

## PROPOSED GOALS AND POLICIES

This is a draft version of the Watershed Health and Environment Chapter of the City of Portland's updated Comprehensive Plan. This draft was created for review by the Watershed Health and Environment Policy Expert Group.

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## Commentary

The goal and policies in this draft represent a synthesis of relevant environmental policies culled from the documents listed in Appendix A. The goals and policies presented here are not direct quotes from the documents in Appendix A. They were culled, combined, and in some cases, revised in the style of the city's Comprehensive Plan, and they were augmented based on discussions to date with the Watershed Health and Environment Policy Expert Group.

### GOALS

Goal 4.A describes the components of a healthy watershed. The language of the goal is drawn in part from language and direction in the existing Comprehensive Plan and the Portland Watershed Management Plan.

The Watershed Health and Environment Policy Expert Group (the PEG) discussed aspects of watershed health including ecosystem services, environmental justice, natural hazards, and habitat corridors. Based on their discussions, the language of Goal 4.A was amended to also reflect the importance of watershed health from a cultural and spiritual perspective, and the importance of the ecosystem services provided by ecological functions.

Ecological functions are defined as "the physical, chemical and biological functions of a watershed such as flow conveyance and storage, channel dynamics, nutrient cycling, microclimate, filtration, control of pollution and sedimentation, water quality, fish and wildlife habitat and biodiversity". The term ecosystem services is defined as "the contribution of ecosystem conditions and processes to human well-being including the production of goods, and processes that control variability, support life, enrich cultural life, and preserve options". Preserving ecological function and ecosystem services is prudent because the benefits of ecosystem services support public health and safety, preserve the quality of life in Portland, and improve and maintain the wellbeing of Portland's residents. It can also be costly, and in some cases impossible, to replace these benefits, when lost.

Goal 4.B focuses on integrating Portland's built and natural environments so that they are viewed holistically, rather than separately, and function synergistically. This goal calls for the planning for natural systems and the built environment so they are complementary and reinforcing rather than one degrading the other. This goal also envisions that Portland's environment is better able to withstand and rebound in the face of climate change and natural or man-made disasters such as a major earthquake.

While Goals 4.A and 4.B focus on preserving and sustaining healthy watersheds and ecological functions, Goal 4.C recognizes that all Portlanders need and have a right to the benefits of healthy watersheds, including clean air and water, access to nature, and protection from natural hazards. In this context, convenient access to nature means that a natural area is easy to get to in a reasonable amount of time either walking, biking, driving, or taking transit. This policy could link to policies in other chapters related to 20-minute neighborhoods.

## **Comprehensive Plan Chapter #4 Watershed Health and Environment**

### **GOAL 4.A**

Watersheds in Portland have hydrologic, habitat and water quality conditions suitable to protect human health and wellbeing, protect ecological functions and ecosystem services, sustain native fish and wildlife, support cultural and spiritual fulfillment, and protect public and private property.

### **GOAL 4.B**

The built and natural environments in Portland are integrated so that they function as a cohesive system, and they are resilient in the face of climate change, natural hazards and other uncertainties.

### **GOAL 4.C**

All Portlanders have clean air and water, convenient access to nature, and reasonable protections from the impacts of landslides, flooding, earthquakes and other hazards.

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## **Commentary**

Additional commentary will be developed and will be included in the Discussion Draft.

**POLICIES—Land, Water and Wildlife**

Policy 4.1. Protect, enhance and restore:

- the quantity, quality, connectivity, complexity, and ecological functions of rivers and streams, other open drainageways, wetlands, riparian corridors, and floodplains;
- the quality, quantity and ecological function of groundwater;
- the quantity, quality, connectivity, complexity, and natural functions of upland natural resources;
- vegetation in and between riparian corridors, wetlands, floodplains, and upland areas;
- native vegetation communities;
- diverse critical habitats including native tree groves, native forests, native oak woodlands, and remnant native meadows;
- resident and migratory wildlife species, biological communities, and habitats including natural and constructed features.

Policy 4.2. Establish and maintain a connected system of functioning habitat corridors.

4.2.a. Maintain existing habitat corridors.

4.2.b. Establish habitat corridors where none exist.

4.2.c. Improve fish and wildlife access and passage.

Policy 4.3. Prevent:

- invasive plants, animals and insects from becoming widespread;
- pollutants from contaminating air, soil and water; and
- human induced soil loss, erosion, and impairment of soil quality and function.

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## Commentary

Staff will be sending the Watershed Health/Environment PEG a policy paper addressing the draft "Design with Nature" policies. The PEG will be invited to discuss and provide input on the paper along with the draft policies on September 27th.

**POLICIES—Design with Nature**

- Policy 4.4. Integrate low-impact development, habitat-friendly development, and green infrastructure principles and techniques into land use and transportation plans, and the design and maintenance of infrastructure and development.
- Policy 4.5. Plan and design development and infrastructure to avoid further impacts to natural hydrology in areas with poorly infiltrating soils and limited public stormwater discharge points.
- Policy 4.6. Encourage the incorporation of bird and pollinator habitat into landscaping and sustainable stormwater facilities.
- Policy 4.7. Ensure that development avoids negative impacts on natural resources, ecological functions and ecosystem services, and wildlife when practicable, and ensure that impacts that can not be avoided are minimized and fully mitigated.
- Policy 4.8. Encourage innovative approaches to mitigation and natural resource enhancement.
- Policy 4.9. Encourage development that preserves or enhances hydrologic functions and water quality, protects fish and wildlife, and provides other ecosystem services.
- Policy 4.10. Reduce effective impervious surface in the built environment.
- Policy 4.11. Ensure that stormwater management system capacity is aligned with planned densities and allowed impervious surface.
- Policy 4.12. Prioritize the efficient use of already developed land and return contaminated and other disturbed areas to productive use before encroaching on natural resources, where practicable.
- Policy 4.13. Encourage development and infrastructure designs that provide safe wildlife crossings and remove barriers to fish and wildlife passage.

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## Commentary



**POLICIES—Access to Nature.**

Policy 4.14. Ensure that all Portlanders have convenient access to parks, natural areas, and recreational opportunities in their daily lives.

Policy 4.15. Create an accessible system of habitat corridors, neighborhood greenways and civic corridors throughout the city.

Policy 4.16. Identify natural resource areas where human access and activities are discouraged to protect public safety, ecological functions, and sensitive fish and wildlife.

Policy 4.17. Ensure that parks and natural areas include a diversity of native landscape and habitat types.

**POLICIES—Urban Forest.**

Policy 4.18. Protect and improve the health, diversity and total coverage of tree canopy.

Policy 4.19. Protect large, older and native trees and groves.

Policy 4.20. Support an equitable distribution of the urban forest.

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## Commentary

**POLICIES—Resiliency.**

- Policy 4.21. Require that allowed density, development type, and impervious area, and infrastructure investments minimize the risks of natural hazards to people, wildlife, natural resources, and public and private property.
- Policy 4.22. Strive to reduce the risk and impacts of natural hazards.
- Policy 4.23. Limit development in or near natural hazard prone areas where practicable, using the most current hazard information and maps available.
- Policy 4.24. Consider slopes, soil characteristics, including liquefaction potential and other geologic hazards when evaluating proposals for development.
- Policy 4.25. Encourage hazard mitigation strategies that mimic the beneficial functions of nature or other current best management practices, where practicable.
- Policy 4.26. Maintain a high ranking in the National Flood Insurance Program.

**POLICIES—Watershed Specific Direction.**

Policy 4.27. Johnson Creek

- 4.27.a. Ensure resource enhancement projects restore floodplain function.
- 4.27.b. Encourage programs and projects that reduce the impacts from development on flood-prone land near Johnson Creek and in sensitive habitat in the East Buttes.

Policy 4.28. Fanno and Tryon Creeks

- 4.28.a. Protect beneficial trees and native vegetation throughout the watershed to enhance stormwater function.
- 4.28.b. Reduce stream fragmentation.
- 4.28.c. Strive to incorporate natural hydrologic and habitat functions when designing neighborhood centers and transit corridors.

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## Commentary

Policy 4.29. Willamette River

4.29.a. Encourage retrofitting of streets and parking lots to reduce the risk of basement sewer backups and to preserve the capacity of the combined sewer system.

4.298.b. Integrate green infrastructure and landscaping into the urban design of buildings, sites and public spaces in the Central City.

4.29.c. Enhance habitat for threatened salmonids and other native fish and aquatic species.

4.29.d. Protect and restore remnant oak savannah, including oak groves.

4.29.e. Establish a functioning system of natural areas in and near the Willamette River.

Policy 4.30. Columbia Slough and Columbia River

4.30.a. Enhance habitat and refuge for resident and migratory native fish.

4.30.b. Reduce contaminants and restore water and sediment quality to levels that support fish populations that are plentiful and safe for recreational fishing and consumption.

4.30.c. Manage for habitat, within the slough's unique conditions, including the low-gradient waterway, flood dikes, and industrial activities.

4.30.d. Encourage low-impact industrial site development and building design.

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## Commentary

**GLOSSARY** *(terms will be added or revised as needed)*

**Ecological Function:** The physical, chemical and biological functions of a watershed such as flow conveyance and storage, channel dynamics, nutrient cycling, microclimate, filtration, control of pollution and sedimentation, water quality, fish and wildlife habitat and biodiversity.

**Ecosystem Services:** The contribution of ecosystem conditions and processes to human well-being including the production of goods, and processes that control variability, support life, enrich cultural life, and preserve options. Examples include pollination of trees and plants, climate regulation, flood mitigation, stormwater management, clean air and water, recreation opportunities, and satisfaction of aesthetic and spiritual needs.

**Enhance:** Improve current situation; increase; expand.

**Green Infrastructure:** Public assets—either natural resources or engineered green facilities—that mimic natural systems to provide stormwater management, water quality, public health and safety, open space, and other complementary ecosystem services.

**Habitat Corridors:** Stream and/or vegetation connections between anchor and/or large habitats.

**Habitat-friendly development:** Strategies to prevent harm to birds and native wildlife. Strategies include habitat-oriented ecoroofs, window and façade treatments that prevent bird strikes, exterior lighting that is directed downward, limiting the amount of light, noise and vibration that affects wildlife especially during vulnerable wildlife life cycles (e.g., mating/nesting season and migration), improving wildlife access and passage, and limiting fencing, roads, culverts and other barriers between important habitats (e.g. between desirable feeding and watering sites).

**Low-impact development:** Strategies to reduce the environmental impact of development on natural systems, including hydrology and vegetation. Strategies include paving and roofing materials that reduce effective impervious area, clustered or small lot development that reduces disturbance area, the use of vegetated stormwater management to mimic pre-development site hydrology, alternative road layout and narrower streets, natural area protection, and landscaping with native plants.

**Protect:** Keep what you have; conserve; maintain; preserve.

**Restore:** Recreate elements that are missing; move something back to its original condition; rehabilitate.

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## **Commentary**

The following policies are related to watershed health and the environment, but are more appropriate for consideration as part of other chapters of the draft Comprehensive Plan. Where possible, staff has identified chapters and policy subsections where the draft language could be inserted. The final organization of the draft Comprehensive Plan will be finalized later.



## Chapter 5 Transportation

### **POLICIES—Safety.**

- Policy 5.x. Establish and maintain a system of emergency access routes for emergency response and evacuation.

## Chapter 6 Community and Neighborhood Design

### **POLICIES—Willamette and Columbia Rivers.**

- Policy x.x. Protect, conserve, enhance and maintain the natural, scenic, historical, economic and recreational qualities of lands along the Willamette River.
- Policy x.x. Protect and enhance Portlanders' ability to see, touch and recreate on and near the Willamette and Columbia rivers.
- Policy x.x. Support a clean-up remedy for the Portland Harbor superfund site that protects public health, preserves or expands opportunities for industrial development/uses, and improves the ecological health of the Willamette River.

## Chapter 7 Public Facilities and Services

### **POLICIES—Climate Preparation /Adaptation.**

- Policy 7.x. Design and maintain built and natural infrastructure to withstand the impacts of climate change.

### **POLICIES—Water.**

- Policy 7.x. Protect wellhead protection areas from contamination from stormwater and spills in the public right-of-way.

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## Commentary

## Chapter 9 Implementation

### POLICIES—Decision Making.

- Policy 9.x. Consider how the proposed plan or amendments would positively or negatively affect natural resources, including the ability to sustain current ecological functions and provide desired ecosystem services.
- Policy 9.x. Consider environmental justice benefits and burdens when making a determination whether and how to act.
- Policy 9.x. Consider how proposed plan or amendments would affect carbon sequestration, and air or water quality (including temperature and pollutants), or the ability to adapt to changing weather patterns, sea level rise, changes in plant and animal species composition or life cycles, or other ecological impacts of climate change. Further consider how the change, if any, might affect human health and safety or watershed health.
- Policy 9.x. Consider how the proposed plan or amendments could change Portlanders' access to clean air, clean water, healthy foods, quality opportunities for recreation and physical activity, safe and healthy housing, travel, and gathering places.

### POLICIES—Intergovernmental Coordination

- Policy 9.x. Cooperate with other jurisdictions to minimize the impacts of upstream activities on the portions of the watershed within the City of Portland.

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## Commentary

## Chapter X

### POLICIES—Resiliency

- Policy x.x. Support emergency preparedness and the capacity of the community to respond to and recover from natural disasters.
- Policy x.x. Reduce structural and non-structural hazards to life safety and promote the rehabilitation of existing structures and infrastructure facilities so that they can withstand earthquakes and other natural hazards with minimal risks to people.
- Policy x.x. Abate structural and non-structural hazards in City-owned and managed facilities.
- Policy x.x. Minimize the risks of fire, explosion and exposure to toxic substances resulting from earthquake, flooding, wildfire, or landslide.
- Policy x.x. Reduce the risk and impacts of wildfire through best management practices with a focus on neighborhoods that abut wildfire prone open space areas.
- Policy x.x. Establish community gathering places throughout the city to serve as emergency information and service centers
- Policy x.x. Minimize potential public health, social, cultural, economic, and environmental disruptions and displacement associated with future disasters.
- Policy x.x. Consider reconfiguring the layout of the city after a major disaster to better meet the Comprehensive Plan goals and policies and other relevant policies and regulations.

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## Commentary

## Appendix A

Document	Date	Bureau
City Council Resolution #35894 Portland Recovery Plan for Salmon and Trout	2000	ESA Program BOP
Climate Action Plan	2009	BPS
Climate Adaptation Plan	Pending	BPS
Comprehensive Plan Goals and Policies	1980	BPS
Comprehensive Plan Assessment - Environmental Technical Working Group	2009	BES/BPS
Division Green Street Plan/Main Street Plan	2006	BPS
Framework for Integrated Management for Watershed Health	2004	ESA
Natural Areas Restoration Strategy	2010	PPR
Parks 2020	2001	Parks
Pleasant Valley Plan District	2004	BPS
Portland Natural Hazard Mitigation Plan	2010	POEM
Portland Plan Environmental Technical Working Group Draft Assessment Report	2008	BES, BPS, Parks, Water
Portland Plan Watershed Health Background Report - Development Issues	2011	BES/BPS
Portland Plan Proposed Draft	2011	BPS
Portland Watershed Management Plan	2006	BES
River Renaissance Vision	2001	RR/ BPS
River Renaissance Strategy	2004	RR/ BPS
Southwest Community Plan Vision, Policies & Objectives	2000	BPS
South Waterfront Plan	2002	BPS
Terrestrial Ecology Enhancement Strategy Update	Pending	BES
Urban Forestry Action Plan	2007	Parks
Urban Forestry Management Plan	2004	Parks
visionPDX	2007	Mayor's Office/BPS