



Regional Challenges

Overview Paper: Economic Development

Regional Open Space Strategy (ROSS)

DRAFT

Open Space and Economic Development in the Central Puget Sound Region

PROBLEM STATEMENT AND CONNECTION TO OPEN SPACE

This paper was prepared in support of the Regional Open Space Strategy (ROSS) to evaluate how strategic open space planning and investment can reinforce economic development objectives in the Central Puget Sound region. It is intended to be a succinct reference for planners, economic development professionals, grant writers and open space decision-makers to understand the relationship between the economy and the protection and enhancement of open spaces, and to assist in open space preservation and strategic planning decisions.

For purposes of this paper, the following definitions may be useful:

Definition of Open Space

As used in this paper, the term open space is broadly inclusive. The term refers to the diverse elements within the landscape gradient - from wilderness to urban centers - within the Central Puget Sound region:

- Working lands (e.g. farm and forest lands);
- Patches or relic expressions of native ecosystems (e.g. urban forests, greenbelts, conservation lands, riparian corridors etc.);
- Civically- constructed nature (e.g. parks, community gardens, pocket parks, gardens etc.);
- Active transportation corridors (e.g. streetscapes, bike paths and lanes);
- Engineered technologies that are integrated within built form to serve ecological functions (e.g. green roofs, living walls, green stormwater infrastructure such as bioswales); and
- 'Blue infrastructure' (e.g. places and corridors dedicated to water supply and conveyance, water-related transportation and recreation).

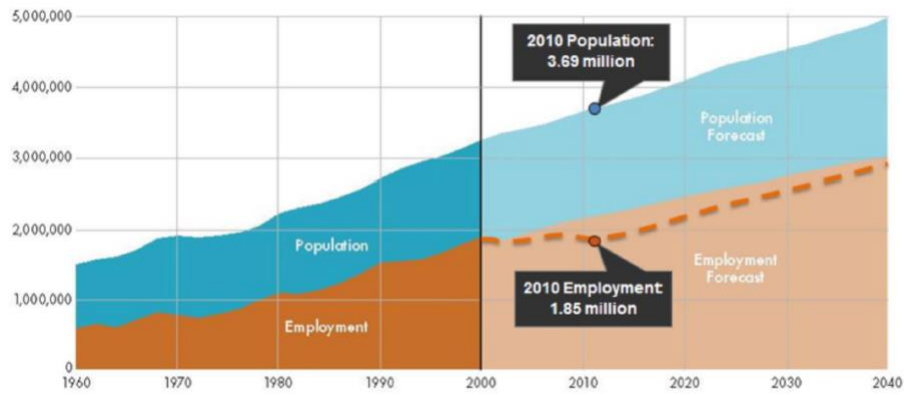
Definition of Economic Development

The Economic Development Administration defines economic development as an effort to “create the conditions for economic growth and improved quality of life by expanding the capacity of individuals, firms, and communities to maximize the use of their talents and skills to support innovation, lower transaction costs, and responsibly produce and trade valuable goods and services” (U.S. Economic Development Administration, n.d.).

What are the challenges facing economic development in the Central Puget Sound?

The Regional Economic Strategy (RES) for the Central Puget Sound indicates that the fundamental challenge to economic development for the Central Puget Sound region is

identifying how to accommodate the anticipated population of 5 million people and 3 million jobs by 2040 while enhancing the environment and our overall quality of life (Prosperity Partnership, 2012).



SOURCE: Census Bureau, Washington State Office of Financial Management, PSRC.

Figure 1. Population and employment forecast for Puget Sound Region, in millions

The region’s resilience in the aftermath of the recent Great Recession is credited to a diverse economy and indicates that the current challenges to economic development include:

- Knowing what will cushion future shocks while allowing for growth/opportunity in new sectors;
- Providing access to opportunities and prosperity for all the region’s citizens,
 - Confronting the growing divide between the opportunities available to educated workers and those with fewer skills and less training,
 - Ensuring success is more equally shared throughout the region’s diverse populations; and
- Ensuring the region can compete for the jobs and economy of the future.

The RES has identified a set of goals to tackle the key economic development challenges in the Central Puget Sound region:

1. Ensure residents have access to family wage jobs and employers have access to world class **talent**;
2. Foster a regional **business climate** that supports new high quality investment and job creation;
3. Harness the **entrepreneurship and technology innovation** assets in the region;
4. Advance the region’s **infrastructure** to meet the demands of a globally connected modern economy; and
5. Ensure a healthy and beautiful environment, vibrant and thriving communities and a high **quality of life** for all the region’s residents.

These five challenges are discussed in more depth below:

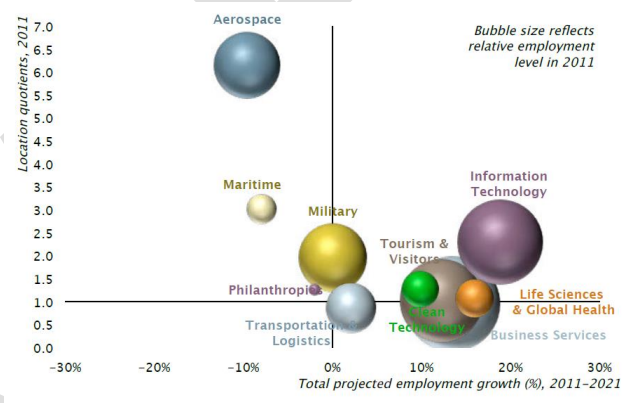
1. Talent Retention + Recruitment:

The RES places a heavy emphasis on *talent*, highlighting the fundamental importance of a skilled labor force: “Traditional economic thinking relied on manufacturing to provide job opportunities for those with less education or training. We know this is no longer the case. In fact, it is also true of other sectors. From retail to tourism, from logistics to services, the expectation for adaptable, educated, and skilled workers is a given” (Prosperity Partnership, 2012). In a report by The Segmentation Company, two-thirds of college-educated young people will make the decision of where they live before they look for a job. And the expectation of those job seekers is that the place they seek will have the following five attributes: 1) be clean and attractive; 2) allow them to lead the lifestyle they choose; 3) have safe streets and neighborhoods; 4) afford to buy the kind of home they want; and 5) has lots of parks and green space (CEOs for Cities, 2006).

2. Business Climate:

The RES indicates that the region’s ability to confront the above challenges depends on keeping the region an attractive place to do business and encouraging the success of target industry clusters. Industry clusters are geographic concentrations of interconnected

businesses, workers with specialized skills and experience, and supporting organizations. These clusters need to enhance the competitiveness in their particular industries and the standard of living of a region by exporting goods and services outside of the region, bringing in new sales and investment dollars that are recirculated throughout the economy, and improve economic efficiencies of similar firms. Industry clusters represent 31.5% of the region’s employment. They are identified based on an assessment of employment size, dynamism, and location quotients (LQs) - the concentration of employment in the region relative to the U.S. as a whole where an LQ of 1.0 indicates an employment concentration equal to the U.S. average. In the Central Puget Sound, such clusters include aerospace, business services, clean technology, information technology, life sciences/global health, military, philanthropies,



SOURCE: EMSI – Complete Employment.
 NOTE: Historical data (2001-2010); projections (2011-2021). Location quotients (LQs) show the concentration of employment in the region relative to the U.S. An LQ of 1.0 indicates an employment concentration equal to the U.S. average.

Figure 2. Central Puget Sound Region Cluster Employment Dynamics. Relative employment concentration (2011) and growth trends (2011-2021)

maritime, transportation/logistics, and tourism/visitor services. Additional clusters that have been identified are education and innovative retail. Other than aerospace, the region's target industries trend away from traditional manufacturing and toward information and technology. These latter industries are changing the criteria of what attracts them to a particular location. The trend is away from resources for production purposes and toward resources that provide amenities to attract and retain talent.

3. Entrepreneurship + Technological Innovation:

With the new industry clusters, business development and jobs creation depend on a region's ability to nurture entrepreneurship and innovation. This is supported by creating the conditions for the invention of new technologies and new businesses as well as securing private and federal funding to support startups, support programs for entrepreneurs, and enhance opportunities for technological commercialization is aided by proximity to others in the digital economy. Fostering a business climate and recruiting and retaining talent conducive to these activities will be key to meet this challenge.

4. Infrastructure:

The current state of the nation's traditional infrastructure is rated at D- to D+ and there is a significant deficit in infrastructure investments for our region: retrofits of storm/sewer/water facilities or treatments, road and bridge upgrade/replacement, storage/distribution and other logistical facilities, and workforce housing (Peters, 2014). A long-range mobility plan and growth strategy are fundamental to making sound investments to improve on and upgrade this infrastructure. The deteriorated state of the region's infrastructure is a genuine opportunity for blue-green infrastructure innovation and the building industry notwithstanding.

5. Quality of Life:

The Regional Economic Strategy acknowledges that maintaining a high quality of life is essential to attract new business and retain a talented workforce, especially the millennial and younger talent. The region's natural beauty, civic amenities, recreational opportunities, and cultural diversity are essential economic assets that need to be sustained and improved in order to maintain global competitive advantage in information and technologies crucial to the region's future success (Prosperity Partnership, 2012).

What is the relationship of open space to economic development?

As noted above, open space is integral to the region's economy, both directly and indirectly. The Pacific Northwest has a natural "place brand" that has come into its own, "place" being the perceived quality of a region's natural and built environment (Fair, 2014). For example,

a Seattle Chamber of Commerce 2010 survey of its organization’s members found that a majority of Puget Sound area businesses ranked our region’s quality of life and environmental surroundings as top assets for retaining quality staff (Dunphy, 2010). Open space is an economic asset in and of itself and conservation of open space is critically important to economic development in the central Puget Sound. Not only does the area’s reputation for a strong urban-nature link bolster brands and build credibility among customers and employees as indirect benefits (Wetter, 2015), but open space lands serve in a more direct provisioning role in providing food, building materials, fuel and medicinal services, all which can be brought to market for sale. These resources support jobs in fishing, farming, forestry, and construction industries. Additionally, outdoor recreational assets support jobs in tourism and retail sales. Goods and services flow from natural capital directly and the many indirect services that open space provides can not only extend the life of existing infrastructure but can also provide and take the place of infrastructure and hazard mitigation at a much lower cost than expensive and highly engineered solutions.

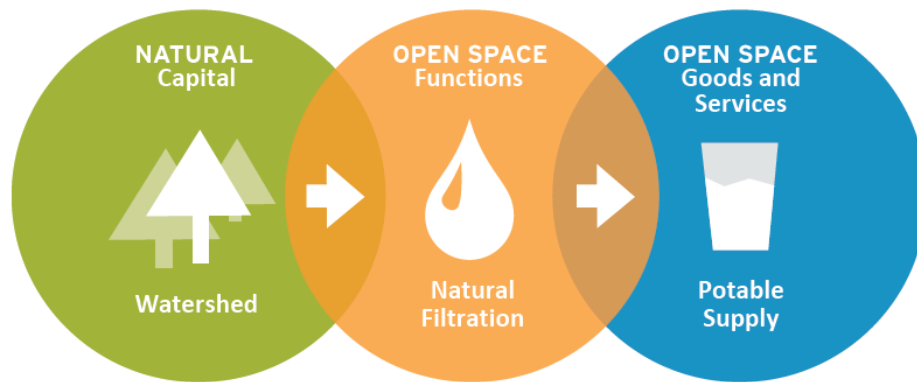


Figure 3. Goods and services flow from natural capital

To account for the some of the economic benefits provided by open space in monetary terms, Earth Economics and the State’s Recreation + Conservation Office conducted a report to quantify the statewide value of ecosystem services provided by the trees, water, and wildlife found on public recreation lands – clean water, habitat for wildlife, aesthetic beauty, and enhanced recreational experiences. The combined value of these non-market benefits is between \$134 billion and \$248 billion a year (Briceno and Schundler, 2015a). Additionally, Earth Economics recently completed a report for the Regional Open Space Strategy to provide an estimate of the economic contribution that nature within the four county region of Central Puget Sound makes to the region’s economy and communities. Ten open space services, (comparable with ecosystem services), are valued for each of 15 land cover types that represent the regional open space system. These services are shown to represent a substantial component of the regional economy, contributing \$11.4 to \$25.2 billion per year (Chadsey et al., 2015b).

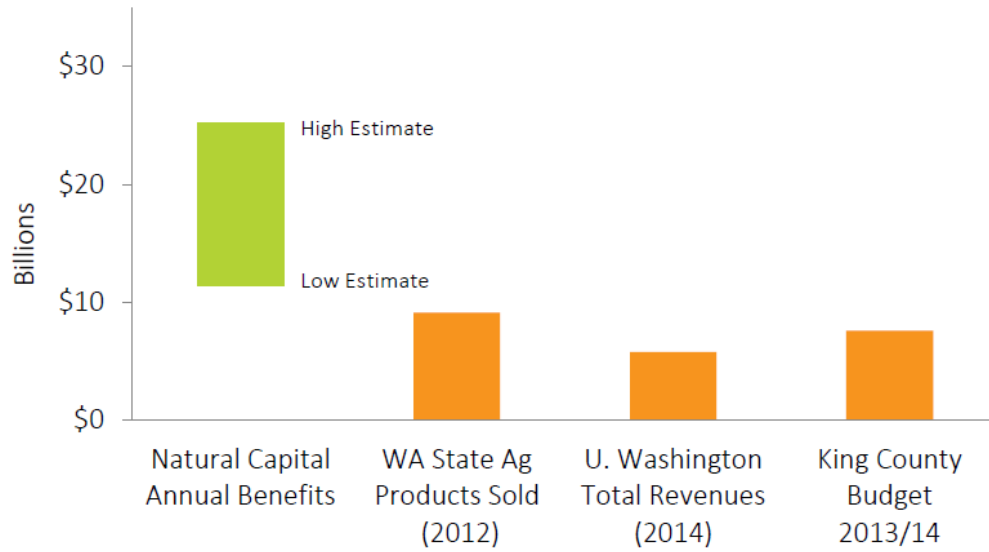


Figure 4. Central Puget Sound benefits and revenue comparison.

The value of these open space services over a 100 year period is conservatively estimated at \$328.3 billion to \$825.3 billion, calculated with a discount rate of 3.5% and this value is likely to be more significant as the asset value using the 0% discount rate totals \$1.1 trillion to \$2.6 trillion (Chadsey et al., 2015b).

“These values are real. If forest filtration of drinking water were lost, Seattle, Tacoma and other cities would have to build water filtration plants. If wetlands are lost so are their disaster mitigation properties and that would either result in higher damage costs or the need to build and maintain built capital to control flooding. The values demonstrate the critical roles that forest, wetlands, and the region’s open water play in the economy and the importance of stewarding these critical resources” (Chadsey et al., 2015).

Multiple economic ramifications would occur if open space is not prioritized and conserved in the Central Puget Sound:

- The region’s ability to attract and retain key businesses and talent would be made more difficult, since the newer workforce is drawn to many of the open space amenities afforded by the region;
- Loss of revenue from decreases in tourism and recreational industries;
- Reduced production of natural resources, especially food (including fish/shellfish) and timber, which impact other industries, especially shipping and construction industries ;
- Investments in engineered structures would be required to replace services provided today with marginal (monetary) cost by natural systems, such as clean drinking water;
- Costly cleanup and repair to recover from emergencies related to disasters such as floods, landslides, storm surges, wildfires, etc.

- Other less direct impacts would result in increased societal costs for:
 - healthcare due to populations with lack of access to clean air and recreational opportunities;
 - public safety due to increases in mental illness;

Why is a regional approach to open space necessary in advancing objectives for economic development?

As global competition heats up, quality of life is becoming a bigger issue in business and work site location decisions. The RES places a particular emphasis on regional planning to support efforts to preserve important open space assets integral to recruiting and retaining talent, maintaining the region's business climate, fostering entrepreneurship and innovation and creating solutions to address our failing infrastructure. These are all crucial to the region's future success. When coordinated on a regional basis, key system-wide deficiencies such as lack of park space in a particular area or a missing link in a trail corridor, can be exposed and/or new visions put in place to connect facilities or enhance amenities. Broader threats to business activity that cross jurisdictional boundaries such as climate change adaptation, flooding and natural disasters can be addressed more efficiently than piecemeal at a local level. Analyses and investment solutions can be framed to make more compelling requests for federal, state, and local funding. Similarly, if loss of resource lands, such as prime farms lands, threaten to upset a community's identity, regional support can be rallied to assist. A regional approach to develop common goals also offers the potential to provide business interests with more consistency or clarity with regard to environmental policies and regulations that can be applied across multiple jurisdictions, facilitating development. It has the added benefit of reducing confusion, leveling the playing field, and reducing competition among jurisdictions.

Orienting our regional open space conservation and land management planning to reflect economic development considerations will reinforce their fundamental importance in maintaining resilient communities through broad geographic investments and highlight the intrinsic value that green infrastructure can play.

How can open space investments advance regional economic development?

Specific Industry Sector Support

Open space and green infrastructure investments have a role (to varying levels) in supporting all of the target industry clusters outlined in the RES. Cluster employment represents 31.5% of all employment in the region and the RES recognizes that the region's economic resilience and its ability to attract and retain world class businesses and talent for all industry clusters depends heavily on a high quality of life (Prosperity Partnership, 2012, 8). Open space and green infrastructure investments are considered one of the fundamentals shared by all industry clusters and embedded in the goals and strategies of

the region’s plan for economic development because “the well-educated, highly talented employees from around the world that businesses need in order to be competitive will live here only if the region is an attractive, humane and creative place to live, work and raise a family” (Prosperity Partnership, 2012, 53). Open space is a primary driver in building these community assets. Three of these industry clusters are particularly dependent on open space investments: the Clean Tech, Information Tech, and Tourism & Visitor Clusters.

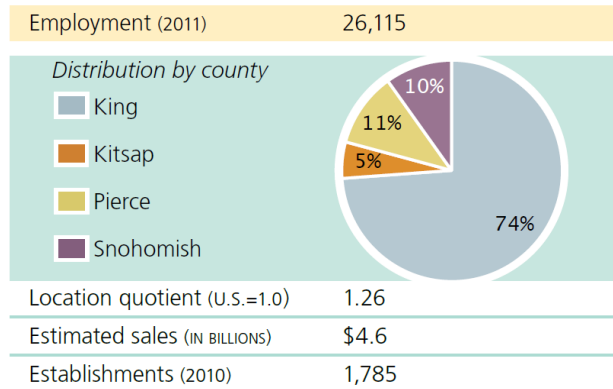
1. The Clean Tech Cluster:

The RES indicates that “the region’s culture and effort to preserve its environmental riches supports the formation of new clean tech ventures and technologies locally” (Prosperity Partnership, 2012, 28). Though all industries rely on the quality and access of our region’s natural environment in attracting and retaining talent, our ability to attract, build, and retain a strong and

creative community of environmental entrepreneurs and innovators is deeply integral to the success of these clean technology industries. An example of this is a movement by clean technology businesses that ask potential business partners to “Work with Portland” (as a recognized green city) in order to market and export their expertise in sustainable development practices (Portland Development Commission, n.d.). “Nature-pioneering” helps launch new companies – Being a green region improves existing architecture and engineering firms offerings in lucrative sustainable design and construction markets and spurs on new specializations in green roofs (e.g. Columbia Green), active transportation (e.g. Alta Planning + Design) and other green technologies (Wetter, 2015). Many of the roughly 1,800 Central Puget Sound establishments in this sector either rely directly on natural resources (e.g. biofuels, green building design & construction) or indirectly on opportunities to test new applications among the diversity of natural system site characteristics that the region’s open space system contains (e.g. environmental engineering, landscape architecture, R&D, clean energy generation, etc.). The sector employs roughly 26,000 workers in the four-county region (3.6% of the employment in the region’s industry clusters).

2. The Information Technology Cluster:

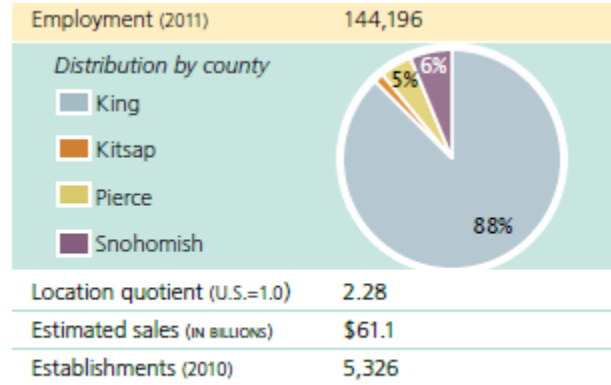
Central Puget Sound’s industries in this cluster are well-established in fields such as software, gaming, and online retailing. The cluster employs nearly 145,000 workers in the four-county region in over 150 companies, According to a 2011 economic impact



SOURCE: EMSI — Complete Employment.

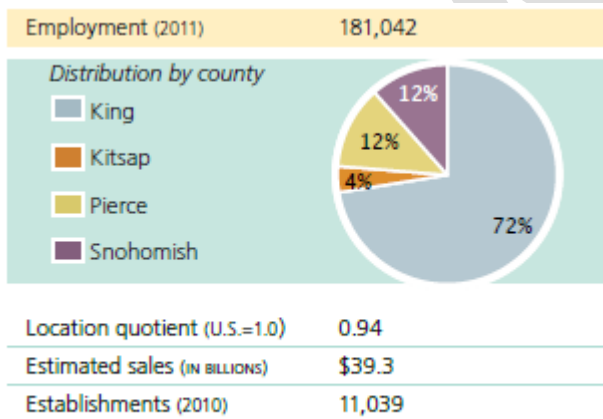
Figure 5. Clean Tech Cluster, snapshot of cluster dynamics in the Puget Sound Region

study conducted by UW professor Theo Eicher, Microsoft alone contributed \$10.22 billion to the Washington state economy in 2009 (Prosperity Partnership, 2012, 29). As well as attracting new expansion of out-of-state companies like Google and Facebook, the foundation provided by Microsoft and Amazon has resulted in hundreds of successful spinoff companies. As one of the top computer science and engineering schools in the country, the University of Washington is renowned for generating new research and innovative talent. Similarly the region is home to one of the most active life science and global health clusters as well offering numerous product development opportunities for other regional clusters, including IT and clean technology. Talent recruitment and retention has and will continue to be major challenges for these industries here. And as discussed later in this paper open space amenities are critical to recruiting and retaining the new workforce of the 21st century.



SOURCE: EMSI — Complete Employment.

Figure 6. Information technology cluster, snapshot of cluster dynamics in the Puget Sound Region



SOURCE: EMSI — Complete Employment.

Figure 7. Business services cluster, snapshot of cluster dynamics in the Puget Sound Region

particularly reinforced with business connections to Asian markets. Again, this cluster is highly dependent on the businesses located in the region due to the quality of life benefits afforded by its open space resources.

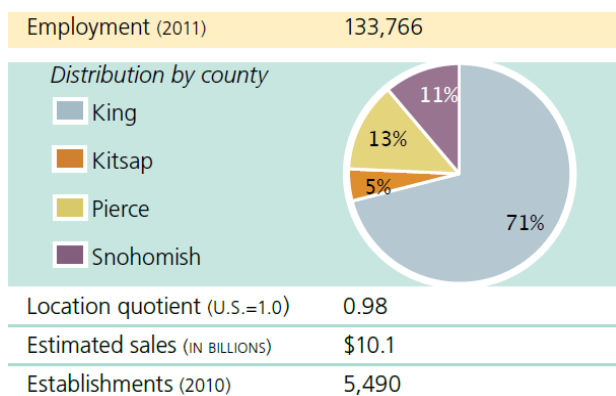
3. The Business Services Cluster:

Much of the region's economic success depends on a strong and vibrant business services cluster, demonstrated by the 180,000 individuals employed in more than 11,000 companies in the central Puget Sound region. Key support services to all clusters, but particularly to the aerospace, IT, and clean tech clusters include financial, legal, translation, interpretation, graphic, and public relations which are

4. The Tourism and Visitors Cluster:

The RES credits the region's "outstanding natural beauty" in supporting tourism as a major contributor to the region's economy. Although employment from tourism is only slightly more concentrated in this region relative to the U.S. average, tourism is

the third largest cluster in the region (18.5% of employment among all clusters) and employment growth by 2021 for Tourism is estimated to be over 10% - the 4th fastest growing cluster in the region. This sector employs more than 133,000 workers in the region and is estimated to have generated over \$10 billion in sales in 2011 (Prosperity Partnership, 2012). Additionally, tourists contribute \$4.6 billion to Washington’s economy and that’s despite the fact that Washington is one of only two states that spends no money on tourism (Briceno and Schundler, 2015a).



SOURCE: EMSI — Complete Employment.
Figure 8. Tourism and visitors cluster, snapshot of cluster dynamics in the Puget Sound Region

More broadly, the cluster attracts external wealth to the central Puget Sound through expenditures on goods and services, but it also has other benefits – taxation of non-residents that help fund infrastructure and public services and a gateway for new recruits into the regional economy - “Visitors are, or may become, residents, students, employees, patients, investors, buyers, sellers and business owners” (Prosperity Partnership, 2012). The positive influence of open space on the region's retail identity is exhibited by the significant presence of companies such as REI, Patagonia, and Outdoor Recreation as major exporters that are part of this cluster.

In addition, local residents enjoy many of the same activities associated with open space that attract people to the region – “arts, culture, restaurants, sporting and other events supported in part by visitors are also frequently enjoyed by local residents” (Prosperity Partnership, 2012).

Outdoor recreation is one of the employment sectors within the cluster and one of the identified “drivers of the tourism and visitors cluster in the region” is heritage eco-tourism (Prosperity Partnership, 2012). According to a more recent statewide assessment by Earth Economics, active outdoor recreation spending in Washington State is now \$21.6 billion, which supports close to 200,000 jobs (Briceno and Schundler, 2015a). This is comparable to the aerospace and tech industry in Washington (Briceno and Schundler, 2015a). Open spaces are also used by the industry as a living laboratory for product testing of outdoor gear using true conditions available in nearby nature areas (Wetter, 2015). In their November 10, 2013 article in the *Seattle Times* former Congressman Norm Dicks and former Governor Dan Evans noted that for each day Mount Rainier National Park was closed, Washington State lost an average of more than \$90,000 in tourism revenue (Evans &

Dicks, 2013). In 2010, the Trust for Public Land conducted a statewide Conservation Economics Study that indicated active outdoor recreation contributes over \$8.5 billion in annual retail sales and about \$650 million in retail tax revenue in Washington State.

Of the \$21.6 billion of outdoor recreation spending in Washington, about \$9.1 billion is transferred to out-of-state producers of related goods and services. This leaves about \$12.5 billion in direct sales to circulate through the local economy (direct economic contribution), producing, in turn, \$3.3 billion in supply chain activity to create outdoor recreation goods and services (indirect economic contribution) and \$4.7 billion in household wages that further stimulate economic activity (induced economic contribution). Thus, in total, economic contributions to the state economy amount to \$20.5 billion every year. That money is spread through all different kinds of businesses: Gear and equipment (42 percent), gas and oil (13 percent), grocery stores (9 percent), food services (10 percent), and lodging (7 percent) (Briceno and Schundler, 2015a).

Community Development + Quality of Life

The prosperity of the Puget Sound depends on providing a high quality of life for the region's businesses, workforce and families. This is not just a focus of the Regional Economic Strategy; it is a reflection of the values of the region's residents. Open space is integral to that quality of life and is necessary to reinforce development and growth objectives (Izumizaki, 2014). The Pacific Northwest is known for its natural beauty. This has a profound economic effect on both our tourism industry and the choices that people make to live here. Protecting the region's natural environment and civic amenities as key economic assets can be accomplished through regional guidance of community development planning programs that encourage affordable, vibrant, healthy and safe communities for a diversity of residents. All industry clusters are afforded strategic economic advantage with this type of planning, especially business services, IT, clean tech life sciences and global health, tourism and visitors.

The region's extensive growth in coming years will increase the demand for more affordable housing in less central areas. Strategies to preserve forests and farmlands will be difficult to advance without a thoughtful urban development and economic development agenda. The ability of the region to infill the existing urban footprint and build more affordable housing options will be a primary factor as to whether or not the region is able to fully protect its natural assets. Tension between urban open space, density and affordability need to be balanced so that quality neighborhoods and homes are available to all.

The regional centers plan is important to focus urban development but these centers cannot be devoid of green infrastructure. Because of this, there is an increasing recognition that expertise involved in environmental protections should be involved in shaping how the economy develops and rather than a general emphasis on "quality of life,"

economic development will be an outgrowth of an emphasis on “Quality of Place”. The central Puget Sound’s brand of “place making” includes open space investments as an important element in developing the region as one that attracts people and businesses (Smith, 2012). There is evidence that such an emphasis supports local economies as surveys of shoppers indicate they will spend 9% to 12% more for goods and services in central business districts with high quality tree canopy and they will travel greater distances and a longer time to visit an area with high quality trees (Wolf, 2005).

One study estimated that the average household living half a mile from open space would be willing to pay \$4,104 more for a home (in 1992 dollars) to live a quarter mile closer to the open space (Walsh, 2007). Additional studies indicate that homes adjacent to naturalistic parks and open space are valued at 8-20% higher than comparable properties (University of Washington College of the Environment, 2010). The Earth Economics report on the region’s open space system highlights how a park in a densely populated urban area will most likely have higher values for play (more visitors), aesthetic value (increased value of neighboring homes), and health (air quality) compared with more remote open space. The report indicates there is often a robust financial return in projects that preserve and enhance the parks and open space closest to our population centers. Furthermore, this return will likely increase with population growth and greater density over time (Chadsey et al., 2015b).

There is a significant body of evidence to indicate that open space has a positive effect on nearby residential property values and proportionately higher property tax revenues for local municipal governments. According to a synthesis of peer-reviewed research (Active Living Research, 2010; Harnik & Welle, 2009; McConnell and Walls, 2005), the impact of open space on real estate values varies according to a number of factors:

- Proximity (e.g. 75% of the increased premiums are within 500-600 feet and property value increases can be impacted up to 1,500 ft. from a park over 30 acres in size, but the positive price effect declines over ½ mile away),
- Size (e.g. larger natural areas bring about a greater positive impact than small urban parks though a series of smaller parks with more total houses in their vicinity can have the most effect),
- Type of open space (e.g. poorly maintained or overused parks can lead to negative impacts on property values),
- Access (e.g. adjacency to a road or direct public pathways from surrounding areas has led to more increased property values), and
- Character of surrounding areas (e.g. open space has a larger effect in more urbanized neighborhoods likely due to the larger lot size and the more significant amount of undeveloped land in rural areas).

An emphasis on “place making” makes it possible to invest in business improvement districts that support specific parks and open space. Economic development investments in less affluent urban neighborhoods, affordable housing within urban areas, education, public health, and rural communities, will support open space objectives and will compound the benefits for the region as a whole. It also increases the effectiveness of zoning incentives, tax benefits through a Public Benefit Rating System, or market mechanisms such as TDR programs that encourage developers to contribute to the creation and maintenance of green space in areas outside urban centers, but nonetheless critical to the region’s global economic success (Bailey, 2010).

Coordinated investments in connected recreational lands provide for an outdoor recreation market that serves as one of the largest markets in the state for moving income from urban to rural areas and building jobs in more rural areas where employment and living wage jobs may be particularly sparse (Briceno and Schundler, 2015a). Similarly, programs that leverage open space as community assets such as Community Forest Programs and Agriculture Enterprise Zones help establish shared advantages among both rural workforce development and ecological interests.

Magnetism of Open Space in the Region: Trade and Business/Talent Recruitment and Retention

The natural beauty of our open spaces supports the region’s other industry clusters as they rely heavily on such amenities to attract and retain talent (Florida, 2005). Company decision makers rated recreation, parks, and open space to be significantly more important in location decisions than officials working in economic development organizations (Crompton, 1997). These were the findings from a study conducted in Colorado by researchers associated with Department of Recreation, Park and Tourism Science at Texas A&M University, Center for Advertising Studies at the University of Illinois, and the U.S. Forest Service.

The Intertwine Alliance has found that employees value nature as a “second paycheck” (worth \$11,000 in a survey conducted among area firms in Portland). Economic Development Councils & other business recruiters look at communities as a product that needs to be marketed and talent acquisition teams indicate that highlighting the values of nearby nature areas gives companies an edge in attracting talent. In some cases, their pitch begins by exhibiting the natural areas in the region. There is evidence to indicate that this talent pool is retained as the value employees place on nearby open space grows over time. For example, 29% of employees surveyed in the technology sector ranked nearby open space as a very important factor in moving to the Portland Metro area and 59% ranked nearby open space as a very important factor when deciding whether to consider employment elsewhere. For employee location decisions in the technology sector, urban amenities and outdoor recreation amenities (bike routes, parks, trails, nature areas, etc.)

were ranked higher than other factors such as quality schools, opportunities to be at the forefront of innovation, and connectivity/network in the tech community (Otts, 2015). The presence of natural assets, outdoor activities, and opportunities for cultural expression and creativity afforded by urban open spaces are also increasingly pronounced in how the Central Puget Sound region markets itself to support business acquisition and retention (Economic Development Council of Seattle and King County, n.d.).

Across all industries, attracting talent with certain skills and experience is a primary challenge and the retention of such individuals represents an economic value as they are often recruited from other regions that pay higher wages. This is true for Aerospace, Business Services, Information Technology, Life Sciences + Global Health, and Philanthropies. The same capacity for knowledge building and innovation in the clean technology cluster also applies to the importance of open space in knowledge building capacity and ongoing development of expertise when Education (and related research and development) is assessed as its own industry cluster.

Risk Management + Cost Avoidance

The resilience of the regional economy is bolstered by our regional open space system in a number of ways:

- The preservation of working lands sustains and enhances the economic vitality and viability of local and regional farming and food systems, provides food security for local communities, and sustains forest resources for future production.
- Investments in trail systems that combine transportation with recreational needs can help reduce overall VMT and alleviate traffic congestion.
- A system-wide investment in parks and trails may also help facilitate healthy lifestyles that reduce overall health care costs (DeVol & Bedroussian, 2007).
- The ability of natural lands to help manage pollution may prevent future costs to government and business by maintaining overall air and water quality conditions and mitigating for climate change.
- In addition to long-term risk avoidance, land conservation investments in floodplains and estuaries can be arranged effectively to reduce flood damage to businesses, transportation, and infrastructure, and to support fish-rearing habitat essential to the survival of the commercial fishing industry.
- Strategic investments can also be made to manage risks and avoid costs associated with natural disasters such as erosion and mudslides.

The amount of tax dollars required to operate and service open space and recreation areas is generally less than for other types of land use (open space lands have been found to require only 29 cents in services per dollar of revenue generated), it is important to note that the public can more expeditiously recover (and even exceed the original purchase

price) for expenditures, especially in urban areas, in the form of heightened property tax revenue in adjacent neighborhoods if the surrounding built environment includes a significant level of privately held property - particularly compact, walkable development (Active Living Research, 2010). This mutual reinforcement of increased values for private development and more successful returns on public investments in parks (at least in urban areas) exhibits the importance of a regional approach to open space.

SUMMARY

Over the decades, our region's citizens have identified an explicit need to enhance the environment and protect open space and natural landscapes as key economic assets. It is after all one of the major reasons for our economic success. Open space provides direct services and materials that fuel our regional economy and help avoid long-term costs in managing waste and energy outputs. Natural lands serve a role in attracting talent to our region, protecting our businesses and families from life and property loss due to natural disasters, maintaining working lands that support rural economies, coordinating recreational land investments to support agro- and eco-tourism, and addressing certain socioeconomic and health disparities among communities without access to parks and trails.

With a projected 24% increase in growth in the central Puget Sound, open spaces are vulnerable to encroachment, for their ease of acquisition and conversion to increased density. Economic development investments, need to be cautious to ensure the region does not lose one of the major reasons for its economic success.

Overall, economic development and open space reinforce each other in providing our region with a return on investment of our public funds. A regional strategy for open space provides an opportunity to support development and reinforce objectives for growth and community development that rely on quality parks and open space. A regional open space strategy can complement and enhance economic development initiatives that seek to enhance economic sectors such as the growing information and technologies sector, help align approaches and funding for open space across jurisdictions, and help navigate between the various tradeoffs and synergies of environmental and economic objectives.

A recent article in the Seattle Times quotes Margaret O'Mara, Associate Professor of History at the University of Washington, saying that the things that make Seattle thrive as a tech hub and economic dynamo today are great assets, but they are fragile. "You have to keep it a place people cherish" (Judd, 2016).

REFERENCES

- Active Living Research. Research Synthesis: The Economic Benefits of Open Space, Recreation Facilities and Walkable Design. Princeton, NJ: Active Living Research, a National Program of the Robert Wood Johnson Foundation (May 2010). Retrieved from: <http://atfiles.org/files/pdf/Economic-Benefits-Active.pdf>.
- Bailey, Thatcher. "Setting a tight-budget plan for how to sustain Seattle's parks." *Seattle Times* (November 8, 2010). Retrieved from: http://www.seattletimes.com/opinion/setting-a-tight-budget-plan-for-how-to-sustain-seattles-parks/?prmid=related_stories_section.
- Briceno, Tania and Greg Schundler. "Economic Analysis of Outdoor Recreation in Washington State, Report Version 1.2." *Earth Economics* (January 2015a). Retrieved from Washington State Recreation and Conservation Office: <http://www.rco.wa.gov/documents/ORTF/EconomicAnalysisOutdoorRec.pdf>
- CEOs for Cities, 2008. "College-Educated, Young Adults Consider 'Place' First when Moving", prepared by The Segmentation Company for *CEOs for Cities*, April 28, 2008.
- Chadsey, Matt, Zac Christin, and Angela Fletcher. *Central Puget Sound Open Space Valuation*. Tacoma, WA: Earth Economics (2015b).
- Crompton, John L., Lisa L. Love; Thomas A. More. 1997. An Empirical Study of the Role of Recreation, Parks and Open Space in Companies' (Re)Location Decisions in "Journal of Park and Recreation Administration", Vol 15. No. 1.
- DeVol, Ross, and Armen Bedroussian. "An Unhealthy America: The Economic Burden of Chronic Disease: Charting a New Course to Save Lives and Increase Productivity and Economic Growth." *Milken Institute* (October 2007). Available from: <http://www.milkeninstitute.org/publications/view/321>.
- Dunphy, Stephen H. 2010. Seattle Businesses Like 2011 Prospects in "Crosscut", November 10, 2010. Retrieved from: <http://crosscut.com/2010/11/seattle-businesses-like-2011-prospects/>.
- Economic Development Council of Seattle and King County. "Why Seattle - King County?" Accessed 2015. Retrieved from: <http://www.edc-seaking.org/why-seattle-king-county/>.
- Evans, Dan and Norm Dicks. "Guest: Little-known Land and Water Conservation Fund vital to outdoor legacy." *Seattle Times* (November 9, 2013). Retrieved from: <http://www.seattletimes.com/opinion/guest-little-known-land-and-water-conservation-fund-vital-to-outdoor-legacy/>.

- Fair, Chris. "The Power of Place Branding and Competitive Identity" *CEOs for Cities 2014 National Meeting 2014*. Available from: <http://www.slideshare.net/leefisher/1-chris-fair>. Also from *The Resonance Report – The Distinctive City Dividend*. (November 13, 2014).
- Florida, Richard. *Cities and the Creative Class*. New York: Routledge (2005).
- Judd, Ron. "The Secret to Seattle's Success? Innovation, resilience...and a little bit of dumb luck" *The Seattle Times Pacific NW Magazine*. (January 7, 2016). Available from: www.seattletimes.com.
- Harnik, Paul and Ben Welle. "Measuring the Economic Value of a City Park System." *The Trust for Public Land* Retrieved from: <http://cloud.tpl.org/pubs/ccpe-econvalueparks-rpt.pdf>.
- Izumizaki, H. Personal Communication. (2014, April 10).
- McConnell, Virginia and Margaret Walls. "The Value Of Open Space: Evidence From Studies Of Nonmarket Benefits." *Resources for the Future*. (January 2005). Retrieved from: <http://www.rff.org/files/sharepoint/WorkImages/Download/RFF-REPORT-Open%20Spaces.pdf>.
- Ott, Joe A. 2015. "The Money Tree: Does the Intertwine Create Jobs?" Prepared for Metro and The Intertwine Alliance. (February 25, 2015).
- Peters, D. "Session S-06G: Integrating Landscape Scale Assessments Into Local Planning." *Salish Sea Conference*. Seattle, WA. (2014).
- Portland Development Commission. "We Build Green Cities" Accessed 2015. Retrieved from: <http://www.webuildgreencities.com/>.
- Prosperity Partnership. "Regional Economic Strategy for the Central Puget Sound Region: Strategy." *Puget Sound Regional Council*. (July 2012). Retrieved from: <http://www.psrc.org/assets/8558/RegionalEconomicStrategy.pdf?processed=true>.
- Smith, M. "Community and Economic Development Event at the Bainbridge Graduate Institute." *Enterprise Seattle*. (January 26, 2012).
- U.S. Economic Development Administration. "U.S. Economic Development Administration." Accessed 2015. Available from <http://www.eda.gov/>.
- University of Washington College of the Environment. "Good Cities: Good Health: Local Economics." (2010). Retrieved from: http://depts.washington.edu/hhwb/Thm_Economics.html.
- Walsh, R. "Endogenous Open Space Amenities in a Locational Equilibrium." *Journal of Urban Economics* 61, no. 2 (2007): 319-344.

Wetter, M. "Does the Intertwine Create Jobs?" *The Intertwine*. (April 8, 2015). Retrieved from: http://www.theintertwine.org/blog/does-intertwine-create-jobs?utm_source=Intertwine+Alliance+Contacts&utm_campaign=203b8e95e7-Blog_4_15_20154_13_2015&utm_medium=email&utm_term=0_f6aa02a4b4-203b8e95e7-32031929.

Wolf, K. "Business District Streetscapes, Trees and Consumer Response." *Journal of Forestry* 103 (2005): 396-400.

DRAFT

AUTHORSHIP

Primary Authors

Jeffrey Raker, (former) ROSS
Ikuno Masterson, ROSS

Acknowledgement for Advisement

Abby Hook, Hook Environmental
Bobby Cochran, Willamette Partnership
John Hoey, (former) Trust for Public Land
Ken Konigsmark, Civic Volunteer
Matt Chadsey, Earth Economics
Nancy Rottle, Green Futures Research and Design Lab, University of Washington
Zac Christin, Earth Economics

DRAFT

APPENDIX A: SUPPORTIVE RESOURCES + INFORMATION

Puget Sound Region Economic Development Councils/Associate Development Organizations:

- enterpriseSeattle – www.enterpriseseattle.org
- Kitsap Economic Development Alliance – <http://kitsapeda.org/>
- Economic Development Board for Tacoma-Pierce County – <http://www.edbtacomapierce.org/>
- Economic Alliance Snohomish County – <https://www.economicalliancesc.org/>

Puget Sound Region Workforce Development Councils:

- Workforce Development Council of Seattle-King County – <http://www.seakingwdc.org/>
- Olympic Workforce Development Council – <http://www.kitsapgov.com/hs/olympdev/owdc.htm>
- Workforce Development Council of Tacoma-Pierce County – <http://www.workforce-central.org/wdc>