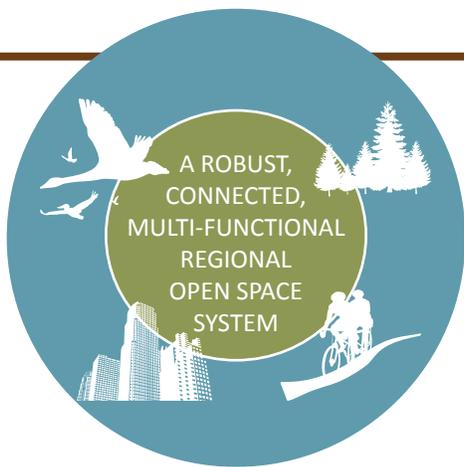


CENTRAL PUGET SOUND
REGIONAL OPEN SPACE STRATEGY

ROSS



PRELIMINARY
COMPREHENSIVE
STRATEGY

SEPTEMBER 2012

University of Washington
Northwest Center for
Livable Communities

University of Washington
Green Futures Research &
Design Lab

National Park Service:
Rivers, Trails, & Conservation
Assistance Program

Pilot funding by The Bullitt Foundation

ROSS LEADERSHIP

EXECUTIVE COMMITTEE

Ron Sims (Chair), Puget Sound Partnership Leadership Council

Thatcher Bailey, Seattle Parks Foundation
 Brian Boyle, University of Washington School of Forest Resources
 Dennis Cauty, American Farmland Trust
 Executive Dow Constantine, King County
 Kaleen Cottingham, Washington Recreation & Conservation Office
 Barb Culp, Bicycle Alliance of Washington
 Mike Deller, The Trust for Public Land
 Bob Drewel, Puget Sound Regional Council
 Gene Duvernoy, Forterra
 Dr. David Fleming, Public Health Seattle-King County
 Dean Howie Frumkin, University of Washington School of Public Health
 Commissioner Charlotte Garrido, Kitsap County
 Commissioner Peter Goldmark, Washington State Department of Natural Resources
 Joanna Grist, Washington Wildlife & Recreation Coalition
 Joe Kane, Washington Association of Land Trusts
 Terry Lavender, King County Conservation Futures Citizen Advisory Committee
 Michael Linde, National Park Service Rivers, Trails, & Conservation Assistance Program
 Kjrjstine Lund, King County Flood Control District
 Rod Mace, United States Forest Service – Mt. Baker-Snoqualmie Forest
 Kelly Mann, Urban Land Institute Seattle
 Executive Pat McCarthy, Pierce County
 Scott Miller, The Russell Family Foundation
 Gerry O’Keefe, Puget Sound Partnership
 Ron Shultz, Washington State Conservation Commission
 Jeannie Summerhays, Washington State Department of Ecology
 Doug Walker, Seattle Parks Foundation
 Cynthia Welti, Mountains to Sound Greenway
 Scott Wyatt, The Nature Conservancy

TECHNICAL ADVISORY COMMITTEE CO-LEADS

ECOSYSTEMS

Bob Fuerstenberg, King County DNRP – Retired
 Critter Thompson, University of Washington
 Decision Commons

RECREATION & TRAILS

Jennifer Knauer, Hook Knauer LLC
 Amy Shumann, Public Health - Seattle & King County

RURAL & RESOURCE LANDS

Lauren Smith, King County Executive’s Office
 Skip Swenson, Forterra

URBAN & COMMUNITY DEVELOPMENT

Ben Bakkenta, Puget Sound Regional Council
 Joe Tovar, Inova Planning, Communications & Design LLC

ROSS PROJECT TEAM

LEADS

John Owen, Makers Architecture & Urban Design
 Nancy Rottle, Green Futures Research & Design Lab, Director
 Fritz Wagner, Northwest Center for Livable Communities

PARTNERS

Steve Whitney, The Bullitt Foundation
 Bryan Bowden, National Park Service
 Rivers, Trails, & Conservation Assistance Program

STAFF

Jeffrey W. Raker, Green Futures Research & Design Lab
 ROSS Lead Planner
 Ginger Daniel, Green Futures Research & Design Lab
 ROSS Assistant Planner
 Ryan Ulsberger, Puget Sound Institute
 GIS Intern, Summer 2012

PUGET SOUND REGIONAL OPEN SPACE STRATEGY ROSS

PRELIMINARY COMPREHENSIVE STRATEGY WORKING DRAFT

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THE CENTRAL PUGET SOUND REGIONAL OPEN SPACE STRATEGY (ROSS)



The Central Puget Sound Regional Open Space Strategy (ROSS) is an effort to conserve and enhance open space systems that contribute to the ecological, economic, recreational, and aesthetic vitality of our region. It will stitch together and foster more effective collaboration among the many activities underway to conserve and enhance open space. Collectively, these efforts can contribute to creating a robust, diverse, accessible, and connected regional open space system. While numerous ongoing open space and environmental protection projects exist, their effectiveness can be greatly enhanced by identifying opportunities to make essential connections, directing resources to the most critical priorities, and supporting individual efforts through cooperative approaches to shared challenges.

With leadership at the University of Washington and an esteemed regionally-representative Executive Committee, this strategic work facilitates and directs an alliance between a broad spectrum of agencies and nonprofit and private organizations that will achieve a multi-dimensional, integrated set of priorities and provide tools for regional open space planning and stewardship in the Central Puget Sound.

The Puget Sound basin is facing significant ecological and economic pressures, which are predicted to be further exacerbated by the increasing intensity of climate change impacts. These stresses affect water quality and supply, fish, farm and forest production, flood and other environmental hazard vulnerability, health of the region's unique biodiversity, natural resource access and allocation, economic opportunities, and overall quality of life. Additionally, not all of the region's citizens benefit equitably from the health, recreational, and aesthetic assets open space resources provide. Human wellbeing depends on an equitable society as well as a healthy ecosystem and regional open space resources play an important role in both.

To successfully address these challenges, actions must be coordinated at the regional level. Ecological systems, in particular, must be considered at the watershed scale, and protecting threatened rural and resource lands, public health, and community development require inter-jurisdictional solutions. By utilizing ecosystem services valuation analysis as a tool for regional green infrastructure planning, this project offers an opportunity to better understand and exhibit the costs and benefits associated with proposed land management practices and conservation efforts.

There is vital momentum and mandate for this work, notably the Puget Sound Regional Council's (PSRC) Vision 2040, which calls for the development of a Regional Open Space Strategy. The ROSS is in direct partnership with PSRC and other organizations working on major initiatives that can be leveraged to support open space planning in the region: market-based conservation strategies embodied in Forterra's Cascade Agenda; multi-jurisdictional approaches to watershed planning led by the Washington State Department of Ecology and Puget Sound Partnership (PSP); model actions for cooperative success by the Mountains to Sound Greenway; large-scale community development initiatives like PSRC's Growing Transit Communities; as well as county health districts' efforts to use land use planning as a means to confront health disparities and social equity. At the moment these efforts are largely independently led or technically specific in scope.

Developing strategies and alliances that effectively integrate multiple objectives is a crucial task to make the region's initiatives more robust, economically vibrant, and ecologically sound, and to provide a framework for long-term stewardship. The ROSS strives to create a vision for regional open space that will enhance the ecological, economic, and social vitality of the region and equip our communities to implement and steward that dream.

WHAT DEFINES OPEN SPACE?

Open space is an embracing term for a diverse spectrum of lands across a rural and urban continuum on large and small scales. Traditionally open space may be imagined as wilderness lands or public parks, but it also encompasses resource lands for agricultural and timber production, wetlands and water bodies, local and regional recreational trail systems, as well as urban green spaces like parkways, rain gardens, and green roofs.

Together these open space lands and water bodies provide a vast number of critical services and life-enhancing benefits on which the region depends. Many ecosystem services that we take for granted are provided by open space, such as water quality, flood control, air quality, carbon sequestration, wildlife habitat, and biodiversity. The economic vitality of our region depends on our timber, agricultural and fisheries productivity, recreational tourism and the ability to attract anchor businesses thanks to our quality of life and stunning landscape. Open space improves health, plays a role in reducing obesity, reduces stress, and provides accessible recreational benefits for all. Together these lands create a unique regional identity and sense of place, celebrate our cultural and geological history and provide vital educational resources for future generations to come. Open space is the keystone for life as we know it in the Puget Sound region.

ANTICIPATED OUTCOMES



The Central Puget Sound ROSS will serve as a crucial piece in regional planning efforts. This multi-year effort intends to yield:

- A set of strategies to achieve an interconnected open space system linking seven watersheds, including visual representations of spatial and other linkages between green infrastructure systems to fulfill open space conservation, amenity, and ecosystem service objectives for the region.
- GIS analysis on the watershed and regional scale.
- A strategic list of priority projects and actions that provide mutual and regionally scaled benefits across ecological, economic and community development, recreation/health, and resource land conservation goals that spans the seven critical watersheds within the region.
- A methodology for evaluating the value of ecosystem services performed by open space systems. A toolkit will be developed that can be used to analyze the economic and social benefits of open space investments ranging from improved water quality and climate mitigation/adaptation to increased recreation access and economic development.
- An engaged, collaborative and mobilized constituency for open space enhancements across each watershed and regional leadership.

PRELIMINARY COMPREHENSIVE STRATEGY (PCS)

EXECUTIVE SUMMARY

The Regional Open Space Strategy (ROSS) incorporates four primary phases of work: Phase 1 – Scoping; Phase 2 – Preliminary Comprehensive Strategy (PCS); Phase 3 – Watershed Open Space Strategies (WOSS); and Phase 4 – Regional Open Space Strategy (ROSS). To initiate project planning, a scoping process was conducted to identify the interorganizational collaboration, technical methods, time and resources necessary to complete the ROSS (Phase 1). To initiate Phase 2, an Executive Committee was formed along with four Technical Advisory Committees (TACs) focused on: Ecosystems, Rural and Resource Lands, Urban and Community Development, and Recreation and Trails. Their leadership has been essential in creating a shared vision, goals, and potential near term actions.

This Preliminary Comprehensive Strategy represents the culmination of Phase 2. It will guide the development of the ROSS through seven Watershed Open Space Strategies (Phase 3) and ultimately the establishment of an integrated Regional Open Space Strategy that can be used to advance and coordinate regional-scale implementation mechanisms (Phase 4).

VISIONS + VALUES

The PCS envisions creating an integrated regional open space system celebrated and stewarded by current and future generations. A set of more detailed visions for open space are presented to specifically outline objectives among four technical areas: ecosystems, rural and resource lands, urban and community development, and recreation and trails.

STRATEGIC DIRECTIONS

The PCS outlines goals, opportunities and near-term actions to pursue in response to a set of challenges that are shared across the four technical areas, providing guidance on incorporating and supporting existing activities and tools, preparing data and information for analysis, and formulating spatial and functional visions for the regional open space system.

ANALYTICAL TOOLS + GUIDING FRAMEWORKS

A diverse range of analytical tools and guiding frameworks will be used as the project advances. Each will provide a unique frame from which to identify key opportunities and establish priorities for land management, acquisition and other actions associated with the ROSS.

DEVELOPING AN ECOSYSTEM SERVICES VALUATION MODEL

The PCS guides the region to establish a model for valuing open space by engaging experts in identifying resources from multiple disciplines, highlighting the limitations, and outlining a replicable framework that can be used to facilitate the application of ecosystem service valuation.

COMMUNICATION + STEWARDSHIP

An additional set of opportunities and near term actions are established that will assist the region in constructing a stewardship strategy and linking conservation efforts at a regional scale.

WATERSHED OPEN SPACE STRATEGIES (WOSS)

General programmatic strategies and guidance for work to be conducted in the region's watersheds is provided to ensure that the ROSS incorporates local knowledge through a strong participatory process, links priorities and coordinates existing conservation actions, and builds local capacity to inform and implement the vision for a regional open space system.

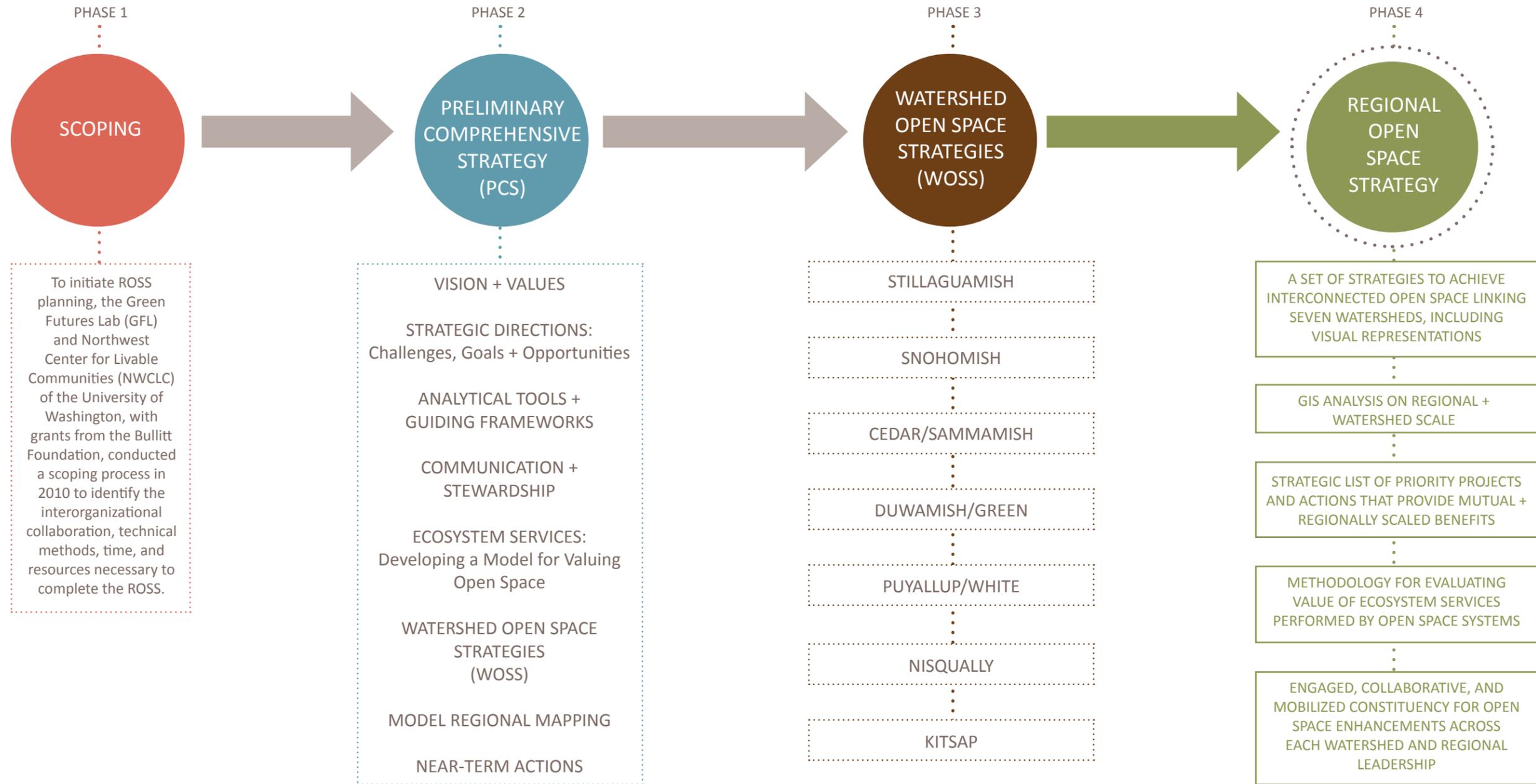
MODEL REGIONAL MAPPING

The spatial vision developed as part of the PCS will incorporate existing data and information, identify regional-scale project priorities, and outline a strategy to form spatial linkages that support multiple layers of interest represented by the four technical areas. This vision will be tested and refined against local knowledge in each watershed.

The Preliminary Comprehensive Strategy outlines how to create a robust, diverse, accessible, and connected regional open space system for the Central Puget Sound.

ROSS WORKPLAN

KEY WORK PRODUCTS



LEADERSHIP

STAFF + CONSULTATIVE GUIDANCE: Green Futures Lab, Northwest Center for Livable Communities, The Bullitt Foundation, and National Park Service work together as the ROSS Project Team.

EXECUTIVE COMMITTEE (EC): In early 2012 an esteemed Executive Committee was formed.

GOVERNANCE + FINANCE SUB-COMMITTEE: An EC sub-committee will explore governance, coordination, and funding options.

OUTREACH + COMMUNICATIONS SUB-COMMITTEE: An EC sub-committee will establish a communications strategy.

ECOSYSTEMS TASK FORCE: A taskforce of expertise from the UW, the Natural Capital Project, and the Cascadia Ecosystem Services Partnership will explore opportunities to integrate ecosystem services evaluation into ROSS.

HEALTH + EQUITY TASK FORCE: A taskforce of public health leadership will explore opportunities to integrate health and social equity considerations into the ROSS and ecosystem services analysis.

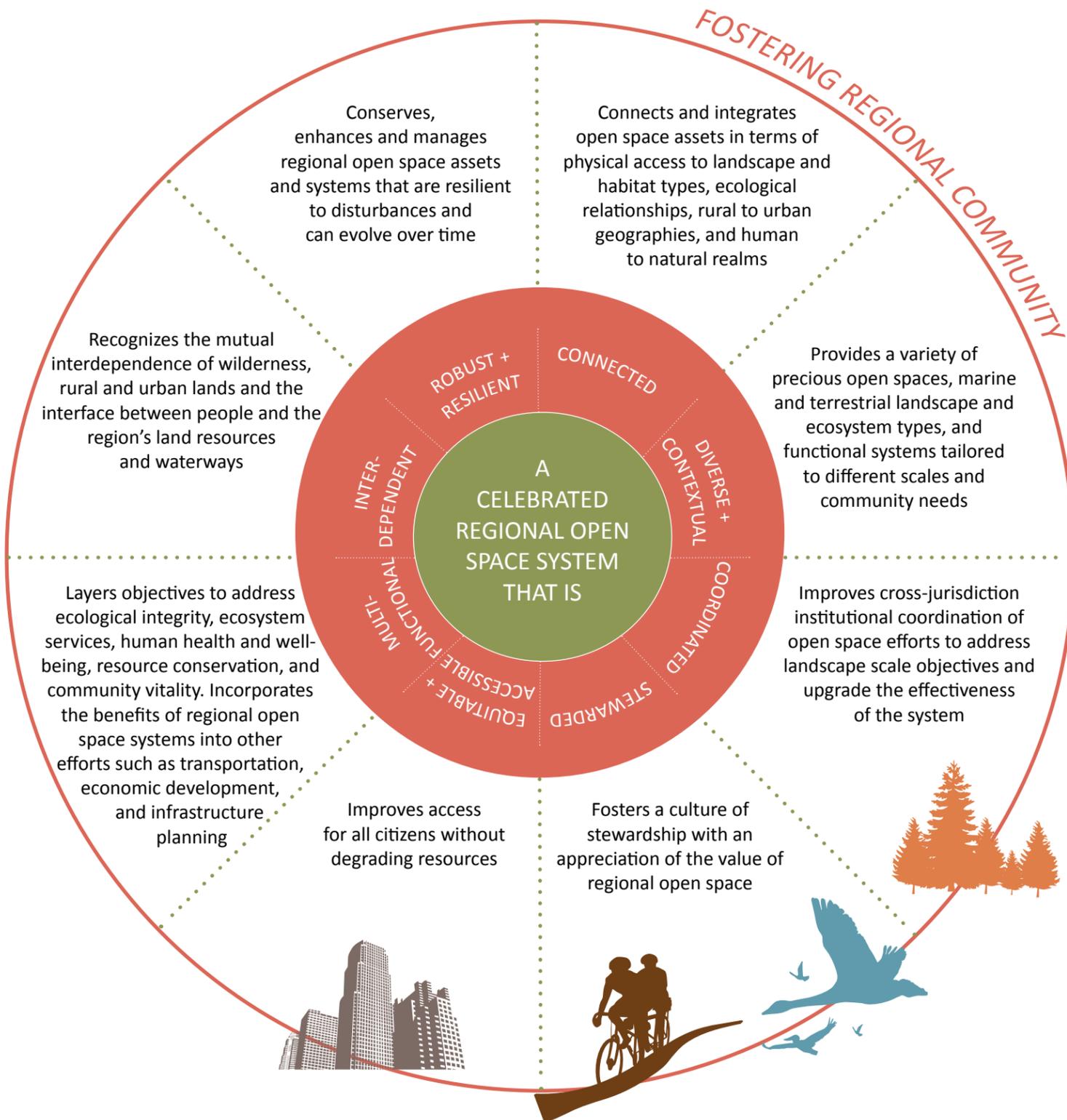


TECHNICAL ADVISORY COMMITTEES: Ecosystems, Rural + Resource Lands, Urban + Community Development, and Recreation + Trails. They developed sub-visions, challenges and opportunities, resources, and strategic directions to inform the PCS.

WATERSHED TASK FORCES: A taskforce associated with each WOSS will be formed to help guide open space strategy development in each watershed.

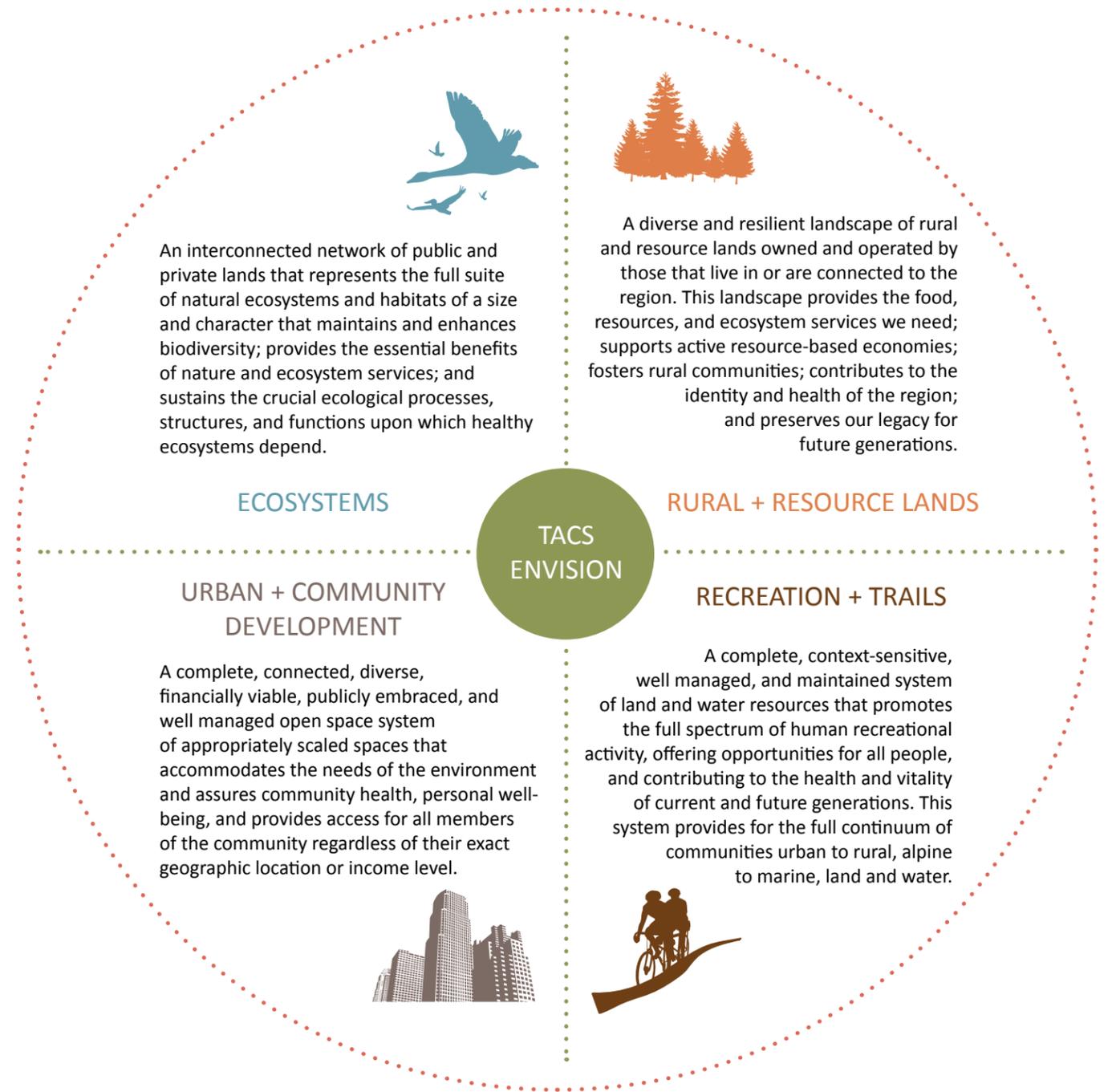
ROSS VISION AND VALUES

The ROSS Vision and Values will guide the region in conserving open space and creating an integrated regional open space system that is celebrated and stewarded by current and future generations.



TECHNICAL AREA VISIONS

A wide representation of key expertise and interests have been engaged to form a vision for specific components of the regional open space system to support ecosystems, rural and resource lands, urban and community development, and recreation and trails. A list of Technical Advisory Committee members is included in Appendix C. A more detailed report on TAC findings is available at: www.rossgfl.wordpress.com.



STRATEGIC DIRECTIONS

The Technical Advisory Committees identified opportunities, challenges, and other guidance specific to each technical area. A shared set of challenges, goals, and opportunities were drawn from these findings. These Strategic Directions provide guidance on incorporating and supporting existing activities and tools, preparing data and information for analysis, and formulating a spatial and functional vision for the regional open space system that can be tested against local knowledge by engaging communities as the Watershed Open Space Strategies are developed.



ECOSYSTEMS



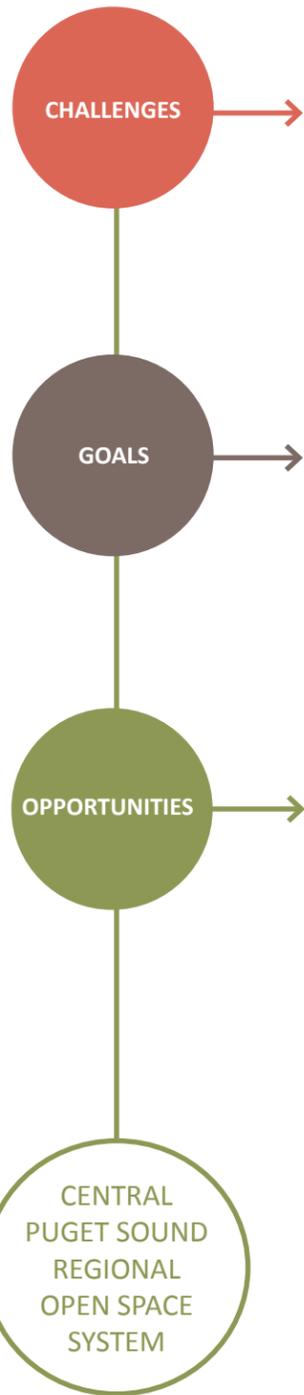
RURAL + RESOURCE LANDS



RECREATION + TRAILS



URBAN + COMMUNITY DEVELOPMENT



Methods of analysis vary dramatically across jurisdictions and disciplines. Consequently a consistent and robust method of prioritizing investments and exhibiting the benefits of a regional open space system has not been established.

Existing policies and regulatory frameworks have resulted in unintended consequences that threaten the integrity of the regional open space system and existing conservation tools are isolated and incomplete.

The value and function of urban ecological systems and degraded natural habitat in developed areas are too often neglected and many communities are unable to enjoy parks and open space.

The piecemeal implementation of regional open space planning and development fails to respond to diverse contextual needs and form strong geographic and functional linkages across all landscapes.

INCORPORATE, SUPPLEMENT, AND LINK EXISTING DATA ANALYSES TO IDENTIFY KEY OPEN SPACE VALUES AND PRIORITIES

COALESCE AND ENHANCE EXISTING CONSERVATION TOOLS, LAND MANAGEMENT PRACTICES, AND REGULATORY APPROACHES

CONSERVE OR RECLAIM ECOLOGICAL FUNCTION, USE OPEN SPACE TO REINFORCE COMMUNITY DEVELOPMENT, AND IMPROVE PUBLIC ACCESS TO OPEN SPACE

FORMULATE AN INTEGRATED SPATIAL VISION TO CREATE A CONNECTED REGIONAL OPEN SPACE SYSTEM

Outline gaps in research, monitoring, and protection strategies.

Highlight key findings by different analyses to **identify where priorities for open space intersect.**

Apply an ecosystem services valuation framework to evaluate relative benefits and identify priorities.

Evaluate where existing tools have become ineffective in preventing land fragmentation and **provide guidance to improve growth management and environmental regulation to be more responsive to critical ecological functions** that span between urban, suburban, rural, and natural areas.

Facilitate greater consistency for jurisdictions use of urban ecology tools regarding regulatory frameworks, methods of analysis, land management approaches, and project implementation.

Explore the ecosystem service benefits to developing common agricultural areas and community forests and other **innovative tools to improve land management and ensure future resource production.**

Enhance guidance regarding appropriate gradients of public access.

Ensure that recreational investments recognize the complexity and fragility of ecological systems and plan for intentional points of access and restriction.

Enhance institutional capacities and planning for water trails and outline strategies to **support water-based recreation.**

Utilize research on smart growth and low impact development to inform how the regional open space system can support large scale redevelopment efforts.

Identify linear systems and other spatial features that can serve as an organizing framework in connecting important regional open space assets, coordinating open space investments, and forming an interconnected hierarchy of open spaces with multiple layers of connection to the community.

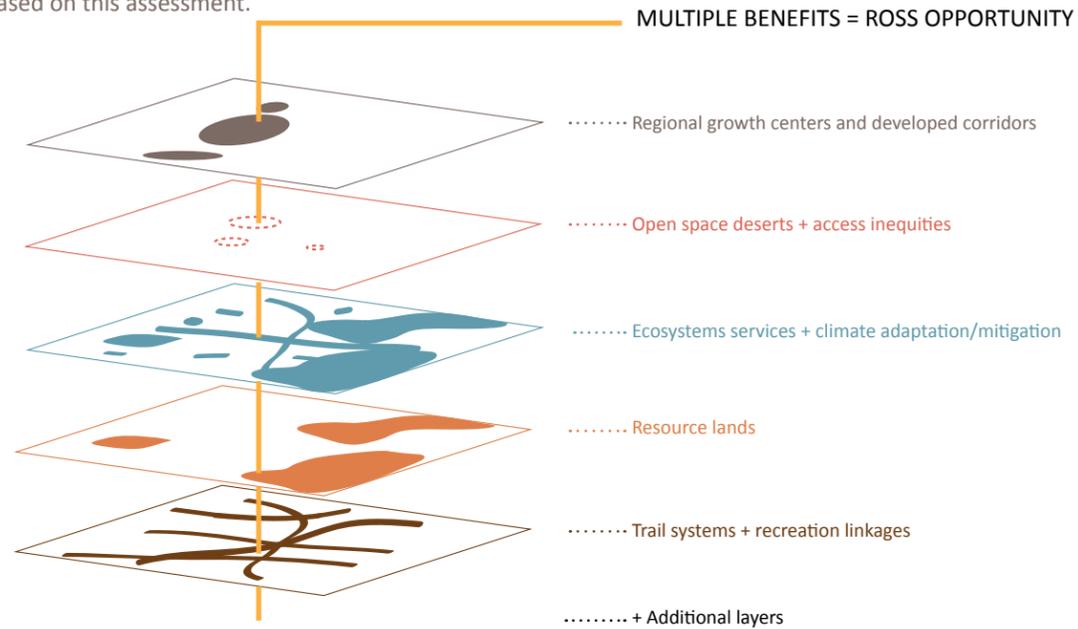
Identify gaps and opportunities to create habitat corridors within and between watersheds and through urbanized areas.

Outline how to link all public lands, accessible shoreline, existing natural lands, and more marginalized lands into a regional open space system that provides the optimum ecosystem services benefit.

ANALYTICAL TOOLS AND GUIDING FRAMEWORKS

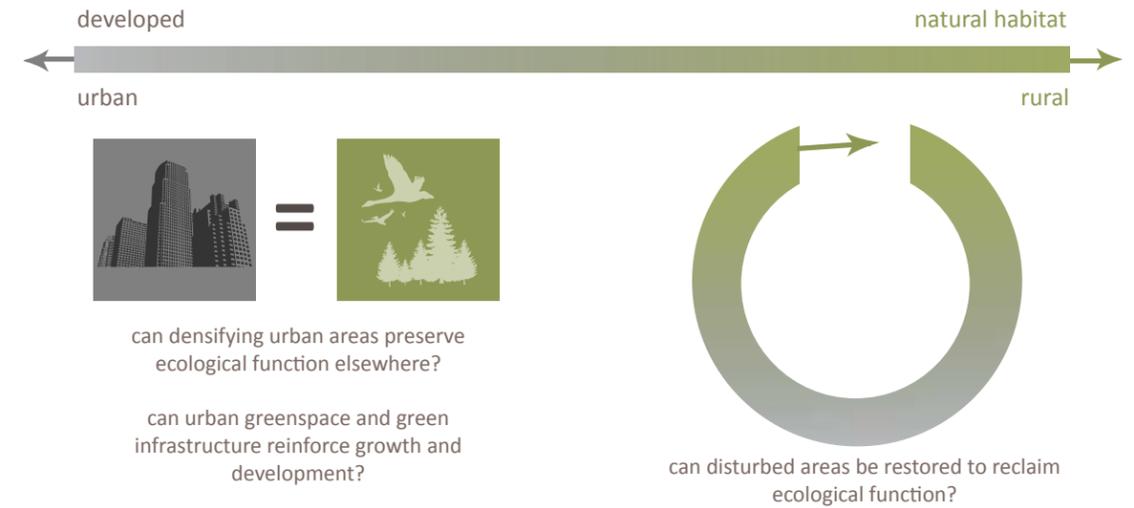
LAYERING + OPTIMIZING FUNCTIONS + VALUES

Conduct a GIS analysis that links priorities for ecological habitat with open space priorities that support other key interests to synthesize needs and identify where actions to support open space might intersect. Establish a spatial vision for the regional open space system based on this assessment.



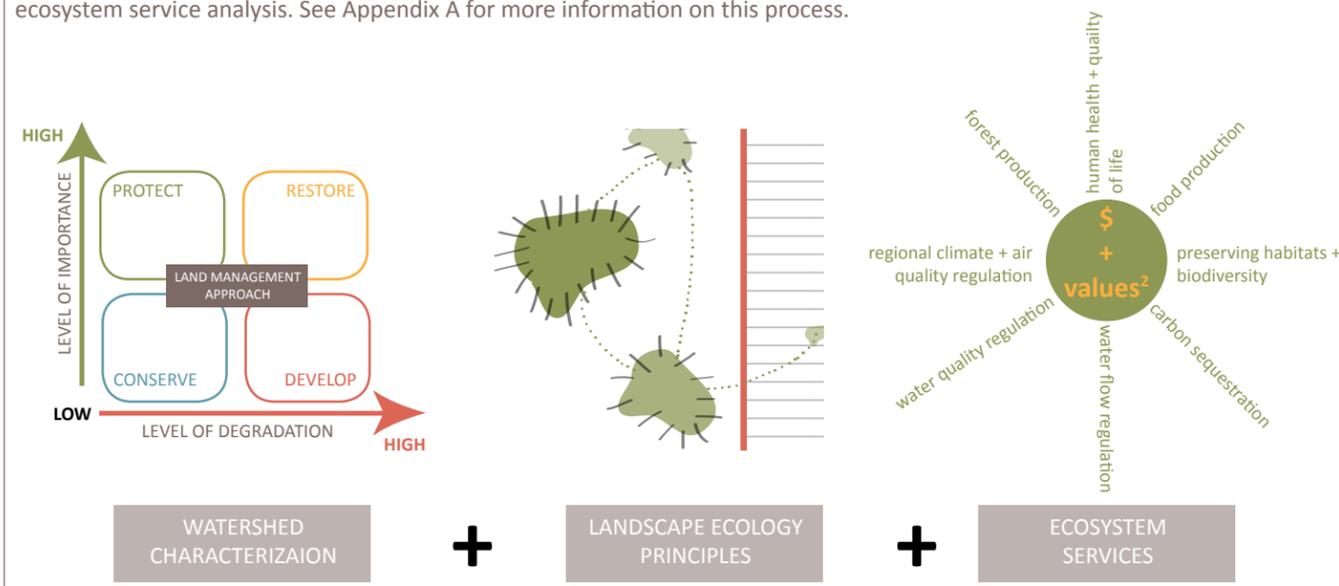
GREY TO GREEN + GREEN TO GREY

Utilize research on smart growth and low impact development to inform how the regional open space system can help reclaim ecological function in areas with degraded natural habitat and reinforce growth and development through investments in urban green space and green infrastructure.



ECOSYSTEM BASED LAND ANALYSIS + VALUATION

Utilize tools that assess the relative ecological integrity of different lands and apply a landscape ecology principle to develop ecological corridors and inform how the regional open space system is developed. Assess the full spectrum of benefits using ecosystem service analysis. See Appendix A for more information on this process.



CONNECTED SYSTEMS

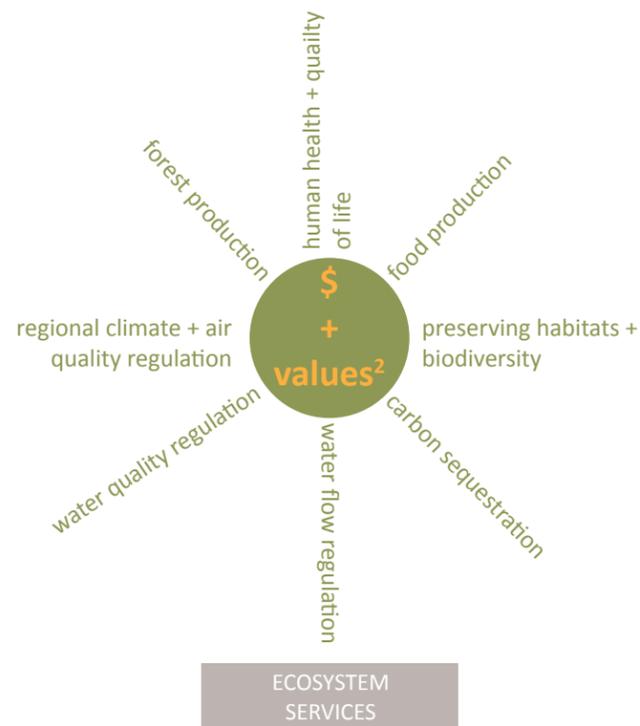
Identify linear systems and other spatial features that can serve as an organizing framework in connecting important regional open space assets, coordinate open space investments, and help form multiple layers of connection to the community.



DEVELOPING AN ECOSYSTEM SERVICES VALUATION MODEL FOR REGIONAL OPEN SPACE

Ecosystem services valuation is a tool that has become increasingly used in identifying the ways in which open space produces dividends in the community and to outline why such investments have value. The ROSS initiative will support more integrated research and enhance our understanding of how to conserve lands and open space linkages to maximize the provision of ecosystem services. As work proceeds, the ROSS will:

- Explore the most appropriate methods to undertake an ecosystem services assessment that informs regional leaders and the general public about the values of a regional open space system.
- Highlight resources, tools, and expertise from multiple disciplines that can help broaden the discussion regarding ecosystem services to include public health and other less traditionally associated values.
- Outline a framework for staff to utilize in conducting watershed scale analysis regarding open space to facilitate the application of such ecosystem service valuation.
- Explore how this model could be shared among other national and international regional conservation efforts.



COMMUNICATIONS + STEWARDSHIP

The region is unable to reinforce existing support for open space because of a limited understanding of the full range of benefits that nature provides and an inability to communicate the value of conservation to society, human well-being, and our economy.

EVALUATE AND BETTER COMMUNICATE THE VALUE OF OPEN SPACE AND THE BENEFITS THAT PEOPLE GET FROM ECOSYSTEMS



Utilize the full range of analytical tools to assess the varying contributions of open space landscape types to the ecosystem services that nature provides in the region.

Build support and justify investments in open space by clarifying the direct value it provides for people in securing clean air and water, preventing flood damage, and safeguarding farm and forest resources.

Position expenditures on regional conservation as investments with dividends in the community.

Improve on an understanding that even when open space is not physically accessible its presence still has value.

There is no comprehensive effort to build an understanding of the link between open space and community development at a regional scale.

UTILIZE THE REGIONAL OPEN SPACE SYSTEM AS A PLATFORM TO INSPIRE STEWARDSHIP, ENCOURAGE DIVERSE COMMUNITY ENGAGEMENT, AND PROMOTE A SUSTAINABLE AND EQUITABLE COMMUNITY



Coordinate efforts to support community-driven open space conservation that enhance the region's ability to integrate parks and open space into communities, guide growth and revitalize neighborhoods and cities, fulfill ecological and economic interests, as well as addressing community needs such as health disparities and other inequities.

Use the open space system to enhance regional identity and build an ethic of stewardship, ownership and a sense of place.

Incorporate and elevate a regional open space framework into environmental and citizenship education efforts, reaching the general public, young people, land owners, land managers, and elected officials.

Uncoordinated investment and insufficient communication of best practices in open space planning and development at a regional scale.

DEVELOP A SUSTAINABLE SOURCE OF REGION-WIDE STEWARDSHIP, MAINTENANCE, AND FUNDING



Establish a region-wide plan for open space and then fund projects in stages to elevate the value of a regional approach.

Develop a governing structure that operates on a regional scale, effectively overcoming traditional silos and barriers of technical and jurisdictional boundaries, that manages complex ecological challenges, and oversees ROSS implementation.

Establish ongoing, coordinated management and monitoring that responds to specific contextual needs, geographic and functional linkages, and adapts to changing conditions.



ECOSYSTEMS



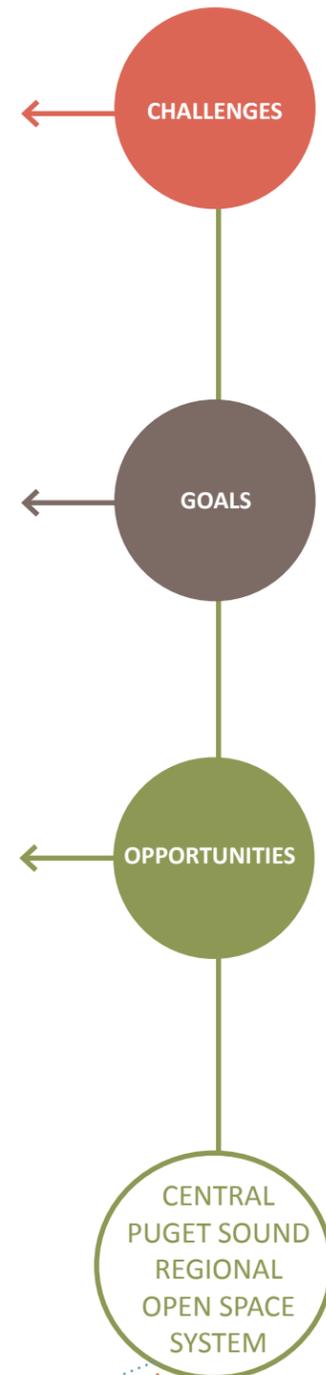
RURAL + RESOURCE LANDS



URBAN + COMMUNITY DEVELOPMENT

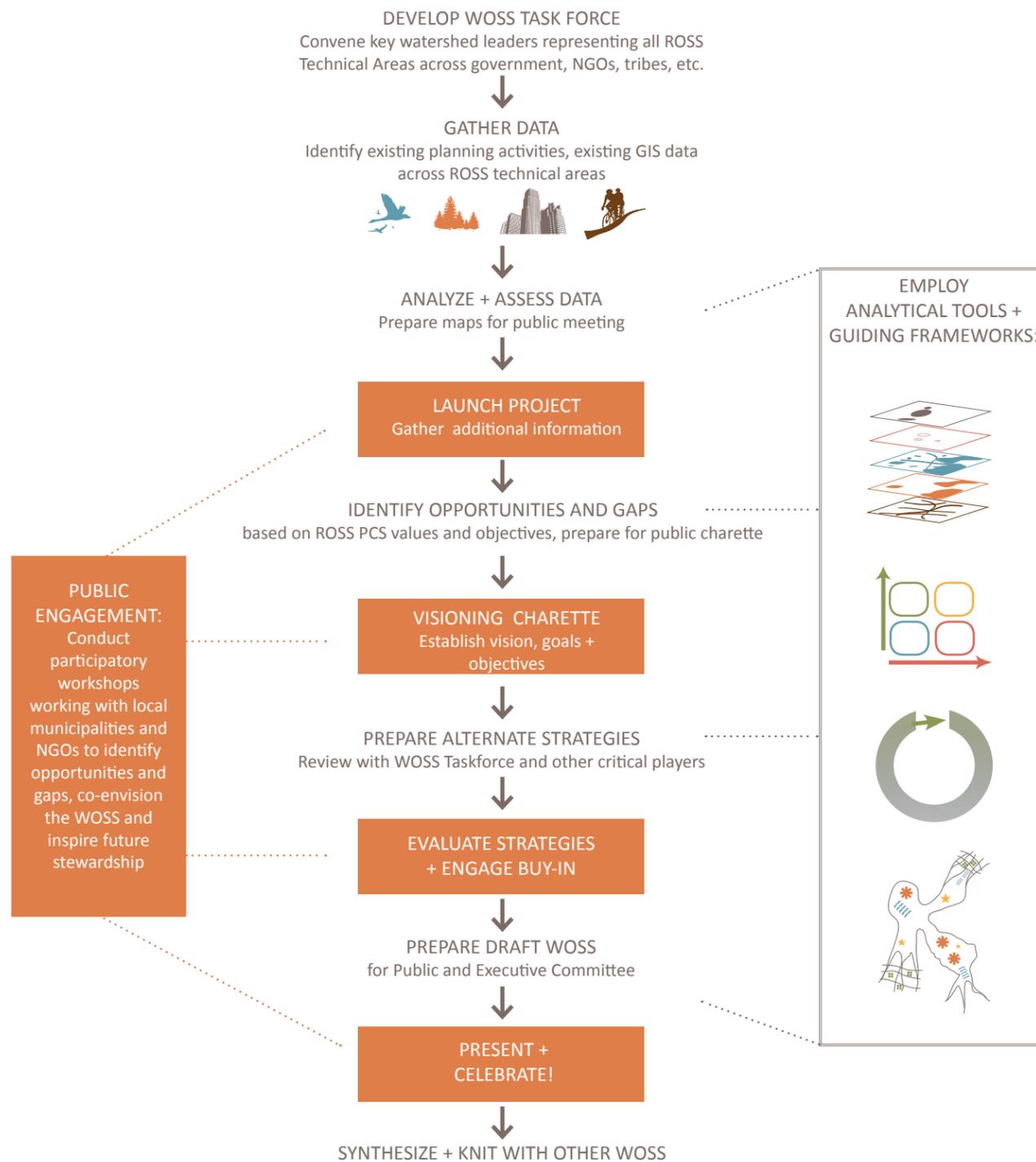


RECREATION + TRAILS



WATERSHED REGIONAL OPEN SPACE STRATEGIES (WOSS)

The success of the final ROSS is dependent on the completion of seven Watershed Open Space Strategies (WOSS) that will roll up into a final integrated strategy. Each WOSS will embrace a strong participatory process, utilizing existing watershed level leadership, and linking efforts between key interests in order to synthesize needs and identify the nexus of identified priorities. A corresponding GIS analysis will identify current open space conditions and opportunities for investment in projects of multiple and mutual benefit. Funds designated for local on-the-ground stewardship groups will enable continuity of public engagement to promote shared ownership and stewardship, while also building capacity for those organizations. Educational materials will be developed to foster greater appreciation and activism for open space.



PUBLIC ENGAGEMENT:
Conduct participatory workshops working with local municipalities and NGOs to identify opportunities and gaps, co-envision the WOSS and inspire future stewardship

PUYALLUP-WHITE WOSS EXAMPLE

Initial steps underway in the Puyallup-White Watershed (WRIA 10) serve as an illustration of a model WOSS. Early inquiry and conversations have identified key partners, opportunities, and gaps. While still in its nascent stages, GIS data is being identified to reflect ROSS technical areas and explore gaps, overlaps, and multifunctional benefits. This analysis will align with an integrated vision for the watershed and highlight priority actions to improve and further connect the open space system. Each WOSS will be tailored to respond to efforts highlighted by leaders of organizations in the studied watershed to ensure the work builds on previous activities.

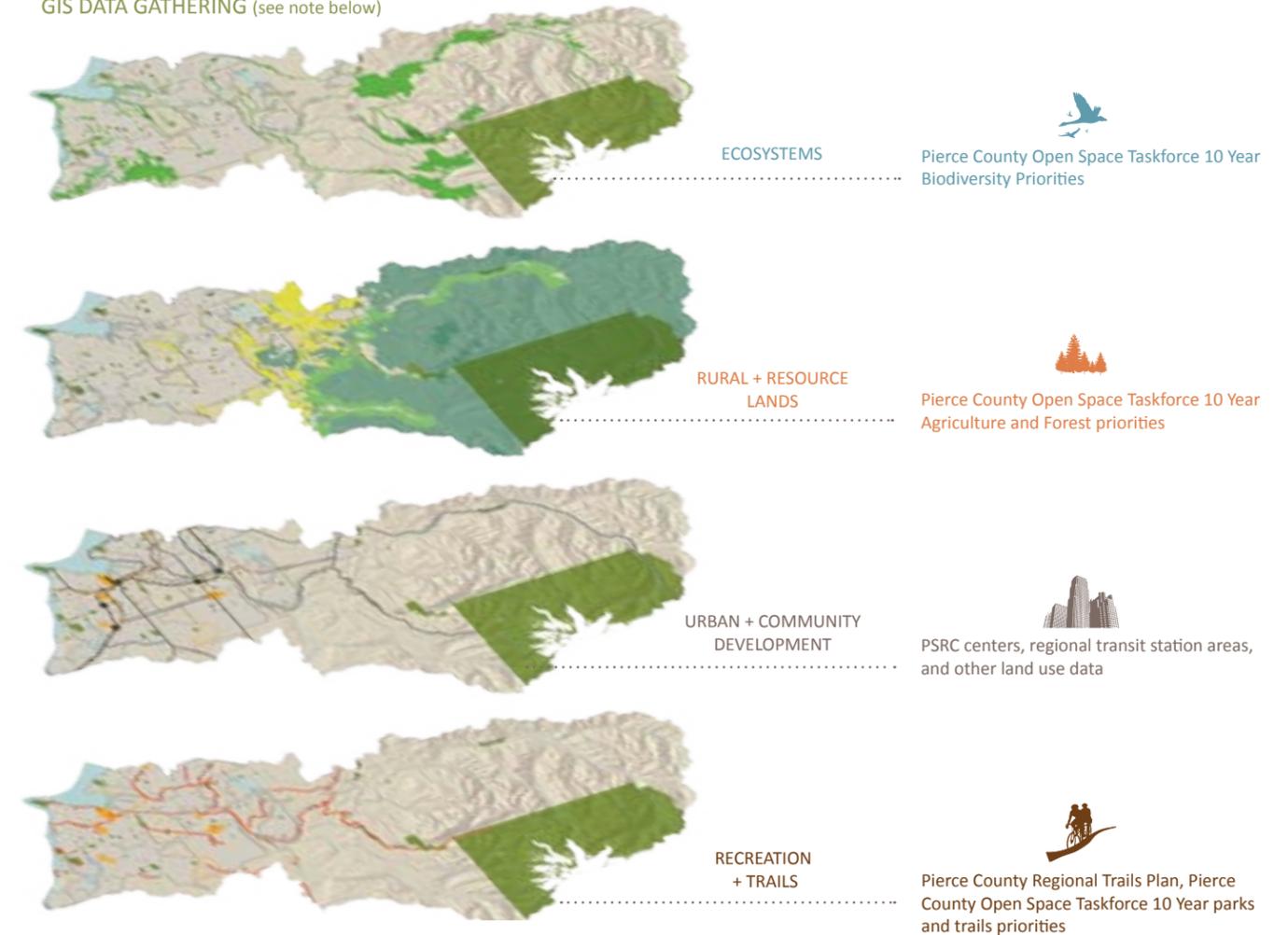
KEY PARTNERS FOR WOSS TASK FORCE

- Puyallup River Watershed Council
- Pierce County Office of Sustainability
- Pierce County Surface Water Management Division
- King + Pierce Conservation District
- Watershed Coordination Group
- Tacoma-Pierce County Health Department
- King County Water + Land Resources Division

IDENTIFIED OPPORTUNITIES + GAPS

- Assess susceptibility to land conversion and evaluate the cost of development proposals
- Evaluate ecosystem services provided by current open space
- Identify best-value projects that achieve multiple benefits
- Enhance advocacy and public education

GIS DATA GATHERING (see note below)

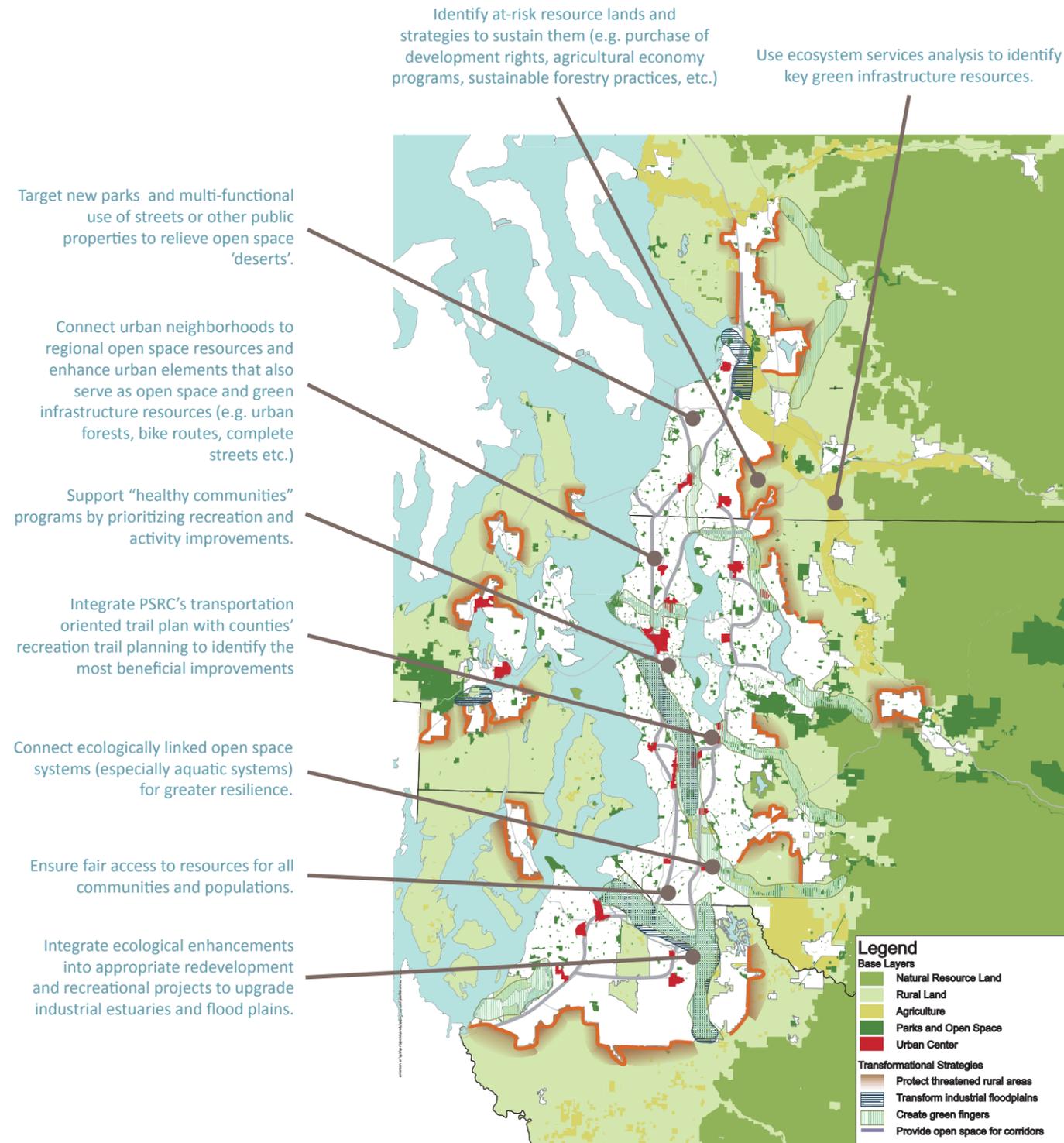


Additional data will be added to represent technical areas, goals, and values. For example: Ecosystems - Key lands for biodiversity and high integrity ecological lands (e.g. Pierce County Biodiversity Management Plan, salmon recovery efforts); Rural + Resource Lands - Additional data identifying agricultural and forest priorities (e.g. Pierce County Agricultural Strategic Plan, Forterra, American Farmland Trust); Urban + Community Development - Additional data on 'open space deserts' and health/equity considerations (e.g. Regional Opportunity Mapping, Tacoma-Pierce County Health Department data); Recreation + Trails - Updated trail network inventories, proposed trails, and identified gaps (e.g. PSRC Bicycle Network, WTA data, water access data, county level recreation trail data). This list is not exhaustive.

MODEL REGIONAL MAPPING

CONCEPTUAL MAP HIGHLIGHTING REGIONAL OPEN SPACE SYSTEM PRIORITIES

The diagrammatic map below is adapted from PSRC's VISION 2040 Regional Design Strategy. It does not represent accurate data but does illustrate how the ROSS Vision and Values will be translated into specific priorities within the region. The completed ROSS will include a similar picture but with extensive detail and specific priorities based on watershed scaled analysis.



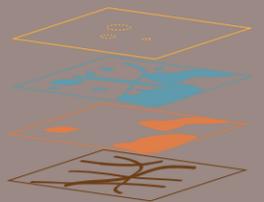
OPEN SPACE BENEFITS WITHIN A TYPICAL PUGET SOUND WATERSHED

The illustration below is adapted from PSRC's Vision 2040. It indicates how the viability of the Puget Sound's ecology and human communities depends on a robust, connected, and multi-functional open space system extending through the region's watersheds.



POTENTIAL NEAR-TERM ACTIONS

These potential near-term actions support regional stewardship, opportunities for shared analysis, or specific demonstration projects that exhibit the value of approaching open space conservation and development at a regional scale. While this is not a comprehensive list and there are many other worthwhile projects and programs that the ROSS will need to be aligned with, these initiatives represent key opportunities for collaborative effort.

<p>INCORPORATE, SUPPLEMENT, AND LINK EXISTING DATA ANALYSES TO IDENTIFY KEY OPEN SPACE VALUES AND PRIORITIES</p> 	<p>COALESCE AND ENHANCE EXISTING CONSERVATION TOOLS, LAND MANAGEMENT PRACTICES, AND REGULATORY APPROACHES</p> 	<p>CONSERVE OR RECLAIM ECOLOGICAL FUNCTION, USE OPEN SPACE TO REINFORCE COMMUNITY DEVELOPMENT, AND IMPROVE PUBLIC ACCESS TO OPEN SPACE</p> 	<p>FORMULATE AN INTEGRATED SPATIAL VISION TO CREATE A CONNECTED REGIONAL OPEN SPACE SYSTEM.</p> 
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Partner with Puget Sound Institute to incorporate and link current ecological assessments and priorities to analyses and priority setting associated with other key interests as part of the Watershed Open Space Strategies.

Partner with PSRC to integrate regional transportation-oriented trail inventories and proposed networks with county level recreation-oriented trail planning to create a centralized, accessible database that can be used to ensure regional trails help form connections that support the regional open space system.

Partner with Forterra, American Farmland Trust, conservation organizations, conservation districts, and state agencies to identify key lands that need protection by mapping rural land use, resource lands and current trends to highlight key conditions and threats.

Utilize the Watershed Open Space Strategies as a means to build capacity and further align local efforts to address open space.

Partner with Forterra to establish guidance on best practices and inter-jurisdictional alignment for urban tree canopy strategies as a regional demonstration project for the ROSS.

Disseminate initial findings from the ROSS and the WOSS to inform local updates to comprehensive plans and the next Vision 2040 update in 2014.

Identify opportunities to restore ecological functions in developed areas and reinforce community development as a component of each Watershed Open Space Strategy.

Partner with PSRC and County health districts to utilize existing analyses in identifying how open space can best address key inequities/health disparities, accessibility/connectivity of the system and community development.

Develop waterfront access on shoreline street ends in urban areas, expanding the reach of Friends of Street Ends.

Partner with the Regional Food Policy Council and other local food organizations to identify how open space can further contribute to regional food security efforts while also addressing healthy food access and equity.

Utilize the Watershed Open Space Strategies to begin to establish a spatial vision for the regional open space system based on the layering and optimization of functions and values across multiple disciplines and interests.

Partner with PSRC's Growing Transit Communities project to identify underutilized properties and opportunity sites for open space as a means to alleviate health disparities and support equitable development objectives in confronting open space 'deserts' along the proposed regional transit corridor system.

EVALUATE AND BETTER COMMUNICATE THE VALUE OF OPEN SPACE AND THE BENEFITS THAT PEOPLE GET FROM ECOSYSTEMS



Partner with other University of Washington departments, the Natural Capital project and the Cascadia Ecosystem Services Partnership to form a taskforce of ecosystem services analysis expertise from multiple disciplines to explore opportunities to integrate ecosystem services evaluation into the Regional Open Space Strategy.

Incorporate analysis that illuminates the full cost of infrastructure and development expansions to tax payers and begin to highlight the value open spaces provide in terms of ecosystem services in each Watershed Open Space Strategy.

Work with ROSS partners to establish a communication strategy that exhibits the direct value of open space landscapes and the investment that is needed to secure these ecosystem services for future generations.

UTILIZE THE REGIONAL OPEN SPACE SYSTEM AS A PLATFORM TO INSPIRE STEWARDSHIP, ENCOURAGE DIVERSE COMMUNITY ENGAGEMENT AND PROMOTE SUSTAINABLE AND EQUITABLE COMMUNITY DEVELOPMENT.



Form an executive level outreach and communications committee to identify strategies to ensure the ROSS is embraced and celebrated in the region.

Work with ROSS partners to build a coalition across sectors traditionally not engaged in conservation efforts (i.e. health, faith communities, manufacturing firms, energy firms, cultural organizations, historic preservation groups, teachers, etc.).

Partner with County Conservation Districts to educate the public about working lands within their watershed utilizing eco/agrotourism and events that get people out onto forests and farms.

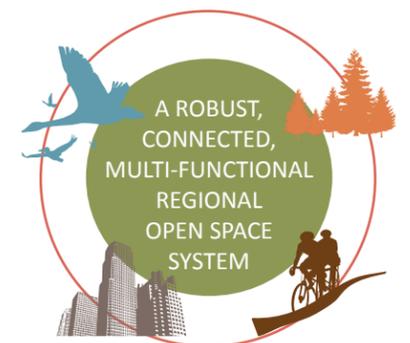
DEVELOP A SUSTAINABLE SOURCE OF REGION-WIDE STEWARDSHIP, MAINTENANCE, AND FUNDING



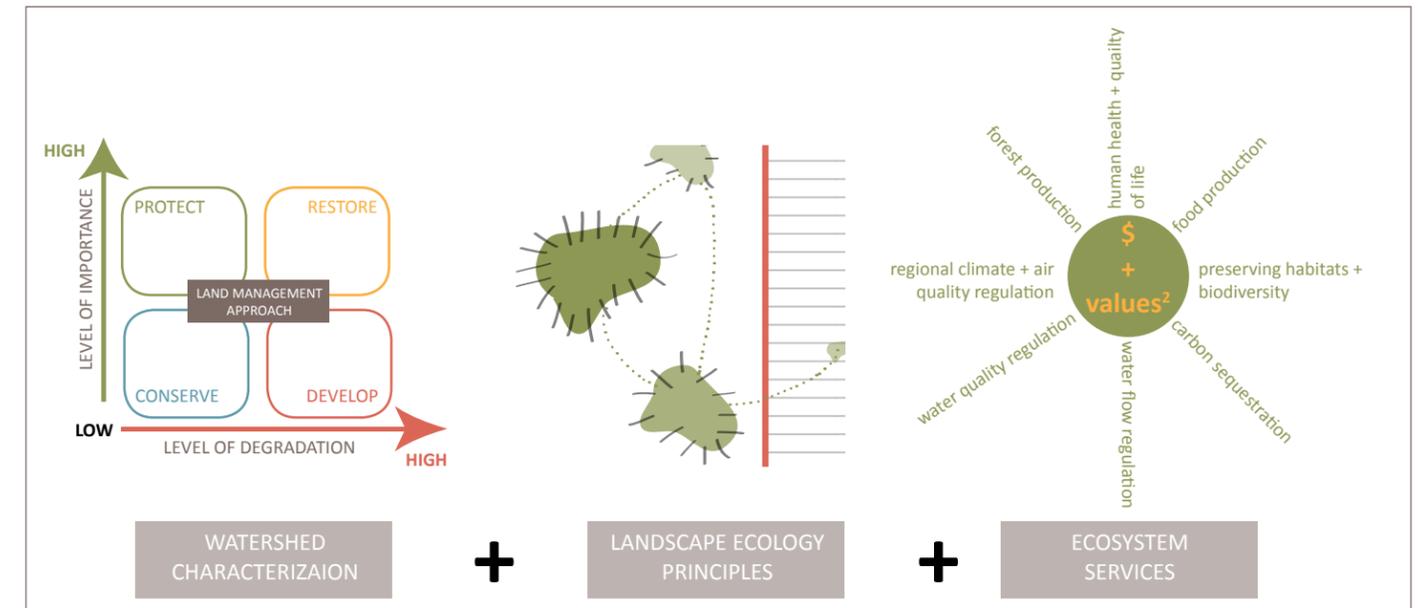
Form an executive level committee to explore governance, inter-organizational coordination, and long-term funding options for open space at a regional scale.

Partner with National Park Service to introduce key federal agencies to the ROSS project, identify shared programmatic objectives, and generate interest and commitment to support the project.

Work with partners to explore how to integrate adaptive management into the ROSS.



Key Analytical Challenge: Integrating Different Ecosystem Characterizations and Evaluation Methods



During the Ecosystem TAC discussions, committee members noted that there are at least 3 different approaches to characterizing ecosystems and evaluating their importance: the watershed characterization process developed by the WA Dept of Ecology, various landscape ecology methodologies and the evaluation of the services provided by the natural environment (ecosystems services valuation).

The Department of Ecology’s watershed characterization approach examines the physical and chemical processes, such as delivery and transport of water, sediment, nutrients, etc within an aquatic ecosystem. Through this analysis, ecologists can pinpoint those geographic areas and conditions in which key processes are impaired to the extent that the ecosystem is degraded. The landscape ecology approach examines the interactions between the biological components of an ecosystem, such as plant and animal communities, as well as its physical characteristics across a given geographic area. One way to think of the difference is to note that the watershed characterization approach focuses on the physical foundations of an aquatic ecosystem and assumes that if those processes are within a natural range, generally they can produce the structure and ecological functions (e.g.: creation of suitable habitat) necessary to support the ecosystem, while the landscape ecology method looks at a larger range of indicators and relationships to assess the level of function within a given area. Both methods can be used to assess an ecosystem’s vitality, identify areas or conditions especially important to its proper functioning and suggest actions to enhance its “health”. The two methods are compatible, and the TAC members advised using both methods in the WOSS analyses. Fortunately, much ecosystem characterization has already been done as part of the Department of Ecology’s work and SMP updates, the WRIA analysis now being used by the Puget Sound Partnership, and the Nature Conservancy’s Biodiversity Portfolio, not to mention the assessments accomplished by the counties. To interpret this work it will be necessary to involve key experts in identifying gaps and translating the findings into recommended actions.

Ecosystem services analysis evaluates more specifically those human benefits that the ecosystem provides directly. These are generally grouped into four broad categories: *provisioning services*, such as the production of food and water; *regulating services*, such as the control of climate and flooding and the purification of air and water; *supporting services*, such as nutrient cycles and crop pollination; and *cultural services*, such as spiritual and recreational benefits. This concept has received much attention in recent years and there are a number of models that can be used to quantify the economic benefits of the natural environment (including areas such as agricultural floodplains which reduce flood damage and elements such as street trees that help regulate temperatures and storm water, clean the air and sequester carbon). Identification of ecosystem service benefits will be one of the cornerstones of the WOSS analyses and the ROSS team will identify suitable evaluation methodologies to support this work. The results of this analysis will 1) contribute to the identification of priority open space protection and enhancement actions and 2) stress the importance and value of ecosystem services.

Resources Noted to Date

The advisory committees in each technical area engaged in an early exercise to identify key resources: Data and Analysis, Plans and Programs, and Organizations and People that could be incorporated into the project. The following list is not a comprehensive list of assets and information that is needed, but it reflects a sampling of the resources necessary to support specific analyses and link up with efforts underway in the region that can support the ROSS project.

DATA + ANALYSES

Ecosystem Mapping:

Mapping has been conducted by a number of organizations to identify key habitat for conservation including The Nature Conservancy, local land trusts, and the EPA, as well as the Washington State Department of Natural Resources, Washington Department of Fish and Wildlife, and Washington State Department of Ecology. Each county has established its own maps of key habitat areas and Trust for Public Land's work on the Greenprint for King County provides a detailed look at priority investments in open space beyond solely ecological demands.

The Puget Sound Watershed Characterization Project, organized by the Puget Sound Partnership and Washington State Department of Ecology, highlights the most important areas to protect, and restore, and those most suitable for development.

Ecosystem Services Valuation:

Earth Economics has conducted mapping of ecosystem services explicit to certain communities in the region as well as conducting an assessment for the Puget Sound Basin. Departments at the University of Washington and Cascadia Ecosystem Services Partnership will be queried for complementary research efforts.

Health + Equity Mapping:

Regional Opportunity Mapping at PSRC and analysis among county health agencies and other departments will ensure that the regional open space system can address health disparities and inequity.

Resource Land Risk Assessment + Prioritization:

- County level assessments of land ownership in rural and resource lands (Greenprint for King County)
- Agriculture and rural land surveys (Conservation Districts and counties - Kitsap County, Strategic Plan for Agriculture (2011))
- USDA report prioritizing agricultural zoned lands, evaluating level of risk to loss

Inventory of Trail Facilities:

PSRC has established a shared regional typology for bicycle facilities, completed an inventory of regional bicycle facilities and some pedestrian facilities, and initiated the development of a Draft Regional Bicycle Network as part of an upcoming Regional Active Transportation Plan. Additional resources such as reports from bicycle & pedestrian advocacy organizations (e.g. Cascade Bicycle Club Left By The Side of the Road) will need to be reviewed alongside city, county, and state trails and parks/recreation plans.

PLANS + PROGRAMS

Ecosystem Planning:

Salmon recovery plans have been developed for each watershed and groups have already organized themselves around ecological considerations regarding the protection of Puget Sound. ROSS will support implementation of the Puget Sound Partnership Action Agenda and Local Integrating Organization (LIO) objectives by closely working with Salmon & Ecosystem Recovery Coordinators and supplementing rather than replicating activities underway as part of the PSP Biennial Science Workplan.

Rural + Resource Lands Planning:

- Regional TDR Alliance (DOC, PSRC, Forterra)
- Landscape Conservation and Local Infrastructure Program (Forterra)
- Tailored conservation approaches by landscape type (Forterra)
- Communicating alternatives (UW Decision Commons)

Recreation + Trails Planning:

PSRC Bicycle & Pedestrian Advisory Committee regional bicycle network, county trail plans, transit service level maps, Feet First Walking Maps & Safe Routes to School data will help inform how safe connections can be made between open space and community destinations, particularly among undeserved communities.

Collective groupings of local jurisdictions such as the Suburban Cities Association, AWC, and Forterra's Green Cities Partnership will be important contacts in assessing existing efforts to link projects and investments for recreation and trails across political boundaries. The National Park Service, the National Parks Conservation Association, and the Washington Recreation and Parks Association can help link regional scale investments in recreation to broader systems and it will be important to clarify the role of the Trust for Public Land.

As the ROSS assesses how to improve public access to recreation it will be important to work with the Washington State Department of Natural Resources as well as other large public land owners. Lessons from the Mountains to Sound Greenway and its strategic plan will help set out approaches to public access on the region's lands. It will also be important to contact the Washington Water Trails Association and partners in other counties (e.g. San Juan and Orcas water trail groups) to evaluate how to improve access to the region's waterways.

Urban + Community Planning:

The Green Cities Partnership and community advocacy work at Forterra will help identify how to engage and empower communities to support open space. Additional county level data (Greenprint for King County, Kitsap County Greenways Plan (1995), Pierce County Open Space Taskforce, water/flood management mapping) will ensure that the ROSS can identify the intersects among a varied grouping of interests. In addition, there may be an opportunity to coordinate between groups working on urban watersheds (e.g. Thornton Creek Alliance).

PSRC's Growing Transit Communities Program is evaluating underutilized properties and opportunity sites along proposed high capacity transit corridors. Agreements are being established for affordable housing and the ROSS will link with these efforts to identify opportunities to address open space "deserts" along these corridors

ORGANIZATIONS + PEOPLE

Research institutions
Funding community and corporations
Tribal Governments
Military planners
Developers and business interests

Ecosystems:

- Puget Sound Partnership
- National Marine Fisheries Service
- People for Puget Sound
- Washington Biodiversity Council
- Washington Wildlife Habitat Connectivity Working Group

Rural + Resource Lands

- Forterra
- American Farmland Trust
- United States Department of Agriculture
- Washington State Department of Natural Resources
- County governments
- County conservation districts
- Land & farmland trusts
- Other key farm and forestry interests

Recreation + Trails

- PSRC Bicycle & Pedestrian Advisory Committee
- Bicycle Alliance of Washington
- Cascade Bicycle Club
- Feet First
- Private recreation groups and companies
- Private/community (HOA) owned parks and plazas
- Local trails associations
- County level health agencies and recreation departments
- Railroads and water/sewer/utility districts (e.g. BNSF, PUD, PSE, BPA)
- Washington Water Trails

Urban and Community Development

- PSRC, County, and City planners
- Sound Transit and local transit agencies
- Home ownerships associations, and key property owners

Technical Advisory Committee Members**ECOSYSTEMS TAC CO-LEADS**

Bob Fuerstenberg, King County DNRP – Retired
Crittter Thompson, UW Decision Commons

TAC PARTICIPANTS

George Blomberg, Port of Seattle
Gordon Bradley, UW School of Forest Resources
Taylor Carroll, Forterra
Dave Cook, Geoengineers
Nicole Faghin, Faghin Consulting
Keith Folkerts, Kitsap County Natural Resources Division
Abby Hook, Hook Knauer LLP
Peter Hummel, Anchor QEA
Mark Isaacson, King County Water & Land Resources Division
Gino Luschetti, King County DNRP
Tom Murdoch, Adopt-A-Stream Foundation
Susan O'neil, Puget Sound Partnership
Doug Osterman, Puget Sound Partnership
James Rasmussen, Duwamish River Cleanup Coalition
Elaine Somers, USEPA Region 10
Kari Stiles, Puget Sound Institute
Jennifer Thomas, Parametrix
Chris Townsend, Puget Sound Partnership

**RURAL + RESOURCE LANDS TAC CO-LEADS**

Lauren Smith, King County Executive's Office
Skip Swenson, Forterra

TAC PARTICIPANTS

Melissa Campbell, PCC Farmland Trust
Ryan Dicks, Pierce County
Mary Embleton, Cascade Harvest Coalition
Leif Fixen, Snohomish Conservation District
Joy Garitone, Kitsap Conservation District
Brock Howell, Futurewise
Joe Kane, Nisqually Land Trust
Kirk Kirkland, Pierce County Open Space Taskforce
Joan Lee, King County Rural & Regional Services Section
Bobbi Lindemulder, Snohomish Conservation District
Doug McClelland, Washington State Department of Natural Resources & Mountains to Sound Greenway
Jay Mirro, King Conservation District
Linda Neunzig, Snohomish County Agricultural Services
Rene Skaggs, Pierce Conservation District
Sandra Staples-Bortne, Great Peninsula Conservancy
Dan Stonington, Northwest Natural Resource Group

**RECREATION + TRAILS TAC CO-LEADS**

Amy Shumann, Public Health - Seattle & King County
Jennifer Knauer, Hook Knauer LLC

TAC PARTICIPANTS

Don Benson, URS Corporation
Amy Brockhaus, Mountains to Sound Greenway
Kevin Brown, King County Parks Division
Karen Daubert, Washington Trails Association
Martha Droge, National Park Service Pacific West Region
Jessica Emerson, King County DNRP
Robert Foxworthy, King County DNRP
Deborah Hinchey, UW School of Public Health
John Hoey, Trust for Public Land
Amalia Leighton, SVR Design
Ian Macek, Washington State Department of Transportation
Josh Miller, Bicycle Alliance of Washington
Jane Moore, WA Coalition for Promoting Physical Activity
Thomas O'Keefe, American Whitewater
Dennis Oost, Kitsap County
Chris Overdorf, Elm
Lisa Quinn, Feet First
Kimberley Scrivner, Puget Sound Regional Council
Tom Teigen, Snohomish County Parks Director
Diane Wiatr, City of Tacoma
Don Willott, North Kitsap Trails Association
James Yap, Snohomish County Parks & Recreation

**URBAN + COMMUNITY DEVELOPMENT TAC CO-LEADS**

Ben Bakkenta, Puget Sound Regional Council
Joe Tovar, Inova Planning, Communications, & Design LLC

TAC PARTICIPANTS

Gordon Bradley, UW School of Envir. & Forest Resources
Vicky Clarke, Kitsap Regional Coordinating Council
Amalia Leighton, SVR Design
Dan Dewald, City of Bellevue
Leif Fixen, Snohomish Conservation District
Eric Hanson, Port of Seattle
Gwendolyn High, Washington Wildlife & Recreation Coalition
John Hoey, Trust for Public Land
Mark Hoppen, Snohomish Health District
Mark Mead, City of Seattle Department of Parks & Recreation
Joshua Monaghan, King Conservation District
Chip Nevins, City of Seattle Parks Division
Rocky Piro, Puget Sound Regional Council
Andrea Platt-Dwyer, Seattle Tilth
Lauren Smith, King County Executive's Office
Sean Sykes, NAIOP Sustainable Development Committee
Chris Townsend, Puget Sound Partnership
Tim Trohimovich, Futurewise
Alison VanGorp, Forterra



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