Chapter 8: Public Facilities and Services

What is this chapter about?

The goals and policies in this chapter convey the City's intent to:

- Set clear standards for service delivery and system expansion for public rights-ofway, sanitary and stormwater systems, water, parks and recreation, public safety and emergency response, solid waste management, school facilities, technology access, and energy infrastructure.
- Emphasize the development of facilities that serve multiple goals.
- Affirm methods for interagency and intergovernmental coordination.
- Advance an adaptive management approach to improve reliability and resilience.
- Provide more equitable service delivery.
- Reduce risks to human and environmental health and safety.

Why is this important?

High-quality and dependable basic public services, like clean water and reliable sewer and stormwater management services, are essential to Portland's future success. Cost-effective and dependable services improve quality of life, affordability, and make Portland a more attractive place to do business. Well-built and well-maintained facilities also help the city recover from damaging natural events and emergencies. The City's public facilities and services can also help create a vibrant public realm.

The City's public facility systems provide water, sewer, transportation, parks, and civic services. Public facilities include the varied and extensive networks of streets and pipes, as well as parks and natural areas, which not only manage stormwater and flooding, but also help provide places for recreation. Public services include things like public transportation and police, fire, and emergency response. In addition, services such as access to broadband technology, electricity and natural gas, and comprehensive waste, recycling, and composting services are essential for households and businesses. It takes the collective and coordinated effort of multiple agencies and regulated utilities to maintain and operate the complex systems used to manage and provide these necessities to Portlanders.

PUBLIC FACILITIES AND SERVICES

Public agencies aim to provide basic services to all Portlanders. However, for a variety of reasons, not all services are distributed equitably across the city. The agencies charged with managing public facility systems must balance the need to maintain existing services and infrastructure with the need to bring new or improved services to more recently annexed areas of the city, to under-served and under-represented communities, and to new residents and businesses. In addition, these improvements must be made in ways that meet federal, state, and regional regulations.

Given the likelihood of environmental, economic, and technological change in the next 20 years, the agencies that deliver, build, and manage services and facilities must reinvent systems and facilities to satisfy multiple uses, withstand environmental stress, and adapt to changing circumstances. The goals and policies in this chapter support the equitable, efficient, and adaptive management approaches that are needed to provide high-quality facilities and services to all Portlanders, including those in future generations.

Table of Contents

G	<u>_</u>	a	le
u	u	а	13

Goal 8.A	Quality public facilities and services
Goal 8.B	Multiple benefits
Goal 8.C	Reliability and resiliency
Goal 8.D	Public rights-of-way
Goal 8.E	Sanitary and stormwater systems
Goal 8.F	Flood management
Goal 8.G	Water
Goal 8.H	Parks, natural areas, and recreation
Goal 8.I	Public safety and emergency response
Goal 8.J	Solid waste management
Goal 8.K	School facilities
Goal 8.L	Technology and communications
Goal 8.M	Energy infrastructure and services

Policies

Service provision

Policy 8.1 Urban services boundary	
Policy 8.2 Rural, urbanizable, and urban public facility n	eds
Policy 8.3 Urban service delivery	
Policy 8.4 Supporting facilities and systems	
Policy 8.5 Planning service delivery	

Service coordination

Policy 8.6	Interagency coordination
Policy 8.7	Outside contracts
Policy 8.8	Public service coordination
Policy 8.9	Internal coordination
Policy 8.10	Co-location

Service extension

Policy 8.11	Annexation
Policy 8.12	Feasibility of service
Policy 8.13	Orderly service extension
Policy 8.14	Coordination of service extension
Policy 8.15	Services to unincorporated urban pockets
Policy 8.16	Orderly urbanization
Policy 8.17	Services outside the city limits
Policy 8.18	Service district expansion
Policy 8.19	Rural service delivery

Public inves	stment		
Policy 8.20	Regulatory compliance		
Policy 8.21	System capacity		
Policy 8.22	Equitable service		
Policy 8.23	Asset management		
Policy 8.24	Risk management		
Policy 8.25	Critical infrastructure		
Policy 8.26	Capital programming		
Funding			
Policy 8.27	Cost-effectiveness		
Policy 8.28	Shared costs		
Policy 8.29	System development		
Policy 8.30	Partnerships		
Public bene	fits		
Policy 8.31	Application of Guiding Principles		
Policy 8.32	Community benefits		
Policy 8.33	Community knowledge and experience		
Policy 8.34	Resource efficiency		
Policy 8.35	Natural systems		
Policy 8.36	Context-sensitive infrastructure		
Policy 8.37	Site- and area-specific needs		
Policy 8.38	Age-friendly public facilities		
Public right	s-of-way		
Policy 8.39	Interconnected network		
Policy 8.40	Transportation function		
Policy 8.41	Utility function		
Policy 8.42	Stormwater management		
Policy 8.43	Trees in rights-of-way		
Policy 8.44	Community uses		
Policy 8.45	Pedestrian amenities		
Policy 8.46	Commercial uses		
Policy 8.47	Flexible design		
Policy 8.48	Corridors and City Greenways		
Policy 8.49	Coordination		
Policy 8.50	Undergrounding		
Policy 8.51	Right-of-way vacations		

Transportation system

See Chapter 9: Transportation of this Comprehensive Plan

Rail rights-of-way

Policy 8.52

Trails			
Policy 8.53	Public trails		
Policy 8.54	Trail system connectivity		
Policy 8.55	Trail coordination		
Policy 8.56	Trail diversity		
Policy 8.57	Public access requirements		
Policy 8.58	Trail and City Greenway coordination		
Policy 8.59	Trail and Habitat Corridor coordinatio		
Policy 8.60	Intertwine coordination		
Sanitary and	d stormwater systems		
Sanitary syste			
Policy 8.61	Sewer connections		
Policy 8.62	Combined sewer overflows		
Policy 8.63	Sanitary sewer overflows		
Policy 8.64	Private sewage treatment systems		
Policy 8.65	Sewer extensions		
Policy 8.66	Pollution prevention		
Policy 8.67	Treatment		
Stormwater s	•		
Policy 8.68	Stormwater facilities		
Policy 8.69	Stormwater as a resource		
Policy 8.70	Natural systems		
Policy 8.71	Green infrastructure		
Policy 8.72	Stormwater discharge		
Policy 8.73	On-site stormwater management		
Policy 8.74	Pollution prevention		
Policy 8.75	Stormwater partnerships		
Flood mana	gement		
Policy 8.76	Flood management		
Policy 8.77	Floodplain management		
Policy 8.78	Floodplain management facilities		
Policy 8.79	Drainage district coordination		
Policy 8.80	Levee coordination		
Water syste	ems		
Policy 8.81	Primary supply source		
Policy 8.82	Bull Run protection		
Policy 8.83	Secondary supply sources		
Policy 8.84	Groundwater wellfield protection		
Policy 8.85	Water quality		
Policy 8.86	Storage		
Policy 8.87	Fire protection		
Policy 8.88	Water pressure		

Water efficiency

Policy 8.89

PUBLIC FACILITIES AND SERVICES

Policy 8.90	Service interruptions
Policy 8.91	Outside user contracts
Parks and re	ecreation
Policy 8.92	Acquisition, development, and maintenance
Policy 8.93	Service equity
Policy 8.94	Capital programming
Policy 8.95	Park planning
Policy 8.96	Recreational trails
Policy 8.97	Natural resources
Policy 8.98	Urban forest management
Policy 8.99	Recreational facilities
Policy 8.100	Self-sustaining Portland International Raceway (PIR)
Policy 8.101	Self-sustaining and inclusive golf facilities
Policy 8.102	Specialized recreational facilities
Policy 8.103	Public-private partnerships
Public safet	y and emergency response
Policy 8.104	Emergency preparedness, response, and recovery coordination
Policy 8.105	Emergency management facilities
Policy 8.106	Police facilities
Policy 8.107	Community safety centers
Policy 8.108	Fire facilities
Policy 8.109	Mutual aid
Policy 8.110	Community preparedness
Policy 8.111	Continuity of operations
Solid waste	management
Policy 8.112	Waste management
School facil	ities
Policy 8.113	School district capacity
Policy 8.114	Facilities planning
Policy 8.115	Co-location
Policy 8.116	Community use
Policy 8.117	Recreational use
Policy 8.118	Schools as emergency aid centers
Policy 8.119	Facility adaptability
Policy 8.120	Leverage public investment
Policy 8.121	School access
Policy 8.122	Private institutions
	and communications
Policy 8.123	Technology and communication systems
Policy 8.124	Equity, capacity, and reliability

Energy infrastructure

Policy 8.125 Energy efficiency Policy 8.126 Coordination

List of Figures

- 8-1. Urban, Urbanizable, and Rural Lands
- 8-2. Future Public Trails Alignments

Goals

Goal 8.A: Quality public facilities and services

High-quality public facilities and services provide Portlanders with optimal levels of service throughout the city, based on system needs and community goals, and in compliance with regulatory mandates.

Goal 8.B: Multiple benefits

Public facility and service investments improve equitable service provision, support economic prosperity, and enhance human and environmental health.

Goal 8.C: Reliability and resiliency

Public facilities and services are reliable, able to withstand or recover from catastrophic natural and manmade events, and are adaptable and resilient in the face of long-term changes in the climate, economy, and technology.

Goal 8.D: Public rights-of-way

Public rights-of-way enhance the public realm and provide a multi-purpose, connected, safe, and healthy physical space for movement and travel, public and private utilities, and other appropriate public functions and uses.

Goal 8.E: Sanitary and stormwater systems

Wastewater and stormwater are managed, conveyed, and/or treated to protect public health, safety, and the environment, and to meet the needs of the community on an equitable, efficient, and sustainable basis.

Goal 8.F: Flood management

Flood management systems and facilities support watershed health and manage flooding to reduce adverse impacts on Portlanders' health, safety, and property.

Goal 8.G: Water

Reliable and adequate water supply and delivery systems provide sufficient quantities of high-quality water at adequate pressures to meet the needs of the community on an equitable, efficient, and sustainable basis.

Goal 8.H: Parks, natural areas, and recreation

All Portlanders have safe, convenient, and equitable access to high-quality parks, natural areas, trails, and recreational opportunities in their daily lives, which contribute to their health and well-being. The City manages its natural areas and urban forest to protect unique urban habitats and offer Portlanders an opportunity to connect with nature.

Goal 8.1: Public safety and emergency response

Portland is a safe, resilient, and peaceful community where public safety, emergency response, and emergency management facilities and services are coordinated and able to effectively and efficiently meet community needs.

Goal 8.J: Solid waste management

Residents and businesses have access to waste management services and are encouraged to be thoughtful consumers to minimize upstream impacts and avoid generating waste destined for the landfill. Solid waste — including food, yard debris, recyclables, electronics, and construction and demolition debris — is managed, recycled, and composted to ensure the highest and best use of materials.

Goal 8.K: School facilities

Public schools are honored places of learning as well as multifunctional neighborhood anchors serving Portlanders of all ages, abilities, and cultures.

Goal 8.L: Technology and communications

All Portland residences, businesses, and institutions have access to universal, affordable, and reliable state-of-the-art communication and technology services.

Goal 8.M: Energy infrastructure and services

Residents, businesses, and institutions are served by reliable energy infrastructure that provides efficient, low-carbon, affordable energy through decision-making based on integrated resource planning.

Policies

Service provision and urbanization

The policies in this section support the maintenance of an urban services boundary to coordinate planning and provision of public facilities. These policies also identify which urban facilities and services are and will be provided by the City of Portland within this boundary. This section supports Statewide Planning Goal 11 — Public Facilities.

The Portland Comprehensive Plan addresses three distinct types of land: rural, urbanizable, and urban. Some rural land is within the City Limits, having been annexed prior to establishment of the Regional Urban Growth Boundary. This land must maintain its rural character, and public facilities and services in this area should be planned accordingly. Urbanizable land is beyond the City Limits, within the Regional Urban Growth Boundary and within the City's Urban Services Boundary. Urbanizable land will eventually be annexed to the City of Portland, and full urban services may then be extended. Urban land is within the City Limits, the Regional Urban Growth Boundary, and the City's Urban Services Boundary.

- **Policy 8.1 Urban services boundary.** Maintain an Urban Services Boundary for the City of Portland that is consistent with the regional urban growth policy, in cooperation with neighboring jurisdictions. The Urban Services Boundary is shown on the Comprehensive Plan Map.
- Policy 8.2 Rural, urbanizable, and urban public facility needs. Recognize the different public facility needs in rural, urbanizable and urban land as defined by the Regional Urban Growth Boundary, the City Urban Services Boundary, and the City Boundaries of Municipal Incorporation. See Figure 8-1 Urban, Urbanizable, and Rural Lands.
- **Policy 8.3 Urban service delivery.** Provide the following public facilities and services at urban levels of service to urban lands within the City's boundaries of incorporation:
 - Public rights-of-way, streets, and public trails
 - Sanitary sewers and wastewater treatment
 - Stormwater management and conveyance
 - Flood management
 - Protection of the waterways of the state
 - Water supply
 - Police, fire, and emergency response
 - Parks, natural areas, and recreation
 - Solid waste regulation

- **Policy 8.4** Supporting facilities and systems. Maintain supporting facilities and systems, including public buildings, technology, fleet, and internal service infrastructure, to enable the provision of public facilities and services.
- **Policy 8.5** Planning service delivery. Provide planning, zoning, building, and subdivision control services within the boundaries of incorporation, and as otherwise provided by intergovernmental agreement within the City's Urban Services Boundary.

Service coordination

While the City of Portland is the primary provider of many urban facilities and services within city limits, other public and private agencies also provide public facilities and services. The City has a responsibility for, and an interest in, the planning, coordination, provision, and, in some cases, regulation of these facilities and services. The following policies identify other public facility providers and encourage planning and service coordination — both within the city boundaries and between the City and partner agencies — to meet the needs of people and businesses.

- Policy 8.6 Interagency coordination. Maintain interagency coordination agreements with neighboring jurisdictions and partner agencies that provide urban public facilities and services within the City of Portland's Urban Services Boundary to ensure effective and efficient service delivery. See Policy 8.3 for the list of services included. Such jurisdictions and agencies include, but may not be limited to:
 - Multnomah County for transportation facilities and public safety.
 - State of Oregon for transportation and parks facilities and services.
 - TriMet for public transit facilities and services.
 - Port of Portland for air and marine facilities and services.
 - Metro for regional parks and natural areas, and for solid waste, composting, and recycling facilities and transfer stations.
 - Gresham, Milwaukie, Clackamas County Service District #1, and Clean Water Services for sanitary sewer conveyance and treatment.
 - Multnomah County Drainage District No. 1, Peninsula Drainage District No 1, and Peninsula Drainage District No. 2 for stormwater management and conveyance, and for flood mitigation, protection, and control.
 - Rockwood People's Utility District; Sunrise Water Authority; and the Burlington, Tualatin Valley, Valley View, West Slope, Palatine Hill, Alto Park, and Clackamas River Water Districts for water distribution.
 - Portland Public Schools and the David Douglas, Parkrose, Reynolds, Centennial, and Riverdale school districts for public education, park, trail, and recreational facilities.

- **Policy 8.7 Outside contracts.** Coordinate with jurisdictions and agencies outside of Portland where the City provides services under agreement.
- **Policy 8.8** Public service coordination. Coordinate with the planning efforts of agencies providing public education, public health services, community centers, urban forest management, library services, justice services, energy, and technology and communications services.
- **Policy 8.9** Internal coordination. Coordinate planning and provision of public facilities and services, including land acquisition, among City agencies, including internal service bureaus.
- **Policy 8.10 Co-location**. Encourage co-location of public facilities and services across providers where co-location improves service delivery efficiency and access for historically under-represented and under-served communities.

Service extension

The policies in this section outline the City's approach towards annexation and service extension to newly-incorporated areas.

- **Policy 8.11** Annexation. Require annexation of unincorporated urbanizable areas within the City's Urban Services Boundary as a prerequisite to receive urban services.
- **Policy 8.12** Feasibility of service. Evaluate the physical feasibility and cost-effectiveness of extending urban public services to candidate annexation areas to ensure sensible investment and to set reasonable expectations.
- **Policy 8.13 Orderly service extension**. Establish or improve urban public services in newly-annexed areas to serve designated land uses at established levels of service, as funds are available and as responsible engineering practice allows.
- **Policy 8.14** Coordination of service extension. Coordinate provision of urban public services to newly-annexed areas so that provision of any given service does not stimulate development that significantly hinders the City's ability to provide other urban services at uniform levels.
- **Policy 8.15** Services to unincorporated urban pockets. Plan for future delivery of urban services to urbanizable areas that are within the Urban Services Boundary but outside the city limits.
- **Policy 8.16 Orderly urbanization.** Coordinate with counties, neighboring jurisdictions, and other special districts to ensure consistent management of annexation requests, and to establish rational and orderly process of urbanization that maximize efficient use of public funds.

- **Policy 8.17 Services outside the city limits.** Prohibit City provision of new urban services, or expansion of the capacity of existing services, in areas outside city limits, except in cases where the City has agreements or contracts in place.
- **Policy 8.18** Service district expansion. Prohibit service district expansion or creation within the City's Urban Services Boundary without the City's expressed consent.
- **Policy 8.19** Rural service delivery. Provide the public facilities and services identified in Policy 8.3 in rural areas only at levels necessary to support designated rural residential land uses and protect public health and safety. Prohibit sanitary sewer extensions into rural land and limit other urban services.

Public investment

The following policies support investments in Portland's public facility systems to maintain and improve system capacity, resolve service deficiencies, and properly manage assets. They also reduce risks to the economy, environment, and community. Such investments enable the City to provide levels-of-service to meet the needs of residents and businesses.

- **Policy 8.20** Regulatory compliance. Ensure public facilities and services remain in compliance with state and federal regulations. Work toward cost-effective compliance with federal and state mandates through intergovernmental coordination and problem solving.
- **Policy 8.21** System capacity. Establish, improve, and maintain public facilities and services at levels appropriate to support land use patterns, densities, and anticipated residential and employment growth, as physically feasible and as sufficient funds are available.
- **Policy 8.22 Equitable service**. Provide public facilities and services to alleviate service deficiencies and meet level-of-service standards for all Portlanders, including individuals, businesses, and property owners.
 - **8.22.a.** In places that are not expected to grow significantly but have existing deficiencies, invest to reduce disparity and improve livability.
 - **8.22.b.** In places that lack basic public facilities or services and also have significant growth potential, invest to enhance neighborhoods, fill gaps, maintain affordability, and accommodate growth.
 - **8.22.c.** In places that are not expected to grow significantly and already have access to complete public facilities and services, invest primarily to maintain existing facilities and retain livability.

- **8.22.d.** In places that already have access to complete public facilities and services, but also have significant growth potential, invest to fill remaining gaps, maintain affordability, and accommodate growth.
- **Policy 8.23** Asset management. Improve and maintain public facility systems using asset management principles to optimize preventative maintenance, reduce unplanned reactive maintenance, achieve scheduled service delivery, and protect the quality, reliability, and adequacy of City services.
- **Policy 8.24** Risk management. Maintain and improve Portland's public facilities to minimize or eliminate economic, social, public health and safety, and environmental risks.
- **Policy 8.25 Critical infrastructure**. Increase the resilience of high-risk and critical infrastructure through monitoring, planning, maintenance, investment, adaptive technology, and continuity planning.
- **Policy 8.26 Capital programming.** Maintain long-term capital improvement programs that balance acquisition and construction of new public facilities with maintenance and operations of existing facilities.

Funding

Portland's investments in the public facility systems necessary to serve designated land uses are funded through a variety of mechanisms, including taxes, user rates and fees, system development charges, and partnerships. The policies in this section acknowledge and support cost-effective service provision, maintenance of diverse funding streams to support the public's investments, and equitable sharing of the costs of investing in and maintaining the City's public facilities.

- **Policy 8.27** Cost-effectiveness. Establish, improve, and maintain the public facilities necessary to serve designated land uses in ways that cost-effectively provide desired levels of service, consider facilities' lifecycle costs, and maintain the City's long-term financial sustainability.
- **Policy 8.28** Shared costs. Ensure the costs of constructing and providing public facilities and services are equitably shared by those who benefit from the provision of those facilities and services.
- **Policy 8.29** System development. Require private or public entities whose prospective development or redevelopment actions contribute to the need for public facility improvements, extensions, or construction to bear a proportional share of the costs.

Policy 8.30 Partnerships. Maintain or establish public and private partnerships for the development, management, or stewardship of public facilities necessary to serve designated land uses, as appropriate.

Public benefits

The following policies support investments to improve equity, economic prosperity, human and watershed health, and resiliency while minimizing negative impacts. They also recognize that the public facility and service needs, and the appropriate approaches to meeting those needs, vary throughout the city. *See Chapter 2: Community Involvement* for policies related to community engagement in public facility decisions.

- **Policy 8.31** Application of Guiding Principles. Plan and invest in public facilities in ways that promote and balance the Guiding Principles established in The Vision and Guiding Principles of this Comprehensive Plan.
- **Policy 8.32** Community benefits. Encourage providing additional community benefits with large public facility projects as appropriate to address environmental justice policies in Chapter 2: Community Involvement.
- **Policy 8.33** Community knowledge and experience. Encourage public engagement processes and strategies for large public facility projects to include community members in identifying potential impacts, mitigation measures, and community benefits.
- **Policy 8.34** Resource efficiency. Reduce the energy and resource use, waste, and carbon emissions from facilities necessary to serve designated land uses to meet adopted City goals and targets.
- **Policy 8.35** Natural systems. Protect, enhance, and restore natural systems and features for their infrastructure service and other values.
- **Policy 8.36** Context-sensitive infrastructure. Design, improve, and maintain public rights-of-way and facilities in ways that are compatible with, and that minimize negative impacts on, their physical, environmental, and community context.
- **Policy 8.37 Site- and area-specific needs.** Allow for site- and area-specific public facility standards, requirements, tools, and policies as needed to address distinct topographical, geologic, environmental, and other conditions.
- **Policy 8.38** Age-friendly public facilities. Promote public facility designs that make Portland more age-friendly.

Public rights-of-way

The policies in this section support the role of public rights-of-way in providing multiple public services, including multimodal transportation access and movement, stormwater management, water distribution, private utilities, tree canopy, and community use, among others. Current practices and the Portland Plan regard public rights-of-way as a coordinated and interconnected network that provides a place for these multiple public facilities and functions.

- **Policy 8.39 Interconnected network**. Establish a safe and connected rights-of-way system that equitably provides infrastructure services throughout the city.
- **Policy 8.40 Transportation function**. Improve and maintain the right-of-way to support multimodal transportation mobility and access to goods and services as is consistent with the designated street classification.
- **Policy 8.41 Utility function**. Improve and maintain the right-of-way to support equitable distribution of utilities, including water, sanitary sewer, stormwater management, energy, and communications, as appropriate.
- **Policy 8.42 Stormwater management function**. Improve rights-of-way to integrate green infrastructure and other stormwater management facilities to meet desired levels-of-service and economic, social, and environmental objectives.
- **Policy 8.43 Trees in rights-of-way.** Integrate trees into public rights-of-way to support City canopy goals, transportation functions, and economic, social, and environmental objectives.
- **Policy 8.44** Community uses. Allow community use of rights-of-way for purposes such as public gathering space, events, food production, or temporary festivals, as long as the community uses are integrated in ways that balance and minimize conflict with the designated through movement and access roles of rights-of-ways.
- **Policy 8.45** Pedestrian amenities. Encourage facilities that enhance pedestrian enjoyment, such as transit shelters, garbage containers, benches, etc. in the right of way.
- **Policy 8.46** Commercial uses. Accommodate allowable commercial uses of the rights-of-way for the purpose of enhancing commercial vitality, if the commercial uses can be integrated in ways that balance and minimize conflict with the other functions of the right-of-way. Restrict the size of signage in the right-of-way.
- **Policy 8.47 Flexible design**. Allow flexibility in right-of-way design and development standards to appropriately reflect the pattern area and other relevant physical, community, and environmental contexts and local needs.

8.47 a: Use a variety of transportation resources in developing and designing projects for all City streets, such as the City of Portland's Pedestrian Design Guide, Bicycle Master Plan- Appendix A, NACTO Urban Bikeway Design Guide, NACTO Urban Street Design Guide, Portland Parks and Recreation Trail Design Guidelines, Designing for Truck Movements and Other Large Vehicles, and City of Portland Green Street Policy, Stormwater Management Manual, Design Guide for Public Street Improvements, and Neighborhood Greenways.

Policy 8.48 Corridors and City Greenways. Ensure public facilities located along Civic Corridors, Neighborhood Corridors, and City Greenways support the multiple objectives established for these corridors.

Corridor and City Greenway goals and policies are listed in Chapter 3: Urban Form.

- **Policy 8.49** Coordination. Coordinate the planning, design, development, improvement, and maintenance of public rights-of-way among appropriate public agencies, private providers, and adjacent landowners.
 - **8.49.a.** Coordination efforts should include the public facilities necessary to support the uses and functions of rights-of-way, as established in policies 8.40 to 8.46.
 - **8.49.b.** Coordinate transportation and stormwater system plans and investments, especially in unimproved or substandard rights-of-way, to improve water quality, public safety, including for pedestrians and bicyclists, and neighborhood livability.
- **Policy 8.50** Undergrounding. Encourage undergrounding of electrical and telecommunications facilities within public rights-of-way, especially in centers and along Civic Corridors.
- **Policy 8.51** Right-of-way vacations. Maintain rights-of-way if there is an established existing or future need for them, such as for transportation facilities or for other public functions established in policies 8.40 to 8.46.
- **Policy 8.52** Rail rights-of-way. Preserve existing and abandoned rail rights-of-way for future rail or public trail uses.

Transportation system

Additional goals and policies specifically related to transportation can be found in Chapter 9: Transportation of this Comprehensive Plan.

Trails

The City of Portland's trail system is a key part of both the City's multi-modal transportation system and its recreation system. Trails within this system take many different forms and are located within the right-of-way and on public and private property. Trails provide Portlanders with local and regional pedestrian and bicycle connections and access to many key destinations within the city. They also provide a place to recreate and allow Portlanders to experience the city's parks and natural areas. Trails play a particularly important role in meeting pedestrian and bicyclist mobility and connectivity needs in western neighborhoods. See Western Neighborhood Pattern Area Policies 3.100 and 3.103. The policies in this section support continued improvement, management, and coordination of the trail system.

- **Policy 8.53** Public trails. Establish, improve, and maintain a citywide system of local and regional public trails that provide transportation and/or recreation options and are a component of larger network of facilities for bicyclists, pedestrians, and recreational users.
- Policy 8.54 Trail system connectivity. Plan, improve, and maintain the citywide trail system so that it connects and improves access to Portland's neighborhoods, commercial areas, employment centers, schools, parks, natural areas, recreational facilities, regional destinations, the regional trail system, and other key places that Portlanders access in their daily lives.
- **Policy 8.55** Trail coordination. Coordinate planning, design, improvement, and maintenance of the trail system among City agencies, other public agencies, non-governmental partners, and adjacent landowners.
- **Policy 8.56 Trail diversity.** Allow a variety of trail types to reflect a trail's transportation and recreation roles, requirements, and physical context.
- Policy 8.57 Public access requirements. Require public access and improvement of Major Public Trails as shown in Figure 8-2 Major Public Trails. Major Public Trails include regional trails and other significant trail connections that provide for the movement of pedestrians, cyclists, and other users for recreation and transportation purposes.
- Policy 8.58 Trail and City Greenway coordination. Coordinate the planning and improvement of trails as part of the City Greenways system. See Chapter 3: Urban Form for additional policies related to City Greenways.
- **Policy 8.59** Trail and Habitat Corridor coordination. Coordinate the planning and improvement of trails with the establishment, enhancement, preservation, and access to habitat corridors. See Chapter 3: Urban Form for additional

policies related to Habitat Corridors.

Policy 8.60 Intertwine coordination. Coordinate with the Intertwine Alliance and its partners, including local and regional parks providers, to integrate Portland's trail and active transportation network with the bi-state regional trail system.

Sanitary and stormwater systems

The City's sewer and drainage system accommodates Portland's current and future needs. It also protects public health, water quality, and the environment. Using asset management and watershed health as goals and guides, the City considers the whole watershed as an interconnected hydrologic system.

The City manages sanitary sewage through an extensive piped collection and treatment system, including two wastewater treatment plants that discharge to the Columbia and Willamette rivers. Stormwater is managed and conveyed through a variety of facilities, including pipes, sumps, surface facilities, and natural drainageways. Green infrastructure, including landscaped stormwater facilities and natural resources such as trees and natural areas, is an important part of the stormwater system. Private property investments and public-private partnerships also play key roles in the management of stormwater.

The policies below ensure effective sanitary and stormwater systems.

Sanitary system

- **Policy 8.61** Sewer connections. Require all developments within the city limits to be connected to sanitary sewers unless the public sanitary system is not physically or legally available per City Code and state requirements; or the existing onsite septic system is functioning properly without failure or complaints per City Code and state requirements; and the system has all necessary state and county permits.
- **Policy 8.62** Combined sewer overflows. Provide adequate public facilities to limit combined sewer overflows to frequencies established by regulatory permits.
- **Policy 8.63** Sanitary sewer overflows. Provide adequate public facilities to prevent sewage releases to surface waters as consistent with regulatory permits.
- **Policy 8.64 Private sewage treatment systems.** Adopt land use regulations that require any proposed private sewage treatment system to demonstrate that all necessary state and county permits are obtained.
- **Policy 8.65 Sewer extensions**. Prioritize sewer system extensions to areas that are already developed at urban densities and where health hazards exist.
- **Policy 8.66** Pollution prevention. Reduce the need for wastewater treatment capacity

through land use programs and public facility investments that manage pollution as close to its source as practical and that reduce the amount of pollution entering the sanitary system.

Policy 8.67 Treatment. Provide adequate wastewater treatment facilities to ensure compliance with effluent standards established in regulatory permits.

Stormwater system

- **Policy 8.68 Stormwater facilities**. Provide adequate stormwater facilities for conveyance, flow control, and pollution reduction.
- **Policy 8.69 Stormwater as a resource.** Manage stormwater as a resource for watershed health and public use in ways that protect and restore the natural hydrology, water quality, and habitat of Portland's watersheds.
- **Policy 8.70 Natural systems.** Protect and enhance the stormwater management capacity of natural resources such as rivers, streams, creeks, drainageways, wetlands, and floodplains.
- **Policy 8.71** Green infrastructure. Promote the use of green infrastructure, such as natural areas, the urban forest, and landscaped stormwater facilities, to manage stormwater.
- **Policy 8.72 Stormwater discharge.** Avoid or minimize the impact of stormwater discharges on the water and habitat quality of rivers and streams.
- **Policy 8.73** On-site stormwater management. Encourage on-site stormwater management, or management as close to the source as practical, through land use decisions and public facility investments.
- **Policy 8.74 Pollution prevention.** Coordinate policies, programs, and investments with partners to prevent pollutants from entering the stormwater system by managing point and non-point pollution sources through public and private facilities, local regulations, and education.
- **Policy 8.75 Stormwater partnerships**. Provide stormwater management through coordinated public and private facilities, public-private partnerships, and community stewardship.

Flood management

Portland's floodplain areas are primarily along the Columbia River, Willamette River, Columbia Slough, Johnson Creek, and low elevation areas along smaller tributary streams. In accordance with state and federal regulations, the City of Portland, Multnomah County Drainage District, and Peninsula Drainage Districts No. 1 and No. 2 manage floodplains to

reduce public safety risks, prevent property damage, support economic activity, and protect watershed health.

The City of Portland's flood management activities primarily focus on restoring natural floodplain functions to reduce the risk of riverine flooding for adjacent developed property. In addition, the City of Portland owns and maintains a seawall along the Willamette River through central Portland. Drainage Districts provide flood control and protection services for portions of North and Northeast Portland along the Columbia River, through a network of flood control facilities (e.g. levees, drainage ditches, and pump stations).

These policies ensure proper floodplain management and compliance.

- **Policy 8.76** Flood management. Improve and maintain the functions of natural and managed drainageways, wetlands, and floodplains to protect health, safety, and property, provide water conveyance and storage, improve water quality, and maintain and enhance fish and wildlife habitat.
- **Policy 8.77** Floodplain management. Manage floodplains to protect and restore associated natural resources and functions and to minimize the risks to life and property from flooding.
- **Policy 8.78** Floodplain management facilities. Establish, improve, and maintain flood management facilities to serve designated land uses through planning, investment and regulatory requirements.
- **Policy 8.79 Drainage district coordination.** Coordinate with drainage districts that provide stormwater management, conveyance, and flood mitigation, protection, and control services within the City's Urban Services Boundary.
- **Policy 8.80** Levee coordination. Coordinate plans and investments with special districts and agencies responsible for managing and maintaining certification of levees along the Columbia River.

Water systems

The City works to provide reliable water service that meets or exceeds both customer and regulatory standards through sound business, management, and operational practices; appropriate application of innovation and technology; responsible stewardship of water infrastructure and fiscal and natural resources; and by supporting community objectives and overall vision for the City of Portland.

The policies below are intended to protect the quality of the water supply while delivering clean drinking water and meeting user needs.

Policy 8.81 Primary supply source. Protect the Bull Run watershed as the primary water supply source for Portland.

- **Policy 8.82 Bull Run protection.** Maintain a source-protection program and practices to safeguard the Bull Run watershed as a drinking water supply.
- **Policy 8.83** Secondary supply sources. Protect, improve, and maintain the Columbia South Shore wellfield groundwater system, the Powell Valley wellfield groundwater system, and any other alternative water sources designated as secondary water supplies.
- **Policy 8.84** Groundwater wellfield protection. Maintain a groundwater protection program and practices to safeguard the Columbia South Shore wellfield and the Powell Valley wellfield as drinking water supplies.
- **Policy 8.85** Water quality. Maintain compliance with state and federal drinking water quality regulations.
- **Policy 8.86 Storage**. Provide sufficient in-city water storage capacity to serve designated land uses, meet demand fluctuations, maintain system pressure, and ensure supply reliability.
- **Policy 8.87** Fire protection. Provide adequate water facilities to serve the fire protection needs of all Portlanders and businesses.
- **Policy 8.88** Water pressure. Provide adequate water facilities to maintain water pressure in order to protect water quality and provide for the needs of customers.
- **Policy 8.89** Water efficiency. Reduce the need for additional water facility capacity and maintain compliance with state water resource regulations by encouraging efficient use of water by customers within the city.
- **Policy 8.90 Service interruptions**. Maintain and improve water facilities to limit interruptions in water service to customers.
- **Policy 8.91** Outside user contracts. Coordinate long-term water supply planning and delivery with outside-city water purveyors through long-term wholesale contracts.

Parks and recreation

The City of Portland manages more than 11,000 acres of developed parks and natural areas, as well as local and regional trails, the urban tree canopy, and the City of Portland's community gardens. It offers thousands of programs for people of all ages at its community centers, swimming pools, and other recreational facilities. Parks and natural areas give life and beauty to the city and are essential assets that connect people to place, self, and others. The following policies ensure this legacy is preserved for all Portlanders and future generations.

- **Policy 8.92** Acquisition, development, and maintenance. Provide and maintain an adequate supply and variety of parkland and recreational facilities to serve the city's current and future population based on identified level-of-service standards and community needs.
- **Policy 8.93 Service equity.** Invest in acquisition and development of parks and recreation facilities in areas where service-level deficiencies exist.
- **Policy 8.94 Capital programming.** Maintain a long-range park capital improvement program, with criteria that considers acquisition, development, and operations; provides opportunities for public input; and emphasizes creative and flexible financing strategies.
- Policy 8.95 Park planning. Improve parks, recreational facilities, natural areas, and the urban forest in accordance with relevant master plans, management plans, or adopted strategies that reflect user group needs, development priorities, development and maintenance costs, program opportunities, financing strategies, and community input. Consider developing master or management plans for properties that lack guiding plans or strategies.
- **Policy 8.96** Recreational trails. Establish, improve, and maintain a complete and connected system of Major Public Trails that provide recreational opportunities and that can serve transportation functions consistent with policies 8.53 through 8.60 and other City trail policies and plans.
- **Policy 8.97 Natural resources**. Preserve, enhance, and manage City-owned natural areas and resources to protect and improve their ecological health, in accordance with both the natural area acquisition and restoration strategies, and to provide compatible public access.
- **Policy 8.98 Urban forest management.** Manage urban trees as green infrastructure with associated ecological, community, and economic functions, through planning, planting, and maintenance activities, education, and regulation. *See also Policy 7.10.*
- **Policy 8.99** Recreational facilities. Provide a variety of recreational facilities and services that contribute to the health and well-being of Portlanders of all ages and abilities.
- **Policy 8.100** Self-sustaining Portland International Raceway (PIR). Provide for financially self-sustaining operations of PIR, and broaden its programs and activities to appeal to families, diverse communities, and non-motorized sports such as

biking and running.

- **Policy 8.101** Self-sustaining and inclusive golf facilities. Provide financially self-sustaining public golf course operations. Diversify these assets to attract new users, grow the game, provide more introductory-level programming, and expand into other related recreational opportunities such as foot golf and disk golf.
- **Policy 8.102** Specialized recreational facilities. Establish and manage specialized facilities within the park system that take advantage of land assets and that respond to diverse, basic, and emerging recreational needs.
- **Policy 8.103** Public-private partnerships. Encourage public-private partnerships to develop and operate publicly-accessible recreational facilities that meet identified public needs.

Public safety and emergency response

Coordinated, effective, and efficient public safety and emergency response services are essential for a safe and resilient city. They help the community prepare for and respond to medical and fire emergencies, hazards, and natural- and human-made disasters. The policies in this section reflect the variety of public safety and emergency response services provided by the City that must be maintained and enhanced as the city grows, including police, fire and rescue, emergency communications, and emergency management.

- Policy 8.104 Emergency preparedness, response, and recovery coordination. Coordinate land use plans and public facility investments between City bureaus, other public and jurisdictional agencies, businesses, community partners, and other emergency response providers, to ensure coordinated and comprehensive emergency and disaster risk reduction, preparedness, response, and recovery.
- **Policy 8.105** Emergency management facilities. Provide adequate public facilities such as emergency coordination centers, communications infrastructure, and dispatch systems to support emergency management, response, and recovery.
- **Policy 8.106** Police facilities. Improve and maintain police facilities to allow police personnel to efficiently and effectively respond to public safety needs and serve designated land uses.
- **Policy 8.107** Community safety centers. Establish, coordinate, and co-locate public safety and other community services in centers.
- **Policy 8.108** Fire facilities. Improve and maintain fire facilities to serve designated land

uses, ensure equitable and reliable response, and provide fire and life safety protection that meets or exceeds minimum established service levels.

- **Policy 8.109 Mutual aid.** Maintain mutual aid coordination with regional emergency response providers as appropriate to protect life and ensure safety.
- **Policy 8.110** Community preparedness. Enhance community preparedness and capacity to prevent, withstand, and recover from emergencies and natural disasters through land use decisions and public facility investments.
- **Policy 8.111** Continuity of operations. Maintain and enhance the City's ability to withstand and recover from natural disasters and human-made disruptions in order to minimize disruptions to public services.

Solid waste management

Solid waste, composting, and recycling facilities and services are regulated and provided through a partnership between the City of Portland, Metro, franchised haulers and private companies. The following policy supports sustainable waste reduction, recovery, and management, and the use and reuse of materials prior to disposal. This policy relates to the aspects of Oregon's Statewide Planning Goal 13 – Energy Conservation, which focuses on systems and incentives for collection, reuse, and recycling of waste.

Policy 8.112 Waste management. Ensure land use programs, rights-of-way regulations, and public facility investments allow the City to manage waste effectively and prioritize waste management in the following order: waste reduction, recycling, anaerobic digestion, composting, energy recovery, and then landfill.

School facilities

Public education is provided by Portland Public Schools and the David Douglas, Parkrose, Reynolds, Centennial, and Riverdale school districts, as well as by colleges and universities. The City partners with school districts on school facility planning and siting. By encouraging school facilities to be multi-functional neighborhood anchors, designed and programmed to serve community members of all generations and abilities, these policies also help implement the concept of Portland as an age-friendly city.

- **Policy 8.113** School district capacity. Consider the overall enrollment capacity of a school district as defined in an adopted school facility plan that meets the requirements of Oregon Revised Statute 195 as a factor in land use decisions that increase capacity for residential development.
- Policy 8.114 Facilities planning. Facilitate coordinated planning among school districts

and City bureaus, including Portland Parks and Recreation, to accommodate school site/facility needs in response to most up-to-date growth forecasts.

- **Policy 8.115 Co-location.** Encourage public school districts, Multnomah County, the City of Portland, and other providers to co-locate facilities and programs in ways that optimize service provision and intergenerational and intercultural use.
- **Policy 8.116** Community use. Encourage public use of public school grounds for community purposes while meeting educational and student safety needs and balancing impacts on surrounding neighborhoods.
- **Policy 8.117** Recreational use. Encourage publicly-available recreational amenities (e.g. athletic fields, green spaces, community gardens, and playgrounds) on public school grounds for public recreational use, particularly in neighborhoods with limited access to parks.
- **Policy 8.118** Schools as emergency aid centers. Encourage the use of seismically-safe school facilities as gathering and aid-distribution locations during natural disasters and other emergencies.
- **Policy 8.119** Facility adaptability. Ensure that public schools may be upgraded to flexibly accommodate multiple community-serving uses and adapt to changes in educational approaches, technology, and student needs over time.
- **Policy 8.120** Leverage public investment. Encourage City public facility investments that complement and leverage local public school districts' major capital investments.
- **Policy 8.121** School access. Encourage public school districts to consider the ability of students to safely walk and bike to school when making decisions about the site locations and attendance boundaries of schools.
- **Policy 8.122 Private institutions.** Encourage collaboration with private schools and educational institutions to support community and recreational use of their facilities.

Technology and communications

Private utilities and companies are the primary providers of technology and communication facilities and services to the general public. The City also provides specific technology and communications services to support City and partner agency service delivery. The City regulates limited aspects of these services, such as the siting of new facilities through its land use regulations.

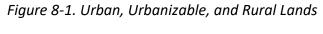
The policies in this section encourage innovation in emerging technologies and systems that have the potential to make Portland a cleaner, safer, and more efficient, resilient, and affordable city. This section acknowledges that information and technology services have become essential infrastructure and the benefits of these sources should be available to all Portlanders.

- **Policy 8.123** Technology and communication systems. Maintain and enhance the City's technology and communication facilities to ensure public safety, facilitate access to information, and maintain City operations.
- **Policy 8.124** Equity, capacity, and reliability. Encourage plans and investments in technology and communication infrastructure to ensure access in all areas of the city, reduce disparities in capacity, and affordability, and to provide innovative high-performance, reliable service for Portland's residents and businesses.

Energy infrastructure

Energy facilities and services in Portland are primarily provided by private utilities and companies. While the City of Portland does not directly provide energy facilities and services, it does promote efficient, sustainable, and resilient energy resources, production, distribution, and consumption. The following policies relate to energy infrastructure and support Oregon's Statewide Planning Goal 13 – Energy Conservation, which includes planning guidelines for renewable energy sources. They ensure that as the City makes land use decisions, it removes barriers to promoting efficient and sustainable energy practices.

- Policy 8.125 Energy efficiency. Promote efficient and sustainable production and use of energy resources by residents and businesses, including low-carbon renewable energy sources, district energy systems, and distributed generation, through land use plans, zoning, and other legislative land use decisions.
- **Policy 8.126** Coordination. Coordinate with energy providers to encourage investments that ensure reliable, equitable, efficient, and affordable energy for Portland residents and businesses.



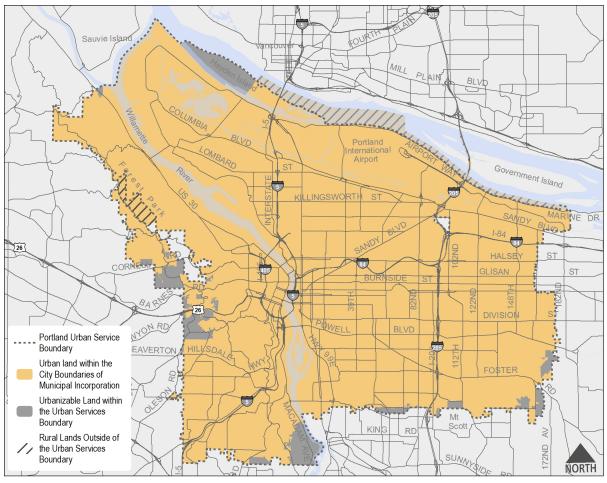


Figure 8-2. Major Public Trails

