



City of Tacoma
Planning and Development Services

**Agenda Item
D-2**

To: Planning Commission
From: Stephen Atkinson, Planning Services Division
Subject: **2015 Comprehensive Plan Update – Outreach and Environment**
Meeting Date: May 20, 2015
Memo Date: May 14, 2015

At the May 20 Planning Commission meeting, staff will be presenting a summary of recent outreach and a rough draft of the proposed Environment and Watershed Health Element for the Commission's consideration. The draft is a first step in consolidating the policies related to the City's environmental assets in one element and distilling the policies down to a more succinct and consistent message. In addition, the proposed element fills current policy gaps related to climate and hazard management.

The City's environmental assets include:

- Rivers and streams
- Floodplains
- Open space corridors
- Urban forest
- Wetlands
- Groundwater
- Native and other beneficial vegetation species and communities.
- Aquatic and terrestrial habitats
- Other resources identified in natural resource inventories

The proposed draft recognizes the multiple benefits and ecosystem services provided by these assets and includes goals and policies related to planning and programs, protection and preservation of environmental quality, and efforts to improve the health of Tacoma's environmental assets and watersheds for the benefit of all Tacomans. The proposed policies would also help set the stage for broad implementation: Providing support for zoning and development regulation updates to address development activities within steep slopes and designated open spaces, providing support for continued funding and implementation for urban forest programs, support and guidance for watershed basin planning, and support for the development of a climate risk assessment and environmental action plan.

In addition to the attached draft of the Environment and Watershed Health Element, a draft Parks and Recreation Element is provided for review. If you have any questions, please contact me at (253) 591-5531 or satkinson@cityoftacoma.org.

Attachments (3)

c: Peter Huffman, Director



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memorandum

date May 14, 2015

to Stephen Atkinson, Planning and Development Services
Tacoma Planning Commission

from Reema Shakra, Environmental Science Associates

subject Tacoma Comprehensive Plan Update - Environment Element Meeting #2 of 2

What is the topic of discussion?

We will review the draft Environment Element at the May 20th Planning Commission meeting. The element has been revised consistent with the direction received at the April 1st meeting and the March 24th memorandum.

The element is a combination of goals and policies pulled from the Environment Policy, Urban Forest Policy and Open Space and Habitat and Recreation elements. Each goal and policy is identified as either new or existing in parenthesis. In some cases, the existing policies have been reworded. The goals and policies have been grouped according to the following themes: 1) Planning for Environmental Protection, 2) Protecting Tacoma's Environmental Assets in Development Situations, 3) Improving Environmental Quality, and 4) Watershed Planning. The goal and policies under the Watershed Planning section are all new.

As outlined in the March 24th memorandum, the element has been revised to reduce redundancies, focus on key issues, address climate change and sustainability, ensure compliance with best available science for critical areas, and reduce narrative text. Policies addressing scenic views and recreation have been removed and will be addressed elsewhere in the Comprehensive Plan. Policies that are more suited to being treated as actions or strategies have been removed and will be incorporated into other plans and programs that focus on implementation, such as the Environmental Action Plan and Stormwater Management Manual.

The attached table is an example of a tracking tool that could be included in the Environmental Action Plan. The actions listed in the table are based on the policies in the Urban Forest, Environment and Open Space and Recreation Elements that were identified by City staff as better suited for inclusion in an implementation plan. The policies are undergoing review and would need to be revised and consolidated to read as actions. The table is organized as follows: 1) the action, 2) the former comprehensive plan policy language and policy number, 3) policy the action seeks to implement, 4) the relative ease of implementing the action, 5) the associated cost of implementing the action, 6) priority level, and 7) City Department lead. This table is included here for the Planning Commission's reference. City staff do not intend to include this table as part of the Comprehensive Plan.

Action Number	Action	Former Comprehensive Plan Language	Former Comprehensive Plan Policy #	Comprehensive Plan Policies Addressed (to be provided after PC review)	Ease to Implement (to be addressed as part of EAP or other efforts)	Cost (to be addressed as part of EAP or other efforts)	Priority (High, Medium, Low) (to be addressed as part of EAP or other efforts)	City Department Lead (to be addressed as part of EAP or other efforts)
Environment Actions								
		It will provide direction for evaluating environmental conditions and natural processes. Developments in potentially hazardous areas need to be subject to standards which may be stricter than the standards which apply in areas where natural constraints are not present. In cases where developments are permitted in these potentially hazardous areas, the developments need to be designed in harmony with natural systems	Former Policies, objectives from EP Element Former Policies, objectives from EP Element					
	Study the feasibility of developing additional hazardous area regulations that include standards to address design, siting, and proximity to hazards.							
		Discourage development on lands where such development would pose hazards to life or property, or where important ecological functions or environmental quality would be adversely affected: (a) floodways of 100-year floodplains, (b) erosion hazard areas, (c) landslide hazards areas, (d) unique or significant wetlands or stream corridors, (e) fish and wildlife conservation areas and (f) seismic hazard areas. Require and encourage new development in mixed-use centers to provide vegetated cover through a flexible approach that includes low impact development options such as vegetated walls, green roofs, rain gardens, permeable paving and planted layers of vegetation and trees that are visible to the public.	E-GD-2 Development Hazards					
	Prepare landscape design guidelines that: -address low-impact design options in mixed-use areas including vegetated walls, green roofs, rain gardens, permeable paving and planted layers of vegetation and trees that are visible to the public. -Provide public spaces in mixed-use centers as density increases to enhance livability and aesthetic appeal. -Promote the provision of public spaces through development incentives, such as increased density and/or height, for projects that provide public features such as plazas, courtyards, art, water features, seating areas and/or significant landscaping.		E-LID-2 Innovative Landscaping in Mixed-Use Centers					
		Prioritize prevention and avoidance of pollution when possible. Use SEPA Substantive Authority, where warranted, in conjunction with adopted policies to provide mitigation for unavoidable impacts to environmental quality.	E-P-3 Prevention and Mitigation					
	Develop a review process and standards for the conversion of open space land for non-open space uses to ensure the land is replaced at a ratio of 1:1 for size, character and value.	Such utilization of open space land should not be permitted unless land and facilities of like character and equal value are provided.	E-ROS-1 Usurping of Open Space					

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	<p>Develop an open space land management strategy including acquisition and preservation strategies. At a minimum, the strategy should:</p> <ul style="list-style-type: none"> -examine all publicly owned lands for their potential open space use prior to surplus and sale -preserve and maintain through easement, acquisition or other appropriate means, desired open space areas such as steep slopes, scenic view areas, water frontage, wooded areas, unique natural features, and historic areas taking care to provide a proper balance between retaining these areas and private development. -provide design guidance for the preservation and maintenance of open space for bird and small animal habitats, green areas in urbanized neighborhoods, green separations between dissimilar land use districts, and aesthetic purposes. -education and promotion of the City's Open Space Current Use Assessment program 	<p>Examine all publicly owned lands for their potential open space use prior to surplus and sale.</p>	E-ROS-2 Public Land Disposal					
		<p>Preserve and maintain through easement, acquisition or other appropriate means, desired open space areas such as steep slopes, scenic view areas, water frontage, wooded areas, unique natural features, and historic areas taking care to provide a proper balance between retaining these areas and private development.</p>	E-ROS-3 Desirable Open Spaces					
		<p>In recognition of their ecological, conservational, recreational and educational values, for bird and small animal habitats, green areas in urbanized neighborhoods, green separations between dissimilar land use districts, and aesthetic purposes.</p>	E-ROS-4 Open Space Uses					
		<p>through such programs as the Open Space Current Use Assessment Program.</p>	E-ROS-5 Private Open Space					
		<p>Provide public spaces in mixed-use centers as density increases to enhance livability and aesthetic appeal. In addition to prioritization of capital improvements, the City can promote the provision of public spaces through development incentives, such as increased density and/or height, for projects that provide public features such as plazas, courtyards, art, water features, seating areas and/or significant landscaping.</p>	E-ROS-6 Mixed-Use Center Public Spaces					
		<p>All developments subject to SEPA environmental review procedures should address air quality impacts resulting from the development and its operation. In order to adequately assess impacts, any development proposal that requires state or federal air permits or reporting shall provide a quantitative study as part of their environmental analysis.</p>	E-AQ-2 Air Quality Studies					
		<p>the need for an increase in the level of sewage treatment and potential treatment of stormwater to meet the National Pollutant Discharge Elimination System (NPDES) Phase I Municipal Stormwater permit requirements.</p>	E-WQ-1 Water Quality					
		<p>along lakes, ponds, and streams, where appropriate, in order to help preserve water quality, protect fishery resources and control erosion and runoff.</p>	E-WQ-2 Retain Vegetation Near Water					

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		Prohibit any filling of natural watercourses without adequate mitigation, proper environmental processing and permitting, and provisions to accommodate the existing drainage through the modified watercourse in accordance with the City's regulations	E-SWR-2 Natural Watercourses					
		Encourage source control of all contaminated sites within and adjacent to the City's shoreline areas or which impact shoreline areas or surface waters.	E-ER-3 Source Control					
		Encourage public and public/private partnerships to ensure the most comprehensive, timely and cost-effective cleanup actions.	E-ER-4 Public/Private Partnerships					
		Ensure the use of Best Management Practices by private industry and municipal government to prevent recontamination of wetlands, streams, shorelines, groundwater and other aquatic areas.	E-ER-5 Best Management Practices					
		Practices by private industry and municipal government to prevent recontamination of wetlands, streams, shorelines, groundwater and other aquatic areas. Special attention should be placed on anadromous fisheries.	E-ER-6 Best Available Science					
	Contaminated Sites Management Program	Coordinate and cooperate with State and Federal programs (e.g., Department of Ecology, Environmental Protection Agency) in encouraging and monitoring the remediation of contaminated sites.	E-ER-7 Intergovernmental Partnerships					
		Coordinated planning and protection efforts	Intent section of Aquifer Recharge Areas					
		Long-term protection of aquifers is thought to depend to a significant degree upon control of certain types of surface and subsurface land use activities. Control of land use activities generally occurs through such mechanisms as zoning, building codes and health and sanitary codes. Zoning controls combined with Best Management Practices and Best Available Science are considered appropriate measures for groundwater protection because they can be applied in a geographically specific manner and can include provisions to control specific uses or activities that are potential sources of contamination.	Intent section of Aquifer Recharge Areas					
		Other efforts include public education and awareness, business education or regulation as necessary, an enhanced monitoring program,	Intent section of Aquifer Recharge Areas					
		capital improvements (i.e., land acquisition around a public water supply well's area of influence) and the development of recharge areas.	Intent section of Aquifer Recharge Areas					
		the identified area of the aquifer vulnerable to contamination has been designated as an environmentally sensitive area	Intent section of Aquifer Recharge Areas					
		Where significant wooded areas occur, the application of innovative development techniques that cluster dwellings and maximize the acreage of undisturbed areas is an appropriate alternative for conventional grid subdivisions.	Intent from Fish and Wildlife Habitat Conservation Areas					
		Protection of these trees, particularly those of historic merit or outstanding size, is intended.	Intent from Fish and Wildlife Habitat Conservation Areas					
		restoration, creation, enhancement, preservation, acquisition, maintenance and monitoring. actions to acquire and preserve key natural areas that remain; and to improve existing environmental conditions, such as providing new or better habitat, better water quality or other supporting factors, or increasing the number or diversity of species.	Intent from Fish and Wildlife Habitat Conservation Areas					

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		Activities allowed in fish and wildlife habitat conservation areas must be consistent with the species classification located there and any applicable State and Federal guidelines or standards, including Best Available Science with special consideration given to anadromous fisheries. Standards for development in these areas must be in accordance with the requirement for development in the underlying zone or critical area classification.	Issues from Fish and Wildlife Habitat Conservation Areas					
		Ensure that sufficient and appropriate native landscaping be installed to stabilize and beautify areas and improve habitat where extensive removal of vegetation has occurred.	E-FW-3 Landscaping Stabilization					
		Identify, locate and protect habitats of endangered, threatened, priority or sensitive species.	E-FW-7 Habitat Protection					
		Identify, locate and protect habitats of endangered, threatened, priority or sensitive species.	E-FW-18 Performance Standards					
	Encourage the integration of habitat improvement actions with other regulatory efforts, including environmental remediation, source control, and site development actions, as well as long range planning activities.	Encourage the integration of habitat improvement actions with other regulatory efforts, including environmental remediation, source control, and site development actions, as well as long range planning activities.	E-FW-19 Integrate Improvement Actions					
		Encourage new development to provide or incorporate habitat improvement actions as appropriate.	E-FW-20 Habitat Improvement Actions					
		Focus habitat improvement actions on sites with low possibilities of contamination.	E-FW-21 Locating Habitat Improvement Actions					
		Encourage the integration of habitat improvement actions into source control and sediment remedial actions as part of federal and state Superfund cleanups.	E-FW-23 Superfund Cleanups					
		Establish regulations that will provide greater protection to areas designated as habitats of local importance.	E-FW-27 Habitats of Local Importance					
		regulations be developed which will preserve and protect the City's wetlands, associated uplands and associated waters and the functions they provide.	Intent section of Wetlands/Streams Corridors					
		regulations be developed which will preserve and protect the City's wetlands, associated uplands and associated waters and the functions they provide.	Intent section of Wetlands/Streams Corridors					
	Wetlands should be inventoried and their value and function identified during every CAPO update (or annually).	the wetlands of the city be inventoried and their value and function identified	Intent section of Wetlands/Streams Corridors					
		Indiscriminate filling or draining of wetlands and stream corridors is not permitted. Structural developments in wetlands and stream corridors will be regulated	Intent section of Wetlands/Streams Corridors					
		Development in wetlands would be appropriate only if impacts are unavoidable, loss of wetland function and acreage is compensated and careful soils analysis shows that construction measures can successfully mitigate potential hazards and unstable soil and drainage problems.	Intent section of Wetlands/Streams Corridors					
		New development adjacent to a valuable wetland should preserve or improve the wetland and provide vegetated habitat or buffer adjacent to the wetland adequate to protect its natural functions						
		It is intended that large, ecologically significant wetlands lying on marine shorelands not be drained if such activity will cause salt water to infiltrate the groundwater, contaminating wells and killing vegetation. The amount of water taken by wells in shoreline areas must also be regulated to prevent salt water intrusion into the groundwater.	Intent section of Wetlands/Streams Corridors					

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		It is intended that regulations for location and design of development within ecologically significant wetlands and stream corridors insure sensitive development of identified ecologically important areas and insure structural safety for proposed buildings.	Intent section of Wetlands/Streams Corridors					
		Development within wetland boundaries, adjacent habitats or designated buffer areas should be considered only in those instances where there is no practicable development alternative, where extraordinary hardship exists when development regulations are applied or where the overriding public benefit of a development proposal outweighs the value of wetland protection.	Intent section of Wetlands/Streams Corridors					
		Where feasible, habitat improvements should provide increased functions and values. If alteration to the wetland or its buffer is unavoidable all adverse impacts resulting from a development proposal or alteration shall be mitigated using the best available science, so as to result in no net loss of critical area functions and values. Mitigation can include avoiding the impact, minimizing or reducing the impact or rectifying the impact through repair, rehabilitation, or restoring the affected environment or compensation for the impact by replacing, enhancing or providing substitute resources or environments. The preferred mitigation would be in-kind and on-site, when possible, and sufficient to maintain the functions and values of the wetland. However, when appropriate, a watershed approach to mitigation may be utilized. If used, compensatory mitigation should address the function affected by the alternation to the wetland or buffer area.	Intent section of Wetlands/Streams Corridors					
		Allow development in wetlands only if impacts are unavoidable and such development can successfully mitigate potential hazards and compensate for wetland loss.	E-WS-4 Wetland Development					
	Identify and categorize wetlands and/or streams of local significance on the basis of interlocal agreements where city boundaries arbitrarily divide a wetland or a stream.	The wetlands and/or streams of local significance could also be identified and categorized on the basis of interlocal agreements where city boundaries arbitrarily divide a wetland or a stream.	Wetlands and Streams of local significance section					
		Consider wetlands or streams as eligible to be designated as locally significant if it is identified and adopted by the city as part of its planning process and the Critical Area Preservation Ordinance (CAPO), following public review and appeal, and satisfies the following criteria: a) Is locally rare, or b) Is documented as a groundwater recharge area, or contributes functional value to a local government water quality or flood mitigation program, or c) Provides habitat for fish and wildlife that is considered important by a local community, or d) Is a recognized or planned educational site, or e) Is part of a recognized or planned recreational resource, or f) Is part of an open or planned open space resource, or g) Is planned for restoration or enhancement as a part of a local government protection program, or h) Is part of a wildlife corridor or connects wetland areas or streams of greater value, or i) Is recognized and valued as a part of the local landscape, or j) Is considered sensitive to development or disturbance, or k) Is considered irreplaceable, or l) Is a buffer area for a growth management boundary, or m) Is an integral part of a system that would benefit from better overall protection, or n) Contains anadromous fish. Using the above criteria the following Wetlands of Local Significance	Criteria					

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		Recognize that the extraction of mineral resources is necessary to meet the needs of the entire public, and, if possible, should be accomplished prior to development of the land for other purposes, provided that extractive areas should be thoroughly assessed as to their impact on the City before being created, established or extended.	E-MRL-2 Mineral Resources Extraction					
		Ensure that extractive operations are subject to proper location and strict performance standards to protect adjacent land uses as well as the community as a whole and to ensure proper reconditioning and beneficial future use of land.	E-MRL-3 Extractive Operations					
		Encourage resource industries to use management practices that protect the environment and prevent significant adverse impacts to adjacent land uses.	E-MRL-5 Best Management Practices					
Urban Forest Management Actions								
	UF purpose and intent - through effective education, extensive outreach, innovative partnerships and pragmatic implementation strategies.	UF purpose and intent - through effective education, extensive outreach, innovative partnerships and pragmatic implementation strategies.	Former Policies, objectives from Urban Forest Policy Element					
	UF purpose and intent- providing direction for a range of future actions, including establishing programs, practices, regulations, standards, and guidelines that reflect the best available science and best management practices to result in a safe and healthy urban forest.	UF purpose and intent- providing direction for a range of future actions, including establishing programs, practices, regulations, standards, and guidelines that reflect the best available science and best management practices to result in a safe and healthy urban forest.	Former Policies, objectives from Urban Forest Policy Element					
	UF purpose and intent - set forth guidance on managing vegetation on city properties and within the public right-of-way, and providing education and outreach to support citywide actions to manage the urban forest.	UF purpose and intent - set forth guidance on managing vegetation on city properties and within the public right-of-way, and providing education and outreach to support citywide actions to manage the urban forest.	Former Policies, objectives from Urban Forest Policy Element					
	UF objectives - Establish incentives and programs, and review and update regulations and standards to support urban forest management	UF objectives - Establish incentives and programs, and review and update regulations and standards to support urban forest management	Former Policies, objectives from Urban Forest Policy Element					
	UF objectives - Use the Urban Forest Policy Element as the foundation for an Urban Forest Management Plan and Manual for City staff, City staff, agencies, contractors, developers, engineers, and others living or doing business in Tacoma on the maintenance, preservation, and enhancement of the urban forest using the best science and management practices available	UF objectives - Use the Urban Forest Policy Element as the foundation for an Urban Forest Management Plan and Manual for City staff, agencies, contractors, developers, engineers, and others living or doing business in Tacoma on the maintenance, preservation, and enhancement of the urban forest using the best science and management practices available	Former Policies, objectives from Urban Forest Policy Element					
	UF objectives - Mitigate tree loss and tree damage caused by construction activities, invasive species, and tree diseases and pests	UF objectives - Mitigate tree loss and tree damage caused by construction activities, invasive species, and tree diseases and pests	Former Policies, objectives from Urban Forest Policy Element					
		Achieve a balance between the competing needs of the environment, budget limitations, utilities and infrastructure, safety, the rights of property owners and the desires of the public.	UF-2 Management					
		Take reasonable measures to mitigate trees that pose a high level of risk to public health and safety.	UF-3 Public Safety					
	Establish an Urban Forestry Account for the maintenance, preservation, education improvement, and support of Tacoma's urban forest.	Establish an Urban Forestry Account for the maintenance, preservation, education improvement, and support of Tacoma's urban forest.	UF-5 Urban Forestry Account					

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	Find or develop new funding sources such as assessment districts, fundraising, donations, grants for projects, or an urban forest utility fee to fund adequate tree maintenance.	Find or develop new funding sources such as assessment districts, fundraising, donations, grants for projects, or an urban forest utility fee to fund adequate tree maintenance.	UF-6 Funding Sources for Maintenance					
	Create an Urban Forest Management Plan (UFMP), consisting of an analysis of existing conditions and a detailed work program for policy implementation. Update the UFMP often to reflect changing policies and regulations, standards, best management practices, and accomplishments.	Create an Urban Forest Management Plan (UFMP), consisting of an analysis of existing conditions and a detailed work program for policy implementation. Update the UFMP often to reflect changing policies and regulations, standards, best management practices, and accomplishments.	UF-7 Urban Forest Management Plan					
	Create, and regularly update, an Urban Forest Manual using the best available science and current best management practices, accepted standards and guidelines to support the UFMP, and this element.	Create, and regularly update, an Urban Forest Manual using the best available science and current best management practices, accepted standards and guidelines to support the UFMP, and this element.	UF-8 Urban Forest Manual					
	Establish an Urban Forest and Open Space Advisory Board to support the development of the urban forestry program and to take an active role in ensuring increased citizen involvement and oversight of urban forestry and open space activities. The Citizen Advisory Board should be broadly representative of community interests and of pertinent technical expertise. The Citizen Advisory Board should be broadly representative of community interests and of pertinent technical expertise.	Establish an Urban Forest and Open Space Advisory Board to support the development of the urban forestry program and to take an active role in ensuring increased citizen involvement and oversight of urban forestry and open space activities. The Citizen Advisory Board should be broadly representative of community interests and of pertinent technical expertise.	UF-9 Citizen Advisory Board					
	Develop an approach to educate tree care firms, or individuals that wish to provide professional tree maintenance services, about Tacoma's policies, regulations, and standards to ensure the proper care of our urban forest.	Develop an approach to educate tree care firms, or individuals that wish to provide professional tree maintenance services; about Tacoma's policies, regulations, and standards to ensure the proper care of our urban forest.	UF-10 Tree Care Services					
	Incorporate industry standard tree valuation methods that closely reflect the complete value of trees for use when assessing damages or estimating loss.	Incorporate industry standard tree valuation methods that closely reflect the complete value of trees for use when assessing fines, determining damages or estimating loss.	UF-11 Tree Valuation					
		Public agencies that maintain an Urban Forestry Program (see glossary) should be given autonomy in meeting the intent and policies of this element in exchange for the sharing of urban forest management data, provided that the agency agrees to periodic review of the agency's progress in meeting the City's urban forestry goals.	UF-13 Public Agencies					
		Develop incentives, programs and/or regulations to meet the intent of this element that are tailored to the needs and characteristics of differing land uses.	UF-14 Diverse Land Uses					
		Provide equitable urban forest resources and services throughout the city regardless of geographic, racial or social differences.	UF-15 Equity					
	Achieve recognition from state and national urban forestry programs. Develop a local recognition program for citizens, businesses, and agencies to encourage community stewardship of the urban forest.	Achieve recognition from state and national urban forestry programs. Develop a local recognition program for citizens, businesses, and agencies to encourage community stewardship of the urban forest.	UF-16 Recognition					

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	Collect data regarding Tacoma's urban forest, such as quantity of canopy cover, forest condition and diversity of species, to support the creation of an Urban Forest Management Plan (UFMP).	Collect data regarding Tacoma's urban forest, such as quantity of canopy cover, forest condition and diversity of species, to support the creation of an Urban Forest Management Plan (UFMP).	UF-R-2 Management Data					
	Partner with federal, state, regional and local governmental jurisdictions, community non-profits, the private sector and others to share urban forest and ecosystem resources.	Partner with federal, state, regional and local governmental jurisdictions, community non-profits, the private sector and others to share urban forest and ecosystem resources.	UF-R-3 Partnerships					
	Provide appropriate resources, advice, and educational materials to communicate policies, incentives, standards, and regulations in relation to the management of Tacoma's urban forest.	Provide appropriate resources, advice, and educational materials to communicate policies, incentives, standards, and regulations in relation to the management of Tacoma's urban forest.	UF-EO-1 Education					
	Develop voluntary and incentive-based programs to build broader support for the urban forest, enhance canopy cover, and flexibility in management.	Develop voluntary and incentive-based programs to build broader community support for the urban forest, enhance canopy cover, and flexibility in management.	UF-EO-3 Incentives					
	Develop incentives to encourage tree retention, such as landscaping code modifications, flexibility in City requirements for infrastructure improvements, reductions of City fees related to stormwater management, and other approaches.	Incentives to encourage tree retention may include landscaping code modifications, flexibility in City requirements for infrastructure improvements, reductions of City fees related to stormwater management, and other approaches.	UF Preservation introduction text as follows					
		Encourage and promote the retention of trees, whenever practicable and appropriate, through education, outreach and incentives.	UF-PR-1 Retention of Trees					
		Promote the long-term health and survival of trees that are retained during construction activities.	UF-PR-3 Protection of Trees During Development					
	Establish a Heritage Tree Program for the voluntary recognition and protection of trees with unusual or unique historical, ecological, cultural and/or aesthetic significance.	Establish a Heritage Tree Program for the voluntary recognition and protection of trees with unusual or unique historical, ecological, cultural and/or aesthetic significance.	UF-PR-4 Heritage Trees					
	Establish incentives, regulations and education efforts to protect and preserve native tree species, especially threatened species such as Oregon White Oaks (Quercus garryana) or Pacific Madrone (Arbutus menziesii).	Establish incentives, regulations and education efforts to protect and preserve native tree species, especially threatened species such as Oregon White Oaks (Quercus garryana) or Pacific Madrone (Arbutus menziesii).	UF-PR-5 Threatened Native Tree Species					
		Pursue retention of existing trees and vegetation that help stabilize steep slope areas in order to increase public safety, maintain slope stability, decrease soil erosion, and retain environmental function and natural character.	UF-PR-7 Protect Steep Slopes					
		Prioritize tree planting and landscaping in street and freeway rights-of-way, in particular in highly visible locations such as business districts and major corridors. Include utility rights-of-way, parks, school sites, and other publicly owned property when and where appropriate.	UF-PCM-1 Planting Priorities					
		Avoid and/or minimize conflicts with existing public infrastructure, natural systems, and/or utility facilities.	UF-PCM-2 Species Selection					
	Maintain a tree program to provide free trees for citizens to plant in the rights-of-way.	Maintain a tree program to provide free trees for citizens to plant in the rights-of-way.	UF-PCM-3 Tree Planting Program					

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	Develop demonstration projects, in diverse areas representative of the range of land use and development patterns in the City, implementing outreach and education strategies targeted toward achieving the City's tree canopy goal. Implementations of the demonstration projects should be a high priority in the Urban Forest Management Plan. Learn from what works and implement effective strategies citywide.	Develop demonstration projects, in diverse areas representative of the range of land use and development patterns in the City, implementing outreach and education strategies targeted toward achieving the City's tree canopy goal. Implementations of the demonstration projects should be a high priority in the Urban Forest Management Plan. Learn from what works and implement effective strategies citywide.	UF-PCM-6 Demonstration Projects				High	
		Promote the survival of newly planted trees	UF-PCM-9 Survival of Newly Planted Trees					
	Ensure that landscaping in new developments is properly cared for and survives, both during the plant establishment period and in perpetuity through such means as landscape management plans, maintenance agreements, and monitoring.	Ensure that landscaping in new developments is properly cared for and survives, both during the plant establishment period and in perpetuity through such means as landscape management plans, maintenance agreements, and monitoring.	UF-PCM-10 Landscape Maintenance Management Plans					
		Design streets, sidewalks and other infrastructure with thorough consideration of trees during the planning, design and construction processes.	UF-PD-2 Infrastructure Design					
	Align the City's landscape regulations and stormwater management manual to promote the integration of landscaping elements and low impact development stormwater management approaches	Align the City's landscape regulations and stormwater management manual to promote the integration of landscaping elements and low impact development stormwater management approaches	UF-PD-5 Landscaping and Stormwater Management					
		Provide adequate species diversity and an appropriate mix of tree types (evergreen vs. deciduous). Provide varied forms, textures, structure, flowering characteristics and other aesthetic benefits to enhance the types of street environments found in the City.	UF-S-2 Species Diversity					
		Provide a mixed-age tree population. Recognize and plan for growth and aging of the urban forest over time.	UF-S-4 Mixed Ages					
		Recycle all green waste generated by the maintenance of the urban forest.	UF-S-5 Green Waste					
		Encourage use of rooftops on existing buildings for container gardening if buildings cannot sustain a green roof.	UF-S-8 Green Roofs					
		Trees and other vegetation in unimproved rights-of-way are typically owned by and shall be the responsibility of the abutting property owner to maintain in perpetuity with proper permitting. Exceptions include maintenance necessary for utilities such as overhead power lines. Unimproved rights-of-way may be used, when appropriate and with the proper permitting and design review, for natural drainage systems to manage stormwater	UF-ROW-2 Unimproved Rights-of-Way					
		Trees and other vegetation in the improved rights-of-way are typically owned by and shall be the responsibility of the abutting property owner to maintain in perpetuity, with proper permitting, unless the trees and other vegetation were planted by and/or routinely and historically maintained by the City or other public agency. Exceptions include maintenance necessary for utilities such as overhead power lines. Improved rights-of-way may be used, when appropriate and with the proper permitting and design review, for natural drainage systems to manage stormwater, landscaping	UF-ROW-3 Improved Rights-of-Way					

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	Medians that are planted within the City on public streets, unless otherwise designated, shall typically be the responsibility of the City of Tacoma to maintain. Medians may be used for natural drainage systems to manage stormwater or landscaping.	Medians that are planted within the City on public streets, unless otherwise designated, shall typically be the responsibility of the City of Tacoma to maintain. Medians may be used for natural drainage systems to manage stormwater or landscaping.	UF-ROW-4 Medians					
	Traffic circles, cul-de-sac islands bulb-outs and other similar traffic calming devices in neighborhoods are typically the responsibility of the neighborhood to maintain with proper permitting. Encourage planting of trees and shrubs that are low maintenance. Plantings shall not pose a public safety hazard	Traffic circles, cul-de-sac islands bulb-outs and other similar traffic calming devices in neighborhoods are typically the responsibility of the neighborhood to maintain with proper permitting. Encourage planting of trees and shrubs that are low maintenance. Plantings shall not pose a public safety hazard	UF-ROW-5 Traffic Circles, Cul-de sac Islands & Bulb-outs					
	Roundabout center islands shall typically be the responsibility of the City to maintain. Roundabouts should be planted in accordance with traffic guidelines.	Roundabout center islands shall typically be the responsibility of the City to maintain. Roundabouts should be planted in accordance with traffic guidelines.	UF-ROW-6 Roundabouts					
	Maintain and update the Recommended Street Tree List	Maintain and update the Recommended Street Tree List	UF-RPD-1 Recommended Street Tree List					
	Increase the dedicated airspace and dedicated root volume available for street tree planting to provide better accommodation of large canopy street trees and assist with achieving the optimum canopy coverage goal.	Increase the dedicated airspace and dedicated root volume available for street tree planting to provide better accommodation of large canopy street trees and assist with achieving the optimum canopy coverage goal.	UF-RPD-3 Air and Root Space					
	Aim to preserve trees when sidewalk infrastructure conflicts occur, whenever practicable and appropriate, provided the species is appropriate for its location per City regulations and standards. Explore the use of alternative sidewalk materials as appropriate.	Aim to preserve trees when sidewalk infrastructure conflicts occur, whenever practicable and appropriate, provided the species is appropriate for its location per City regulations and standards. Explore the use of alternative sidewalk materials as appropriate.	UF-RPD-5 Avoid Conflicts Between Trees and Sidewalks					
		Implement a voluntary removal/replacement program of inappropriately located trees within the rights-of-way, such as under overhead utility lines, to reduce tree/infrastructure conflicts.	UF-RPD-6 Removal of Inappropriately Located Trees					
	Develop standards and educate the public about appropriate species when planting under overhead utilities, over underground utilities and adjacent to streets to reduce future conflicts.	Develop standards and educate the public about appropriate species when planting under overhead utilities, over underground utilities and adjacent to streets to reduce future conflicts.	UF-RPD-7 New Plantings Near Existing Utilities					
	Allow street trees and trees located on City-owned property to be trimmed away from buildings, if desired by the abutting property owner. Such pruning shall be conducted in a manner and to the extent that does not significantly harm the tree(s) and with the proper permit.	Allow street trees and trees located on City-owned property to be trimmed away from buildings, if desired by the abutting property owner. Such pruning shall be conducted in a manner and to the extent that does not significantly harm the tree(s) and with the proper permit.	UF-RPD-8 Buildings					

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	Allow street trees to be trimmed to increase visibility of business signs. Such pruning shall be conducted in a manner and to the extent that does not significantly harm the tree(s) and with the proper permit. Encourage the use of non-traditional signage or placement of signage below the canopy for increased visibility. Educate business owners about the value of trees to their businesses.	Allow street trees to be trimmed to increase visibility of business signs. Such pruning shall be conducted in a manner and to the extent that does not significantly harm the tree(s) and with the proper permit. Encourage the use of non-traditional signage or placement of signage below the canopy for increased visibility. Educate business owners about the value of trees to their businesses.	UF-RPD-9 Business Signs					
	Retain existing street trees whenever practicable, appropriate and desired by the abutting property owner(s). Provide education and assistance for their necessary care.	Retain existing street trees whenever practicable, appropriate and desired by the abutting property owner(s). Provide education and assistance for their necessary care.	UF-REM-1 Existing Street Trees					
	Notify the public of impending removals of mature trees located in the rights-of-way and on City properties.	Notify the public of impending removals of mature trees located in the rights-of-way and on City properties.	UF-REM-4 Posting Public Notice					
	Establish a fee for removal permits for mature trees located in the right-of-way	Establish a fee for removal permits for mature trees located in the right-of-way	UF-REM-5 Permit Requirements					
	Require the replacement of trees removed from rights-of-way and City properties. Replacements should at least be equivalent at maturity to the canopy cover lost or quantity of tree(s) removed, whichever is practicable.	Require the replacement of trees removed from rights-of-way and City properties. Replacements should at least be equivalent at maturity to the canopy cover lost or quantity of tree(s) removed, whichever is practicable.	UF-REM-6 Replacements					
Open Space Habitat and Recreation Actions								
		Provide a consistent and well-developed guide for future identification, acquisition, restoration and maintenance of public open space.	Former Policies, objectives from OSHR Element					
	Provide a clear basis to direct future capital projects and funding allocations intended to acquire, manage, maintain or restore a variety of open space lands and facilities.	Provide a clear basis to direct future capital projects and funding allocations intended to acquire, manage, maintain or restore a variety of open space lands and facilities.	Former Policies, objectives from OSHR Element					
		Aid citizens in understanding the important issues, challenges and opportunities related to Tacoma's habitat and recreation lands and facilities.	Former Policies, objectives from OSHR Element					
		Designate Tacoma's most valuable open space habitat areas as Habitat Corridors.	Former Policies, objectives from OSHR Element					
		where implementation of green infrastructure practices such as reducing road widths, utilizing low impact development stormwater techniques and vegetation planting will be prioritized.	Former Policies, objectives from OSHR Element, Green Infrastructure Section					
	Designate specific streets, trails and other public rights-of-way which are the most appropriate for implementation of green infrastructure practices, based on their location, width, traffic volumes, adjacent uses, prominence, potential to enhance habitat connectivity, contiguity with open space areas and/or other considerations. Prioritize those streets for implementation of such measures	Designate specific streets, trails and other public rights-of-way which are the most appropriate for implementation of green infrastructure practices, based on their location, width, traffic volumes, adjacent uses, prominence, potential to enhance habitat connectivity, contiguity with open space areas and/or other considerations. Prioritize those streets for implementation of such measures	OS-GI-2 Green Streets					

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	"Green" Tacoma through citizen mobilization, outreach, and education working to identify, designate, and green corridors throughout the city. Provide connections between habitat areas and recreational opportunities through neighborhood green corridors. Use incentives and innovation to achieve canopy cover goals. Partner with local farms and nurseries to offer options for local residents to increase tree plantings in yards.	"Green" Tacoma through citizen mobilization, outreach, and education working to identify, designate, and green corridors throughout the city. Provide connections between habitat areas and recreational opportunities through neighborhood green corridors. Use incentives and innovation to achieve canopy cover goals. Partner with local farms and nurseries to offer options for local residents to increase tree plantings in yards.	OS-GI-3 Green Corridors					
	The city will lead by example and seek opportunities for pilot projects and innovative designs that reduce the footprint of construction or infrastructure projects and/or green the city.	The city will lead by example and seek opportunities for pilot projects and innovative designs that reduce the footprint of construction or infrastructure projects and/or green the city.	OS-GI-4 City Leadership					
		Actively engage in tree planting, maintenance of native and climate-adapted trees and plants, and preservation of large trees city-wide. Prioritize street and freeway rights-of-way, and include utility rights-of-way, parks, school sites, and other public property when appropriate. Trees and landscaping should be appropriate to the location and conditions, and seek to avoid or minimize conflicts with existing public infrastructure and/or utility facilities.	OS-GI-5 Tree Planting and Maintenance					
	Develop an incentive and/or outreach program to encourage voluntary plantings of native and climate-adapted trees and plants on private property.	Develop an incentive and/or outreach program to encourage voluntary plantings of native and climate-adapted trees and plants on private property.	OS-GI-6 Encourage Voluntary Plantings					
	Review and update City regulations on an ongoing basis, as new information and opportunities become available, to better achieve outcomes in terms of green infrastructure goals.	Encourage and support sustainable development practices throughout the city such as low impact development stormwater management, green building and complete streets. Review and update City regulations on an ongoing basis, as new information and opportunities become available, to better achieve outcomes in terms of green infrastructure goals.	OS-GI-7 Sustainable Development Practices City-wide					
	Develop complete streets standards and low impact development street sections that create a balance between pedestrians, bicycles and automobiles, making sidewalks pleasant and functional public spaces, and accommodate low impact development stormwater management.	Recognize that streets and sidewalks provide a vast amount of public space and develop complete streets standards and low impact development street sections for creating a balance between pedestrians, bicycles and automobiles, making sidewalks pleasant and functional public spaces, and accommodating low impact development stormwater management.	OS-GI-8 Streetscape Improvements					
		It is very important that landscape installation, and ongoing maintenance, be effective in beautifying these vital gateways to Tacoma; enhancing natural function and connectivity within Habitat Corridors; providing effective screening from freeways for sensitive neighborhoods; and, making substantial progress to achieve Tacoma's urban forestry goals through planting a mix of tree sizes and species, including large height and canopy trees.	OS-GI-9 Highway Planting					
	The Public Access Alternatives Plan should be utilized for coordinating public and private efforts, prioritizing waterfront public access projects, and guiding permit applications in accordance with the goals and policies of the Shoreline Master Program.	The PAAL should be utilized for coordinating public and private efforts, prioritizing waterfront public access projects, and guiding permit applications in accordance with the goals and policies of the Shoreline Master Program.	Waterfront description					

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		Develop opportunities for public access to the Puget Sound for water-oriented recreation and enjoyment of shorelines, including public access to both natural and man-made waterfront features such as beaches, tidelands, wharfs, piers, esplanades, parks, heritage sites, and waterfront trails and paths.	OS-SH-2 Shoreline and Water Access					
		Develop and enhance opportunities for swimming, boating including use of Tacoma's water trails, fishing, SCUBA diving, educational activities, wildlife observation and other shoreline and water-dependent activities.	OS-SH-3 Shoreline and Water Activities					
	Partner to develop and maintain trails oriented to the shorelines, slopes and gulches. Development of trails should be coordinated with habitat restoration efforts.	Recognizing that many of Tacoma's existing and planned trails follow the shoreline or connect shoreline and upland areas, partner to develop and maintain trails oriented to the shorelines, slopes and gulches. Development of trails should be coordinated with habitat restoration efforts.	OS-SH-5 Shoreline Trail Connections					
	Implement the priority actions identified in the Shoreline Master Access Alternatives.	Implement the priority actions identified in the Shoreline Master Program Public Access Alternatives.	OS-SH-6 Shoreline Public Access Alternatives					
		Critical areas regulations pertaining to development proposals within the designated Habitat Corridors should be evaluated.	Habitat Areas description:					
	Work with the Green Tacoma Partnership and other partners to delineate all habitat lands with high natural habitat values within the City, in order to guide their future land use and management.	Work with the Green Tacoma Partnership and other partners to delineate all habitat lands with high natural habitat values within the City, in order to guide their future land use and management.	OS-HA-3 Delineate High Value Habitat Lands					
	Acquire ownership or interest in all high value habitat lands depicted on the Open Space System map, or otherwise delineated, by 2034.	Acquire ownership or interest in all high value habitat lands depicted on the Open Space System map, or otherwise delineated, by 2034. Lands acquired for their habitat functions and values, including new acquisitions and those currently owned by the City, shall be conserved as habitat lands in perpetuity, or in rare circumstances replaced by acquisition and conservation of habitat areas elsewhere in the City of greater habitat value.	OS-HA-4 Acquire, Conserve and Restore Habitat Areas					
	Use innovative, creative methods to fund opportunities to conserve habitat areas. Consideration should be given to developing a fund that would provide match for any privately raised funds.	Use innovative, creative methods to fund opportunities to conserve habitat areas. Consideration should be given to developing a fund that would provide match for any privately raised funds.	OS-HA-5 Funding for Habitat Acquisition					
	Develop low-impact access and recreation/education opportunities within publicly-owned habitat areas, such as hiking, bird and wildlife observation, and waterfront access, when such access is desired by the public, appropriate to the habitat and site conditions and will minimize or avoid impacts to the habitat. Seek to prevent public access, including off-leash pets, that is harmful to habitat functions. Access is not appropriate to sites that contain endangered species or other similarly sensitive features.	Develop low-impact access and recreation/education opportunities within publicly-owned habitat areas, such as hiking, bird and wildlife observation, and waterfront access, when such access is desired by the public, appropriate to the habitat and site conditions and will minimize or avoid impacts to the habitat. Seek to prevent public access, including off-leash pets, that is harmful to habitat functions. Access is not appropriate to sites that contain endangered species or other similarly sensitive features.	OS-HA-6 Low-impact Access and Recreation					

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		<p>Strive to minimize development of new public infrastructure and improvements on valuable habitat lands within the designated Habitat Corridors. On-going maintenance, alterations and redevelopment of currently developed sites is acceptable. However, new development with the exception of low-impact recreation or environmental education facilities such as interpretative signage and trails, of previously undeveloped city-owned habitat lands is strongly discouraged and should be considered only if other feasible alternatives are not available. When new development of such lands is deemed necessary, design and construct, to the extent feasible, to minimize the impacts to habitat functions through use of low impact development stormwater techniques, alternative routes and siting, green building techniques and other approaches.</p>	OS-HA-7 Sustainable Development Practices for City Properties within Corridors					
	<p>Habitat area acquisition strategy and alternatives ranking will place the highest priority on acquiring properties with the following characteristics:</p> <ul style="list-style-type: none"> • A high degree of habitat health and quality, location within Habitat Corridors, presence of threatened or endangered species or habitats, presence of wetlands, stream, lake or shoreline, and the probability of loss of the property. • Also significant in ranking are the site's habitat restoration potential, stream, lake or shoreline, and the probability of loss of the property. • Also significant in ranking are the site's habitat restoration potential, offered sale price, and manageability issues. • Of lesser but still relevant significance are the site's proximity to other protected sites, the presence of a volunteer restoration group, whether the site serves one or more valuable open space functions in addition to providing habitat, whether conservation of the site would support habitat health within or near a designated Wetland or Stream of Local Significance, and whether the site is within an area underserved by open space. 	<p>Habitat area acquisition strategy and alternatives ranking will place the highest priority on acquiring properties with the following characteristics:</p> <ul style="list-style-type: none"> • A high degree of habitat health and quality, location within Habitat Corridors, presence of threatened or endangered species or habitats, stream, lake or shoreline, and the probability of loss of the property. • Of lesser but still relevant significance are the site's proximity to other protected sites, the presence of a volunteer restoration group, whether the site serves one or more valuable open space functions in addition to providing habitat, whether conservation of the site would support habitat health within or near a designated Wetland or Stream of Local Significance, and whether the site is within an area underserved by open space. 	OS-HA-9 Habitat Area Acquisition Strategy					
	<p>Identify potential regulatory and/or incentive-based approaches to providing greater protection for the habitat functions of habitat lands located within the designated Habitat Corridors. Update regulations, if appropriate.</p>	<p>Identify potential regulatory and/or incentive-based approaches to providing greater protection for the habitat functions of habitat lands located within the designated Habitat Corridors. Update regulations, if appropriate.</p>	OS-HA-12 Development Standards within Habitat Corridors					
	<p>Develop regulations to allow the use of advanced mitigation techniques, including offsite mitigation accomplished within pre-identified mitigation sites and mitigation banks.</p>	<p>Develop regulations to allow the use of advanced mitigation techniques, including offsite mitigation accomplished within pre-identified mitigation sites and mitigation banks.</p>	OS-CAPO-1 Advanced Mitigation of Wetland/Stream Impacts					
	<p>Develop a fee in lieu program, to include wetlands and their buffers, riparian corridor areas of streams, that directs required mitigation eligible for fees in lieu to appropriate high value habitat areas within the Habitat Corridors. Funds collected shall be adequate to mitigate permitted impacts, and commensurate with those impacts</p>	<p>Develop a fee in lieu program, to include wetlands and their buffers, and riparian corridor areas of streams, that directs required mitigation eligible for fees in lieu to appropriate high value habitat areas within the Habitat Corridors. Funds collected shall be adequate to mitigate permitted impacts, and commensurate with those impacts</p>	OS-CAPO-2 Fee In Lieu Program					

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	Develop and implement a collaborative strategy that directs implementation of the OSHRE, by identifying tasks and short-term objectives and specifying timing, funding and responsibilities for each. Develop an ongoing monitoring and reporting approach.	Develop and implement a collaborative strategy that directs implementation of the OSHRE, by identifying tasks and short-term objectives and specifying timing, funding and responsibilities for each. Develop an ongoing monitoring and reporting approach.	OS-IF-1 Collaborative Implementation					
	City properties and public rights-of-way located within designated Habitat Corridors that are deemed unnecessary for the managing department's primary mission, shall be evaluated for designation as open space	City properties and public rights-of-way located within designated Habitat Corridors that are deemed unnecessary for the managing department's primary mission, shall be evaluated for designation as open space	OS-CW-2 Designating Public Property as Open Space					
	Purchase or accept donations of land or interests in land suitable for habitat and/or recreation, according to the acquisition process and ranking criteria outlined in the OSHRE and Strategic Action Program. Avoid accepting land that has little value as open space or carries management liabilities that outweigh the benefits to the public of City ownership.	Purchase or accept donations of land or interests in land suitable for habitat and/or recreation, according to the acquisition process and ranking criteria outlined in the OSHRE and Strategic Action Program. Avoid accepting land that has little value as open space or carries management liabilities that outweigh the benefits to the public of City ownership.	OS-LF-1 Acquisitions					
	Maintain an official inventory of City-owned open space properties. Properties on this inventory shall, whenever feasible, be permanently conserved for open space purposes and managed according to the policies of the OSHRE. Properties shall not be removed from the inventory unless it is verified that they were added in error or determined that they do not provide significant open space benefits, they are being transferred to another party which will maintain them in permanent conservation or, in rare circumstances, they will be replaced by the addition of lands of significantly greater habitat or other open space value.	Maintain an official inventory of City-owned open space properties. Properties on this inventory shall, whenever feasible, be permanently conserved for open space purposes and managed according to the policies of the OSHRE. Properties shall not be removed from the inventory unless it is verified that they were added in error or determined that they do not provide significant open space benefits, they are being transferred to another party which will maintain them in permanent conservation or, in rare circumstances, they will be replaced by the addition of lands of significantly greater habitat or other open space value.	OS-LF-2 Open Space Inventory					
	Explore changes to the zoning code that would allow for open space dedication as part of new development and redevelopment.	Develop zoning and other approaches to ensure the provision of publicly beneficial open space when redevelopment occurs.	OS-LF-3 Long-term Additions to Publicly Beneficial Open Space					
	Develop and use Best Management Practices (BMPs) for the management and maintenance of habitat lands. BMPs will provide guidance on the full spectrum of issues pertinent to ongoing habitat management. The City of Tacoma and its partners shall strive to fully implement the BMPs through management of publicly-owned habitat lands, and will support and encourage all property owners to implement them. BMPs will be updated according to advances in the field and science.	Develop and use Best Management Practices (BMPs) for the management and maintenance of habitat lands. BMPs will provide guidance on the full spectrum of issues pertinent to ongoing habitat management. The City of Tacoma and its partners shall strive to fully implement the BMPs through management of publicly-owned habitat lands, and will support and encourage all property owners to implement them. BMPs will be updated according to advances in the field and science.	OS-LF-5 Best Management Practices					

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		Proactively seek to eliminate illegal activities such as dumping, transient encampments, littering and graffiti by fostering positive community engagement in the area, application of Crime Prevention Through Environmental Design (CPTED) principles, and other means. Recognize that community engagement is the best way to ensure safety.	OS-LF-7 Renovation, Maintenance, and Security					
		Adopt formalized policies, procedures and criteria for accepting, siting, and designing public art, interpretive displays, historical monuments, commemorative displays, or other cultural or artistic installations within publicly-owned open space and parks. The presence of historic and/or cultural features supports the conservation of an area as open space.	OS-LF-8 Historic, Cultural, and Art Resources					
		Provide well-designed, barrier-free and appropriate access and amenities at parks and facilities intended for public access, such as lighting, seating, drinking fountains, trash receptacles, bicycle racks, and shelters. Provide internal pathways connecting park elements and features within high-impact recreational areas.	OS-LF-9 Site Amenities					
		Design and develop recreation lands and facilities, as appropriate to each site, to accommodate and encourage non-motorized travel modes, including walking, hiking, bicycling, skateboarding and rollerblading. Accommodate non-motorized travel to and within recreation areas, and provide ample bicycle parking at high-impact recreation sites.	OS-LF-10 Accommodate Active Transportation					
	Provide consistent and easily understood “way-finding” features using common architectural elements, maps, and signage to connect trails, recreation facilities, and habitat corridors with public access. Where appropriate, develop interpretive displays reflecting the historic, cultural and ecological features of the site	Provide consistent and easily understood “way-finding” features using common architectural elements, maps, and signage to connect trails, recreation facilities, and habitat corridors with public access. Where appropriate, develop interpretive displays reflecting the historic, cultural and ecological features of the site	OS-LF-11 Way-Finding System					
		Topping of public trees for private view benefit shall not be allowed. Removal of public trees for the purposes of retaining or creating private views shall not be allowed unless as part of a coordinated plan developed by the public landowner that achieves view, habitat, environmental, slope stability and other objectives. Limited reduction pruning that does not substantially impact tree health may be considered	OS-LF-12 Scenic Views – Private Benefit					
	Lands meeting the City’s criteria for conservation which are located within the designated Habitat Corridors, and lands achieving other open space goals of this Plan, are appropriate “sending areas” for the transfer of development rights to other locations in the City, county and region.	Utilize the City’s TDR Program to conserve valuable city and regional assets, and continue to develop and enhance the program. Lands meeting the City’s criteria for conservation which are located within the designated Habitat Corridors, and lands achieving other open space goals of this Plan, are appropriate “sending areas” for the transfer of development rights to other locations in the City, county and region.	OS-LF-15 Transfer of Development Rights					
	Implement the Landscape Conservation and Local Infrastructure Program, a state authorized policy tool combining transfer of development rights with tax increment financing, to bring resources to bear that can support Tacoma’s conservation goals	Implement LCUIP, a state authorized policy tool combining TDR with tax increment financing, to bring resources to bear that can support Tacoma’s conservation goals	OS-LF-16 Landscape Conservation and Local Infrastructure Program					

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	<p>Coordinate with XXX partners through the Green Tacoma Partnership and other avenues to solicit public input on XXX. Develop printed and web-based materials to inform and engage the public. Consider supporting a community-based advisory group.</p>	<p>The City and partners will coordinate through the Green Tacoma Partnership and other avenues to solicit public input. In addition, printed and web-based materials should be developed to inform and engage the public. Consideration may be given in the future to other approaches, such as supporting a community-based advisory group.</p>	<p>OSHR Ongoing Review</p>					



ENVIRONMENT ELEMENT

1 What is the purpose of this chapter?

The purpose of the Environment Element is to:

1. Preserve, protect, and improve the health and general welfare of the public by promoting the planning, management and preservation of watershed functions, trees and forests, open space lands and habitat corridors, and natural resources including wetlands, streams, lakes, floodplains, fish and wildlife habitats, groundwater and geologic hazards.
2. Set policy to achieve a net gain in air and water quality, habitat functions and values, and tree canopy coverage.
3. Increase the awareness of the urban forest and habitat lands, the benefits of the urban ecosystem, and how our actions affect the health and livability of Tacoma and surrounding areas.
4. Prepare the City of Tacoma and the Tacoma community for the anticipated impacts from climate change and reduce our contribution to greenhouse gas emissions.
5. Facilitate communication and coordination among Tacoma community members, agencies, and Native American tribes to promote preservation and restoration of Tacoma's valuable environmental assets.

2 Why is this chapter important?

Situated in the Puget Sound Lowlands, at the mouth of the Puyallup River Valley and the tidal waters of Commencement Bay, and adjacent to some of the most fertile agricultural land in the world, Tacoma's wealth of natural resources provides an array of ecologically, economically and aesthetically valuable ecosystem services. Our rivers, streams and floodplains convey and store water and provide critical habitat for native fish and aquatic species. Our wetlands, trees, and vegetation clean and cool Tacoma's air and water, stabilize hillsides, soak up rainwater and provide habitat for an abundance of birds and other wildlife. The deep waters of Commencement Bay support international trade and commerce. Many of these resources also trap carbon and reduce urban heat island effects, which are increasingly important given the potential impacts of climate change. These natural resources are key contributors to Tacoma's identity, economy, reputation and sense of place.

The City has a long-standing commitment to maintaining a high-quality environment; however many of Tacoma's natural resources have been lost over time or are currently at risk. Urbanization has filled floodplains, contributing to seasonal flooding damage. Stormwater runoff from paved areas and rooftops has eroded our stream channels and polluted our streams, many of which are unable to support healthy fish populations. There is concern that anticipated growth and development will result in substantial tree removal, continued habitat loss, and negative impacts on at-risk plant and animal species.

The City's land use plans and investments have been, and will continue to be, instrumental in helping contribute to improvements in air and water quality over time, and in preserving natural resources. In addition, the City and community have made substantial investments of time and money to restore our watersheds. The goals and policies in this chapter protect these investments and help the City meet various regulations to protect public health and the environment. With thoughtful guidance, the community can work together to achieve and sustain healthy watersheds and a healthful environment for all Tacomans as the city grows.

3 Goals and Policies

3.1 Planning for Environmental Protection

Tacoma's quality of life depends on maintaining clean air, water, soil, and a healthy environment overall. The policies in this section will preserve and maintain environmental quality by emphasizing protection of natural resources and their functions, consistent with widely accepted ecological principles and scientific literature. These policies call for an up-to-date natural resource inventory and actions to protect air, water, soil, climate, biodiversity, and existing high value natural resources. They also call for consideration of tradeoffs in developing environmental protection programs.

GOAL: Tacoma's built and natural environments will function in complementary ways and are resilient in the face of climate change and natural hazards (*new goal*).

Planning

1. Protect air, water, and soil quality and associated benefits to public and ecological health and safety (*new policy*).
2. Recognize the multiple benefits of the City's ecosystem services, including economic impacts, reducing pollution, storing carbon, saving energy, and reducing stormwater runoff (*new policy*).
3. Promote equitable, safe, and well-designed physical and visual access to nature while also protecting high value natural resources, fish, and wildlife (*new policy*).
4. Consider the impacts of climate change and the risks to the city's environmental assets in all phases of plans, programs and investments (*new policy*).
5. Maintain self-sustaining populations of native plants, native resident and migratory fish, and wildlife species, including at-risk species and beneficial insects such as pollinators (*new policy*).
6. Protect the quantity, quality, and function of high value environmental assets identified in the City's natural resource inventories, including:
 - Rivers and streams
 - Floodplains.
 - Riparian corridors.
 - Wetlands.
 - Groundwater.

- Native and other beneficial vegetation species and communities.
 - Aquatic and terrestrial habitats, including special habitats or habitats of concern, including large anchor habitats, habitat complexes and corridors, rare and declining habitats such as wetlands, native oak, and habitats that support special-status or at-risk plant and wildlife species.
 - Other resources identified in natural resource inventories (*new policy*)
7. When planning for growth, direct development activities away from important natural features such as steep slope areas and unstable soils, wooded areas, shorelines, aquatic lands and other unique and high value natural areas (*new policy*).
 8. Consider Tacoma's environmental assets as important resources and components of the City's infrastructure (*new policy*).
 9. Ensure adequate resources to manage Tacoma's environmental assets and to educate the public about the benefits of Tacoma's natural resources (*existing policy UF-4 Resource Needs*).
 10. Develop hazard mitigation plans that reduce exposure of Tacoma citizens to future disasters or hazards (e.g., flooding, earthquakes, winds) (*new policy*).

Coordination

11. Coordinate, cooperate, and partner with federal, state, regional and local governmental jurisdictions, and the public to manage the City's environmental assets and to achieve the goals and policies herein (*existing policy UF-12 Coordination of Efforts and Partnerships*).

Best Available Science

12. Assess and periodically review the best available science for managing critical areas and utilize the science in the development of plans and regulations while also taking into consideration Tacoma's obligation to meet urban-level densities and other requirements under the Growth Management Act (*existing policy E-ER-6 Best Available Science*).
13. Evaluate climate data in the development of the best available science and consider climate risks in the development of regulations, plans, and programs (*new policy*).
14. Evaluate trends in watershed and environmental health using current monitoring data and information to guide improvements in the effectiveness of City plans, regulations, and infrastructure investments (*new policy*).

Natural Resource Inventory and Land Acquisition

15. Maintain an up-to-date inventory of environmental assets by identifying the location and evaluating the relative quantity and quality of environmental assets (*new policy*).
16. Develop and maintain a prioritized list of natural resource types, target areas, or properties desirable for public acquisition to support long-term natural resource protection, and establish a process for coordinating acquisition with other programs including strategies to maintain

employment land capacity, programs to protect water quality, and programs to reduce exposure to flooding hazards (*new policy*).

17. Develop environmental protection plans, programs and regulations that specify high value natural resources to be protected and the types of protections to be applied, based on the best data and science available, and on an evaluation of the potential consequences of allowing conflicting uses (*new policy*).

Watershed Plans

18. Develop management plans for each of the City's watershed basins. Conduct watershed characterizations that evaluate the current conditions of the watersheds in Tacoma and use the findings of the watershed characterizations to inform decisions about future land use, stormwater planning, and urban forest and open space management (*new policy*).

Climate Action

19. Incorporate climate change considerations into City comprehensive and operational plans (*new policy*).
20. Promote community resiliency through the development of climate change adaptation strategies (*new policy*).
21. Protect processes and functions of Tacoma's environmental assets (wetlands, streams, lakes) that control stormwater runoff, improve water quality, and protect public and private properties from flooding events in anticipation of climate change impacts (*new policy*).
22. Maintain, implement and periodically update a climate action plan and greenhouse gas inventory (*new policy*).
23. Assess the risks and potential impacts on both city government operations and on the larger Tacoma community due to climate change, with special attention to social equity (*new policy*).
24. Develop strategies that can be used by both the public and private sectors to help minimize the potential impacts of climate change on new and existing development and operations, including programs and strategies that encourage retrofitting of existing

What are the climate change risks Tacoma could face?

Several recent studies have concluded that rising levels of greenhouse gases in the atmosphere (e.g., carbon dioxide, methane, and nitrous oxide) have warmed the earth. These studies also conclude that increases in greenhouse gases are causing rising sea levels; melting snow and ice; and more extreme storms, rainfall, and floods. Changes in temperature and precipitation patterns are projected to have wide-ranging impacts on the Puget Sound region in the coming decades. Anticipated climate change impacts in Tacoma include more extreme precipitation events (i.e., wetter winters and drier summers), an increased risk of mudslides, and greater flood risk in the Green and Puyallup Rivers (Dalton et al. 2014, Snover et al. 2013). The unique surficial glacial geology in portions of Tacoma allows for significant initial infiltration of rainfall, but can result in groundwater flooding in the hours and days after a heavy rainfall event, and changes in peak rainfall may aggravate this process. Meanwhile, changing amounts and timing of streamflow due to glacial retreat, reduced snowpack, and earlier snowmelt in the Cascades could affect Tacoma's municipal water supply. Sea level rise and storm surge may result in greater coastal flooding, erosion, destabilization of shoreline bluffs, and inundation of low-lying infrastructure. An anticipated 4.3 to 5.8 degree Fahrenheit increase in average temperature by mid-century will be accompanied by more frequent and prolonged summer heat events, contributing to increased wildfire risk as well as increased building cooling costs, and posing risks to the health of elderly residents and other particularly vulnerable individuals (Mote et al. 2013).

development and infrastructure to adapt to the effects of climate change (*new policy*).

3.2 Protecting Tacoma's Environmental Assets in Development Situations

The following policies provide guidance for land use regulations that address high value natural resources where new development is proposed. They will help ensure that the potential adverse impacts of development are well understood, and avoided where practicable. These policies also call for an evaluation of design alternatives to minimize impacts, and mitigation approaches that fully mitigate unavoidable impacts.

GOAL: All Tacomans will have access to clean air and water, can experience nature in their daily lives, and benefit from development that is designed to lessen the impacts of natural hazards and environmental contamination and degradation (*new goal*).

Avoiding or Minimizing Impacts

1. Consider limiting the development of new sensitive uses (like schools, childcare centers, nursing homes, senior housing, etc.) near existing sites that generate hazardous materials (*new policy*).
2. Avoid locating new sensitive uses in proximity to sources of pollution (e.g., Interstate-5, Interstate-705, State Route-509, State Route-16, State-Route 7, truck routes, rail yards) and vice versa. Where such uses are located in proximity to sources of air pollution, use building design, construction and technology techniques to mitigate the negative effects of air pollution on indoor air quality (*new policy*).
3. Evaluate the potential adverse impacts of proposed development on high value environmental assets, their functions, and the ecosystem services they provide (*new policy*).
4. Ensure that the City achieves no-net-loss of ecological functions over time (*new policy*).
5. Discourage development on lands where such development would pose hazards to life or property, or where important ecological functions or environmental quality would be adversely affected: (a) floodways and 100-year floodplains, (b) geologically hazard areas, (c) wetlands, (d) streams, (d) fish and wildlife habitat conservation areas, and (e) aquifer recharge areas (*existing policy E-GD-2 Development Hazards*).
6. Require that new development avoid and minimize adverse impacts to existing nature resources, critical areas, and shorelines through site design prior to providing mitigation to compensate for project impacts (*new policy*).
7. Encourage mitigation approaches that maximize the intended ecosystem benefits. Require on-site or use of established approved mitigation banks versus off-site mitigation; unless off-site mitigation within the same watershed will improve mitigation effectiveness (*new policy*).
8. Limit impervious surfaces within open space corridors, shorelines and designated critical areas to reduce impacts on hydrologic function, air and water quality, habitat connectivity, and tree canopy.

9. Encourage site planning and construction techniques that avoid and minimize adverse impacts to open space, native vegetation, tree cover, habitats and natural landforms (*existing policy E-FW-6 Innovative Development Techniques*).
10. Manage the quality and quantity of stormwater runoff entering Tacoma waterbodies, so as to protect public health and safety, surface and groundwater quality, and the ecological functions of natural drainage systems (*new policy*).
11. Encourage building, site, and infrastructure design and practices that provide safe fish and wildlife passage, and reduce or mitigate hazards to birds, bats, and other wildlife (*new policy*).
12. Minimize and manage ambient light levels to protect the integrity of ecological systems and public health without compromising public safety (*new policy*).
13. Promote the use of integrated pest management plants that provide guidelines for monitoring and treating pests and evaluating the effectiveness of the treatment program on land the City of Tacoma owns or maintains (*new policy*).

Urban Forest

14. Require the use of best management practices in the location, design, planting, maintenance and removal of trees and vegetation in public rights-of-way consistent with the City's adopted Urban Forest Manual, public works design manual, and land use codes (*new policy*).
15. Retain as many mature trees as practicable and appropriate during development of City owned land and street rights-of-way (*existing policy UF-REM-2 Existing Trees on City Land*).
16. Discourage removal of safe, healthy, and appropriate trees located on City property or within rights-of-way, while recognizing the abutting property owners' discretion to remove street trees with proper permitting (*existing policy UF-REM-3 Tree Removals from Streets and City Property*).
17. Protect rare and threatened tree species from the impacts of urbanization (*existing policy UF-PR-5*).

Wetlands, Streams and Lakes

18. Retain and enhance native vegetation along wetlands, rivers, streams, and lakes. The City may require new planting of native vegetation or removal of non-native species to restore ecological functions of riparian buffers where such activities will enhance the corridor's function (*new policy*).
19. Protect and enhance wetlands, streams, lakes and lake water quality through use of best management practices, managing and treating stormwater runoff, removal of invasive plant species, encouraging native planting, limiting the use of fertilizers/pesticides or other chemicals, and by restoration of fish and wildlife habitat (*new policy*).

Fish and Wildlife Habitat

20. Promote integration of development projects into their surrounding environments, promoting a "greenbelt natural corridor" for movement and use by species. These areas should use native plants that support native species of birds and animals (*existing policy E-FW-10 Integrate Development Projects*).

21. Encourage protection of habitat improvement project sites in perpetuity (*existing policy E-FW-12*).
22. Encourage preservation of large blocks of land around critical areas to ensure maximum habitat diversity (*existing policy E-FW-8 Maintain Habitat Diversity*).
23. Encourage informational and educational programs and activities dealing with the protection of wildlife. An example of such a program is the Backyard Wildlife Sanctuary program established by the state's Department of Fish and Wildlife (*new policy*).

Geologic Hazards

24. Encourage development standards in critical areas in accordance with the severity of natural constraints to reduce risks, minimize damage to life and property and mitigate potential hazards (*existing policy E-GD-3 Manage Development*).
25. Require appropriate levels of study and technical analysis as a condition to permitting construction within geologically hazardous areas, ensure sound engineering principles are used based on the associated risk in these areas, and limit land uses within or near geologically hazardous areas (*new policy*).
26. Require special protection to landslide hazard areas where mass wasting events could increase risk to human life, damage public property, or cause harm to adjacent property owners (*new policy*).
27. Critical areas regulations covering development in areas with severe seismic hazards, special building design and construction measures should be used to minimize the risk of structural damage, fire, and injury to occupants, and to prevent post-seismic collapse (*new policy*).
28. Manage development in and near steep slope and erosion hazard areas to minimize erosion and risk to people and property (*new policy*).
29. Promote soil stability by retaining vegetation in erosion-prone areas (*new policy*).
30. Establish setbacks around the perimeter of site-specific landslide hazard areas to avoid the potential to undermine these areas, cause erosion and sedimentation problems to downstream or downhill land uses, and avoid the risk to human life and safety (*new policy*).
31. Require that construction, maintenance, and operation of development in Seismic Hazard Areas minimizes hazards to persons, property, and natural resources within the Seismic Hazard Area and the entire community (*new policy*).
32. Require site-specific seismic hazard preparedness studies for essential public facilities and lifelines (*new policy*).
33. Protect existing natural gulches, watercourses, ravines, and similar land features from the adverse erosional effects of increased storm water runoff that is generated by new development (*existing policy E-SWR-3 Natural Land Features and Erosion*). Recognize that the extraction of mineral resources is necessary to meet the needs of the entire public (*existing policy E-MRL-2 Mineral Resources Extraction*).

34. Regulate development in the 100-year floodplain to avoid substantial risk and damage to public and private property and loss of life. Ensure these regulations, as a minimum, comply with state and federal requirements for floodplain regulations (*new policy*).
35. Direct uses that require substantial improvements or structures away from areas within the 100-year floodplain (*new policy*).
36. Require that construction, maintenance, and operation of development in the 100-year floodplain minimize hazards to persons and property within the 100-year floodplain and the entire community (*new policy*).
37. Encourage compensatory floodplain storage for all projects constructed within the 100-year floodplain (*new policy*).

Groundwater

38. Protect and preserve the quantity and quality of Tacoma's groundwater supply (*existing policy E-ARA-1 Groundwater Protection*).
39. Encourage the retention of surface water runoff in wetlands, regional retention facilities, detention ponds, and low impact development stormwater facilities, or use other similar stormwater management techniques to promote aquifer recharge assure a continued adequate groundwater supply (*existing policy E-ARA-2 Natural Area Retention*).
40. Encourage the development and use of alternative mechanisms for preventing and reducing the risk of groundwater contamination (e.g., by process or product changes) and disposal (e.g., through resource recovery and recycling) (*existing policy E-ARA-3 management Techniques*).
41. Encourage water reuse and reclamation for irrigation and other non-potable water needs (*new policy*).

3.3 Improving Environmental Quality

The following policies are intended to support improving environmental quality over time as the city grows. They provide direction to enhance the condition, capacity, and resilience of Tacoma's air and water and to restore hydrology, water quality, habitat and biological communities. These policies call for more effectively preventing incremental environmental degradation, including the spread of invasive species, soil loss, habitat fragmentation, and introduction of hazards to wildlife. They support a healthy urban forest and recognize that healthy natural systems reduce natural hazard risks. They also help the City mitigate and adapt to climate change.

Preventing additional environmental degradation will be more successful and cost-effective than addressing problems as they increase in severity. These policies will help the City avoid exacerbating adverse and disproportionate impacts on under-served and under-represented communities. While some of the impact areas listed below are regulated by other agencies, the City's land use plans and investments can help avoid or reduce impacts, while also improving conditions over time.

GOAL: Tacoma achieves the greatest possible gain in environmental health city-wide over the next 25 years through proactive planning, investment and stewardship. Tacomans will feel empowered to actively participate in efforts to maintain and improve the environment, including watershed health (*new goal*).

1. Encourage landscaping designed to complement local wildlife and native vegetation and help offset the loss of wildlife habitat areas that results from development (*existing policy E-FW-2 Retain Vegetation*).
2. Encourage voluntary cooperation between property owners, community organizations, and public agencies to restore or re-create habitat on their property, including removing invasive plants and planting native species (*new policy*).
3. Proactively seek not only to reverse the decline but to achieve the greatest possible gain in habitat functions city-wide over the next 20 years (*existing policy OS-HA-1 Citywide Gain in Habitat Functions*).

Air and Water Quality

4. Ensure that plans and investments are consistent with and advance efforts to improve air quality and reduce exposure to air toxics, criteria pollutants, and urban heat island effects. Consider air quality related health impacts on all Tacomans (*new policy*).
5. Ensure that plans and investments are consistent with and advance efforts to improve watershed hydrology by achieving more natural flow and enhancing conveyance and storage capacity in rivers, streams, floodplains, wetlands, and groundwater aquifers. Minimize impacts from development and associated impervious surfaces, especially in areas with poorly infiltrating soils and limited public stormwater discharge points, and encourage restoration of degraded hydrologic functions, where practicable (*new policy*).
6. Ensure that plans and investments are consistent with and advance efforts to improve water quality in rivers, streams, floodplains, groundwater, and wetlands, including reducing toxics, bacteria, temperature, metals, and sediment pollution. Consider water quality related health impacts on all Tacomans (*new policy*).
7. Achieve criteria air pollutant reductions in both municipal operations and the community at large (*new policy*).
8. Encourage the identification and characterization of all contaminated sites which adversely affect the City's shoreline areas, surface waters, groundwater, and soils (*existing policy E-ER-2 Contaminated Sites*).
9. Restore surface waters that have become degraded to provide for fish, wildlife, plants, and recreational opportunities (*new policy*).
10. Reduce the use of pesticides and chemical fertilizers to the extent feasible and identify alternatives that minimize risks to human health and the environment (*new policy*).

11. Prevent groundwater contamination through performance criteria and guidelines for siting, design, construction and operation of commercial and industrial structures and activities (*existing policy E-ARA-4 Performance Criteria*).
12. Support an ongoing effort to monitor groundwater quality in order to determine the effectiveness of the groundwater program over time (*existing policy E-ARA-8 Monitoring*).
13. Protect the quality of groundwater used for public water supplies to ensure adequate sources of potable water for Tacoma and the region. Ensure that the level of protection provided corresponds with the potential for contaminating the municipal water supply aquifer (*new policy*).

Habitat Connectivity and Open Space Corridors

14. Ensure that plans and investments are consistent with and advance efforts to improve terrestrial and aquatic habitat connectivity for fish and wildlife (*new policy*) by:
 - Preventing habitat fragmentation.
 - Improving habitat quality.
 - Weaving habitat into sites as new development occurs.
 - Creating and enhancing open space corridors that allow fish and wildlife to safely access and move through and between habitat areas.
15. Ensure that plans and investments are consistent with and advance efforts to improve the diversity, quantity, and quality, of fish and wildlife habitat and open space corridors, especially rare and declining habitat types and habitats that support at-risk plant and animal species and communities (*new policy*).
16. Ensure that plans and investments are consistent with and advance efforts to prevent the spread of invasive plants, and support efforts to reduce the impacts of invasive animals and insects (*new policy*).
17. Encourage public access provisions in habitat corridors where such access will complement, not negatively disrupt fish, wildlife, and plants (*existing policy E-FW-22 Public Access*).
18. Target habitat-related resources and programs within the designated Habitat Corridors as depicted on the Open Space System Map by prioritizing areas with the greatest potential to reach their target habitat community and condition (*existing policy OS-HA-2 Habitat Corridors*).
19. Engage in and encourage activities that improve environmental connectivity of, and encourage public access to Habitat Corridors (*existing policy OS-HA-13 Habitat Corridor Identity and Connections*).
20. Consider goals and policies regarding habitat connectivity in all decisions regarding street vacation requests and disposition of surplus City properties (*existing policies OS-CW-1 Street Vacation and Surplus Property Process and OS-CW-2 Designating Public Property as Open Space*).

21. Reconnect shorelines and upland areas and water courses through habitat conservation and restoration efforts (*existing policy OS-SH-4 Reconnect Shorelines and Uplands Habitat*).

Urban Forest

22. Ensure that plans and investments are consistent with and advance efforts to improve the quantity, quality, and equitable distribution of Tacoma's urban forest:
 - a) Strive to achieve a citywide tree canopy cover of 30 per cent by the year 2030 ("30-by-30") (*new policy*).
 - b) Require or encourage the preservation of large healthy trees, native trees and vegetation, tree groves, and forested areas as an element of discretionary land use reviews (*new policy*).
 - c) Coordinate plans and investments with efforts to improve tree species diversity and age diversity (*new policy*).
 - d) Invest in tree planting and maintenance, especially in low canopy areas, neighborhoods with underserved or under-represented communities, and within and near open space corridors (*new policy*).
 - e) Promote the restoration of native trees and vegetation in high value natural resource areas (*new policy*).
 - f) Encourage planting of native trees and vegetation generally, and especially in open space corridors (*new policy*).
 - g) Identify priority areas for tree preservation and planting in the development of subarea, neighborhood, and watershed plans (*new policy*).
23. Increase awareness of urban forest best management practices, including proper plant selection, planting practices, and maintenance, invasive species, insects and diseases, and appropriate use of native species. Provide public education about the detriment of invasive and noxious weed species to the urban forest (*existing policy UF-EO-1 Education*).
24. Recognize and increase the awareness of the benefits of street trees and the urban forest, and the threats to their health (*existing policy UF-EO-2 Promote Stewardship*).
25. Emphasize use of techniques which can effectively achieve multiple urban forestry, open space, water quality and stormwater management objectives (*existing policy UF-PD-5 Stormwater Nexus*).
26. Encourage residents and property owners to plant and maintain trees on their own property (*existing policy UF-PCM-3 Tree Planting Program*).
27. Encourage the identification and preservation of specimen trees of historic merit and/or outstanding size and heritage trees (*existing policy E-FW-4 Specimen Trees*).
28. Encourage or require the removal of invasive species and noxious weeds to protect native plant and animal habitat (*existing policy UF-PCM-7 Invasive Species Removal*).

29. Contribute to, and preserve the integrity of, the native remnant forest both within and adjacent to the right-of-way. Encourage the planting of native species, or compatible trees and plants (*existing policy UF-PR-6 Native Remnant Forests*).
30. Encourage the selection of project, location, and site condition appropriate species as well as a diverse set of plant species, especially those that support wildlife habitat (*existing policy UF-PCM-2 Species Selection*).

Soils

31. Seek to prevent human- induced native soil loss, erosion, contamination, or other impairments to soil quality and function (*new policy*).
32. Encourage retention and use of native soils and discourage compaction of soils in areas intended to be used for plants (*existing policy UF-PD-3 Soils*).
33. Encourage use of soils amended to be supportive of tree health and other plants (*new policy*).

Low Impact Development/Stormwater

34. Encourage use of low-impact development, habitat-friendly development, bird-friendly design, and green infrastructure, especially for City-owned, managed, or funded facilities (*new policy*).

What is low impact development?

Low impact development is a stormwater and land use management strategy that strives to mimic pre-disturbance hydrologic processes by emphasizing conservation, use of on-site natural features, site planning, and distributed stormwater management practices that are integrated into a project design. Low impact development best management practices emphasize pre-disturbance hydrologic process of infiltration, filtration, storage, evaporation and transpiration. Common low impact development best management practices include: bioretention, rain gardens, permeable pavements, minimal excavation foundations, vegetated roofs, and rainwater harvesting.

Stewardship and Coordinated Management

35. Coordinate plans and investments with other jurisdictions, air and water quality regulators, watershed councils, soil conservation organizations, and community organizations and groups to maximize the benefits and cost-effectiveness of watershed environmental efforts and investments (*new policy*).
36. Coordinate transportation and stormwater system planning in areas with unimproved or substandard rights of way to improve water quality, pedestrian safety, and enhance neighborhood livability (*new policy*).
37. Encourage voluntary cooperation between property owners, community organizations, and public agencies to restore or re-create habitat on their property, including removing invasive plants and planting native species (*new policy*).
38. Continue to partner with other public and non-profit organizations to inform citizens of the stewardship needs of Tacoma's environmental assets, and to develop, offer and support restoration

training opportunities and practical information resources (*existing policy OS-HA-11 Habitat Stewardship Outreach and Training*).

39. Work with partners and encourage community members to provide open space lands for protection and restoration of Tacoma’s environmental assets (*existing policy OS-P-4 Private Organizations and Individuals*).
40. Coordinate with state and federal public agencies and tribal governments when reviewing permits to ensure streamlined permit review and avoid redundant regulatory requirements (*new policy*).

Existing volunteer stewardship programs include those established by the Metro Parks Tacoma (CHIP-in!), Citizens for a Healthy Bay (Adopt-A-Wildlife Area program, Stormwater Education program, and Citizen Keeper program), City of Tacoma Adopt-A-Spot and Splash Grant programs, and Washington State Department of Transportation Adopt-A-Highway program.

3.4 Watershed Planning

The following policies address unique critical issues affecting the health of the eight different watersheds in Tacoma by identifying approaches to restoring degraded natural resources and protecting intact watershed functions.

GOAL: Tacoma will plan at a watershed scale to restore and protect natural resources that contribute to watershed health (*new goal*).

General

1. Develop a watershed-based assessment of the city’s existing conditions to determine the level of degradation and importance of water flow (surface storage and groundwater recharge), water quality, and fish and wildlife habitat processes and functions (*new policy*).
2. Improve protections to watershed processes by tailoring zoning and subdivision regulations, sensitive area protections, clearing and grading limitations, and storm drainage standards that are appropriate for each watershed based on the findings of the watershed-based analysis (*new policy*).
3. Create an educational outreach program and incentives that encourage property owners to use low impact development best management practices for improved stormwater systems by establishing voluntary programs, and partnering with not-for-profit organizations and governmental agencies. (*new policy*).
4. Implement goals and policies for restoring ecologically impaired shorelines as adopted in the City’s Shoreline Master Program Restoration Plan (*new policy*).

Flett Creek

The Flett Creek watershed is the second largest watershed in the City (7,153 acres) and is one of two watersheds in Tacoma that do not contain saltwater shorelines. The watershed is predominately residential with commercial and light industrial uses in localized areas. Flett Creek itself occurs within the City of Lakewood and flows into Chambers Creek, but the historic headwaters of the creek were

located in Tacoma. Snake Lake and associated wetlands provide important habitat for fish and wildlife as well as educational opportunities at the Tacoma Nature Center.

Critical issues in the Flett Creek watershed include chronic water quality issues in Wapoto Lake that currently keep the lake closed to fishing and swimming, and loss of wetlands and riparian forest.

1. Decrease pollutant loading of Wapato Lake through low impact development and water quality improvement techniques (*new policy*).
2. Restore existing wetlands and riparian forest associated with Wapato Lake (*new policy*).
3. Preserve existing and establish new habitat corridors near Snake Lake (*new policy*).

Leach Creek

The Leach Creek watershed within the City boundaries covers 1,728 acres and comprises residential and commercial land uses. Like the Flett Creek watershed, this watershed does not contain any saltwater shorelines.

Critical issues in the Leach Creek watershed include localized contamination (Tacoma Landfill Superfund site) and degradation of riparian corridors that are important for salmon spawning.

1. Provide outreach and education to Tacoma residents about Leach Creek salmon and their habitat (*new policy*).

Northeast Tacoma and Joe's Creek

The Northeast Tacoma watershed covers 2,641 acres. The upper watershed consists primarily of residential land uses with open spaces and undeveloped land while the lower watershed supports industrial uses along the Hylebos Waterway, which connects Hylebos Creek with Commencement Bay. Much of the watershed contains steep slopes and bluffs and several intermittent streams that flow into Commencement Bay. Joe's Creek watershed is the smallest in the City at just 157 acres. It contains single and multiple-family residential land uses with some open space and undeveloped land. Joe's Creek supports salmonids.

Critical issues in the Northeast Tacoma include erosion and sediment problems caused by flooding from heavy rain events in the upper watershed, and improving habitat for salmon while continuing industrial uses in the Hylebos Waterway. A critical issue in Joe's Creek watershed is degradation of riparian conditions.

1. Amend land use and zoning codes to further reduce risks associated with development of new or current properties adjacent to or on steep slopes (*new policy*).
2. Continue to implement coordinated restoration of the watershed, including all nearshore and upland areas through the comprehensive cleanup strategy (*new policy*).

North Tacoma

On the west shoreline of Commencement Bay the North Tacoma watershed covers 4,766 acres and includes residential and commercial land uses. Major features include Point Defiance Park, the North

End Wastewater Treatment Plant and the former ASARCO smelting site, which is part of the Commencement Bay Nearshore/Tideflats Superfund Site. There are several water bodies including Ruston Creek, Asarco Creek, Puget Creek, Mason Creek and the stream associated with Garfield Gulch. Puget and Mason Creeks are perennial and have steep slopes associated with them.

Critical issues in the North Tacoma watershed include impaired nearshore habitats along the shoreline of Commencement Bay, erosion and sediment problems on steep slopes in the northern portion of the watershed, historic contamination, and fish access.

1. Amend land use and zoning codes to further reduce risks associated with development of new or current properties adjacent to or on steep slopes (*new policy*).
2. Promote a functioning and sustainable ecosystem with a diversity of habitat types in the industrialized estuary of the Commencement Bay environment through continued implementation of coordinated restoration of the watershed (*existing policy E-FW-11 Estuary Ecosystem*)
3. Encourage actions to restore various habitat components of the Commencement Bay ecosystem that benefit natural resources injured by releases of hazardous substances (*existing policy E-FW-13 Benefit Injured Resources*).
4. Prioritize habitat preservation and improvement actions within Commencement Bay that reflect the historical functions and current physical conditions of the estuary, the needs of a variety of selected species or groups of species, the consideration of strategically located habitats in the estuary, the concept of diversity on an ecosystem basis, and bay-wide planning and siting criteria (*existing policy E-FW-14 Commencement Bay Habitat Planning*).
5. Encourage, through restoration, a diversity of sustainable habitat types and species within the Commencement Bay ecosystem to improve fish and wildlife resources (*existing policy E-FW-17 Diversity of Habitat Types*).

Thea Foss Waterway

The Thea Foss watershed is one of Tacoma's larger watersheds (approximately 5,751 acres) and includes residential and commercial land uses, the I-5 corridor, and the Thea Foss Waterway that supports industrial and commercial businesses.

Critical issues include water quality and degraded conditions along the nearshore and adjacent upland areas.

1. Encourage improvement of the environmental quality of Commencement Bay, its associated waterways, and the Thea Foss watershed, including all nearshore and adjacent upland areas through comprehensive cleanup strategies. (*existing policy E-ER-1 Comprehensive Cleanup Strategies*)

Tideflats

The Tideflats watershed covers 2,112 acres and is the most highly industrialized and commercialized portion of the city. The majority of the city's heavy industrial facilities are located here along the Sitcum,

Blair, and Hylebos Waterways. Hylebos and Wapato Creeks are present. The Milwaukee Waterway was filled and capped during 1993-1995.

Critical issues include water quality and degraded conditions along the nearshore and adjacent upland areas.

1. Encourage improvement of the environmental quality of Commencement Bay, its associated waterways, and the Tideflats watershed, including all nearshore and adjacent upland areas through comprehensive cleanup strategies (*existing policy E-ER-1 Comprehensive Cleanup Strategies*).

Lower Puyallup

The Lower Puyallup watershed covers 2,971 acres and contains the Puyallup River, a critical waterbody for a variety of salmonids including spring Chinook and bull trout which are listed as endangered. Portions of the watershed are predominately residential with some undeveloped open space and a few small commercial areas while industrial activity dominates the former estuary.

Critical issues in the Lower Puyallup watershed include degraded estuary and nearshore habitat and riparian habitat for salmonids.

1. Provide outreach and education to Tacoma residents about Puyallup River fish species and their habitat (*new policy*).
2. Protect and improve the Swan Creek riparian corridor.
3. Encourage actions which protect and improve Tacoma's environmental assets in both the upper and lower areas of the Puyallup River watershed and strengthen connections within and between them (*existing policy E-FW-9 Strengthen Habitat Connections*).

Western Slopes

The Western Slopes watershed covers 2,090 acres and is the only Tacoma watershed that drains to the Narrows Passage. The watershed is predominately residential with many steep slopes that contain underground springs and near surface groundwater. Several small creeks are present.

Critical issues include development near steep slopes and sediment deliver interruption from bulkhead installation.

1. Amend land use and zoning codes to further reduce risks associated with development of new or current properties adjacent to or on steep slopes (*new policy*).
2. Encourage restoration and re-establishment of sediment supply and delivery processes through bulkhead removal or soft-shore armoring approaches (*new policy*).
3. Encourage restoration and re-establishment of habitat-forming processes (e.g., long-term sources of large woody debris, riparian forest, backshore vegetation) through coordinated voluntary programs, and partnering with not-for-profit organizations and governmental agencies (*new policy*).

4 Background information

4.1 Critical Areas

Aquifer Recharge Areas

The Clover-Chambers Creek Watershed aquifer system is a large groundwater resource area which encompasses central Pierce County, areas to the south and west of Tacoma, and extends into Tacoma city limits, most notably in the South Tacoma area.

Numerous individual and public water systems in Pierce County, including the City of Tacoma, use this aquifer as a water supply. The aquifer provides a significant amount of drinking water for Tacoma, supplying as much as 40 percent of the total water demand during periods of peak summer use. Therefore, protection of both the quantity and quality of this groundwater aquifer is imperative.

Climate change has and will continue to impact water resources in Tacoma, led by changes to the timing and quantity of snow accumulation in the Cascade mountains, soil moisture, and streamflow. Changes in water availability in turn will impact all resources that rely on surface water such as aquifer recharge areas. In general, higher temperatures will likely cause an increasing portion of precipitation to fall as rain rather than snow, resulting in continued decreases in spring snowpack and earlier snowmelt to west side rivers. At this time it is unknown whether these changes will have any effect on the City's drinking water supply.

Fish and Wildlife Habitat Conservation Areas

Fish and wildlife habitat areas are located in open spaces, parks, steep slopes, stream corridors, lakes, the Puget Sound coastline, and other natural areas throughout the city (see map X). Streams and lakes provide a natural drainage system in the city. They also provide opportunity for recreation and habitat for fish and wildlife (such as coho salmon, cutthroat trout, beaver, wood duck and other diving ducks). There are two major stream systems in Tacoma, Puyallup River and Hylebos Creek, and a number of perennial and seasonal streams.

These areas provide habitat for either resident species or seasonal migratory species or both. In general, most of the land in Tacoma has been greatly affected by human activity. Consequently, native plant cover and its dependent wildlife species have been severely reduced from historic conditions and in some cases restricted to relatively small, often steep-sloped or marshy areas. Because of steepness, unstable soil, or high ground water conditions, such areas are generally difficult and expensive to use for building purposes but lend themselves well to open space, greenbelt, and wildlife preservation. Their relatively small area and linear configurations, however, limit the type and amount of vegetation and wildlife able to exist there. Consequently, what is found in these areas is a complex of native and invasive species of plants and animals able to withstand exposure and competition with limited territorial requirements. Tacoma provides habitat for many common fish and wildlife species including amphibians, reptiles, and small mammals as well as sensitive species and species listed under the Endangered Species Act (salmonids).

The changing climate affects fish and wildlife habitats in many ways including changes in water availability as described previously, changes in temperature and precipitation that affect forest species composition and overall plant assemblages, changes to the growing season for some plants, and changes to the volume and timing of stream flows and stream temperatures. Among other effects, these changes are expected to affect the habitat needs of aquatic species and alter the timing of migration for some salmonid species (Snover et al. 2013).

Wetlands

Wetlands include small lakes, ponds, streams, wet meadows, shallow or deep marshes, bogs swamps, and other areas that are inundated or saturated by surface or ground water at a frequency and duration to support a prevalence of vegetation typically adapted for life in saturated soil conditions (see map X).

Wetlands are productive biological systems and are extremely important to the food chain. They also slow and store floodwaters, reduce shoreline erosion from wind and tidal action and help recharge groundwater supplies. Wetlands function naturally to improve water quality by filtering out sediments, using excess nutrients and breaking down some toxic chemicals. Wetlands are a scenic destination and contribute to a productive commercial and recreational fishery. They also provide important educational and research opportunities.

Loss of wetlands can result in degraded water quality, soil erosion, increased public safety and property damage risk, and loss of open space and wildlife habitat.

A variety of Federal and State laws are now in effect which help control wetland loss. The rate of loss from conversion of wetlands to other uses has greatly decreased since implementation of these laws. The majority of the city's wetlands were filled and developed for commercial, industrial or residential land uses prior to these regulations. In freshwater wetlands, losses were due primarily to commercial and residential development.

Climate change may lead to reductions in the extent of wetlands and ponds due to reduced snowpack and the altered runoff timing as described previously. Coastal wetlands are under additional risk from increased inundation and erosion due to sea level rise, which are expected to cause habitat loss and shifts in habitat types (NRC, 2012).

Geologically Hazardous Areas

Geologically hazardous areas include the following:

- Landslide-prone areas are sloping areas with soil conditions that are susceptible to failure and represent a potential hazard to people and property. Inappropriate development activities may disturb these areas and trigger landslides, which in turn may result in erosion, high run off, and stream siltation.
- Erosion hazard areas where the soils are so erosion-sensitive that urban development is not appropriate.
- Steep slope areas are hillsides that are either naturally unstable, or susceptible to instability when disturbed.

- Seismic hazard areas are areas subject to severe risk of damage as a result of seismic-induced settlement, shaking, lateral spreading, surface faulting, slope failure, or soil liquefaction.
- Volcanic hazard areas are areas subject to pyroclastic flows, lava flows, debris avalanche, and inundation by debris flows, lahars, mudflows, or related flooding resulting from volcanic activity.

Geologically hazardous areas have been mapped along much of the Puget Sound shoreline, along stream corridors, and in limited pockets throughout the city (see map X).

Climate change is expected to increase rainfall intensity and raise sea level, both of which could cause an increase in landslides in Tacoma. Increased rainfall intensity could also make erosion-sensitive areas to be more susceptible to erosion.

Flood Hazard Areas

Flood hazard areas generally include the 100-year floodplain and other known frequently flooded areas. These areas are important for minimizing adverse impact to public health, safety, and public infrastructure such as roads. Frequently flooded areas provide habitat for fish and wildlife included listed fish species such as salmon.

Climate change is expected to bring increases in river flooding that will increase the risk of damage and service interruptions for infrastructure (e.g., levees) located in or near current floodplains. For coastal areas, such as Commencement Bay, sea level rise will exacerbate these risks. Direct impacts will include increased storm surge and increased extreme precipitation resulting in temporary flooding of low-lying areas.

Mineral Resources Lands

Mineral resources in Tacoma consist of rock and gravel deposits. These resources support industries that are an important part of Tacoma's economy, providing jobs and needed products for local use and export. Because of their economic benefits, mineral resource lands are recognized as an important element of the City's growth and development plans.

4.2 Open Space

Open space lands in Tacoma typically provide habitat value as well as serving other open space functions. While some lands contain habitat for rare or endangered species, many lands with habitat value can also appropriately serve other open space functions. Habitat areas, in turn, can benefit from appropriate access and low-impact recreation through increased community stewardship, safety, and a heightened sense of community ownership. The numerous functions provided by open space are a fundamental benefit contributing to a complete and livable urban environment.

Open space lands in Tacoma include:

- Parks and recreational lands with passive uses like trails and viewpoints
- natural areas regulated under the City's Critical Areas Preservation Ordinance;
- areas used for the conservation of plant and animal life, including habitat for fish and wildlife species;

- areas used for ecologic and other scientific study purposes;
- areas of outstanding scenic, historic, cultural, scientific and/or educational value;
- areas providing a natural separation or buffer between land-uses;
- rivers, streams, wetlands, bays and estuaries;
- forested areas, oak woodlands, meadows;
- areas providing important habitat connectivity, including utility easements and unimproved rights-of-way; and
- marine beaches, lake shores, banks of rivers and streams, and watershed lands.

Open space lands that provide habitat functions support, nurture and preserve natural wildlife habitats and vegetation. Habitat areas can range in size from a few hundred square feet to many acres and provide a broad range of benefits to the people of Tacoma, including low-impact recreation; health benefits; waterfront access; bird and wildlife observation; climate regulation; increased property values; improved air and water quality; and, a greener, more livable city. Often referred to as “ecosystem services,” these are benefits that, without functional and healthy habitat areas, would not be available or would have to be provided by human actions.

Many of the functions and values provided by habitat areas are dependent on connectivity with other habitat areas. Habitat Corridors are generally larger, geographically connected or contiguous, defined areas that typically combine multiple habitat functions and features (such as streams, wetlands, slopes and larger contiguous habitat areas). Tacoma’s Habitat Corridors were identified based on factors including the size of the undeveloped area, the presence of environmental features, potential connectivity with other habitat areas, and current ownership and land uses *(see Map X and X)*.

Open space habitat areas often contain critical areas such as streams, wetlands, steep slopes, and animal and plant habitat. Thus, there is a strong link between the City’s critical area and open space goals.

4.3 Urban Forest

Trees are an integral part of our communities and the ecological systems in which they exist. They provide significant economic, social, and ecological benefits, such as carbon sequestration, reduction of the urban heat island effect, energy savings, reduction of stormwater runoff, improvement of water quality, psychological healing and calming qualities, and increased value of business and residential properties. Planting and maintaining trees helps a city become more sustainable and reduce the negative impacts on the ecosystem from urban development. Trees are as necessary as water, infrastructure, and energy to sustaining healthy communities. The health of the urban forest is directly linked to the health of the Puget Sound.

Our urban forest is a collection of individual trees and plants that could be living in traditional landscape settings or forest remnants in parks, open spaces, and private property *(see map X)*. It encompasses the living components of the complex urban landscape and is an integral part of Tacoma’s infrastructure. Our urban forest influences and is influenced by the built environment that surrounds it.

Tacoma's urban forest exists on different types of property that are managed differently depending on ownership, uses, and the vegetation present. Properties where the urban forest can be found include City-owned property, other publicly-owned property such as parks and schools, private property, and non-City-owned rights-of-way.

Urban forests and forests in developing areas face a number of challenges that rural or wilderness forests do not. A rural forest area is often owned by a single owner or limited number of owners and can be managed through relatively simple single-purpose policies. In contrast, our urban forest is overlaid with a complex set of ownerships, values, and goals with differing maintenance levels and approaches towards tree planting and preservation. Urban forest growing conditions vary greatly from the natural forest processes and are often in conflict with other needs and management goals; therefore, a multi-faceted approach to management of our urban forest needs to be utilized to create a high-quality human habitat and to strike a balance between the needs of the community and the needs of individuals.

Climate influences the structure and function of forest ecosystems. The projected changes in climate may affect the species composition of urban forests as some species could be lost or gained depending on their climatic suitability (Snover et al. 2013). It is expected that periods of drought could increase or become longer, which may affect the growth of some species, but overall the potential impacts to urban forests in Tacoma are unknown at this time.

5 Implementation and Next Steps

Using the policy framework for protecting and restoring Tacoma's natural assets established by this element, the City will identify actions that implement these policies. These actions will be incorporated into implementation plans and programs, including the Environmental Action Plan and Stormwater Management Manual. The actions would need to be tracked to ensure progress towards established goals. The following are key actions for implementing this element.

1. Work with the Green Tacoma Partnership and other partners to delineate and designate all habitat lands with high natural habitat values within the City, in order to guide their future land use and management.
2. Establish a regulatory framework to protect open space and habitat corridors.
3. Develop an open space land management strategy including acquisition and preservation strategies.
4. Establish an Urban Forest and Open Space Advisory Board to support the development of the urban forestry and open space program and to take an active role in ensuring increased citizen involvement and oversight of urban forestry and open space activities.
5. Conduct watershed characterizations and identify recommendations for land use and stormwater management
6. Evaluate current conditions in the Tacoma community and establish targets to improve equitable access and proximity to natural assets.

6 Maps

THE FOLLOWING MAPS WILL BE ADDED TO THE CHAPTER:

Map 1: Wetlands, streams, watershed boundaries

Map 2: Geologically hazardous areas

Map 3: Fish and wildlife habitat conservation areas

Map 4: Tacoma's Open Space System

Map 5: Habitat Map

Map 6: Map of tree canopy (NEW)

Map 7: Watershed maps (NEW)

Chapter: Parks and Recreation

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 expansion of parks and recreation facilities and services.
- Achieve interagency and intergovernmental coordination in the provision of park and recreation facilities.
- Provide more equitable service delivery in areas that are currently deficient in services or are anticipated to be deficient in services based on anticipated growth and development.
- Promote park and recreation facility design that reflects the City's unique cultural communities and ecological settings.

Why is this important?

Good parks, open space and program services contribute to economic development by fostering economic benefits and promoting tourism. Environmentally, they provide green infrastructure and help manage climate change. Socially, they revitalize communities, create safer neighborhoods, help children learn and grow, improve public and environmental health, and support smart growth. Culturally, open space and program services can nurture a sense of place in the community, and provide opportunities to engage the public of diverse backgrounds.

The City of Tacoma and Metro Parks Tacoma manage more than 3000 acres of developed parks and natural areas, as well as local and regional trails, the urban tree canopy, and community gardens. Programs are offered for all ages at 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 Tacomans and future generation and that the City and Metro Parks will rise to meet the challenges posed by growth and change within the City and region.

Goal

All Tacomans 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 Tacomans an opportunity to connect with nature.

General Policies:

- 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.
- Invest in acquisition and development of parks and recreation facilities in areas where service-level deficiencies exist.
- Provide a variety of recreational facilities and services that contribute to the health and well-being of Tacomans of all ages and abilities.
- Jointly plan for new park and recreation facilities in concert with other service providers and encourage public participation in all phases of planning, design and implementation.
- Maintain a long-range park capital improvement program that balances acquisition, development, and operations; provides a process and criteria for capital improvement project selection; and emphasizes creative and flexible financing strategies.
- Seek funding for new parks and recreation facilities through a variety of sources.
- Maintain an accurate inventory of the city's parks and recreation facilities in coordination with Metro Parks Tacoma and other providers.
- Improve parks, recreational facilities, and natural areas in accordance with current 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.
- Evaluate opportunities to acquire and/or develop lands declared surplus by other public agencies, or offered as donation by private owners, if consistent with policies herein.
- Coordinate the planning and improvement of trails with corridor improvements.
- Preserve, enhance, and manage natural areas and resources to protect and improve their ecological health and to provide compatible public access.
- Establish and manage specialized recreational facilities within the park system to respond to identified public needs, take advantage of land assets, and meet cost recovery goals.
- Maintain special recreational facilities (such as golf courses and sports stadiums) as enterprises to meet public needs and ensure maximum use and financial self-sufficiency.
- Encourage public-private partnerships to develop and operate publicly-accessible recreational facilities that meet identified public needs.
- Consider the varied cultural and demographic needs of the community in park and recreational facility design and promote public involvement in all aspects of park and recreation planning.
- Encourage the multiple use of recreation and open spaces to meet community demands.

- Encourage park and recreation facility design that complements the natural features of the site.
- Support and encourage the use of streets and sidewalks, on a temporary or intermittent basis, for a range of activities such as markets, festivals, shopping, dining and recreation, while ensuring safety and balancing street and sidewalk use for transportation.
- Provide amenities at parks and recreation facilities, such as restrooms, lighting, seating, drinking fountains, trash receptacles, bicycle parking, and shelters when possible, feasible and appropriate to extend the hours of use and service quality.
- Incorporate green building practices into park design and construction, including green demolition and disposal practices, use of local and recycled products and low impact development techniques.
- Periodically review trends in park and recreation facility use and adapt plans and investments to respond to changing community needs.
- Partner with public and private entities to encourage, sponsor and support a range of public activities and events within appropriate open spaces, as well as within temporarily closed streets, such as markets, festivals and parades.

Policies by Facility Type

Open Space Corridors

Lands that support, nurture and preserve natural and wildlife habitats and native vegetation. Habitat lands usually contain natural resources, such as wetlands, streams, wildlife, native and forested habitats, that are managed for stewardship and conservation via best management practices. These lands often provide opportunities for environmental research and interpretative programs, in addition to low-impact recreational activities.

Policies

- Encourage public access provisions in open space corridors where such access will complement, not negatively disrupt fish, wildlife, and plants.
- Provide opportunities for Tacomans to engage with and experience nature and varied natural settings.

To be added...

Emerging Trends

- Population growth
- Demographics
- Shrinking households
- Increasing diversity
- Special Needs
- Health trends
- Wider wealth gap
- Opportunity factors
- Climate change
- Sports trends change
- Emerging linear parks

Needs Assessment

- Current outreach efforts
- 2014 Community survey
- Metro parks survey work
- Tacoma Strategic Plan

- Provide opportunities for education and continuous learning about Tacoma’s natural assets and geographic setting.

See policies in Urban Form

Community Gardens

Land gardened by a community group for food, plant or fiber production, either for personal or charitable uses. Community gardens provide access to fresh produce; encourage a connection to the environment; support general health and wellbeing through outdoor activity and the therapeutic benefits of gardening; include safety and beautification benefits; create healthy soil, which helps with stormwater management; and add to a neighborhood’s livability. Properly designed and managed, community gardens can greatly enhance a neighborhood’s vitality and can be created on their own or in coordination with neighborhood parks, playgrounds, housing developments or apartment complexes.

See policies in Design and Development

Neighborhood Parks

Neighborhood parks provide daily convenient access to basic recreation opportunities for nearby residents by foot or bicycle. Generally small in size, neighborhood parks are developed primarily for spontaneous and non-structured recreation activities.

Policies

Neighborhood parks should be designed to enhance neighborhood identity, preserve neighborhood open space and improve the quality of life of nearby residents.

Neighborhood parks should be located and distributed to provide convenient, daily walking access to basic recreational opportunities for nearby residents living within a 1/2-mile radius of the park.

Community Parks

Community parks are usually more than five acres, preferably ten to 15 acres, providing visitors with access to high and low impact recreation opportunities. Community parks should be designed to enhance community identity and preserve community open space. As a sub-category of community parks, Signature Community Parks have a wider community appeal providing a unique benefit which often contribute to the identity of a planning area and enhance the quality of life of District residents.

Policy

- Community parks should be sited and designed to serve those residents living within a 1.5-mile radius of the park and to provide a wider range of recreational opportunities to accommodate large group activities, structured recreation programs, and major outdoor recreation facilities, such as sports facilities.
- Community park sites should front onto a public street, preferably a collector or arterial street complete with sidewalks and bicycle lanes, or easily accessible by public transit.

Regional Parks

Regional parks, usually over a hundred acres, provide visitors with access to unique features and attractions that will draw visitors from the entire District and beyond. Regional parks often accommodate large group activities and have infrastructure to support special events and festivals. Contributing to economic development through tourism, regional parks can enhance the economic vitality and identity of the entire region

Policy

- In addition to those facilities normally encouraged in community and neighborhood parks, unique and high-quality amenities, landscape improvements and gardens, and infrastructure to support events and festivals should be provided. Sports fields, lit or unlit, may also be located within the park.

Urban Parks

Offering outdoor breathing space in an otherwise concrete built environment, urban parks are a special type of open space serving the unique lifestyles and recreation needs of those who live or work in or close to downtown and designated centers. While urban parks often serve as neighborhood parks for their nearby residents, they may also provide opportunities for community events and District-wide gatherings. They contribute to place-making by enhancing the quality of life and the identity of the urban core and the mixed-use districts. Creating a network of linear urban parks connected with public squares, gardens and plazas will allow urban residents or workers to walk to public spaces or destinations designed for art displays and other leisure pursuits. Urban parks may be developed and/or managed by other public or private agencies or in partnership with them, depending on their locations and forms of development.

Policies

- Consider the development capacity and growth assumptions in planning the location and design of urban parks within the Downtown and designated centers.
 - Identify open space, park, and recreation needs within Mixed-use Centers.
 - Identify potential locations and opportunities for further action and use innovative methods and partnerships to fund the identified needs.
 - Ensure park and recreation opportunities are provided in the Mixed-use Centers as the population in the center increases.
- Develop nodal urban parks for social gathering and linear urban parks for active recreation such as walking and bicycling. Examples of nodal urban parks include public squares, urban plazas, landscaped courtyards and community gardens. Linear urban parks include widened boulevards and landscaped promenades adorned with street furniture, water features and art work, and completed with bike facilities.
- Locate and design nodal urban parks to create a focal point and distinctive sense of place for each center.
- Coordinate the development of linear urban parks with the design of designated corridors and signature trails.

Special Recreation Facilities:

Outdoor or indoor facilities offer opportunities for programmed activities to promote active living, an appreciation for nature and the environment, and to foster respect for culture and heritage amongst all ages. These facilities can be free-standing or sited within a community or regional park and are usually managed by Metro Parks Tacoma. Examples of recreational facilities include:

- Multi-purpose centers
- Mission-led specialty centers, such as sports complexes, athletic fields, golf courses, outdoor and indoor pools, boathouse marinas, nature centers, zoos and aquariums, wildlife parks, botanical conservatories, and historic interpretative centers.

Policies

- Give priority for the location of new special recreation facilities to areas that are currently underserved.
- To the extent feasible, locate new destination facilities within or in close proximity to designated centers.

Trails

Trails serve both a recreation and an active transportation function. Walking and bicycling provide many benefits to individuals as well as to the community. In Tacoma, trails provide opportunities for walking, bicycling, jogging, in-line skating, dog walking and wildlife watching. An integrated, safety-oriented multi-purpose trail increases mobility choices, reduces reliance on single-occupant vehicles, provides convenient access to schools, centers, transit, parks and other destinations, and encourages regular physical activity to enhance health and wellness.

Policies

- Establish, improve, and maintain a citywide system of public trails that are a component of a larger network of bicycle and pedestrian facilities. This citywide trail system should connect Tacoma's neighborhoods, employment centers, schools, parks, natural areas, recreational facilities, commercial areas, regional trail system, and other key places that Tacomans access in their daily lives. See Citywide Trails Map.
- Utilize Tacoma's natural topography to connect Tacomans to natural areas and the waterfront.
- Design specific trails according to the purposes served and the location.
 - Trails developed primarily for low-impact access to or through habitat areas should be developed to minimize their impact to the environment through location choices, narrower width, and use of pervious surfaces.
 - Trails developed as non-motorized transportation corridors should be wide enough for the projected use and developed with a durable hard surface.
- Locate and develop bicycle and pedestrian facilities that provide on- and off-road recreation for the community
- Develop new corridors and facilities for rollerbladers and skateboarders that do not conflict with other recreational uses.

Waterfront

Tacoma's shorelines and waterfront areas are a source of economic activity, entertainment and recreation, as well as providing invaluable ecological and cultural functions. As such, the promotion of shoreline access and recreation is a major priority for Tacoma. The City's waterfront provides opportunities for recreation and the experience of nature that cannot be replicated in other areas of the City and region. Recognizing the multiple benefits and values of its shorelines, the City and others have made substantial investments to clean up environmental pollution and improve shoreline access, recreation and cultural opportunities. Given the strong connection many people feel to shorelines, investments like these will provide benefits that will be enjoyed and appreciated by a great number of people, improving Tacoma's livability and long-term prosperity.

Policies

- Recognize the strong community connection to Tacoma's shorelines and waters as cultural, historic, recreational, educational, economic, natural and aesthetic assets of tremendous value
- Enhance Tacoma's identity as a waterfront community, including designating and enhancing shoreline areas for public access, recreation, educational and interpretive displays, public art, community events, habitat restoration and other activities
- Develop and enhance opportunities for swimming, boating including use of Tacoma's water trails, fishing, SCUBA diving, educational activities, wildlife observation and other shoreline and water-dependent activities
- Implement the priority actions identified in the Shoreline Master Program Public Access Alternatives.

Plans for Specific Areas

Over time, the City and partners will improve the capacity to achieve the goals of this Element by developing plans for specific areas. This list is intended for larger, signature parks and open space sites. It is not exhaustive, and is intended to be updated regularly. Other public agencies, in particular Metro Parks Tacoma, maintain separate projects lists which should be consulted as well. The plans are available from the City Planning and Development Services Department.

Inclusion in this section is intended to convey the City Council's support for and recognition of the policy direction in these plans, and to convey that they are planning and implementation priorities. Inclusion in this section lends support to applications for City approvals such as Conditional Use Permits, Rezones and Development Regulation Agreements meeting the intent of these plans, as well as the policies of the OSHRE. This section also provides a forum for the Council to refine their policy direction on a given site, in consultation with the Planning Commission and other stakeholders.

OS-SP-1 MPT Green Vision 2030

MPT's 2012 update to their 2006 Strategic Plan provides the Parks District's plans for their parks and open space system.

OS-SP-2 Point Defiance Park

MPT's conceptual plan for their signature 768-acre park, referred to as Destination Point Defiance, was developed over multiple years with broad public input and support. It includes commercial, educational and recreational features (including the zoo, a lodge, eating establishments, gift shops, a visitor's center, additional pavilion buildings, a farmers market, entertainment and educational facilities, and bike and kayak rental facilities) that broaden the use of the park and expand its function as a unique destination.

While the current (2014) Land Use Intensity Designation is Low, the City recognizes the unique role that Point Defiance Park plays as a citywide and regional destination. Therefore, or until the Land Use Designation changes, alternative review processes such as Development Regulation Agreements may provide an appropriate avenue for City review of more intensive, destination-oriented features within the park.

OS-SP-3 First Creek Action Plan

In 2011-12 the City collaborated with community stakeholders to develop a consensus vision and framework for action to improve East Tacoma's 3.5 mile First Creek corridor. The plan identifies actions to be implemented by multiple stakeholders over a 5-10 year planning period.

OS-SP-4 Wapato Hills Conceptual Plan

In 2013 the City and MPT collaborated to update the 1996 conceptual plan for the 80-acre Wapato Hills. The final conceptual plan recognizes that Wapato Hills functions primarily as a natural area for recreational walking on a system of trails and viewpoints. The conceptual plan also includes the existing park in the southwest corner and a proposed visitor center on the eastern side.

OS-SP-5 Downtown Subarea Plans

From 2011 to 2014, the City has worked to develop the South Downtown, Hilltop and North Downtown Subarea Plans and EIS's. The South Downtown Subarea Plan and EIS was adopted in December 2013, the Hilltop Subarea Plan and EIS was adopted in May 2014, and the North Downtown Subarea Plan and EIS is slated for adoption in late 2014. These plans provide thorough guidance on open space and recreation issues and priorities for the respective subareas.

OS-SP-6 Shoreline Public Access Alternatives

In 2013 the City adopted updates to the Shoreline Master Program (SMP), including the Shoreline Public Access Alternatives. This plan thoroughly addresses open space and recreation issues and priorities in Tacoma's Shoreline Districts.

OS-SP-7 Tacoma Landfill Land Use Plan

This 1998 plan represents incorporation of ideas gathered for the future uses of the closed portions of the City Landfill. The plan reports that over 151 acres will eventually be filled and capped. After landfilling ceases, much of the area may be utilized as a recreation and open space asset.

OS-SP-8 Port of Tacoma Public Access Plan

In 2013 the Port Commission adopted a public access plan to identify specific needs and opportunities to provide public shoreline access. The plan will guide Port actions to meet the City of Tacoma's SMP requirements for the Port to provide public access to shorelines.

OS-SP-9 Swan Creek Master Plan

Swan Creek Park is a 383-acre greenspace nestled on the boundary between East Tacoma and Pierce County with a salmon bearing stream, wooded canyon, upland forest, paved and natural trails, and a community garden. In 2011 MPT adopted a long-term vision and plan for future site development, stewardship, and programming.

Actions

Develop zoning incentives, controls and/or funding mechanisms, such as Transfer of Development Rights, to create highly functional urban parks and amenities within Mixed-use Centers, downtown and Planned Residential Developments.

Consider adopting a fee-in-lieu program that would allow development to contribute toward open space, park, community garden, or recreation space within a Mixed-use Center rather than providing on-site open space.

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