered parcels. Land capacity for job growth is affected by a variety of public choices, particularly in land use policy, infrastructure investments, and development incentives.

State law requires that the City show that it has adequate growth capacity for economic development by preparing an **"economic opportunities analysis" (EOA)**. The report examines growth trends and evaluates the capacity of the City's existing supply of developable employment land to accommodate the next 20 years of growth. Thus the research product for this topic is the ***Economic Opportunities Analysis*** (by consultants E.D. Hovee & Co., June 2009, available on Portland Plan website at *www.PDX-Plan.com*)

In doing the City's growth capacity research, the consultants compiled information from four EOA project Tasks into three separate reports:

Task 1 Trends, Opportunities and Market Factors – Growth trends by employment sector (such as manufacturing or retail trade) at the national, state, regional, city and district geographies; results of six focus groups with business leaders on space and location needs; and analysis of market factors driving different types of employment land demand.

Task 2 and 3 Supply and Demand – A 2010–2035 forecast of job growth and land absorption by building type and associated geography; inventory of available vacant and redevelopable land and constraints; and reconciliation of supply and demand.

Task 4 Alternative Choices – Recommendations and analysis of growth targets, development capacity, market options, public investments and timing and geographic tradeoffs by demand type.

Key Facts

Key facts identified in the EOA include the following:

While Portland is still the regional jobs hub (with 40% of the region's total jobs in 2006), **the share of the region's new jobs coming into Portland has been dropping** – to 11% in 2000–2006 from 27% in 1980–2000.

The exception to this trend has been Central City, where jobs rose 12,000 from 2000–2006, compared to the city overall losing 7,000 jobs in the same period. In other words, **Central City job growth is responsible for Portland's net job gain** of 5,000 from 2000–2006.

Recent job growth (2000–2006) in the three-county region has been primarily in institutional and office sectors – especially in **health care (up 17,000 jobs)** – not in industrial or retail sectors.

Metro regional government forecasts **520,000 new jobs by 2035 in the Portland Metro** seven-county region (the Metropolitan Statistical Area, or MSA). That amounts to an average annual growth rate of 1.7%.

Meanwhile, **150,000 new jobs are forecast to be in Portland by 2035** – that is, an average annual growth rate of 1.3%, and a return to the pre-2000 capture rate of 27% of regional jobs.

The 150,000 new jobs forecast for Portland would translate into **3,200 acres** of land absorption (that is, we would need 3,200 acres of land for the new jobs). (The high forecast calls for 200,000 new jobs and 4,100 acres of land.)

Estimates (by the City) are that there will be **4,200 acres of available land supply** to meet that job growth demand. However, "availability" is a relative term. Land may be considered available yet contain significant constraints to development under current market conditions. For example: brownfields (contaminated by past industrial use) are expensive to clean up for development; environmental protections on some lands limit development. **Such constraints apply to all but 1,400 acres of the estimated available land.**

Does this mean we don't have enough land to hold the new jobs we expect in Portland? We will just need to be more efficient with the land we have. Cleaning up brownfields, and recognizing how our environmentally important lands benefit our city as a whole will go a long way. Also, providing more land for certain types of uses, such as industrial and campus institutions, will help meet demand.

Looking at the types of job growth forecast, and the types of land available (including location), the EOA identified particular **shortfalls in developable land available for industrial district and institutional campus job growth.**

The **Economic Opportunities Analysis (EOA)** offers further detail on geographic subareas of the city where certain types of jobs and lands are located, including the following:

Office Sectors – mostly in Central City (the region's high density transit hub)

Industrial Sectors – mostly in Portland Harbor and Columbia Corridor industrial districts (where Oregon's marine, rail, air, pipeline and freeway infrastructure intersect)

Retail and Related Sectors – dispersed in various neighborhoods

Institutional Sectors – mostly hospital and college campuses in neighborhoods

Finally, the EOA provides Draft Growth Targets and Alternative Choices for meeting those draft targets (presented in three pages of tables).

Economic Specialization

Economic globalization trends since 1990 have put increasing pressure on regions to be competitive and adaptable in order to remain prosperous, as the international marketplace has opened up to increasing competition. "Traded sector" firms compete in that ever shrinking global marketplace.

"Traded sector" is that portion of the local economy that serves regional, national and international markets. Traded sector companies sell their goods and services not only locally but also in the broader region, nationally and globally. These Portland companies may be small or large, but they are bringing in earnings from outside our local economy. Portland's traded sector companies are particularly important compared to the non-local companies selling in Portland and exporting their income to other cities and countries.

Traded sector firms drive the region's prosperity through growth, higher income levels, and wealth generation. Each region tends to develop its own mix of traded sector specializations around its distinct competitive advantages and accumulated scale.

Some specializations develop into industry **"clusters"** of firms that compete and trade with each other. The Oregon Business Plan, recent regional business plans and Portland's 2002 and 2009 Economic Development Strategies have focused attention on the growth of these regional clusters as drivers of economic competitiveness and prosperity.

A few recent studies have identified industry clusters of the Portland region, based on regional data, but specializations also vary among cities within the region. The grouping together of industries also occurs within regions; while workforce tends to be mobile, investments and some other types of capital are more fixed. At a very simple level, industry clusters are like NE 28th Street's "restaurant row" or several food carts locating on a particular city block such as SE Hawthorne and SE 12th. The proximity of these similar businesses benefits all of them.

Especially in Portland, the Central City and the large seaport/airport industrial districts are unique in Oregon and appear to support additional **"big city" specializations** that differ from the rest of the region. The study described below is unique in that it sets out to identify city and Central City specializations, based on city and Central City data relative to the nation and to similarly sized cities in the United States.

With trends toward globalization, business leaders in local traded sector firms have commonly cited the need to reinvent themselves to remain competitive. The extent that they expand in Portland or elsewhere has come to depend more on competitive factors. Local responses to these globalization phenomena have emphasized traded sectors and competitive local strengths that attract and keep them, such as distinctiveness, innovation, talent, and productivity.

How should Portland position itself to remain competitive and prosperous? In the short term, business development programs have targeted the growth of particular traded sector clusters and emerging industries. In the long term, other sources of local competitive advantage also become variables, such as the growth of the local talent base, new infrastructure systems, new and expanding business districts and local competitive strengths around sustainability and other expanding economic activities.

The background research product for this topic area is the ***Evaluation of Economic Specialization in the City of Portland*** prepared by consultants ECONorthwest (June 2009, available on Portland Plan website at *www.PDXPlan.com*). This study identified sector specializations of the city and the Central City through quantitative analysis based on 2007 "value added" data (similar to gross domestic product), measuring their concentration here relative to the nation. Specializations in Portland were then compared to 10 similarly sized cities in the United States. Lastly, a trend and shift-share analysis compared how industry segments grew in Portland relative to the nation from 2001 to 2007, focusing particularly on Portland's current target industries.

Recommendations

- **Set an economic growth target that maintains Portland's role as an economic center in the region.** The policy would be equivalent to the city's housing growth goal adopted in 1994 to capture 20 percent of 3-county housing growth. Consider a job target of 27 percent of the 7-county MSA job growth (the midrange forecast), estimated to result in 150,000 net new jobs from 2010 to 2035. Consider also planning to meet the high-range job forecast (36-percent capture rate) as a potential opportunity. Explore other measures of growth beyond job creation to more accurately account for differences in sectors.
- **Fill shortfalls in the available capacity of employment land to meet the City's growth target.** To meet the mid-range forecast, estimated shortfalls include 650 acres of available land in industrial areas, 360 acres in campus institutional areas, and 100 acres in town centers and Gateway Regional Center. Shortfalls can be met by increased use of constrained vacant land and redevelopment at higher densities. Policy choices include zoning, targeted infrastructure investments, and incentives such as urban renewal and brownfield programs.
- **Supplement target industry and business development programs with additional long-term competitiveness initiatives.** Consider adding target industries among the city's largest traded sector specializations, planning long-term investments in local supplies of workforce, land, and infrastructure (business inputs) that meet traded sector needs, and setting up traded sector district initiatives in the Central City, Working Harbor, and Columbia Corridor.
- **Expand policy and program support to pursue economic opportunities in sustainability, equity, and neighborhood prosperity.** Integrate economic development goals and market opportunities into the multi-objective programs that support these community values.

overview

Energy

Energy is used all the time. It is fundamental to our economy and quality of life. Our immense energy needs are all around us - transportation fuels to move people and goods, electricity to power our buildings and manufacturing, natural gas to heat the air and water in our homes.

The Energy Background Report provides information to help us explore potential policy choices in planning for Portland 2035. The report:

- **summarizes what is currently known** about Portland's energy system;
- **reviews current conditions and trends;**
- **discusses the emerging issues** of volatile oil prices and supplies and climate change; and
- **reviews selected viable technology solutions to many energy challenges.**

This report relies on other background reports and the City of Portland's proposed Climate Action Plan to explore the broader energy implications of land use, urban form and transportation system planning decisions.

Current Conditions

Energy prices continue to rise: For Portland, from 2000 to 2007, electricity costs went up 75 percent, while prices for natural gas and transportation fuels went up 91 and 102 percent, respectively.

We spend a lot of money on energy: Currently, Portlanders spend upwards of $1.6 billion a year on energy. 53 percent of that is for transportation fuels.

Most of what we spend on energy leaves the local economy: Nearly all of the energy used in Portland comes from outside the state, with imported coal and natural gas supplying much of the city's electricity. Therefore, money spent on non-local energy sources contributes little to our local economy.

We use most of our energy in buildings, the rest by moving ourselves and things around: In Portland, 56 percent of energy consumed is used by buildings and industry. The remainder, transportation of goods and people, accounts for about 44 percent.

City of Portland Bureau of
Planning and Sustainability
Sam Adams, Mayor | Susan Anderson, Director

Trends

Powerful evidence from a variety of sources suggest that global production of oil and natural gas will reach its peak between 2010 and 2020, making these energy sources less available and less affordable than in recent decades. Rising and volatile oil prices increasingly affect:

- **transportation** of people and freight;
- **population densities** (as people seek to reduce their transportation costs);
- **the cost and availability of food** (because the American food system is so dependent on fossil fuels for transportation and fertilizer); and
- **our efforts to be an equitable city.**

As a result of likely rising and volatile oil prices, our local economy as a whole may undergo significant disruption and volatility, especially in industries that depend on national and global markets. And the costs of rising energy prices are generally not distributed equitably; higher energy prices have the potential to exacerbate **social inequities**, and tend to increase the number of low-income, vulnerable and marginalized residents. While facing disproportionate impacts, these residents have fewer resources to adapt, increasing pressure on social services.

Meanwhile, **greenhouse gas emissions** from human activities continue to collect in the atmosphere, destabilizing the climate. The world's scientific community, having reached consensus on the basic science of climate change, indicates that in order to prevent potentially catastrophic change, humanity must dramatically reduce total greenhouse gas emissions, on the order of **85 percent by 2050**.

Since 1900, the **average temperature** in the Pacific Northwest has increased by 1.5 degrees Fahrenheit. During the next century, warming is expected to increase at least three times as quickly. Impacts will include warmer, drier summers; increased heat island effects in urban areas; and wetter winters. River flows will be higher in the spring, when water already is abundant, and lower in the summer flows, when surface water is badly needed for drinking, irrigation, hydropower and salmon. More frequent droughts, fires, pest infestations and disease will threaten Oregon's forests. Beaches will be affected by rising sea levels, stronger storms and increased coastal flooding and erosion.

Rising temperatures may be accompanied by increased incidents of human diseases (such as cholera) and weather-related mortalities. Seniors in particular are at risk of heat stroke, especially in this region, where most homes do not have air conditioning. People may choose to migrate to the Northwest from increasingly inhospitable climates elsewhere in the world.

Opportunities

Climate change and peak oil represent a threat to Portland's quality of life, but also an opportunity to create more local jobs, improve personal health and enrich the quality of life for the community. In particular, redirecting energy dollars to pay for efficiency improvements and non-fossil fuel energy would expand markets for locally produced goods and services and keep money within the community. Buildings and transportation are two obvious places to start because they consume so much energy.

Cutting energy use in buildings will involve improving the energy efficiency of new and existing buildings and diversifying the energy supply to those buildings, thereby creating a more resilient energy system. Options include:

- expanding large utility-scale renewable energy sources, such as wind farms and large solar facilities;
- creating district- and neighborhood-scale energy systems, such as onsite renewables, district energy and other distributed generation sources; and
- investing in energy efficiency, green building, smart grids, onsite renewable resources (solar, wind, geothermal, biogas and biomass) and energy generation technologies such as micro-turbines and fuel cells.

Cutting energy use for transportation will involve:

- reducing the distance that people and goods must travel using vehicles;
- dramatically improving the fuel efficiency of those vehicles; and
- maximizing the use of alternative and renewable transportation fuels.

Options for cutting energy use for transportation:

- Walking and biking
- Streetcars and light rail
- Alternative vehicles (electric, hybrid, plug-in hybrid and natural gas)
- Electric vehicle charging infrastructure
- Fuel efficiency
- Renewable fuels

Recommendations

- **Explore opportunities** to address policy, code, legislative and financial barriers to onsite renewables and energy efficiency.
- **Align key components of the Portland Plan with the City's proposed Climate Action Plan**, which proposes an 80-percent reduction in greenhouse gas emissions by 2050.
- **Incorporate greenhouse gas emission considerations** into key decision-making, policy and planning tools.
- **Further define the relationship of energy** to economic development, affordable living, transportation, infrastructure, environment, urban form and other topics.
- **Pursue opportunities** to coordinate and regionalize innovative approaches to energy-related challenges and issues.

overview

Food Systems

Portlanders are growing increasingly aware of their food system—that is, all the paths that our food can travel from soil to soil (compost or landfill). This path includes everything from production and processing to distribution, consumption, and disposal, as well as the inputs and outputs of each of the steps, including natural and human resources.

Communities, governments and planners have long addressed several of the essentials of life – air quality, water quality and housing – while food has remained off the radar of long-term plans. However, growing awareness about the impact of our food choices on climate change, local and regional economies, fossil fuel resources, community health and land use have piqued planners' interest in recent years. More intersections are now visible between food and what planners already do.

We have the opportunity to be more direct about the positive impact our choices and plans can have on our local food system, and to consider further impacts as we plan for the next several decades. ***The Food Systems Existing Conditions Report*** is intended to contribute to public conversation around food as a planning issue to allow fuller consideration of policy choices and investment priorities.

The background report includes:

- A summary of what is currently known about Portland's food systems.
- Conclusions from national studies about the impact and intersections between food, health and community design.
- Recommendations for potential policy options the City could explore to support the food systems.

Without food systems as a consideration within planning, future decisions made through the Portland Plan may cause unintended consequences that work counter to our community's physical health. The food system has an impact on many of the important issues that the Portland Plan is considering: climate change, affordability, equity, human health, neighborhood health, urban form and more, and decisions made in these areas will impact the quality of our lives.

City of Portland Bureau of
Planning and Sustainability
Sam Adams, Mayor | Susan Anderson, Director

Key Findings & Recommendations

Portlanders are passionate about food and urban agriculture.

- **Demand for healthy food services is outstripping current supply.** Portlanders believe all people should have access to multiple sources of fresh, local food, including both food purchased and grown.
- **Equity in access to local food** is a major theme in the visionPDX data. Respondents consistently express the need to increase access to local food among low-income populations so that all everyone can benefit from the region's agricultural abundance.
- **Portlanders envision** a future in which eco-roofs, converted parking lots, vacant lots and other **under-utilized spaces provide local, healthful and affordable food** for the city's residents.
- **The commitment and interest in food is evident in a waiting list of over 1,300 people for a community garden plot;** recent growth in farmers markets by two or three a year; waiting lists for CSA farms equaling almost 100% of current capacity; growth in the backyard gardening and backyard chicken movement; and the local and national attention lavished on our regional food bounty, restaurants and value-added products.

Recommendation:

- The City of Portland should encourage expanded programming to provide access to healthful foods and local growing opportunities and incorporate food access and urban agriculture into community design.

The Food System – the path our food travels. Example: getting a hamburger into a bun and in your hands involves the cow, what it was fed, how it was raised, how its waste is disposed, where it was processed, how it was shipped, and the effect its life had on the land and air (including soil, water, and greenhouse gas emissions).

Portland is experiencing rising rates of obesity and Type 2 diabetes, and some areas of the city have few healthy food access options.

- **While rates of obesity and Type 2 diabetes** in the city are generally on par or better than surrounding counties and the nation as a whole, they are **well above national targets.** Moreover, these factors can impact the city's communities disproportionately.
- People with easy access to healthful foods, and limited access to unhealthful foods, tend to eat more fruits and vegetables and have improved nutrition and overall health. However, **some areas of Portland are underserved** by full-service grocery stores, community gardens and farmers markets.
- Demand for food assistance services continues to rise, and Oregon has **high rates of food insecurity.**
- Besides proximity, other factors like **affordability, quality, selection and cultural appropriateness** also play into the food access issue.

Recommendations:

- The City of Portland should encourage expanded access to healthy foods by planning for new food outlets, supporting existing outlets to provide more healthful, affordable options and creating supportive regulatory environments for healthful food and agriculture.
- The City of Portland can influence food systems through the consideration of food issues during the planning process and through support of policies, programs, and investment priorities conducive to expanding food access and encouraging healthy behavior choices.
- The Bureau of Planning and Sustainability can focus Portland Plan efforts to direct urban development in a manner supportive of providing opportunities to access healthful food and grow food locally. A planning goal describing our commitment to food access and urban agriculture would support community values around this issue and bring food into the City's comprehensive planning framework.

Food systems are a major component of several issues under exploration in the Portland Plan.

- **20-minute neighborhoods:** Grocery access has already been identified as a key feature of the 20-minute neighborhood. In early outreach, the public has suggested community gardens as being important. Programming urban plazas, or community gathering places, with events like farmers markets, can also contribute to walkable, vibrant communities.
- **Change:** In many U.S. cities in decline, urban agriculture (UA) opportunities are more plentiful as much vacant land is available. We have an opportunity with the Portland Plan to define UA for a growing, largely land-locked city. There are many creative ideas for providing more of our food without expanding the urban growth boundary or losing growth potential within the boundary. The discussion around accommodating growth while expanding UA could enhance the growth conversation while drawing in diverse participants.
- **Affordability:** As housing costs rise, less money is available for other basic needs like food. While transportation is certainly key and accounts for a larger proportion of the household budget, food costs are significant and are often the expenditure that gets reduced when other costs rise. Central to the affordability discussion is the ability to meet all basic needs, including healthful food.
- **Community resiliency:** There is growing interest in preparing communities to face unexpected turmoil or deep changes due to climate change, peak oil, and a changing economy. As we seek to address these challenges and prepare for an uncertain future, food is an integral issue in the discussion.

overview

Health & Safety

Where we put our homes, businesses, places of play, transportation systems and natural areas directly affects how much physical activity we get, how much healthy food we eat, whether we get sick from poor air and water quality and whether we feel safe and connected to our communities. If the built environment influences health, then the decisions planners make for the future of a community also have health impacts on that community.

Planners are rediscovering the intersection between health and good community design and the impact that planners and decision makers can have on public health.

The ***Health and Safety Background Report*** characterizes a wide range of health issues as part of the City of Portland's comprehensive planning efforts. The report summarizes what is currently known about Portland's health and safety, describes conclusions from national studies about the relationship between health and community design and presents potential policy options the City could explore to support health.

The Portland Plan presents an opportunity to more clearly outline the positive impacts municipal planning can have on individual and community health and how we may consider further health impacts as we plan for the next several decades. This report is intended to contribute to public conversation around health as a planning issue and to allow fuller consideration of policy choices and investment priorities.

Key Findings and Recommendations

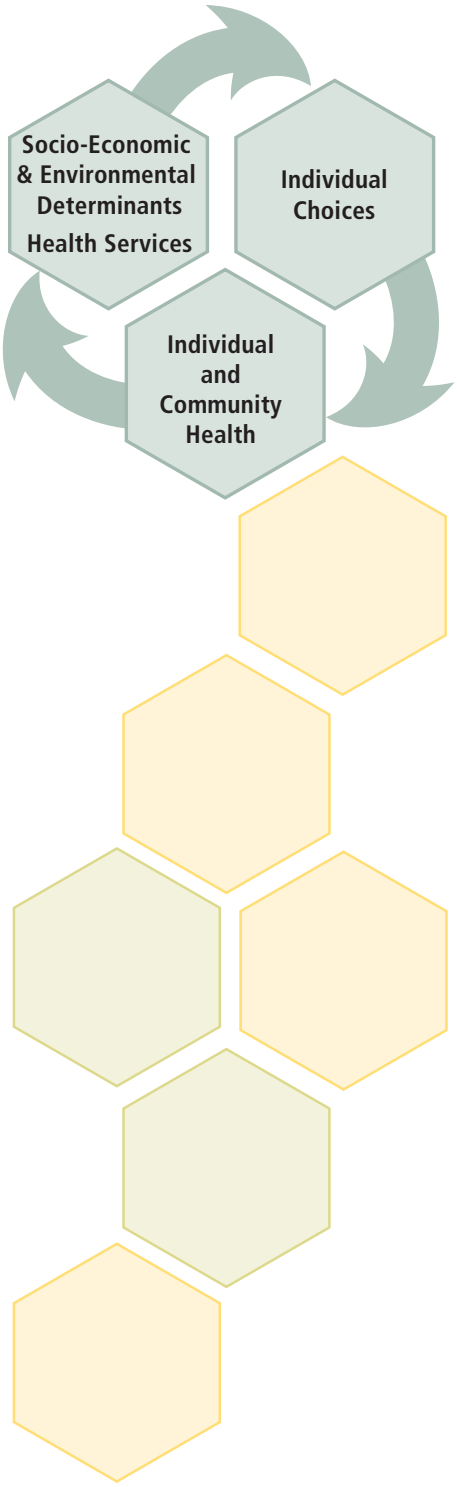
Rising rates of obesity, diabetes, chronic disease, cancer and asthma represent some of our greatest health challenges. Although rates in Portland are generally on par or better than rates in surrounding counties and the nation as a whole, they are well above national targets – and they are continuing to rise.

These health outcomes can affect the city's communities disproportionately. Studies have confirmed that individuals and communities with lower incomes, educational attainment and status tend to have poorer health and shorter life spans than those with higher incomes and wealth. Portland has areas of concentrated poverty and lower educational attainment, and evidence indicates that some health outcomes (e.g., asthma) and behaviors (e.g., amount of physical activity) do vary in different areas and communities throughout the city.

City of Portland Bureau of
Planning and Sustainability
Sam Adams, Mayor | Susan Anderson, Director

Some existing City goals and policies contribute to promoting and protecting the health of Portlanders.

The City of Portland's current Comprehensive Plan includes a broad range of policies that work to promote health. The City's coordinated land use and transportation, housing, economic development, environmental and public safety policies create a strong foundation for protecting and promoting health in the community. In the pursuit of these goals, many steps Portland has taken have also supported community health. For example, the city's extensive network of bike lanes and pedestrian paths, commitment to walkable, mixed-use neighborhoods and strong transit system all are in line with the recommendations coming out of recent research on community health promotion. However, Portland has a long way to go to ensure that the benefits of a healthy community extend to all of its residents, and to ensure that negative health burdens are minimized for our most vulnerable populations.



The City of Portland can influence community health by considering it during the planning process and by supporting policies, programs and investment priorities that will help improve health determinants and encourage healthy behavior choices. Specifically, the Bureau of Planning and Sustainability can focus efforts on directing urban development in a manner that supports community health and economic, educational and social equity.

A planning goal describing the City's commitment to health would further integrate health in the City's comprehensive planning framework. The City could also refocus the language of existing policies to highlight their intended impacts on health to reestablish their foundational purpose: to protect and improve the lives and health of all Portlanders.

To better integrate consideration of public health into planning decisions, the City should establish partnerships and policies that support collaboration between local health officials, the community and planners in creating planning policy and priorities.

Without health as a planning lens, future decisions made through the Portland Plan could cause unintended consequences that would undermine our community's physical and mental health. In addition, careful planning could ameliorate some local health disparities. The City of Portland should explicitly consider health when making planning and investment decisions so that the resulting physical environment makes healthy choices easy.

Access to Healthy Foods

People with easy access to healthful foods, and limited access to unhealthful foods, tend to eat more fruits and vegetables and have improved nutrition and overall health. In general, Portland is rich in food outlets, with strong networks of grocery stores, farmers' markets and community-supported agriculture (CSAs) providing multiple places to procure healthful, local and organic food. However, some areas of Portland are underserved by full-service grocery stores and farmers markets; many of these areas have relatively high concentrations of poverty and demand for food assistance services continues to rise. The City of Portland should encourage expanded access to healthy foods by planning for new food outlets, creating support-

ive regulatory environments for healthful food and agriculture and incorporating food access and urban agriculture into community design.

Access to Walking and Biking Networks

Many Portland residents do not get adequate daily exercise. In fact, less than half of people at a healthy weight exercise the recommended amount. To ensure opportunities for active living and physical activity, the City must continue to (1) pursue coordinated land use and transportation systems that put people within walking and biking distance of the destinations and services they need, (2) continue to improve pedestrian and bicycle networks and (3) address safety issues. While Portland's bike network has improved extensively over the past 20 years, there are still areas of the city where bike infrastructure is poor and cycling rates are low. The pedestrian environment has notable strengths, especially in inner neighborhoods and downtown, but it is limited in East and Southwest Portland by a disconnected sidewalk network.

Access to Parks, Recreation and Natural Areas

Recreational opportunities in Portland are numerous and diverse. However, some parts of the city have fewer options for active recreation than others, and gaps exist throughout the city for different recreational opportunities. Only half of all City residents live within a half mile of a developed park. Significant areas of the city have limited walkable access to natural areas, and some areas lack play areas, aquatic facilities and other recreation facilities. The City of Portland and its partners must ensure equitable distribution of and access to recreational opportunities such as parks, natural areas, recreation centers and programs, trails and gardens.

Outdoor Air Quality

In general, Portland's air quality has improved over the past five years. However, Portland still faces problems with toxic air pollutants, particularly in areas close to freeways. The city's benzene levels are rising and are eight times higher than national ambient air quality standards. These high levels of benzene and other pollutants associated with motor vehicles translate into high relative cancer risks, particularly in North and Northeast Portland, downtown and areas along highways. Negative health impacts could be further concentrated by the city's land use policies that cluster high-density development near transportation corridors. The areas that have the poorest air quality also have a high proportion of low-income and ethnic/racial minorities, a fact that raises potential equity issues. The City of Portland should continue to work to improve outdoor air quality through coordinated land use and transportation systems, development of alternative transportation networks, and separation of industrial uses.

Indoor Air Quality

On average, people spend about 90 percent of their time indoors, putting them at risk of exposure to pollutants found in indoor air. Examples include radon, environmental tobacco smoke, biological contaminants, combustion-related pollutants and pesticides. These pollutants have known health impacts such as higher risks for respiratory irritation, asthma and cancer. The City of Portland can work to address certain indoor pollutants

through building codes and standards that regulate building materials and construction; through programs that encourage testing and remediation for pollutants such as radon, lead and asbestos; and through awareness and education programs about the importance of personal choices.

Surface Water Quality

Water quality in the Willamette River and the Columbia Slough has shown significant improvements (from "poor" to "fair") in the past five years, in part because of reductions in combined sewer overflows (CSOs). However, people who swim, boat or fish in some local waters face real health risks from water quality problems associated with the remaining combined sewer overflows, non-point source pollution, historical pollution and the impacts of upstream activities. Continued improvements to address combined sewer overflows and clean up the Portland Harbor Superfund Site will significantly improve the health of our major rivers. To further improve the quality of the City's rivers and streams, additional efforts will be needed to reduce, control and treat non-point source pollution and emerging pollutants.

Drinking Water

Portland's drinking water currently meets or exceeds the existing stringent water quality standards set by the federal Safe Drinking Water Act – mainly because Portland has a protected drinking water source. However, at least two issues related to drinking water remain. First, the City may be required to make substantial capital improvements to its water system in order to comply with new federal rules intended to reduce the risks of illness from Cryptosporidium. Second, fluoride is not naturally found in Portland's drinking water. The Portland Water Bureau does not add fluoride to the city's water, although this practice is recommended by the U.S. Public Health Service to prevent tooth decay.

Access to Health Care

Not all Portlanders have equitable access to health care. However, because the City of Portland does not directly provide health care to its citizens, the City's ability to affect health care access is limited. Additionally, many of the factors affecting access to health care are beyond the scope of this assessment and are tied to a number of other socioeconomic, equity and cultural issues. Regardless, the issue of equitable access to health care deeply affects residents' quality of life and cannot be ignored. The City can work to address larger socioeconomic issues that affect health care access and collaborate with private and public providers—particularly Multnomah County—to ensure that health care facilities are appropriately and equitably sited and served by transportation infrastructure. Further conversations with health care providers and stakeholders should shape the City's work in this area.

Fire and Medical Response

During fiscal year 2007-2008, Portland Fire and Rescue responded to a record number of incidents—more than 65,700. Two-thirds of these were medical emergencies, and 3 percent were fire incidents. This represents the lowest number of fire incidents in 50 years. Over the last 10 years, the number of fire incidents has declined 22 percent, while the number of medical incidents has increased 40 percent.

The City of Portland continues to face challenges in meeting its fire and emergency response time goals. In 2007, the most recent year available, the response time for both fire and medical emergency calls was more than a minute longer than the Bureau's target time.

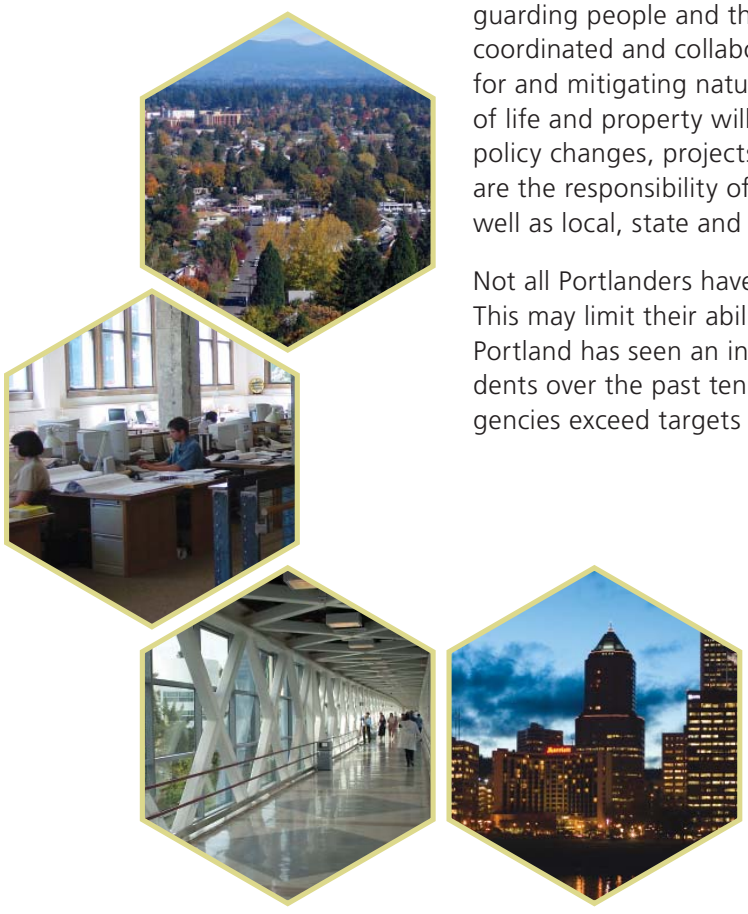
Crime

In general, residents' safety and their perception of safety have improved over the past decade. Since 1998, Portland's crime rate has declined 51 percent for person crimes and 28 percent for property crimes. In 2008, most residents felt safe walking alone in their neighborhoods during the day, and more than half of residents felt safe walking alone in their neighborhoods at night. Residents in East Portland neighborhoods tend to have higher crime rates and perceptions of fear than other areas of the city.

Emergency Preparedness

Natural hazards such as severe weather, landslides, flooding, wildfires and earthquakes pose a real threat to the safety of Portland residents. Safeguarding people and the environment from natural disasters requires a coordinated and collaborative community partnership. Identifying, planning for and mitigating natural hazards to permanently reduce or alleviate losses of life and property will require a range of strategies including planning, policy changes, projects and improving public awareness. These activities are the responsibility of individuals, private businesses and industries, as well as local, state and federal governments.

Not all Portlanders have sufficient access to preventive or emergency care. This may limit their ability to receive adequate health care when needed. Portland has seen an increase in the number of emergency medical incidents over the past ten years. Response times for fire and medical emergencies exceed targets in many parts of the city.



overview

Historic Resources

Historic resources—buildings, districts, bridges, public art, landscapes, etc.—are structures and places that connect the past to the present. They enrich our built environment and public spaces, help define the character of our neighborhoods, and contribute to our sense of place. Historic preservation, in its broadest sense, is a collective endeavor that seeks to understand, protect and enhance these resources for ourselves and future generations.

This overview presents highlights of the Portland Plan Historic Resources Background Report, which forms a basis for understanding the role of historic buildings and places in shaping the city, and critical issues to consider as the Portland Plan unfolds.

Background research on Portland's historic resources presents major issues relating to the current state of our historic buildings, neighborhoods, spaces and structures. The resulting *Historic Resources Background Report* consists of three major sections:

- **Key Findings and Recommendations**
- **Data and Maps**
- **Understanding Historic Resources in Portland**

With the Portland Region expecting population, housing and employment growth, we will face challenges to preserving historic resources and protecting and enhancing our historic and established neighborhoods. The City and its community partners will need to prioritize preservation efforts and be strategic about which projects to pursue. A key priority should be integrating preservation values into the Portland Plan and Comprehensive Plan update processes, while also balancing preservation goals with other policy goals. Collaboration among all stakeholders and community partners will be key to the success of these efforts.

City of Portland Bureau of
Planning and Sustainability
Sam Adams, Mayor | Susan Anderson, Director

Key Observations

The historic preservation background research encompasses a wealth of detail about Portland's historic buildings, neighborhoods, spaces and structures. The three research reports provide complementary information. Content of report 2, Data and Maps, is self-explanatory. Report 3, Understanding Historic Resources in Portland, details the role of various agencies, commissions and programs of the City of Portland government. It also outlines state and federal historic resources rules and benefits. Report 1, Key Findings and Recommendations, contains more general and introductory information, and is the main report from which the following Key Observations are summarized.

Historic resources play a vital role in defining Portland's sense of place and the character of its neighborhoods. Portlanders place a great value on historic resources, not only designated landmarks and districts, but the established fabric of the city's neighborhoods—its older buildings, structures and streetscapes that may not (yet) be formally designated as "historic," but are central to the city's distinctiveness and quality of life. More than 60 percent of the city's buildings are at least 50 years old, and 35 percent are at least 75 years old, creating a vast pool of potentially significant historic resources. In addition to more than 670 individual historic landmarks, Portland has 20 historic and conservation districts, covering 1,500 acres and containing more than 3,500 contributing properties. The City's Historic Resource Inventory, completed in 1984, includes 5,000 properties. Portland residents' appreciation of the historic built environment is manifested in many ways, from strong citizen engagement in the historic design review process to grass roots projects to save threatened buildings and create new historic districts.

Preserving historic resources is complex and must be balanced with other goals of the city. One of our City's challenges is to find ways to change and grow, while also preserving our historic resources and protecting the character of neighborhoods. Redevelopment pressure on designated and potentially significant historic resources is already evident in some neighborhoods and the scale and design of infill development is often controversial. In places expected to experience higher density and development in the future, the existing and historic built environment and landscape may be at additional risk. A balance between preservation goals and other policy objectives must be achieved, and tools must be developed to sensitively manage change.

A new, "modern" history is emerging: Much of Portland's post-World War II modern architecture is now (or soon will be) old enough to apply for historic designation. These various mid-century buildings collectively represent the changing needs and lifestyles of the city at the time, and shifts in how the building industry addressed those needs, ranging from "suburban" housing developments to new special-purpose building types. Yet these mid-century resources are disappearing before they can be evaluated or considered for preservation. Portland has an inadequate inventory of these resources. Additional tools are needed to evaluate, protect and preserve them.

East Portland is underserved by historic preservation research, policies and protections. It has a substantially different history, identity and built and natural environment than the inner Portland neighborhoods which have long been the focus of preservation efforts. At the same time, East Portland is a focus of numerous local and regional growth policies and efforts encouraging redevelopment. Yet without an adequate inventory of potential historic resources and other evaluative tools, it is difficult to create policies, programs and projects that will help preserve desired aspects of the area's historic fabric over time.

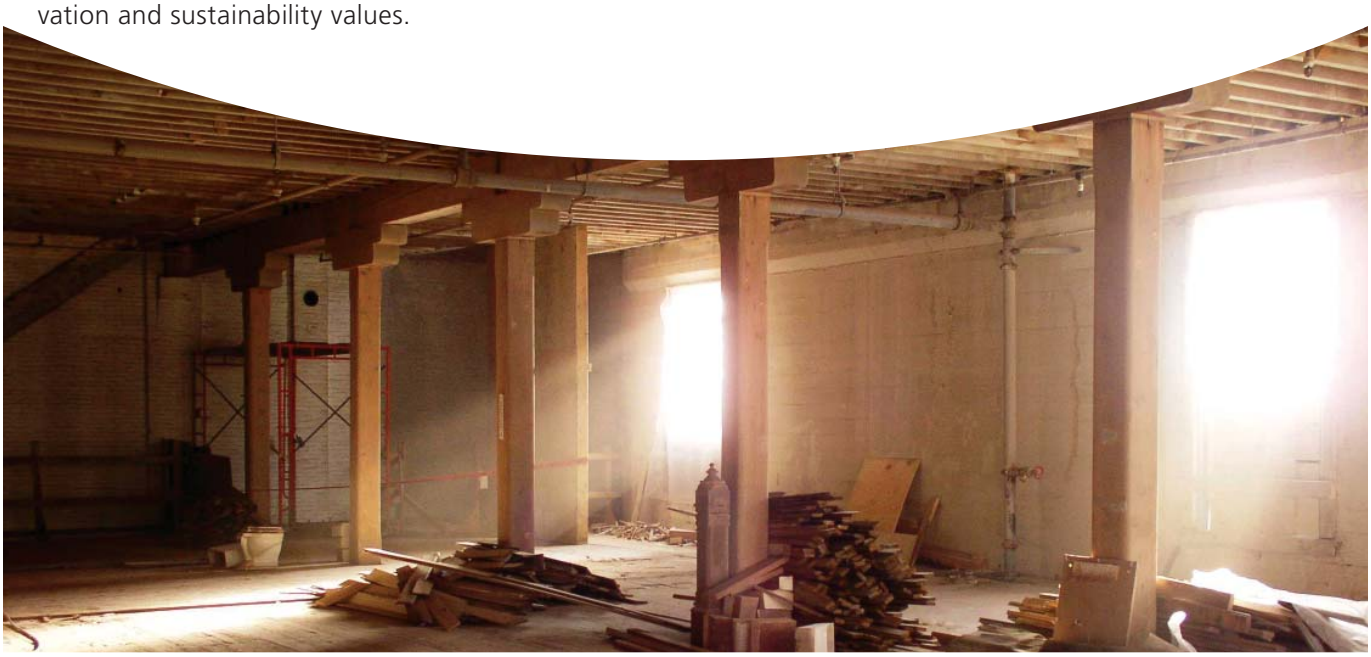
Portland has an inadequate inventory of historic and archaeological resources and other tools. Portland's Historic Resources Inventory (HRI) is now a quarter century old and has many shortcomings. A large number of now potentially significant resources were not identified because they were not old enough at the time (1984) to be considered historic. many areas of the city and some types of structures were not well documented. Areas recently annexed to the City (namely East Portland) were not inventoried. Nor did the inventory address archaeological and culturally significant sites. Thus while an inventory of potentially significant buildings, structures, sites and landscapes is a fundamental building block for creating effective historic preservation policies, programs and projects, Portland lacks such a foundation.

Historic preservation is sustainable development. Preserving our city's historic resources can foster development that is socially, economically and environmentally sustainable. Good building stewardship, re-use and rehabilitation are inherently sustainable practices. Older and historic buildings have intrinsic value in terms of their embodied energy, were often constructed from quality materials and represent durable assets.

Portland has taken a leadership role in the sustainability movement and is recognized for a number of public and private sustainability initiatives. The merger of the Bureau of Planning and the Office of Sustainable Development creates new opportunities to explore and improve the connections between preservation planning and sustainable development.

Some issues and opportunities that have been identified regarding the connections between preservation planning and sustainable development include:

- **The role of historic preservation in sustainable economic development.** Preservation and rehabilitation have demonstrable economic benefits to the community, such as spurring revitalization in surrounding areas, increasing the local tax base and creating heritage tourism opportunities.
- **The cultural and social value of historic buildings.** Historic buildings play an important role in enhancing community character and sense of place, preserving affordable housing and stabilizing property values, among other considerations that relate to the common good.
- **The suitability of historic structures for alternative energy production and other conservation technologies.** These modifications can help meet environmental goals and extend the useful life of a building, but if not sensitively executed may negatively impact the integrity and character of historic places. Creative approaches and collaboration can concretely demonstrate the connections between preservation and sustainability values.



Recommendations

Improved preservation policies, tools and incentives are needed. Portland's tool kit of preservation policies, programs, regulations and incentives that support the preservation and enhancement of historic resources need to be reviewed and, where appropriate, revised and improved. Some identified issues include:

- effectiveness of preservation zoning incentives;
- lack of financial incentives;
- inconsistent and complex applicability and content of historic design guidelines and standards;
- barriers to designating local landmarks; and
- coordination of City historic resource functions.

Integrate historic resources into the development of Portland's Strategic Plan. Historic resources and their role in defining neighborhood typologies and pattern areas will be a fundamental layer used in determining "areas of stability and change" and other urban form and physical planning components of the Portland Plan strategic framework and subsequent implementation actions including the updated Comprehensive Plan. As plan concepts, goals and policies are developed, the City's existing historic preservation policy framework and tool kit should be evaluated. In the later stages of the process, preservation policies and implementation measures (e.g., zoning provisions and design guidelines) should be reviewed and revised in order to ensure that they address some of the existing challenges and opportunities outlined here.

Pursue collaborative and strategic preservation research, education and policy development projects. The list of Portland's preservation needs and challenges is extensive; however, the scope of the Portland Plan and available resources are limited. The City and its community partners will need to prioritize their preservation efforts and be strategic about the projects they pursue. There are a number of opportunities to meet multiple objectives and other policy goals at the same time.

Ideas for suggested actions

Below are some possible avenues for focused approaches to addressing historic preservation needs.

- **Identify opportunities for targeted inventories of historic resources.** Comprehensively updating the HRI on a citywide level would require a considerable commitment of resources. A more strategic or phased approach to updating the HRI may need to be developed, such as targeting specific geographies or types or eras of resources. Partnerships with preservation and neighborhood groups will be required. City-owned historic resources should also be a priority for new inventory work. Existing inventories should be made more readily accessible to researchers and the public. New mapping and database tools can also assist in broadening understanding of historic resources citywide.
- **Pursue preservation projects in East Portland.** East Portland has few protected historic resources, lacks an adequate inventory and has had little historic preservation planning. New preservation initiatives in the area are called for, such as inventory and research, historic designation projects, and the development of preservation policies and strategies that respond to the distinctive attributes of East Portland.
- **Pursue projects that explore the significance of Modern architecture.** Even as a new wave of potentially significant architecture from the post-war era becomes eligible for historic designation, many examples are disappearing before they can be evaluated or considered for preservation. There is an inadequate inventory of these types of resources, and few tools to evaluate, protect and preserve them. The basic groundwork for a considered approach to protecting this very different universe of historic resources should be established.
- **Pursue strategies that capitalize on the nexus between historic preservation and sustainable development.** The City should work with local citizens and business, as well as federal, state, and local organizations, on initiatives that promote both preservation and sustainability. These range from tax credit programs and incentives that encourage historically appropriate rehabilitation and energy upgrades, to improved green-building rating systems. The integration of the City's long-range planning and sustainability programs in the new Bureau of Planning and Sustainability creates opportunities for new and improved projects that more fully incorporate historic preservation values and expertise with sustainability.

overview

Housing

Housing is simple - do we all have a place to sleep at night? But it is also complex - not least of all because the answer to that question for some of us is "no," we have no home. Ultimately, providing housing is one of the most basic and yet most complicated tasks a city must do. Affordability, quality, maintenance, safety - all come into play. So does proximity to other basic needs - jobs, transportation, schools, services - to say nothing of proximity to amenities like parks and entertainment that make for a high quality of life that Portlanders like to boast about.

Not surprisingly for such a complex topic, the background information on housing gathered by City staff and consultants encompasses a vast array of research to provide a foundation for community discussion about future programs and policies. The housing topic research consists of four separate research projects:

- *Housing Supply Background Report* – an inventory of existing housing units
- *Housing Affordability Background Report* – comparison of housing costs and income levels of Portlanders
- *Housing and Transportation Cost Study* – transportation costs as a key component of housing affordability
- *Household Supply and Demand Projections Background Report* – considers the effects that projected population growth will have on the City's housing needs over the 30-year timeframe to 2035. Specifically, the report examines whether housing supply will be able to meet demand, and in which areas of the City certain types of housing could be needed most.

This overview of the housing topic pulls together highlights of each of the housing background research reports.

Current Conditions

Population increases –

- The population of the Portland metropolitan area has **grown steadily** over the past several decades, with a large spike in the most recent recorded decade (1990-2000), when the area's population reached the 1.9 million mark.
- During 1990-2000, the population of **Portland proper** grew to some **500,000**, with residents living in about 243,000 households.
- Portland remains poised for **significant continued growth** in the coming decades.

City of Portland Bureau of
Planning and Sustainability
Sam Adams, Mayor | Susan Anderson, Director

More housing choices –

- Over the last several decades, housing choices in Portland have been **evolving**. Into the existing mix of mostly single-family homes and clusters of multifamily housing units, most of the new housing that's been constructed is **more urban, dense and in neighborhoods with a mix of uses.**
- The more urban, dense mix of new housing is especially true for units built in **town centers, near light rail stations and along major corridors.**

Higher costs –

- Costs of both new and existing housing have **risen faster than incomes,** leaving fewer housing options for households of limited means.
- Households of limited means have been **priced out** of neighborhoods that have good access to transit, jobs, shopping and services and often can only find affordable housing to **rent or buy farther out,** in less convenient locations, where their commuting costs are higher.

Housing types –

- **Sixty percent** of the housing units in Portland are **single-family detached homes,** and most of the rest are multifamily housing.
- Mix of housing types varies across the city, with more **multifamily housing** in the city's core and adjacent **close-in neighborhoods.**
- Most housing units have **two or three bedrooms.** The exception is in Portland's Central City core area, which has many single-room occupancy units, studios and one bedrooms.
- **The Central City core area** has a higher percentage of **newer units** (35 percent built since 1989) than other parts of Portland.

Ownership rates –

- Overall homeownership rate 57 percent - a steady increase since 1990.
- Highest homeownership rate 64 percent in Northeast Portland.
- Lower homeownership rates in the city's core and adjacent close-in neighborhoods.

Housing supply –

- Has been **growing** – an estimated 12,621 new housing units have been added to the existing stock since the 2000 census count.
- Is **adequate** for the current demand.
- As the Portland area population increases, significant additional housing will be needed.
- Existing housing stock **will need to be maintained**. Nearly 35 percent of Portland's housing units were built before 1940. If these older homes are not kept up and retrofitted for energy efficiency, the inventory of existing stock may decline. The preservation of older multifamily housing, in particular, is critical because this housing type often is more affordable and contributes more towards neighborhood character than new housing.

Why do we count households instead of people? The short answer is that people live in households, whether the household is one person or many, and whether the "household group" lives in a large freestanding unit or small unit in a high-density "multi-family" building. And when people search for housing, they "shop" as a household.

Housing Affordability –

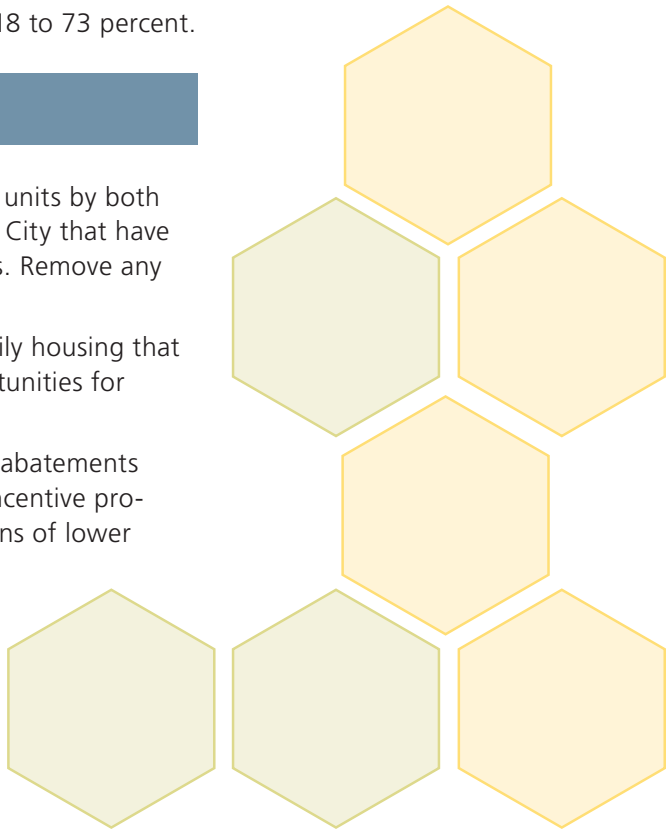
- Increasingly, housing **affordability is seen as a function** not just of income and direct housing costs but also **of location** – that is, a home's proximity to jobs, transit, shopping and services greatly affects its overall affordability, especially as **transportation costs** have been not only high but increasing.
- The combined **housing and transportation** costs leave many **lower income households "cost burdened,"** meaning that they **spend more than average 45-50 percent of their household income on housing and transportation costs.**
- In Portland, many of the **neighborhoods with the best access** to jobs, transit and services (centrally located neighborhoods such as downtown, the Lloyd and River Districts, Northwest and the inner eastside) also have become the **most expensive,** leading lower income households to move further out, where rents and housing prices are lower but transportation costs are higher. Rents by both number of bedrooms and by square foot are as much as twice as high near the center of the city as farther out
- Housing prices are **most affordable** in areas to the north and east, **farthest from the city's center,** which is the region's largest job center. The transportation costs and commuting times for households seeking affordable housing in these areas are likely to be high.
- Although Portland has a substantial supply of **subsidized rental housing** that is dispersed throughout the city, supply is not equal to demand.
- Use of rental housing (Section 8) **vouchers** is increasing in the far north and east areas of the City and decreasing in the inner eastside neighborhoods. These close-in neighborhoods have locational advantages that would benefit lower income households, such as frequent transit service, convenient neighborhood commercial areas and proximity to the central city—the region's largest job center.
- As of the third quarter of 2009, there were 6,123 properties in the Portland metro area with foreclosure filings, according to Realty Trac, a national firm that tracks foreclosures. Approximately one in every 145 housing units has had a filing.

Trends

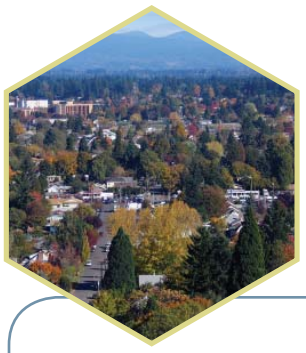
- **Demand for homes will increase** as the **population** of the Portland metropolitan area is expected to continue to **grow.**
- More than twice the number of **multifamily units** than single family units are being built in the City of Portland since 2003 and this **trend is likely to continue** given smaller household sizes and the scarcity of vacant land designated for single family development.
- The most notable trend affecting the Portland housing market in the last decade is the **decline in affordability.** From 2000 to 2007, the median Portland housing price rose almost 75 percent—from $166,000 to $288,900—and monthly housing costs rose roughly 40 percent.
- **Utilities costs,** which add to housing costs, are also expected to continue to **rise.**
- **Incomes have not kept pace** with these cost increases, leaving many households cost burdened.
- Between 2000 and 2007, the **supply of affordable** owner-occupied and renter-occupied housing units **decreased.**
- The number of **rental units** with monthly housing costs of **less $700 declined substantially.** Units in the $400 to $600 range would be affordable to households with incomes of between $16,000 and $24,000 a year. A minimum wage worker working full time makes about $17,500 a year.
- During the same period, the number of owner-occupied **homes valued at more than $200,000 increased** dramatically, from 18 to 73 percent.

Recommendations

- Encourage new development of affordably-priced rental units by both for and nonprofit developers, particularly in areas of the City that have good access to frequent service transit, jobs and services. Remove any regulatory and other barriers to this development.
- Support the construction of new attached and multifamily housing that can provide more affordable and energy-efficient opportunities for homeownership than single-family detached housing.
- Consider tools such as location-efficient mortgages, tax abatements for transit-oriented development, and employer-based incentive programs to address housing and transportation cost burdens of lower income households.



Projections for 2035



Stated in the broadest of terms, the Metroscope computer model tells us that:

- The number of households in the Metro region and the City of Portland will grow
- There will be adequate supply of housing for the additional residents
- The highest level of housing demand will be for multi-family residences

The Metroscope Forecast

The Metro regional government is responsible for forecasting the amount of growth the metropolitan area will experience. The Metroscope computer model calculates a wealth of detailed projections of what the region's population and demographics will be in 2035.

The Forecast is a Baseline

The Metroscope model assumes that existing policies and trends continue; in this way, the forecast is useful as a baseline by which to evaluate potential changes in policy. The forecast calculates three growth level scenarios – high, medium and low.

Projections show that:

- Number of **households** in Portland will **increase by at least 42 percent** between 2005 and 2035.
- Approximately **117,600 to 133,000 new housing units** will be needed in the city. This is equivalent to between **3,360 and 3,800 new units each year,** and an annual growth rate of 1.2 to 1.6 percent.
- The annualized growth rate for the Portland metropolitan area as a whole is expected to be just over 1.2 percent.

As a frame of reference, the city added 29,300 units between 1997 and 2007, an average of just under 3,000 units each year, accounting for an average share of 36 percent of the units built in the metro region in that ten-year period.

Portland's **share of the growth in households regionally** is projected to decline to approximately 22 percent in 2035 from a baseline 2005 share of 29 percent; this holds true for all three growth level scenarios.

Housing Distribution

Where:

- Portland's **Central Business District** is the area that will see the **highest growth** in demand for housing – nearly **277 percent.**
- The **lowest levels of growth** in number of households are projected for **Northeast and Southeast Portland,** at 17 and 15 percent, respectively.
- **Southeast** Portland will be home to the **largest number of households** – 23 percent of all the housing units in the city.

Type:

- The most dramatic growth will be in the number of **condominiums and other owner-occupied multifamily housing units;** these will be in demand throughout the city.
- Single-family rental housing will become less available, as few such homes are expected to be added to the existing housing stock.

Household Characteristics

Demographers have studied the characteristics of Portland's expected residents in 2035, grouped them using **eight different profiles,** and projected how many of which groups will be living where in Portland. This information has bearing on the types of housing that will be needed in different parts of town.

Overall projections are that the **distribution of household types** in 2035 will be **similar to the current distribution.**

- Higher income households will be concentrated in **West** (with about half of the city's highest income households) and **Southeast** Portland.
- **Low-income singles** will be more evenly distributed throughout the city than other groups, although North Portland will account for about one-third of the city's lowest income households.
- **North, East and West Portland** will have more **variety** in household type than the Central Business District, Northeast and Southeast Portland.

Notable changes expected by 2035 include:

- An **increase in the share of low-income singles living in North Portland,** where this group currently makes up one-third of all households. Many of these are elderly renters.
- In **Southeast** Portland, there will be more **smaller households** (one or two people) than now.
- **East Portland's share of higher income households will decline,** while its share of lower income households will increase.
- Portland's **Central** Business District will have a higher portion of the city's **established singles** than it currently does.

Housing Capacity

- Modeling suggests that **all the different areas of Portland** (North, Northeast, etc.) **have the capacity** to meet their projected housing needs.
- Approximately **189,000** housing units (mostly multifamily) **can be built** in the city.
- Construction on **underutilized lots** alone could add more than **120,000 units.**
- In **Southeast and North Portland,** building on **underutilized land would provide enough housing** to meet demand under both low-growth and medium-growth scenarios.
- In **Northeast and West Portland, housing beyond what could be built on underutilized land will be needed,** even under a low-growth scenario.
- Both East Portland and the Central Business District can easily satisfy their expected housing demand under all growth scenarios.

How to Use This Information

As mentioned earlier, we need a clear idea of expected growth so that we can plan well ahead for transportation, schools, and other facilities and services for the city and region. Just as we ask, "Where will the new households go?" we will need to decide where the new facilities should be located. The geographic distribution of the different types of households, with their various ages, incomes, and other characteristics, has many implications. Will the housing units be small (studios for young single people) or larger (three- and four-bedroom homes for families with young children)?

A good example is the projected rise in lowest income households (Group 1 - "Low-income Singles") forecast for the North Portland subarea. Metro's profile of characteristics for this group is not just that they are low income and single, but also that they are primarily older people. To see the numbers of this type of household increase in North Portland from 29% to 34% means an increase in the numbers of housing units that will need to be, for instance, able to accommodate wheelchairs. If we built only new "live-work" units accessible by stairs in North Portland, that would not be a good match to what the expected population there will need.

overview

Natural Resources

Portland's wealth of waterways, woodlands, prairies, forests and fertile soils are natural resources that have supported people (not to mention fish and other animals) for thousands of years. We know, however, that time and change constantly present new challenges. Portland has established many regulatory tools to keep our natural resources healthy and safe.

Even today in Portland, when we have diverted so many streams to underground pipes and covered so much earth with pavement and buildings, we still depend on healthy natural resources to provide important basic functions. Cleaning our air and water, managing stormwater, preventing erosion, and maintaining flood storage capacity are all enhanced by having a thriving riparian environment - that is, vegetated land along our rivers and streams.

Aside from large city-managed natural areas such as Forest Park, most of the remaining natural resources in Portland consist of rivers, streams, wetlands and associated vegetated corridors, and areas containing or providing vital functions to at-risk plant and animal species. Most other areas are largely developed.

A first step in protecting riparian natural resources has been to know what resources we have, and how healthy they are now. The City's natural resource inventory (NRI) documents the location, extent and condition of Portland's riparian corridors and wildlife habitat.

The City's recent update to the NRI serves as the Portland Plan Natural Resources Background Report giving us the latest on the resources we have today in Portland. The report is particularly useful as a companion to the background reports on two especially related topics, Watershed Health and Urban Forestry.

The new natural resource inventory includes:

- **GIS data** for rivers, streams and drainageways, flood areas, wetlands, vegetation, topography, and special habitat areas;
- **science-based models** to assess the functions and values of the natural resources features; and
- **maps.**

The project methodology builds on the approach the Metro regional government used to develop a prior regional inventory of riparian corridors and wildlife habitat as part of state requirements. The relative quality of the natural resources is evaluated for specific ecological functions relating to watershed hydrology, water quality, and fish and wildlife habitat.

City of Portland Bureau of
Planning and Sustainability
Sam Adams, Mayor | Susan Anderson, Director

The Natural Resource Inventory identifies natural resource features and scores them based on the watershed functions they perform. The individual natural resource features are ranked relative to each other for overall relative riparian corridor and wildlife habitat quality. Combined relative rankings are also prepared, where riparian and wildlife habitat resources areas overlap. Special Habitat Areas receive a high relative combined rank.

What is a riparian corridor?

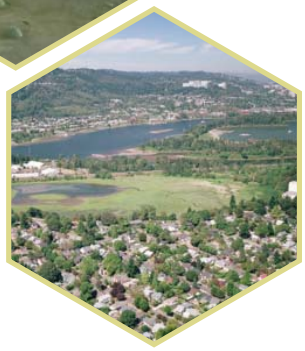
"Riparian" refers to land adjacent to a river or stream, and the unique community of plants and wildlife living in that water-oriented environment. Thus riparian corridors are comprised of rivers and streams, riparian vegetation, and off-channel areas including wetlands, side channels, and floodplains. Riparian corridors also include transition areas between stream banks and upland areas. A riparian corridor usually contains a complex mix of trees or woody vegetation, shrubs and herbaceous plants.

What does a riparian corridor do?

Healthy, intact riparian corridors provide many critical watershed functions that help our environment stay in balance. These functions include those summarized below.

- **Open water bodies,wetlands, and surrounding trees and woody vegetation** are associated with localized air cooling and increased humidity. (i.e., watershed function: microclimate and shade.)
- **Trees, vegetation,roots and leaf litter** intercept precipitation; hold soils, banks and steep slopes in place; slow surface water runoff; take up nutrients; and filter sediments and pollutants found in surface water. (i.e., watershed function: bank function and control of sediments,nutrients and pollutants.)
- **Waterways and floodplains** provide for conveyance and storage of streamflows and floodwaters; trees and vegetation intercept precipitation and promote infiltration which tempers streamflow fluctuations or "flashiness" that often occurs in urban watersheds. (i.e., watershed function: stream flow moderation and flood storage.)
- **Streams, riparian wetlands, floodplains and large trees and woody vegetation** contribute to the natural changes in location and configuration of stream channels over time.(i.e., watershed function: large wood and channel dynamics.)
- **Water bodies, wetlands and nearby vegetation** provide food for aquatic species (e.g.,plants, leaves, twigs, insects) and are part of an ongoing chemical, physical and biological nutrient cycling system. (i.e., watershed function: organic inputs, food web and nutrient cycling.)
- **Vegetated corridors along waterways, and between waterways and uplands,** allow wildlife to migrate and disperse among different habitat areas, and provide access to water. (i.e., watershed function: wildlife movement/corridors.)

What does the Natural Resource Inventory tell us?



Significant Natural Resources Make Up One-Third of the City. The Natural Resource Inventory paints an interesting picture of Portland. Woven into the urban fabric of the city is a wealth of natural resources that provide critical watershed functions. In all, the Natural Resource Inventory identifies almost 25,500 acres of riparian corridor and upland resources. The inventory identifies an additional 5,540 acres representing the portions of the Willamette and Columbia rivers within the city. Citywide, about two-thirds of the inventoried natural resources receive a high combined relative rank, and about one-third of the resources receive a medium or low rank.

Portland's contains approximately 242 river and stream miles, about 2,450 wetland acres, and roughly 19,515 acres of forest and woodland areas one acre or larger, according to inventory results. Vegetated riparian corridors provide streamflow conveyance and flood storage, bank stabilization and erosion control, filtering and capture of pollutants, microclimate, shade, large wood and organic inputs to Portland's waterways and wetlands. Even non-vegetated riparian corridors provide hydrologic functions that are important to watershed health, such as providing storage for floodwaters.

As a City on the confluence of two major rivers, the Columbia and Willamette, Portland's watersheds are home to a myriad of native plant and wildlife species, including species that state and federal agencies have designated as sensitive or threatened. Portland connects to habitat systems extending east-west along the Columbia River from the Sandy River to downstream portions of the Columbia River estuary, and north-south from Ridgefield Wildlife Refuge in Washington to southern pats of the Willamette Basin. In the city, Portland's riparian corridors provide critical wildlife habitat, access to water, and movement corridors. Upland habitat areas provide food, cover, breeding and nesting areas for a multitude of avian, terrestrial and amphibian species.

Many habitat areas in Portland are vital to plant and animal species that have been designated by state and federal agencies to be at risk, a number of which are state-listed as "sensitive" species and some of which have been listed under the federal Endangered Species Act. Portland's wetlands, mudflats, buttes, and riparian corridors provide important stopover habitat for migratory birds that travel annually along the Pacific Flyway between Canada and portions of Central and South America.

More key findings are....

Natural Resources are unevenly distributed and affected by urbanization. Though in some respects Portland is "resource rich," those resources aren't necessarily distributed equitably.

Most of the inventoried natural resources are concentrated in several large areas listed below.

- Forest Park
- Tryon Creek State Park
- Smith and Bybee Wetlands
- Headwater areas of Tryon, Fanno, and Balch Creek watersheds
- Along the sloughs and wetlands of the Columbia Corridor
- Along streams in the Johnson Creek watershed
- Upland east side buttes

Functioning wetlands, riparian corridors, and remnant upland native oak habitat areas are interspersed through the Willamette River corridor.

Few grassland habitats remain in the city. However, Powell Butte, the St. Johns Landfill, and several large grassy areas in the Columbia Corridor provide functions that mimic native grasslands and are currently used by native grassland-associated species. Ross Island and West Hayden Island also provide unique island habitats in the Willamette and Columbia rivers, respectively.

Many parts of Portland are mainly devoid of the larger forested or vegetated resource areas, wetlands, and stream corridors featured in the Natural Resource Inventory. Large industrial and commercial areas along the Willamette Corridor, and in the Columbia Corridor, downtown Portland, and throughout much of the central-east portions of the city area densely developed. Parks and street trees provide important watershed functions the downtown and many developed neighborhoods, however, anchor habitats and surface streams have been largely eliminated.

Most of the resources identified in the inventory are degraded, at least somewhat, by the effects of urbanization, including removal of vegetation and reduced and fragmented of habitat patches and corridors, industrial contamination, stream channel down-cutting due to increased stormwater runoff rates, and infestation of invasive plants and animal species. Only about half of the riparian area within 100 feet of Portland's rivers and streams are contain forest type tree canopy. Still, the resources that remain continue to provide critical watershed functions and benefits.

The variability in the distribution of inventoried natural resources is shown on the next page by watershed. Note; Watershed sizes should be kept in mind when comparing these resource distributions.)

Are Portland's natural resources at risk?

The updated Natural Resource Inventory information can be used to assess the extent to which important natural resources are protected from future encroachment. For example, about 10 percent or more than 20 miles of open waterways and more than 100 acres of wetland in Portland are located outside Portland's environmental or other resource overlay zones (Pleasant Valley and certain greenway overlays). Overall, about one-third of the total inventoried natural resources outside of the major river channels have no regulatory protections. Most of the high-ranked resources and about half of the medium-ranked resources are within existing resource overlay zones. Less than 20 percent of the low-ranked resource areas are within existing resource overlay zones.

Inventory data can be combined with development data to assess trends and identify where potential conflicts and management priorities exist.

How will the inventory be used?

Area-specific planning and program updates.

The new inventory will update and supplement existing natural resource inventories and inform updates of natural resource protection programs that the City established between 1987 and 2002. The program updates will occur through area-specific projects such as the River Plan for the Willamette Corridor, the Airport Futures project and plans for East and West Hayden Island. During the course of such projects the citywide inventory is further refined for the specific area. The inventory is then used to inform policy and program decision-making efforts, including which areas should be developed and which areas should be protected through updates of the City's existing natural resource overlay zone maps and regulations.

The inventory can also highlight where watershed conditions could potentially be improved through redevelopment and restoration.

Regulatory Compliance

These program updates will help the City meet its watershed health goals and regulatory obligations including the Clean Water Act and Endangered Species Act. The new inventory information will also inform City strategies to comply with Metro Title 13 Nature in Neighborhoods requirements to protect, conserve, and restore designated regional Habitat Conservation Areas. The City is proposing a phased strategy to achieve compliance with Title 13, relaying on a mix of area-specific and citywide regulatory updates, and a host of non-regulatory tools including willing-seller land acquisition, restoration projects, sustainable development approaches, and community education.

Citywide policy and planning

The new citywide inventory information has been used to inform efforts such as the Portland Watershed Management Plan (2006) and Portland's Local Acquisition Strategy (2007), and to help identify high priority areas for watershed restoration. The Natural Resource Inventory is being factored into the City's Buildable Lands Inventory which is part of Portland's state-required periodic review workplan and Comprehensive Plan update. The inventory will also inform Portland Plan public discussions about future growth goals, scenarios, and investments.

Specifically, the inventory can support planning efforts to:

- Determine where development should be prioritized or limited to avoid resource impacts
- Design development that enhances watershed functions and avoids creating hazards to wildlife
- Improve access to nature by planning transportation routes linking communities with parks and natural areas
- Prioritize investments in land, resource enhancement projects, invasive species control, and green infrastructure
- Address implications of climate change including wildfire, flooding, and landslides
- Enhancing habitat connectivity in the city and region

The natural resource inventory update project was undertaken as a step in continuing implementation of the River Renaissance Vision (adopted in 2001) and the River Renaissance Strategy (adopted in 2004).

The report provides project context, presents the scientific basis for the project, and describes the project approach and methodology. It is titled Natural Resource Inventory Update – Riparian Corridors and Wildlife Habitat, Project Summary Report, discussion draft dated May 2009, and posted at *http://www.portlandonline.com/planning/index.cfm?c=40539*.

overview

Public Schools

Public schools play a critical role in Portland, in a myriad of ways. Not the least of these is their unique physical presence in neighborhoods across the city. The public school buildings and grounds are civic assets central to community vitality, neighborhood identity and the well-being of all Portlanders.

In Portland, six individual school districts provide public education to city residents. These districts are independent of the City of Portland government and each other, but the coordination of all of them together creates a broad range of possible benefits. Thus the Portland school districts are participating as partners in the community-wide, long-term strategic plan effort that is the Portland Plan.

The Public Schools Background Report serves as a basis for understanding the roles public schools play as physical places in the environment and central elements in complete neighborhoods. The information in this background report focuses specifically on K-12 public schools, with an emphasis on schools as public facilities, their multiple roles in the community beyond their primary educational mission, and the relationships between school districts and the City of Portland. Educational policy generally lies more strictly within the purview of the school districts themselves and is outside the scope of this report.

The background report on public schools has three major parts:

- **Summary of major trends;**
- **Key findings and recommendations; and**
- **Appendix containing supporting data, maps and other information.**

Current trends

Graduation rates

High school graduation rates are low in Portland, as they are across the state. The five school districts serving the majority of Portland students have **graduation rates in the past three years hovering between 65.6% (PPS in 2006-2007)** and 84.2% (Parkrose that same year). (Riverdale serves a small number of students and has had a graduation rate of 100% the past three years.) While the five largest districts have seen their graduation rates vary by up to 5% within the most recent three year period, all but one (Parkrose) boast a higher graduation rate overall in 2008-2009 than they did in 2006-2007.

Minority students graduate at a lower rate. Although the trend in graduation rates at Portland public schools is generally positive, the graduation rate for African American, Native American and Hispanic students is still not equal to that of Asian American or white students.

City of Portland Bureau of
Planning and Sustainability
Sam Adams, Mayor | Susan Anderson, Director

Population

Population has been growing, but not in all school districts. Between 1990 and 2000, the population of the City of Portland grew 21%. Population growth within the Portland Public School District (PPS) was almost 7%. More than half of the City of Portland's growth in the 1990s was due to the expansion of its boundaries, as the city added over 47,000 residents in formerly unincorporated areas. **A large proportion of the city's expansion occurred on the eastern edge of the city,** bringing parts of "Mid-County" school districts, including the Parkrose, Centennial and Reynolds districts, into Portland's incorporated area. Portland's boundaries have been relatively unchanged since 2000, and its population has grown at a rate of about one percent annually.

By far the largest district serving Portland is the PPS district, with enrollment over 46,000 in 86 schools. The next largest are Reynolds (11,000) and David Douglas (10,000); see table for details.

Portland School Districts, Schools & Enrollment (Spring 2008)

District	Elem.	Mid.	K-7/K-8	HS	Other	Total	Enrollment
Centennial	7	1	0	1	3	12	6,558
David Douglas	10	3	0	1	1	15	10,111
Parkrose	4	1	0	1	0	6	3,530
Portland	33	12	27	12	2	86	46,375
Reynolds	14	3	0	2	0	19	11,078
Riverdale	0	0	1	1	0	2	543
Total	68	20	28	18	6	140	78,195

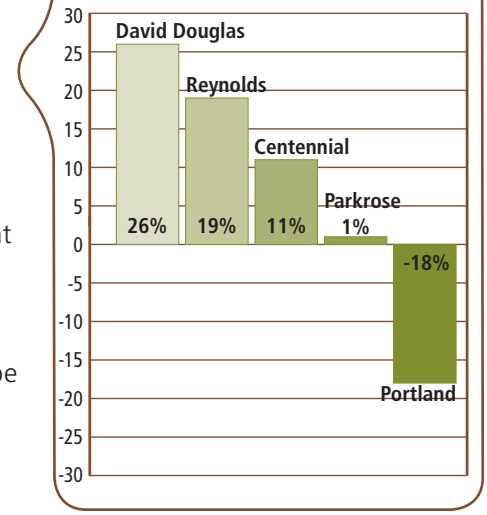
Source: Multnomah Education Service District, Multnomah County School District Boundary Maps, Spring 2008. Note: Figures refer to entire school districts, not just the portions within Portland.

More children live in North, Northeast and East Portland, fewer in Central City. Neighborhoods with high percentages of children aged up to 17 are scattered throughout the city but are mainly concentrated in North, Northeast, and East Portland. Neighborhoods with the lowest concentrations of children in 2000 are generally located in the Central area. A general increase in families with children is evident in areas east of 82nd Avenue, with corresponding growth in school district enrollment in those areas.

Enrollment dynamics differ across Portland school districts. Between 1997 and 2006, PPS district enrollment declined by 18%, while enrollment in Centennial, Reynolds and David Douglas grew by 11%, 19%, and 26% respectively. Parkrose enrollment remained relatively stable.

The scale of **declining enrollment in PPS** in comparison to the enrollment in the other districts is notable – its loss of 11,000 students over a decade is **larger than the total enrollment of any of the other districts**. This decline translated into a loss of over $60 million annually in state funding. There are signs that the long pattern of declining enrollment for PPS may be ending as the last two school years have seen enrollment stabilize and even rise.

School District Enrollment Percent Change from 1997 - 2006



Hunger, inadequate health care, and unstable housing are among the many challenges facing poor students, all of which affect school performance.

"As property values have risen in inner neighborhoods of Portland, many families with children have been priced out of parts of the city served by PPS and are moving farther east into areas served by the city's other school districts."

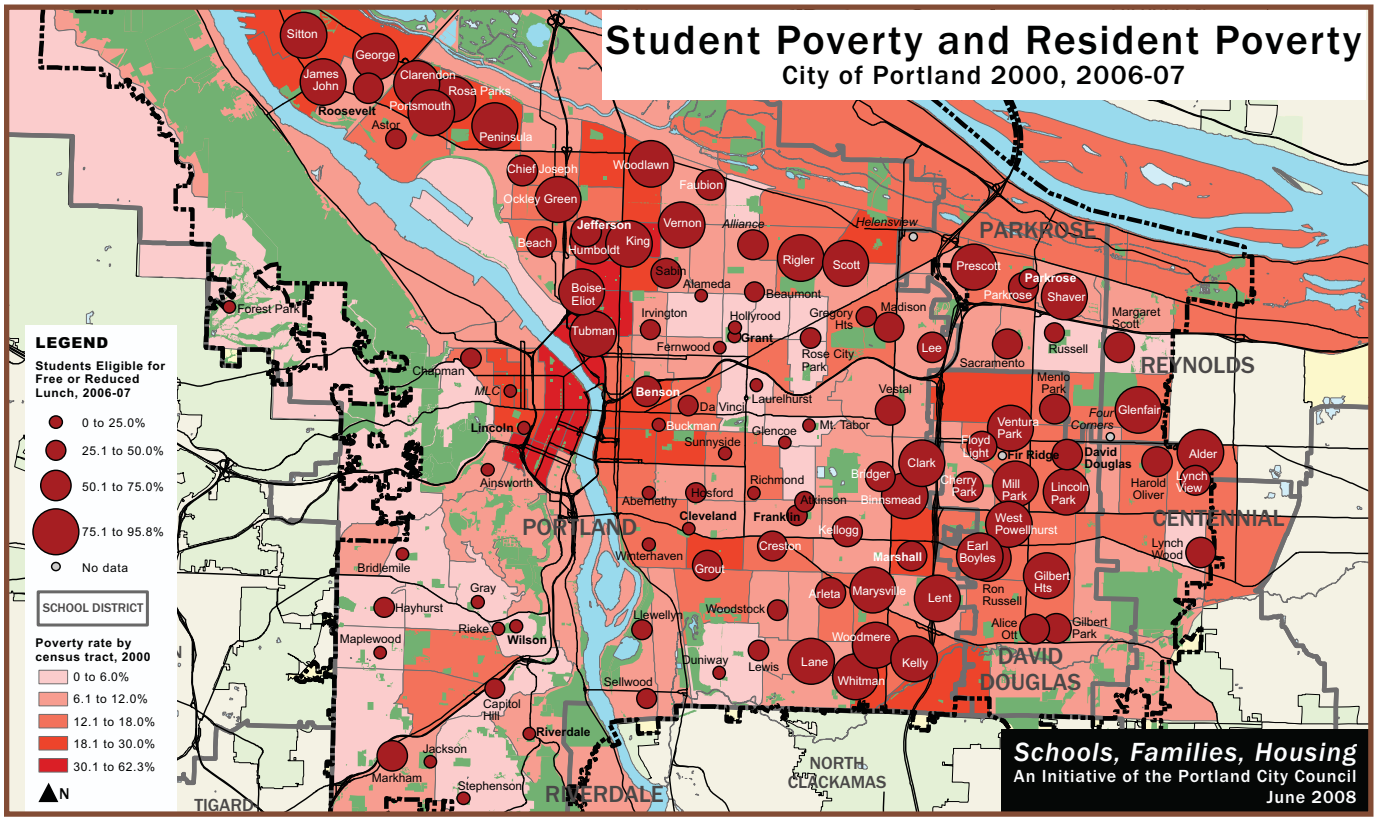
Portland Schools Foundation/New Growth in Stumptown: Young Portlanders Face Twenty-First Century Challenges, Spring 2007

In the **east districts,** growing enrollment over the past decade has prompted the **need for new and expanded facilities**. Parkrose's new high school opened in 1997, but continued enrollment growth has necessitated some space intended for community service uses to be converted to educational space. Facilities in Centennial and David Douglas school districts have been filled, and voters did not approve bond measures for facility expansions in 2006.

Poverty

The numbers of children living in poverty is rising – and the distribution of poverty is uneven. While the percentage of children living in poverty in Portland is lower than the national average, those numbers are increasing more rapidly than in other major cities. In 1999-2000, 16.6% of Portland children lived in poverty. By 2004-2005, **almost 25%** - one child out of every four - was living in **poverty**.

More students need free or reduced-price lunches. Qualification for the lunch program has increased from less than half of the population in 1999-2000 to the majority of students in four of the five districts in 2008-2009 (with PPS the exception). In 2006-2007, the schools with the highest student participation rates were in North Portland, with participation rates in the 85-95% range, followed by selected schools in Northeast Portland and East Portland, with rates of approximately 84-87%. The lowest participation rates were in selected Northwest-area schools, with rates under 5%, followed by Southwest and Southeast schools, with rates from 5-14%.



Racial, ethnic and language diversity

There is a broad trend of increased diversity among the tri-county school districts. Students of color make up 32% to 58% of each district's enrollment, as white student population is dropping in proportion to African-American, Hispanic, Asian-Pacific Islander and Native American. For instance, in the PPS district, whites account for 55% of the student population in 2008-2009, compared with 64% in 1999-2000. During the same period in PPS, the minority group increasing the most was Hispanic, to 13% from 8%. The David Douglas district experienced even more dramatic change, with white population dropping to 52% from 78% during the nine-year period, compared with Hispanic student population up 13% (to 20% from 7%) and African-American population up 7% (to 10% from 3%).

More and more languages are spoken in Portland public schools. Overall, all of the school districts are serving more "English language learner" (ELL) students – those for whom English is not a first language. In 2008, PPS reported that its **students speak 111 languages**. Portland districts with the highest proportion of ELL students are generally concentrated in neighborhoods and districts east of 82nd Avenue.

Schools as multi-use community facilities

Portland schools are increasingly providing children, families, surrounding neighborhoods and a variety of other groups and citizens with physical spaces, programs and services that go beyond the traditional educational curriculum. For instance, the **PPS** district reports that its 89 campuses and 254 permanent buildings **hosted 610 different non-school users** in 2008-2009, including neighborhood associations, health providers, recreational programs and numerous others.

Schools Uniting Neighborhoods (SUN), a partnership between the City of Portland, Multnomah County, and local school districts, **creates schools that are anchors for their neighborhoods** by providing public services, resources, and programming for students and their families. Currently there are 54 SUN Community Schools in the PPS, Centennial, David Douglas, Reynolds, Parkrose and Gresham-Barlow districts.

Two recently constructed Portland schools are noteworthy for being designed specifically to facilitate multi-use and community-centered operations. The Parkrose High School and Community Center, completed in 1997, includes shared and community uses, such as a Multnomah County Health Clinic, Multnomah County Library branch, Portland Parks and Recreation programs and multi-purpose spaces. Rosa Parks School in Portsmouth is PPS's newest elementary school, one of only two new schools built by the district in the past three decades.

The 'schools as multi-use center' idea is often somewhat in conflict with the current regulatory structure of the Zoning Code. As schools increasingly integrate other community uses, more tension develops between these activities and zoning procedures. Many ideas such as a new zones for schools and parks, good neighbor agreements, and interagency agreements have already been identified and are worthy of consideration.

School funding and fiscal challenges

Portland's public schools have experienced significant financial challenges over the years. The fiscal instability is primarily attributable to the change in the state funding model that relies on state income taxes. Additional monetary losses have resulted from declining enrollments compounded with the recession in the early 2000s and the current recession.

State funding comes from two major sources, income taxes and lottery receipts. The current **formula for distributing school funding** was devised in 1991 with the goal of fairly distributing state dollars to school districts. The new formula calculated a **per-student funding target;** districts spending more than the target were frozen at their existing funding levels, and lower-spending districts were gradually brought up to the target level. **Some districts, including Portland, saw their revenue decline.** The previous method had resulted in disparate funding per student across the state, as some districts had more funding due to a higher property tax rate, higher value tax base or both.

To add to the funding challenge, two constitutional **property tax** measures essentially limited school funding as well. Measure 5 in 1990 and Measure 50 in 1997 respectively **capped property taxes** and placed the responsibility on the state for making up the difference in school funding. And with the state's school funding formula distributing money to districts based on the number of enrolled students, the drop in enrollment in the PPS district in particular has created a related funding challenge for Portland students.

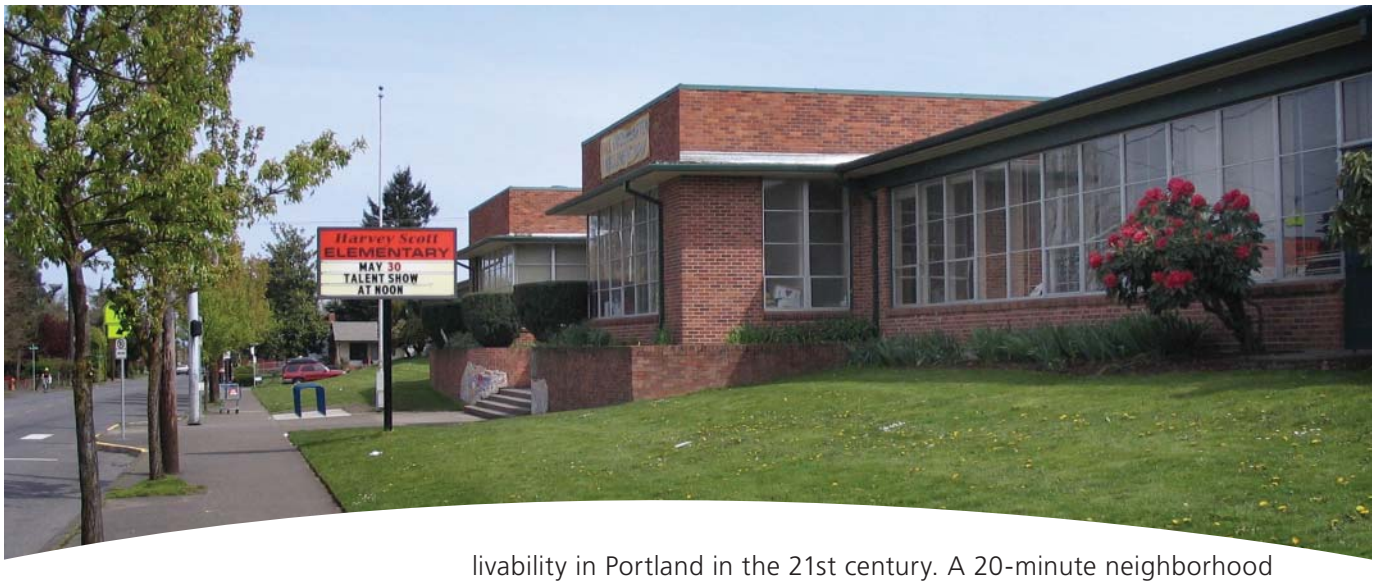
Findings

Schools are critical to Portland's vitality.

Schools are centers of community, and are key elements in walkable, convenient 20-minute neighborhoods. The public school system is one of the most important institutional building-blocks of our society. Schools serve many functions beyond their principal role as educational institutions for children, and play important roles in making Portland a livable, creative, and healthy place to live and work. Benefits are reflected in a growing nationwide movement to foster "community schools" - that is, schools as "both a place and a set of partnerships between the school and other community resources." Community schools advance:

- **Student learning:** Community school students show significant gains in academic achievement and in essential areas of nonacademic development.
- **Family engagement:** Families of community school students show increased stability and school involvement.
- **School effectiveness and community support:** Community schools enjoy stronger parent-teacher relationships, a more positive school environment and greater community support.
- **Community vitality:** Community schools promote better use of school buildings, and their neighborhoods enjoy increased security, heightened community pride, and better rapport among students and residents.

The City of Portland and all six school districts with facilities inside Portland's city limits share a number of mutual interests. The Portland Plan process presents an opportunity to build on these shared interests and goals through a collaborative and strategic planning process. One means for doing this will be through the exploration of the 20-minute neighborhood concept, which will help inform decisions about growth, development and



livability in Portland in the 21st century. A 20-minute neighborhood is a place with convenient, safe, and pedestrian-oriented access from adjacent housing to the places people need to go to and the services they use nearly every day: transit, shopping, quality food, parks, social activities—and schools, especially at the elementary and K-8 level.

Twenty-minute neighborhoods have three basic characteristics: a walkable environment, destinations that support a range of daily needs (e.g. jobs, goods and services, parks), and residential densities that include a variety of housing types to ensure a diversity of households can live in the neighborhood.

Schools are key infrastructure/durable public assets.

Related to their role as centers of community, school campuses and buildings are durable assets, owned and maintained by the public. They not only provide space for their essential educational role, but also for community groups, public services, multi-generational education, recreational opportunities and many other activities and services.

Existing land use policies in the City's Comprehensive Plan suggest that closed school sites be retained as a 'civic use.' However, state law (ORS 197) stipulates that school closure is not a land use decision, limiting public involvement in decision-making and potentially divorcing school disposition processes from broader Comprehensive Plan goals and other public policy frameworks. Also, enrollment fluctuations over time are unavoidable, land use and urban form patterns will continue to evolve, and school systems must be adaptable to populations that are always changing.

The funding system for schools does not correspond with their role as long-term public assets.

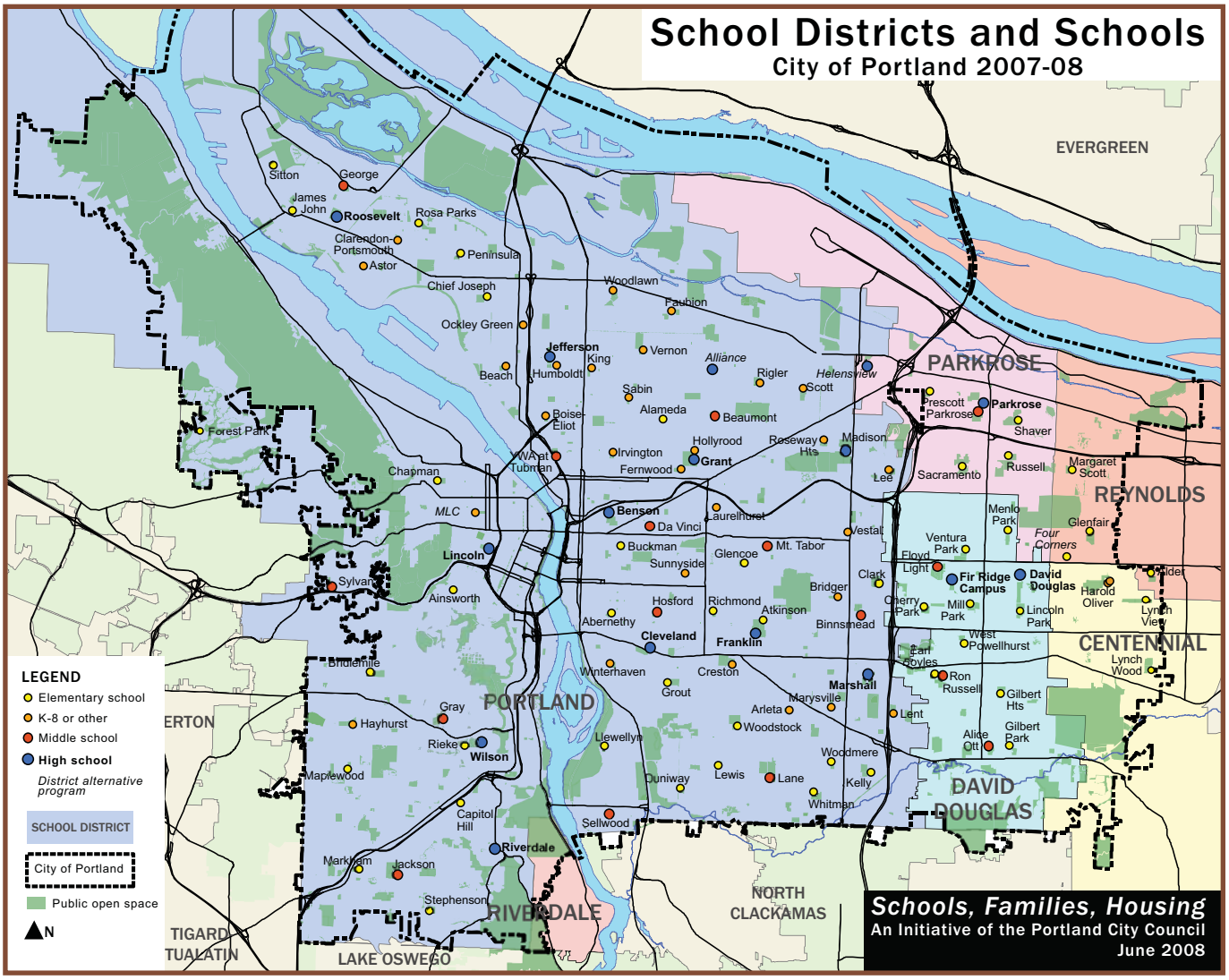
Re-investment is needed in infrastructure throughout the city, not just in roads and sewers but also in school infrastructure, whether in deteriorating turn-of-the-century schools in inner neighborhoods, or overcrowded schools in outer Southeast and Northeast. The amount of work that needs to be done likely exceeds what can be done by the public sector and school districts alone.

Schools and neighborhoods benefit from collaboration between city government and school districts.

School districts and the City of Portland share many common goals, for instance the desire of PPS to work with the City to reverse enrollment declines through strategies to make Portland more child-friendly. However, school districts and city government have jurisdictional and institutional barriers that can make collaboration to meet shared objectives difficult.

The Portland Plan provides an opportunity to address several specific areas where not only can collaboration be improved but improvement would also help provide a viable future for the school system overall. These areas include:

- Facilities planning;
- Community uses of school sites;
- Coordinated infrastructure planning; and
- Partnerships and new uses at some school sites.



Recommendations

Strengthen the role of schools as centers of community and in creating 20-minute neighborhoods.

The community school model, wherein schools are "both a place and a set of partnerships between the school and other community resources," benefits students, families and neighborhoods, building economic, physical and emotional stability among children and families and thus strengthening neighborhoods and communities. With more extensive multi-purpose use of schools:

- The community gains access to costly existing buildings and spaces that they might not otherwise have access to;
- Families gain better access to services and agencies;
- Neighborhoods become more connected to youth;
- Opportunities for multi-generational learning and experience multiply; and
- Student achievement improves.

Inventive, enduring relationships among educators, families, volunteers, and community organizations and partners are key to the future strength of our school system.

Create strong partnerships and clarify the roles and relationships between the City and the school districts.

New agreements between the City and school districts should be developed, defining spheres of responsibility, interests, working relationships, facilities planning, school use, and property disposition, to ensure that we make smart investments for the future. The City should work with school districts to create:

- **Community facilities plans** that incorporate transportation networks, changing demographics, other public infrastructure, and the need for schools to serve as multi-use community facilities.
- **Housing policy, transportation improvements, and land use regulations** that reflect the vital role that schools play in the community.

overview

Urban Forestry

Background research on the topic of urban forestry is intended to help guide the task of integrating trees and urban forestry goals and aspirations into the Portland Plan Strategic Plan.

The Portland Plan Urban Forestry Background Report provides information on:

- The **benefits** of trees
- **Existing conditions** of Portland's urban forest
- **Existing City plans and policies** relating to the urban forest
- **Key challenges,** policy issues and questions recommended for consideration in the Strategic Plan

Historically, trees have been viewed in a positive light primarily as a landscape element valued as an aesthetic or environmental asset. Trees have also been viewed negatively as posing costs and sometimes constraints to development. In either case, trees have not been looked at systematically as the important aspect of public and private infrastructure that they really are.

In view of Portland's goals to be a thriving and sustainable city, it makes sense that the definition of infrastructure expand to include the "green infrastructure" that can help reach sustainability goals.

Current Conditions

Portland's urban forest consists of trees along city streets and around houses, businesses and institutions, and trees and vegetation in parks and natural areas. Currently, trees cover about 26 percent of Portland's land area—roughly half on private property and half on public property. North Portland and the city's higher density residential, commercial and industrial areas have the sparsest tree canopy.

Much more is known about trees on public property than on privately owned land in the city. Portland's parks and parking strips have at least 170 different types of trees. More than half of them are deciduous (primarily maple), and about half are smaller than 6 inches in diameter. Large trees (30 inches in diameter and larger) represent less than 10 percent of Portland's park and street trees. Not surprisingly, large-growing native species such as Douglas fir and western hemlock are more common in Portland's parks and natural areas than along its city streets.

City of Portland Bureau of
Planning and Sustainability
Sam Adams, Mayor | Susan Anderson, Director

The City of Portland is just beginning to put an economic value on its urban forest. A 2007 report estimates that it would cost nearly $500 million to replace Portland's street trees and $1.8 billion to replace trees in parks and natural areas. The replacement value of the entire urban canopy (including private property) is estimated at $5 billion. These figures do not include the value of the ecosystem services the trees provide, such as cooling the air and retaining stormwater. In Portland, street and park trees are thought to provide $27 million worth of environmental and aesthetic benefits each year.

Currently, trees in City natural areas such as Forest Park and neighboring properties are at risk of damage from catastrophic wildfire, as a result of long-term fire suppression and the consequent buildup of fuels.

Trends

Although overall tree canopy cover in Portland has increased slightly over the last 30 years, the City is not meeting its goals for tree canopy cover:

Land Use	Current Canopy	Target Canopy
Residential	30%	35-40%
Commercial/industrial	7%	15%
Parks and open spaces	28%	30%
Rights-of-way	17%	35%
Citywide	26%	33%

It appears that in parts of Portland, large trees and groves are being removed as a result of development and being replaced with smaller species that fit on small lots and narrow parking strips. Of particular community concern is the removal of remnant stands of native Oregon white oak and madrone trees on the Willamette bluffs, and Douglas fir trees in outer southeast Portland to accommodate infill residential development. Current landscaping regulations that apply to new development are achieving only a fraction of the target canopy levels established for residential, commercial and industrial development. Additionally, for some areas of the city where there are many aging, large trees of the same species, disease can spread quickly because the trees are homogenous and in close proximity to each other. Removal of these trees has a substantial impact on neighborhood character.

Because trees play an important role in maintaining watershed functions, the City has planted more than 2 million trees. The City also limits tree removal in environmentally sensitive areas and requires permits to remove trees on City property and most private property. Tree planting in Portland continues through the efforts of the City, Friends of Trees and other organizations.

Benefits and costs of trees

Urban trees provide a host of benefits, yet they also pose costs and in some cases present constraints to development.

Benefits

Environmentally, urban trees help:

- manage stormwater;
- improve air quality;
- reduce pollution and greenhouse gases;
- recharge groundwater;
- decrease flooding and erosion;
- stabilize slopes;
- serve as wildlife habitat; and
- shade streams.

Socially, urban trees:

- improve physical and mental health;
- reduce heat island effects;
- create visual and noise buffers;
- enhance neighborhood appearance; and
- reduce neighborhood crime.

Economically, urban trees:

- reduce building heating and cooling costs by providing shade and wind breaks;
- increase property values; and
- reduce flood damage.

Costs:

- Tree preservation and protection (e.g., fencing) during development
- General care and maintenance (e.g., pruning)
- Hazard tree/limb pruning and removal
- Storm response
- Leaf pickup
- Sidewalk repair
- Disease control (e.g., Dutch Elm Disease)

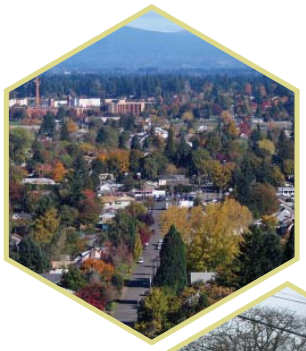
Challenges:

Overall, studies comparing costs and benefits find that each dollar invested in the care and maintenance of Portland's street and park trees generates environmental and aesthetic benefits worth almost $4. Still, there are particular challenges related to the urban forest, including:

- Cumulative impacts of individual site planning decisions.
- Equity issues, such as tree-deficient areas, income, public health, and food security.
- The relative impacts that different housing types have on trees and space for trees. (For example, development standards in multifamily zones do not create sufficient open area to reach the tree canopy goals.)

Recommendations

- **Create a comprehensive inventory of trees.** The City needs to collect more information about its existing trees, to inform strategic decisions, guide prioritization of planting and maintenance, and serve as a baseline for measuring changes in the urban canopy. The inventory would also be useful as a way in which to help monitor tree removal or replacement on single-family properties.
- **Incorporate urban forestry goals into the Strategic Plan and Comprehensive Plan.** Make sure that urban forestry goals are reflected in the City's broader long-term plans, which until now have not explicitly addressed the urban forest. Goals from Portland's 2004 Urban Forestry Management Plan (such as ensuring that the benefits of the urban forest are equitably distributed among Portland residents) are in keeping with Portland's overall goals of being a thriving, sustainable city that is healthy, prosperous and rich with opportunity for all.
- **Shift the paradigm from "trees as constraint" to "trees as infrastructure and a key community asset."** Trees provide important environmental, economic and social benefits that accrue to all urban development types and uses, across property lines. The City should invest in and manage its trees as assets that are integral to its infrastructure and amenity systems.
- **Integrate trees at the site, neighborhood, and citywide planning scales.** This would involve incorporating trees early in the site design process and urban form discussions, designing "tree systems" (anchors, connectors, dispersed canopy, targeted planting areas) to provide key functions in different parts of the city (e.g., stormwater, cooling, slope stabilization, stream shading, habitat, particulate capture, carbon capture walkable streets, etc), resolving equity issues related to tree-deficient areas, evaluating development standards to make sure they ensure enough room is reserved for trees and addressing the cumulative impacts of individual site planning decisions on the urban forest.
- **Address potential synergies and tradeoffs between tree preservation and other goals.** Examples include housing affordability and availability, environmental justice, industrial land supply, employment targets, and solar access.



overview

Urban Form

The Urban Form background report is one of a series of background reports for the Portland Plan. The report describes Portland's existing urban form – the physical, on the ground reality of "what is here now." It also identifies challenges and opportunities related to the continuing evolution of Portland's urban form, and suggests possible approaches to how we might guide that evolution.

The report focuses on aspects of the city not readily expressed in numbers, but which are often at the heart of Portlanders' concerns about and hopes for the future of their city – that is, the qualities that make Portland's places and neighborhoods cherished and distinctive.

The Urban Form report is organized around four topics, each addressed in individual chapters:

Places – *The landmarks and prominent features that shape the form, structure and identity of Portland at the citywide scale.* These include both natural and built elements - hills and bridges, rivers and roads, open spaces and commercial districts. Examples include **natural features** such as the Willamette River, Powell Butte and the West Hills; **built icons** such as Portland's bridges and the Downtown skyline; **commercial districts** such as Gateway and Hawthorne Boulevard; and **signature open spaces** such as Pioneer Courthouse Square and Forest Park.

This chapter describes the types of Places that are memorable parts of Portland and that, taken together, help give our City its unique character.

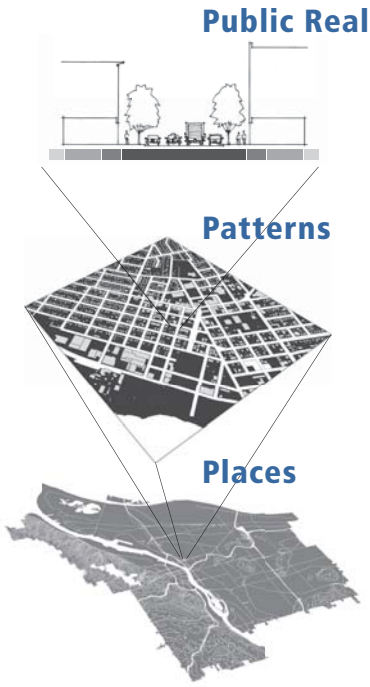
Patterns – *The urban fabric of Portland's neighborhoods and districts.* Variations in street and block configurations, natural features, building types and architecture across Portland contribute to the distinct character of the city's neighborhoods and districts. Whether a neighborhood's streets are straight and lined by porches, or curve through forested hills, for example, their physical characteristics are fundamental to their sense of place.

This chapter identifies five basic patterns: the **Inner** Neighborhoods, with their main street commercial districts and compact street grid; the **Western** Neighborhoods, whose urban form is shaped by hilly terrain, streams and other natural features; and the **Eastern** Neighborhoods, whose diverse mix of urban and rural forms is set against a backdrop of Douglas firs and buttes.

Beyond these three neighborhood types are two other Portland patterns: the **Central City,** Portland's most intensely urbanized area; and the **Industrial** districts, with their own distinct urban form characteristics.

City of Portland Bureau of
Planning and Sustainability
Sam Adams, Mayor | Susan Anderson, Director

Public Realm – ***the parts of our city that are owned by all of us together.*** The streets, parks, plazas and other open spaces are where public life in the city is experienced. These are part of the public right-of-way, which in Portland accounts for a substantial percentage of our city: public streets and parks occupy nearly 30% of the city's land area. The public streets themselves account for over half of that, at 16,000 acres of land, distributed widely across the city. Essentially, streets are a unique citywide community resource, with importance extending far beyond just the obvious role as a fundamental means for auto travel. They have the potential to provide space not only for autos, but also for community interaction and recreation, and for street trees and stormwater facilities that perform crucial environmental functions.



There are many challenges to meeting community objectives for improvements and expansions to the public realm of streets and parks. In some areas, especially in eastern and western parts of the city, the network of streets breaks down, with fewer connecting streets and more cul-de-sacs, and with many of those streets lacking sidewalks to accommodate pedestrians. The lack of sidewalks and connectivity make it hard for the city to foster walking as an attractive transportation option in these areas.

Public resources are limited, however, for addressing these or other shortcomings like expanding the park system or developing new public gathering places where growth is occurring. New approaches may be needed for the expansion and improvement of the public realm. One possibility is to consider how to make more multifunctional use of existing public spaces, including streets, to help meet a range of community needs.

This chapter provides basic information about the various kinds of public spaces, including different types of streets, and introduces ideas for the future of the public realm and how streets, especially, might fulfill a broader range of community purposes over time.

Private Realm – ***the development that takes place mostly on private property, but is visible from and affects the public realm.*** Buildings on private property shape and bring activity to our public streets and are part of the continuing evolution of neighborhoods.

This chapter summarizes some of the frequent results of private development, and the changes they are bringing to Portland's residential areas, main streets and urban forest.

Trends

Development and redevelopment have been taking place across the city, continuing to shape the character of Portland's neighborhoods, streets, commercial areas, and other key places. Policies and regulations foster more intense concentrations of development in the Central City, along major streets, and in mixed-use centers such as Gateway and the Hollywood District. Some of this construction is bringing positive changes such as renewed commercial vitality on main streets and increased walkability to local shops and services. But some changes are raising community concerns about the future of cherished places, as development replaces open spaces, transforms street environments and neighborhood character.

Neighborhood Patterns

Portland's urban fabric is woven in several patterns, each a different combination of streets and blocks, natural features, building types and other physical characteristics. Since these occur at the neighborhood scale, the Urban Form background report describes a set of patterns which are essentially five neighborhood types. These are helpful in understanding the nuances, similarities and differences in various neighborhoods and districts.

Western Neighborhoods

- Development patterns shaped by the area's hilly terrain and other natural features.
- Small number of major streets or highways, which wind through the area following topography.
- Only a few commercial areas, mostly located on multi-lane highways.
- Residential streets often curvilinear, following hill contours, with poor connectivity in many areas.
- Most residential streets lack sidewalks, and a relatively large number of streets are not paved.
- Trees and lush vegetation often more prominent than buildings in residential areas.
- Large amount of natural park land.
- Parks, streams and preserved natural areas provide a network of green that courses through the pattern area.

Inner Neighborhoods

- Urban form shaped during Streetcar Era.
- Consistent pattern of rectilinear blocks.
- Highly interconnected street system with mostly fully-improved streets.
- Extensive system of main street commercial districts.
- Fine-grain pattern of development on small lots, with buildings oriented to the street.
- Dispersed system of neighborhood parks, typically intensely landscaped, located on major streets and rectilinear in form to fit into the area's urban grid.

Eastern Neighborhoods

- Diverse range of urban patterns, reflecting incremental development.
- Poor street connectivity in many areas, with vehicles dependent on a small number of major streets for through connections.
- Commercial areas in the form of automobile-oriented strip commercial, located on multi-lane streets.
- Most residential streets, and some major streets, lack sidewalks.
- Large, deep lots common in many areas, and have been the location of much recent infill development.
- Trees and other vegetation, rather than consistency in built patterns, serve as character-giving aspects of many residential areas.
- Neighborhood parks are usually located in the middle of superblock areas surrounded by single-family houses.
- Buttes and Douglas Firs a distinctive characteristic of area skyline.

Central City

- Portland's most intensely urbanized area, with its largest concentration of tall buildings.
- Building types reflect role as the region's center for finance, commerce, government, and culture.
- 200' by 200' block structure and highly interconnected street system.
- Predominance of full-block building coverage contrasts with the fine-grain pattern of detached structures in surrounding residential neighborhoods.
- Extensive system of urban parks.
- Downtown's location between the Willamette River and West Hills provides a strong sense of orientation, boundaries and transition.

Industrial Districts

- Concentrated in low-lying riverfront areas.
- Variety of industrial districts with distinct urban forms.
- Inner areas share Central City's pattern of small blocks.
- Large-block industrial districts shaped by industrial needs and functions.
- Block structure and building forms in some areas shaped by railroads and rail spurs.
- Columbia slough and greenery courses through the Columbia Corridor districts.

Recommendations

In its concluding chapter, the Urban Form background report identifies potential new approaches to addressing key issues in each of the four topic areas. These "Ideas for Future Consideration" offer a beginning to the "next steps" for the Portland Plan.

Places: A Guiding, Citywide Urban Form Concept Diagram.

While the City has taken a very specific and methodical approach to its zoning pattern (effectively established with the 1980 Comprehensive Plan), an accompanying, more general and more aspirational urban form concept plan has not been developed. Concept diagrams are important as they illustrate a plan's major components and highlight intended outcomes. Because the Comprehensive Plan includes no concept diagram, the "big picture" of the Comprehensive Plan and its major organizing themes and ideas regarding the future form of the city were never made clear.

In addition, the Comprehensive Plan lacks extensive three-dimensional imagery that would illustrate for the community the intended or potential physical forms of its zoning designations.

Idea for new approach: create a guiding, citywide urban form concept plan diagram to clearly convey where and how the city intends to grow, identifying the key places, features and connections that should be continued or fostered over time. The diagram could illustrate intentions for different levels of new development, based on priorities for the city's designated major corridors, transit centers, open spaces and other important city facilities.

Patterns: Three Neighborhood Pattern Areas, because "One size does not fit all."

Although there are at least three fundamental types of Portland neighborhoods (Inner, Eastern and Western) with distinct urban form characteristics and differing aspirations, existing development regulations tend to follow a "one-size-fits-all" approach. This mismatch occurs at the regional level, as the Metro 2040 Design Concept identifies all of Portland's neighborhood residential areas as "Inner Neighborhoods," providing no sense of their fundamentally different existing or desired characteristics. And at the

city's neighborhood planning level, while Portland has over 40 adopted neighborhood or area plans, each with its own urban design policies and visions, creating development standards specific to each of these has not been practical.

Idea for new approach: Create policies and implementation tools that acknowledge the distinct characteristics and urban form aspirations of the three Portland neighborhood geographies. Providing such a policy framework could also open up opportunities for the City to target improvements, such as street improvements, in ways that are designed to respect the distinct built and natural characteristics of the pattern areas.

Public Realm: Public Streets as Part of the Public Realm.

The public realm of streets and parks represents a large amount, nearly 30%, of Portland's land area. Choices regarding the future use, design and expansion of these public spaces therefore provides the community with key opportunities for directly shaping Portland's urban form. While streets are the largest component of the public realm and have historically served multiple community functions, they have been treated and managed by the City primarily for transportation. Portland lacks clear policy guidance on the role of streets as part of the broader public realm. Portlanders have been interested in creating more public gathering places and green places that bring more natural elements into the city, but public resources for creating new parks to serve these functions are limited. Streets could provide opportunities to help meet such needs.

Idea for new approach: determine how streets might complement the broader system of public spaces, not only as conduits for transportation, but also as places for community interaction, environmental benefit, open space and other purposes.

Private Realm: More Intentional and Targeted Development Outcomes.

Zoning regulations allow a broad range of development forms and configurations within most zones, creating uncertainty about the form and characteristics that development will take. This can compromise the ability to implement community aspirations for the future built environment of neighborhoods and streets.

Idea for new approach: take a more intentional and targeted approach to guiding private development to achieve particular urban form outcomes, such as street environments, development patterns, open space or urban forest characteristics that are desired by the community. A more intentional approach to Portland's future form could help ensure that new development contributes to creating the kinds of places Portlanders want.

overview

Watershed Health

Portland's five watersheds are the Willamette River, Columbia Slough, Johnson Creek, and Fanno and Tryon Creeks. The waterways themselves are well-known, but their watersheds are less understood. And yet watersheds are as basic to our daily life as the gravity that shapes them. A watershed is an area within which rain and snow fall, collect and drain into a river, creek or stream. For example, the Johnson Creek Watershed is the land area that collects precipitation that drains into Johnson Creek. The health of our watersheds' natural systems not only affects the wildlife that live in or migrate through Portland, but also our health, safety and quality of life. The trees, plants, and streamside areas absorb rainwater, cool and clean the air, reduce flooding and landslides, filter out pollutants and recharge the groundwater.

The background report on Watershed Health describes the current state of Portland's watersheds by looking at these basic elements:

- **hydrology – the frequency, magnitude, duration and timing of water flow;**
- **water quality;**
- **habitat; and**
- **biological communities.**

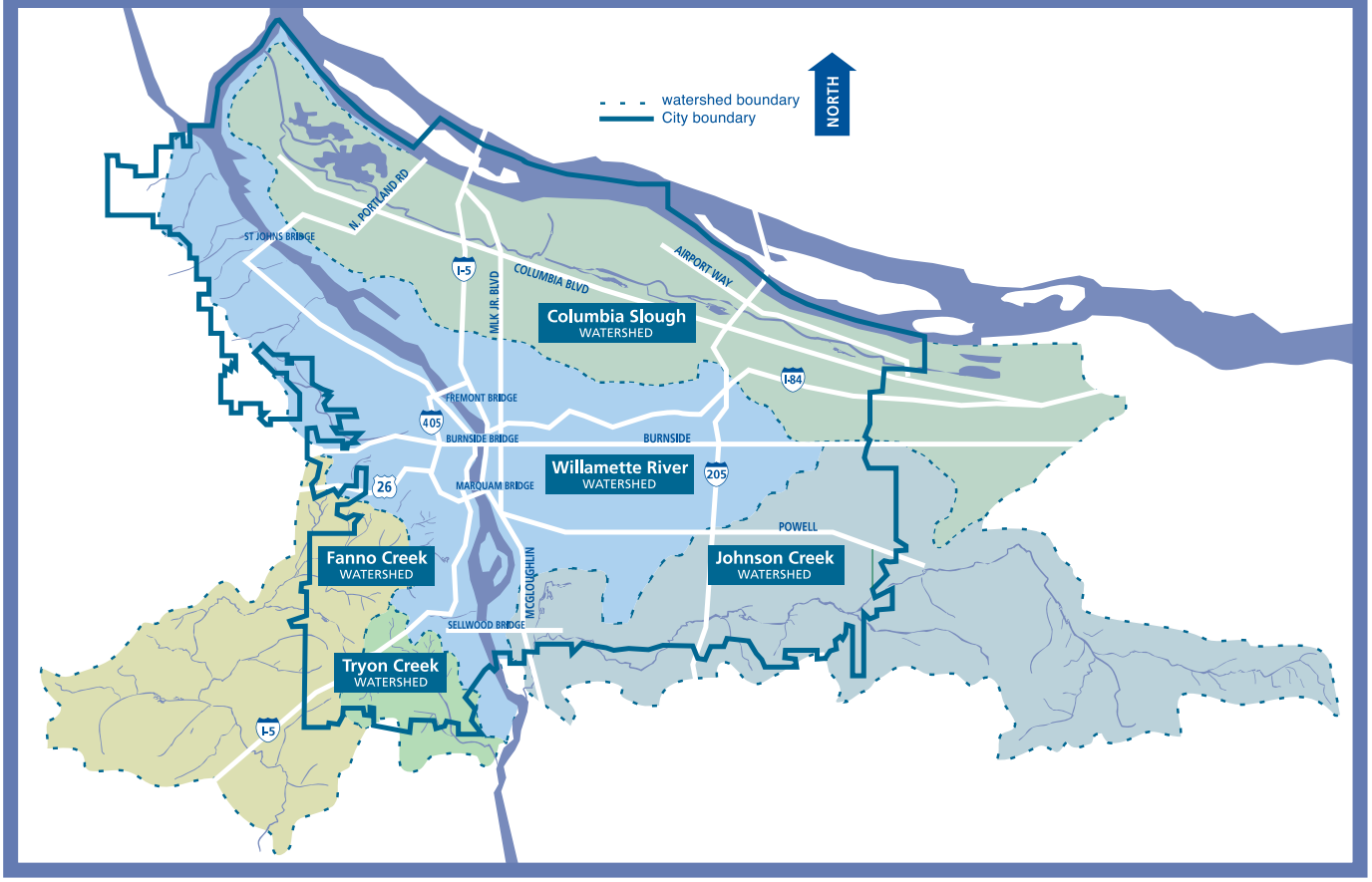
As Portland accommodates thousands of new residents, the challenges of protecting the city's natural environment and watershed health will intensify unless we adopt new approaches to allocating growth, constructing buildings, designing streets and stormwater systems, and restoring natural areas.

Portland has come a long way since the days when sewage and industrial waste were regularly dumped into the Willamette River and Columbia Slough and wetlands were routinely filled to accommodate growth. Once considered "wastelands", wetlands, floodplains and waterways are recognized today as critical for wildlife habitat, clean water and flood management. While urban trees were once appreciated primarily for their beauty, they are recognized today for the critical "eco-system services" they provide by stabilizing steep slopes, absorbing rainwater, and cleaning and cooling the air.

Even though the safety and health benefits of healthy natural systems are documented and recognized, natural ecological processes are weakened by extensive impervious areas, the spread of invasive species, loss of vegetation, hardened riverbanks, and myriad other problems. Historic development patterns and practices – straightening or piping streams to make room for growth, dumping waste into rivers and streams, and filling wetlands – have left their legacy on Portland's environment. Without thoughtful interventions, native fish and wildlife populations risk continued decline and Portlanders could suffer because of a degraded environment.

City of Portland Bureau of
Planning and Sustainability
Sam Adams, Mayor | Susan Anderson, Director

Portland Watersheds



In 2005, the City of Portland's Bureau of Environmental Services (BES) completed the Portland Watershed Management Plan (PWMP) in order to focus efforts to protect and restore the natural systems in Portland. The PWMP lays out an integrated, system-wide approach to improving watershed health. Since its adoption, the PWMP has been instrumental in assisting City bureaus' consideration of watershed health as they design and implement projects. The plan recognizes the benefits of mimicking natural systems, wherever possible, to most efficiently and effectively reverse environmental decline and improve watershed health. As Portland moves forward with planning for future growth, incorporating watershed concepts will be critical to maximizing limited resources while also striving to meet multiple interests.

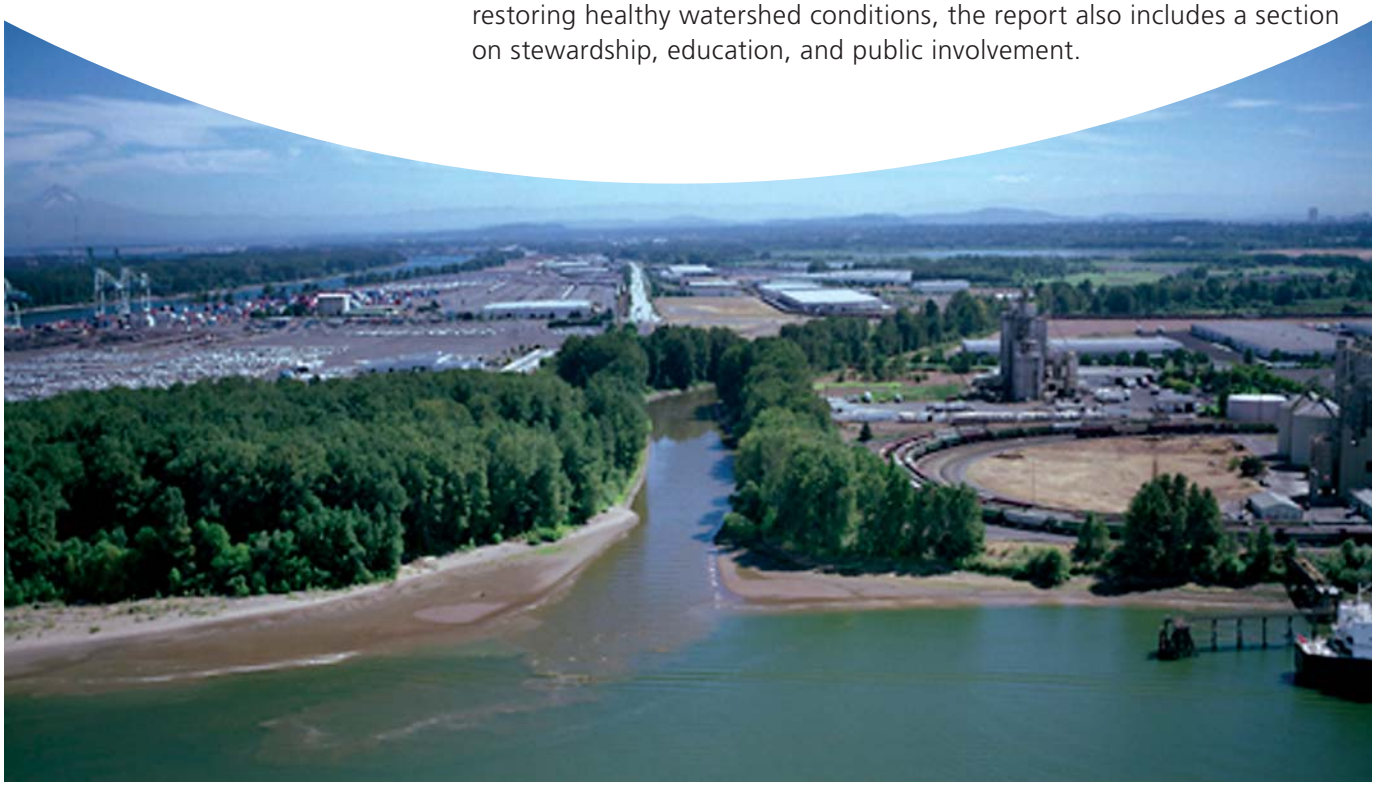
Normative stream flow has the magnitude, frequency, duration, and timing essential to support salmonids (salmon and trout) and other native species.

The Portland Watershed Management Plan is organized around four goals that correspond to the four fundamental elements required for overall watershed health:

- **Hydrology –** "Move toward ***normative stream flow*** (see note at left) conditions to protect and improve watershed and stream health, channel functions, and public health and safety."
- **Water quality –** "Protect and improve surface water and groundwater quality to protect public health and support native fish and wildlife populations and biological communities."
- **Habitat –** "Protect, enhance, and restore aquatic and terrestrial habitat conditions and support key ecological functions and improved productivity, diversity, capacity, and distribution of native fish and wildlife populations and biological communities."
- **Biological communities –** "Protect, enhance, manage, and restore native aquatic and terrestrial species and biological communities to improve and maintain biodiversity in Portland's watersheds."

Decades ago, Portland became nationally renowned for linking land use and transportation planning to create more vital communities. The Portland Plan offers the opportunity to create sustainable and more satisfying communities by using the PWMP goals as a framework to inform choices about growth allocation, infrastructure investments and urban design. Through critical analysis and creative thinking, City investments can enhance Portland neighborhoods in cost-effective ways and ensure that future residents can be accommodated while the natural environment is enhanced.

The Watershed Health Background Report is organized around the four watershed health goals. Given the importance of community action for restoring healthy watershed conditions, the report also includes a section on stewardship, education, and public involvement.



Key Findings

Hydrology

Stream flow conditions in Portland do not meet conditions necessary to support salmon, trout and other native fish species through all their life cycles. Increased impervious areas (such as roofs and roads) and piped streams have affected the normal hydrological cycle, causing the following problems:

- Low summertime flows in urban streams;
- Flashy conditions, with streams rapidly rising and falling during rain storms;
- Reduced surface water infiltration to replenish groundwater aquifers;
- Persistent and increased flooding and streambank erosion; and
- Sewage backing up into basements in several parts of the city.

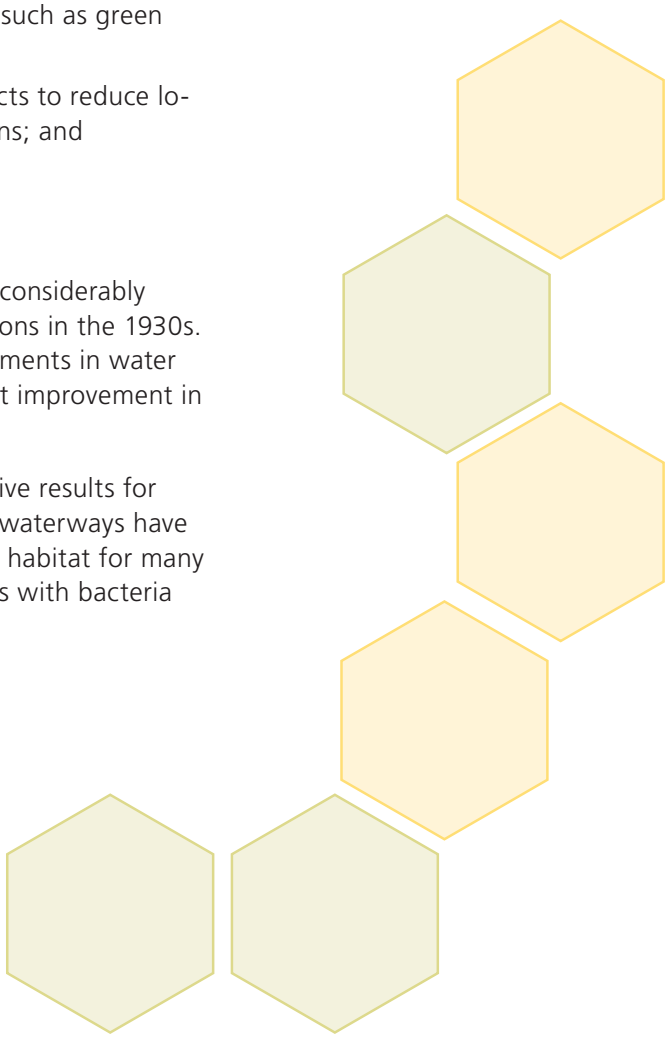
Although hydrologic problems persist, multiple actions are being taken to move toward normalizing hydrology. These actions include:

- $1.4 billion investment in the Big Pipe Project;
- Adoption of green stormwater management strategies, such as green streets, rain gardens, and ecoroofs;
- Construction of floodplain and stream restoration projects to reduce local flood damage and improve local hydrologic conditions; and
- Comprehensive programs to reduce sewer backups.

Water Quality

Overall water quality in the Willamette River has improved considerably since citizens successfully lobbied for water quality regulations in the 1930s. Trend data for the last five to 15 years show slight improvements in water quality in Johnson, Fanno, and Tryon creeks, and significant improvement in the Columbia Slough and Willamette River.

Investments in stormwater infrastructure have netted positive results for water quality, yet problems persist. All of Portland's major waterways have problems with temperature - they are too warm to provide habitat for many important species, and most waterways also have problems with bacteria and pollutants.



Array of wildlife species – These numbers are based on Metro's 2006 inventory for the region. The City of Portland's Bureau of Environmental Services (BES), as part of the Terrestrial Ecology Enhancement Strategy (TEES), has developed a list of special-status species that focuses on Portland.

Biological Communities

The Portland metropolitan area has a diverse ***array of wildlife species*** (see note at left) that live in, or migrate through, the city. For example:

Birds – 209 native species are found in the metro area, including 18 which are listed as state or federal species of concern.

Fish - Salmonid species (salmon and trout) are found in the Willamette River and parts of Johnson Creek, Tryon Creek, Fanno Creek, Balch Creek (trout only), the Columbia Slough and their tributaries. Six salmonid species are listed as threatened under the Endangered Species Act (ESA).

Reptiles – 13 native species are found in the metro area, including the Northwestern pond turtle and Western painted turtle, which are both listed by the state as species of concern.

Populations of invasive animals – such as the red-eared slider, common snapping turtle, nutria, bullfrog, and zebra mussel – continue to increase, competing for food and habitat and, in some cases, preying on native species.

Physical Habitat

Portland's physical habitats face continued risk as a result of climate change, habitat degradation, loss, and fragmentation, human disturbance, and pollution. Most in-stream habitat is severely degraded and is rated as marginal to poor. Riparian areas (the vegetated zones along streams) continue to be heavily affected by streamside development and loss of vegetation. Upland habitats are extremely fragmented and lack wildlife corridors that would connect them to other uplands, riparian areas, or wetlands. Invasive plants continue to threaten habitat and other watershed functions.

The City of Portland is engaged in a number of activities to protect and restore habitat areas:

- The draft Natural Resource Inventory (NRI) provides the most accurate and complete information about the location of important natural resources, including key terrestrial habitats. Special attention is called to habitat areas that are rare in the city, such as grasslands and oak woodlands.
- Portland Parks and Recreation and the Bureau of Environmental Services, in partnership with Metro, are purchasing natural areas to protect them and restore natural functions.
- In the past few years, the City has developed strategies for managing invasive plants, with the goal of removing invasive plants from 200 to 800 acres annually.
- Efforts are underway to expand the urban forest. The City, working in partnership with Friends of Trees, has a goal of planting 33,000 yard trees and 50,000 street trees in Portland over the next five years.

Stewardship, Education, and Public Involvement

Supporting watershed health requires the efforts of public agencies, non-profits, community groups, and individuals to promote education, involvement, and stewardship. The following is a sampling of City-sponsored efforts in 2008:

- More than 26,000 students learned about watershed health.
- About 3,600 property owners attended stormwater management workshops.
- About 500 people attended a free ecoroof training series.
- About $68,000 in grant funds were awarded to neighbors, schools, and organizations to implement their own projects.
- Volunteers logged over 450,000 hours at parks removing invasive plants, planting native vegetation, building trails, and picking up litter
- $425,000 in green building grants was awarded.

Watershed councils also play an important role working across political boundaries with neighbors, local jurisdictions, business people, and non-profit organizations to conduct restoration projects and foster stewardship. Nonprofits such as Friends of Trees and SOLV also conduct stewardship projects, and informal "friends" groups, such as the Stephens Creek Stewards, work to improve conditions in many of Portland's watersheds.

Challenges and Recommendations

Portlanders envision communities that are greener and healthier than they are today, according to data from the visionPDX project. Policies to protect and restore natural resources and promote innovative green buildings, green streets, and ecoroofs can enhance watershed conditions while allowing more homes and jobs.

Integrating Watershed Health and Land Use Planning

The PWMP presents important new policies and strategies for improving watershed health, yet these are not well integrated into land use planning. Existing land use tools don't sufficiently protect existing high-quality natural resources (15 percent of the Natural Resource Inventory's high-ranked resources are outside of overlay zones). In parts of the city, zoning regulations were applied without fully considering natural conditions such as soils, groundwater levels, and natural hazards. In other parts of the city, redevelopment could help improve watershed conditions by spurring greener stormwater management and site improvements.

In order to increase stormwater infiltration, prevent pollution, reduce natural hazards, and provide high-quality habitat for native wildlife communities, the Portland Plan should:

- Use science-based analysis of natural systems and the stormwater management system to help decide where and how future development should occur.
- Retain and increase the areas where stormwater can be detained or infiltrate.
- Consider setting a policy for no-net-loss of pervious/permeable areas.
- Include strategies to increase tree canopy.

Natural Resources as Infrastructure

Healthy natural systems are vital for human health and safety. Trees clean and cool the air and stabilize the slopes around homes and businesses; functioning floodplains store water during storms and gradually release water downstream afterwards, protecting private property and public infrastructure; wetlands filter pollutants and recharge aquifers; natural areas provide habitat for native fish and wildlife; green spaces improve adjoining property values and provide places for community members to recreate.

Unfortunately past development practices reduced the extent and quality of natural resources within the city. Further degradation would increase risks to public health and safety and would be costly (ECONorthwest 2009). Although predevelopment conditions cannot be recreated, trees, green streets, and ecoroofs serve as green infrastructure that provides important public benefits.

The Portland Plan provides an opportunity to explore ways to more effectively plan for, manage, and finance green infrastructure. The Portland Plan should acknowledge the important public benefits provided by trees, swales, green streets, and natural areas and examine additional ways to finance, provide, and manage green infrastructure facilities to expand their use and to ensure their long-term viability.

Cumulative Impacts

When an environmental system fails, the culprit is often the accumulation of various actions taken over time – a stream polluted by runoff from lawns and streets, a landslide caused by roofs draining onto steep slopes, and flooding caused by paving from development that drains to low-lying areas. Currently, the City's development review processes provide little opportunity to acknowledge the cumulative impacts of individual choices. Yet the outcomes affect property owners downstream, tax payers, ratepayers, and future generations.

Strategies are needed to better consider cumulative impacts in long-range planning and in development review processes so that individual actions don't have a detrimental effect on watershed systems and public health and safety. The Portland Plan offers an opportunity to reexamine existing policies and zoning, look at how they are implemented through permitting processes, and determine how to reduce and prevent unintended consequences of multiple actions taken throughout a neighborhood or the city.

Access To Nature

Parks and natural areas, urban forest canopy, and backyard habitats not only provide watershed health benefits, but also contribute to human health. They provide opportunities for recreation and exercise, as well as mental health benefits. (For more information on these benefits, please see the ***Human Health and Safety Background Report***.) Having access to nature also gives people a chance to see how natural systems work. As younger generations have a chance to experience nature, they will be more likely to be good stewards of Portland's streams, forests, and other natural systems. However, though Portlanders value equity and health (as seen in visionPDX data), many lack ready access to natural areas.

The Portland Plan is a chance to think long term about how to provide more Portlanders with access to nature. As the Portland Plan looks at how to accommodate growth, consideration should be given to ensuring that all Portlanders benefit from a lush tree canopy, places to view wildlife, natural areas to explore, and opportunities to garden. Special thought should be given to children's access to nature – to stimulate their thinking, support their emotional wellbeing, help them feel grounded in their physical community and instill a respect for the natural world so they will be good stewards in the future. Consideration should also be given to how to create new green spaces – such as pocket parks, roof gardens, trails, and parkways – that meld nature into the urban environment.

Greening the Central City

The Central Portland Plan, being developed as part of the Portland Plan process, provides an opportunity to further integrate nature and natural systems in Portland's urban core. In the past "urban" and "green" were considered mutually exclusive concepts. Yet downtown Portland boasts the verdant Park Blocks, ecoroofs, street trees, numerous LEED-certified buildings, and some of the most productive Peregrine falcon habitat in the state. The rain garden at the Oregon Convention Center shows how smart urban design can integrate water and natural beauty into an urban context.

More work is needed to explore ways to create compelling buildings, streets, and public spaces that maximize natural benefits at the heart of the city. The Portland Plan should examine ways to further green the central city to provide more attractive cityscapes and roofscapes, more energy-efficient buildings, lower infrastructure costs, and a greater diversity of bird and fish species in a unique downtown core.