SECTION 1
INTRODUCTION

Curious Stellar sea lions off of Denman Island, BC
Photo: Yuri Choufour
The Salish Sea is a biologically diverse inland sea that spans the international border, is surrounded by mountainous watersheds of spectacular beauty, and features a rich cultural history (Benedict & Gaydos 2015). For over 10,000 years, Indigenous peoples have lived on their traditional territories on the Pacific Northwest Coast (Lindo et al. 2017), including the shores and rivers of the Salish Sea (Ritchie et al. 2016). Today, the region is home to almost nine million people, and that number is rapidly growing.

This human footprint brings with it stressors that threaten the health and resilience of the Salish Sea ecosystem and surrounding bioregion through a complex array of legacy, continuing, and emerging impacts associated with industrialization and urbanization. Compounding those local impacts is the rapid pace of global-scale change in climate. This global threat is already having local impacts on watershed hydrology and marine biophysical processes, impacts that collectively manifest as cumulative effects in the Salish Sea.

In short, the Salish Sea is under relentless stress from an accelerating convergence of global and local environmental stressors, some of which are well understood, and many that remain unknown and/or difficult to predict. Therein lies a core purpose of this report: assemble a compendium of information and lines of evidence that describe the dominant stressors and current state of the Salish Sea. Not since The Shared Waters Report (Copping et al. 1994) has there been a holistic assessment of the Salish Sea as an integrated international ecosystem. More than 25 years later, a fresh snapshot is timely—and necessary—because the local population has grown by over two million people since then and new threats are recognized in the form of climate change, sea level rise, ocean acidification, microplastics, and more.

Current efforts to study, monitor, and protect the Salish Sea are encouraging, but with continued impacts, additional efforts are needed to understand a changing ecosystem, to restore lost function, and to strengthen the long-term resilience of the ecosystem. To that end, a list of opportunities for collaboration and decisive action in the coming years is provided (see Sections 6 and 7) as an invitation for residents, researchers, organizations, and governments to take action so that a similar report written in another 25 years will look back favorably on actions taken to sustain the Salish Sea.

The Salish Sea

Stretching from the Pacific Ocean to the Strait of Georgia and Puget Sound, the combined marine and estuarine waters of the Salish Sea span an impressive 17,803 km² (6,874 mi²; Flower 2020). Feeding those waters is an extensive network of rivers and contributing watersheds reaching up thousands of meters to prominent peaks in the Coast, Cascade, and Olympic ranges. Cartographers have designated the Salish Sea’s primary features and boundaries, describing it as an international estuarine ecosystem composed of an intricate network of inland marine waterways (Flower 2020). When combined into one cross-border biogeographic unit, the international waters of the Salish Sea and its surrounding watersheds are considered a distinct and contiguous bioregion (Figure 1.1; Spalding et al. 2007) that encompasses 102,727 km² (39,663 mi²) and over 320,000 km² (124,000 mi²) when the upper Fraser River basin is included (Flower 2020; A. Flower, Western Washington University, personal communication).

The western boundary of the Salish Sea is defined as the entrance to the Strait of Juan de Fuca (along a line between Cape Flattery and Carmanah Point), the southern boundary extends to the southern ends of Puget Sound and Hood Canal, and the northern boundary is just beyond the Strait of Georgia and includes channels and waterways such as Discovery Passage, Sutil Channel, and Desolation Sound (BC Geographical Names Office n.d.).

The dominant characteristics that distinguish the inland estuarine waters of the Salish Sea from the adjoining Pacific Ocean are differences in freshwater inputs, sediment composition, upwelling, currents, and bathymetric and coastal complexity. Another distinction, as made clear in this report, is that human impacts are multifaceted and extensive within the Salish Sea. The biophysical interactions within the Salish Sea defy geopolitical boundaries as marine water, nutrients, and organisms circulate in the estuary with inflows of freshwater and sediments from the uplands. These biophysical features interact with human impacts, like shoreline armoring and contaminants. Many past and ongoing studies within Washington and British Columbia subbasins are unlocking the complexity of these interactions, but more work is needed—both science and regulatory action—at the cross-
The toponym “Salish Sea” emerged within research organizations and through political efforts across the region to recognize and cultivate a bioregional scale connection in ways that decenter the United States-Canada border and reorient residents, scientists, and policymakers to our shared waters and shared responsibility for stewardship. The name is officially recognized by the Coast Salish Gathering, an annual convening of Tribal and First Nations leaders and non-Indigenous governing officials on environmental issues in the Salish Sea ecosystem. The geographic naming boards in Washington State and British Columbia, and both the United States and Canadian federal governments also recognize the name.

The name recognizes the Coast and Straits Salish peoples who have continuously inhabited the region since time immemorial, including more than 65 sovereign Tribes and First Nations throughout the region today. Tribes and First Nations across the Salish Sea hold inherent title and rights—including the right to traditional governance of their lands, waters, and resources. The recognition of these rights is emphasized in international law (United Nations’ Declaration on the Rights Indigenous Peoples, see for example, Article 25, 26, and 32). In Canada, title and rights are recognized and protected (Section 35 of Canada’s Constitution Act, 1982) and have been affirmed by the Supreme Court of Canada (for example, R. v. Sparrow, R. v. Gladstone, and Delgamuukw v. British Columbia). British Columbia’s Declaration on the Rights of Indigenous Peoples Act recognizes the need to respect and promote inherent rights of Indigenous peoples while emphasizing the importance of facilitating Indigenous self-determination and self-governance in varying contexts. In the US, rights have been affirmed and recognized through historic treaties, Supreme Court rulings like US v. Washington (“the Boldt Decision”), and government-to-government relationships formalized through agreements like the Centennial Accord.

Indigenous communities cultivated and continue to maintain relationships of reciprocity with the Salish Sea and formally maintain active programs to protect their title and rights, including treaty rights, to create cultural and environmental resilience, and to build strategies to adapt to environmental change (Norman 2017). The Coast and Straits Salish peoples are distinct nations with distinct languages, place names, legal orders, traditional knowledge systems, and associated values, protocols and teachings that describe human-environment relationships and responsibilities across the Salish Sea seascape.

While we know that Indigenous peoples have inhabited the Salish Sea region for more than 10,000 years, exact settlement dates are unknown. Since Time Immemorial is a phrase in acknowledgement of Indigenous peoples’ existence on the landscape and histories conveyed through origin stories and oral histories, without specifying dates of occupation. Since Time Immemorial acknowledges Indigenous peoples’ existence and connection to their traditional territories and ancestral lands prior to settler arrival. Origin stories and oral histories record Coast and Straits Salish peoples’ connection to the Salish Sea. Their inherent sovereignty has existed since time immemorial and continues to exist today.

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dates are unknown and likely varied by location. In contrast, European settlers first arrived relatively recently in the Salish Sea: in the 1770s on Spanish and British ships. Subsequent waves of crews and captains arrived in search of the Northwest Passage, otter pelts, gold, timber, and salmon. Between the 1840s to 1870s, settlers established what is currently called British Columbia in Canada and Washington in the United States, displacing Indigenous peoples and dispossessing them of their lands in the process. In this same era, settlers drew the land and marine borders between the United States and Canada and established the major cities of the region: Vancouver, Victoria, Seattle, Tacoma, and Olympia (Figure 1.3).

To put in perspective the numerous anthropogenic impacts described in this report, humans have been living in the region for thousands of years, yet the political borders and industrial-scale human settlements emerged in only the last 150 years. Likewise, on a larger scale, human migration and population growth have accelerated alongside a technology and fossil-fueled era of globalization, urbanization, and industrial growth, launching the planet into a new geologic epoch known as the Anthropocene (Zalasiewicz et al. 2011).

Physical evidence of the human footprint in the region includes the highway (I-5/Hwy 99) corridor between Vancouver, BC, and Olympia, WA, which features highly urbanized landscapes, hardened and industrialized shorelines, and geographically concentrated economic activity on land and sea. When combined with other major cities like Victoria, BC, Seattle, WA, and major ports in Tsawwassen, BC, and Tacoma, WA, the Salish Sea and its environs are urbanized from its central core to its southern extremities. The Sea’s naturally deep waters and network of designated shipping channels have helped the region become a globally significant and highly trafficked hub for international transport of freight and fossil fuels, especially between the large ports of Vancouver and Seattle. While these economic centers are significant in their own right for driving local economies, population density and modern ways of life have meant growing dissociation from the environment globally (Turner et al. 2004) and results in less connection to the Salish Sea ecosystem locally. Human well-being is an important aspect of any socio-ecological system, and emerging initiatives related to human-environment health (Galvani et al. 2016) are more explicitly drawing these connections. The Salish Sea has a rich social and cultural fabric rooted in the landscape, seascape, and Coast and Straits Salish traditions. Association with the ecosystem contributes to human well-being by fostering and maintaining connections to place, identity, and values, or by directly enabling cultural practices (Poe et al. 2016). In turn, these aspects affect how people interact with the ecosystem. The Salish Sea, like any ecosystem, can therefore hold different importance for different people based upon economic or ecological perspective and cultural or family traditions (Poe et al. 2016). The Salish Sea is a source of well-being for contemporary inhabitants of the region (Biedenwig 2017) through tourism, recreation, and its intrinsic value. Although economically important to the growing human population, the physical transformation and intensive use of the landscape and seascape are compromising social-ecological health today and weaken future resilience in the Salish Sea.

<table>
<thead>
<tr>
<th>Date of Arrival</th>
<th>Location</th>
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<tbody>
<tr>
<td>1770s</td>
<td>Spain</td>
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<tr>
<td>1770s</td>
<td>Britain</td>
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<tr>
<td>1840s to 1870s</td>
<td>Canada</td>
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<tr>
<td>1840s to 1870s</td>
<td>United States</td>
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Figure 1.2. Salishan Languages in the Salish Sea region. Source: Brotherton (2008)
Governments, interest groups, and environmental managers set “ecosystem health” as a priority in many ecosystems, yet there is little consensus over the definition of the term or how to assess properties of health (O’Brien et al. 2016). Generally, ecosystem health is thought of as an integrative concept combining aspects of the physical and biological properties of an ecosystem, and its persistence, sustainability, resilience, and human well-being (Rapport et al. 1998; Karr 1999; O’Brien et al. 2016; and table on page 11 for definitions of a healthy ecosystem). While this is a powerful concept, measuring the health of an ecosystem is problematic in its lack of specificity and accepted diagnostic measures. Furthermore, Indigenous climate science and legal systems may have different definitions and experiences of “ecosystem health.” Here we define the concept of ecosystem health, sometimes called ecosystem integrity, as the state or condition of an ecosystem that displays the characteristics of the historical ecosystem, such as species composition, community structure, and/or physical and chemical processes, and that is fully capable of sustaining normal ecosystem functioning. However, we also acknowledge that we have little functional understanding of the historical ecosystem prior to human perturbations or how early alterations may have skewed contemporary perceptions of “historical condition.” In fact, ecosystems have always changed, more so with human use, and collective memory is typically short, resulting in “shifting baselines” (Pauly 1995; Lotze et al. 2006; Duarte et al. 2015; Little et al. 2017). Understanding the fundamental structures (e.g., biogenic habitats) and processes (e.g., estuarine circulation) of the ecosystem, and in turn, identifying indicators that provide evidence of change to these structures and processes vis-a-vis some baseline is key to describing the health of the Salish Sea.

Ecosystem health, or integrity, condition, or status, may be measured by indicators, such as those used for the Puget Sound Vital Signs (Puget Sound Partnership 2021) or the transboundary Health of the Salish Sea Report (US Environmental Protection Agency & Environment and Climate Change Canada 2021), much in the way a doctor would assess the health of a patient through measures of body temperature, blood pressure, and blood chemistry. However, the mechanistic understanding of ecosystem indicators lags behind those used in human medicine in many cases. And as with indicators of human health, ecosystem indicators may provide insight into general health but won’t diagnose an illness or imbalance and may not be responsive to all conditions.

There are a number of existing programs designed to measure aspects of the Salish Sea ecosystem with the objective of detecting trends over time (Figure 1.4 for examples). However, no one program is extensive enough to adequately capture trends throughout the ecoregion due to spatial limitations, focus on selective, tractable metrics, or limited time-series (i.e., a collection of observations obtained through repeated measurements over time). Without time-series long enough to capture natural variability and observe emerging trends, the ability to detect change is limited. When we consider the State of the Salish Sea, it is critical to evaluate the metrics we use to describe a state (i.e., a snapshot in time) or assess a trend (i.e., a general direction in which the ecosystem or a component of the ecosystem is changing over time). The integration of status and trends can provide a more complete assessment, but may still be limited by specific indicators failing to address the complexities of interactions or cumulative effects. Here, we do not provide a catalog of specific status and trends, but instead we provide
a synthesis of current information on the dominant stressors that are contributing to ecosystem decline and illustrate numerous examples of ecosystem response to those impacts.

Many targeted studies addressing specific questions of research interest exist and are ongoing. These programs are an important component of Salish Sea ecosystem assessment and provide the mechanistic underpinnings connecting various aspects of Salish Sea oceanography and ecology, leading to greater understanding of ecosystem function. These studies, along with systematic monitoring, contribute to an understanding of function and aid in identifying causes of decline. There exists a tension between a perfectly designed monitoring program that can detect changes early and provide adequate information to scientists and decision-makers and the funding and human and data resources needed to support such a program. Developing the ability to detect—and more importantly, respond to—ecosystem change is a primary challenge for the region into the future.

**US Environmental Protection Agency and Environment and Climate Change Canada**

In 2000, the US Environmental Protection Agency and Environment and Climate Change Canada signed a Joint Statement of Cooperation to facilitate cross-border understanding, science dialogue, and collaboration on Salish Sea issues. From this partnership the Salish Sea Ecosystem Indicators project emerged, aiming to track progress in managing the Salish Sea ecosystem, and identifying priorities for action. The transboundary indicators range from air quality to Chinook salmon and identifying priorities for action. Three examples from programs with ecosystem assessment objectives.

**Puget Sound Partnership**

Vital Signs gauge the health of Puget Sound and guide assessment of the progress made toward ecosystem recovery goals. Each Vital Sign represents a component of the ecosystem; each component is represented by one or more indicators. Vital Sign indicators are used to measure and report important, specific aspects of the Puget Sound ecology and human wellbeing, while targets associated with indicators are policy statements that define desired future outcomes. Indicator themes: Abundant Water, Healthy Water Quality, Healthy Human Population, Vibrant Human Quality of Life, Thriving Species and Food Web, Protected and Restored Habitat.

**Ocean Wise Research Institute**

The Ocean Watch health ratings (Critical, Caution, Healthy, and Limited Data/Not Rated) provide a clear interpretative assessment. A trend indicator reflects on progress made (or not) since 2017. An upward arrow alongside the rating indicates positive actions have been taken, but the overall trend does not yet warrant an upward shift in rating. A downward arrow indicates a lack of actions although the overall trend does not warrant a downward shift in rating. A committee of researchers and community members was formed to assign the ratings.

**What is a Healthy Ecosystem?**

First Nations people have long recognized that the health of the environment and the health of the individual are intimately connected. From a First Nations holistic perspective, health includes the physical, mental, emotional, social and spiritual aspects. The environment plays a vital role with respect to all aspects of health. Understanding the linkages between the environment and the health of First Nations’ peoples is crucial in order to enhance the protection of their health from exposure to future environmental hazards.

**Assembly of First Nations (2021)**

The causal links between environmental change and human health are complex because they are often indirect, displaced in space and time, and dependent on a number of modifying forces. Human health ultimately depends upon ecosystem products and services (e.g., availability of fresh water, food, and fuel sources) which are requisite for good human health and productive livelihoods. Ecosystem services are the benefits that people obtain from ecosystems. Ecosystem services are indispensable to the well-being of all people, everywhere in the world. They include provisioning, regulating, and cultural services that directly affect people, and supporting services needed to maintain the other services.

**World Health Organization (2005)**

An ecological system is healthy and free from “distress syndrome” if it is stable and sustainable—that is, if it is active and maintains its organization and autonomy over time and is resilient to stress.

**Toward an Operational Definition of Ecosystem Health (Costanza 1992)**

A healthy ecosystem is one that is intact in its physical, chemical, and biological components and their interrelationships, such that it is resilient to withstand change and stressors. It is a system that is not experiencing the abnormal growth or decline of native species, the concentration of persistent contaminants, or drastic anthropogenic changes to its landscape or ecological processes. If healthy ecosystems foster economic prosperity, unhealthy ones represent lost opportunity and income.

**SeaDoc Society (2021)**

Health is the physical, social, mental and cultural realms on individual, familial and community scales, including reciprocal relations between people, their natural environment, and nonhuman beings. The Indigenous Health Indicators (IHI) are a set of community-scale, non-physical aspects of health that are integral to Coast Salish health and wellbeing. The IHI reflect deep connections between humans, the local environment, and spirituality.

- taklcut: self-determination, healing and restoration, development, trust
- x̵d̵u̵m̵a̵d̵a̵d̵: education: the teachings, elders, youth
- q̵m̵a̵q̵a̵t̵: resilience: self-esteem, identity, sustainability
- yesayiib: cultural use: respect and stewardship, sense of place, practice
- s̵d̵ax̵i̵d̵: t̵s̵w̵a̵t̵̵̵m̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵̵...
In the sections that follow, we illustrate the watershed and oceanographic processes that make the Salish Sea a unique ecosystem while highlighting impacts to ecosystem function that threaten ecosystem integrity and sustainability (i.e., ecosystem “health”). Overall, we focus on two persistent and continuing threats—urbanization and climate change—and demonstrate the associated impacts to select ecosystem structures and processes. For example, we refer to specific declines in abundance or reduction in area for species, sub-lethal impacts to biota, changes to ecosystem physical processes, and impacts to ecosystem services, which are those direct and indirect contributions of ecosystems to human well-being such as water filtration, carbon storage, and wave energy reduction that support human survival and quality of life (World Health Organization 2005). Much of the science in the region is limited to a basin (e.g., Strait of Georgia) or subbasin (e.g., Hood Canal), driven by federal or municipal priorities and limitations on spending government funds at all levels within jurisdictions. Given strong science-to-management linkages in Puget Sound over a period of decades, a disproportionate amount of research and reporting has occurred there due to both the increased urbanization in that basin as well as the management structures and programs that have been geographically focused there (e.g., Puget Sound Partnership, the US Environmental Protection Agency’s National Estuary Program, and the Puget Sound Nearshore Ecosystem Restoration Project in the past). However, more recently Environment and Climate Change Canada has focused efforts in the Strait of Georgia on understanding cumulative effects and specific impacts from marine shipping. While most regional reports focus on specific waterbodies, such as Howe Sound, Puget Sound, or the Strait of Georgia, or contributing habitat types or organisms (see the Northwest Indian Fish Commission’s State of Our Watersheds reports (2020); Puget Sound Partnership’s State of the Sound reports (2019); the Ocean Watch Att’k a7tsem/Txwnéwu7ts/Howe Sound Edition report (Miller et al. 2020); Fisheries and Oceans Canada’s State of the Pacific Ocean reports (Boldt et al. 2019); and others), only the Health of the Salish Sea Ecosystem Report (US Environmental Protection Agency & Environment and Climate Change Canada 2021) addresses the cross-border bioregion. In contrast to most reports about the region, the goal of this State of the Salish Sea report is to address the Salish Sea ecosystem as a whole, synthesizing the biophysical attributes and human-induced stressors impacting estuarine health.

Ecosystem impacts occur across a variety of spatial and temporal scales, and we use a continuum of legacy, continuing, and emerging concerns to describe these impacts. In reality, the Salish Sea is experiencing simultaneous and temporally cumulative impacts, the ecosystem responses to which scientists are still disentangling.

• Section 2 sets a foundation for understanding the Salish Sea ecosystem by describing its fundamental biophysical processes and structure, including estuarine circulation, ecological productivity, and an overview of several important biogenic habitats.

• Section 3 turns to an in-depth discussion of stressors and impacts to the ecosystem from population growth and urbanization, such as increases in impervious surfaces, hardening of shorelines, and the problems caused by a myriad of marine contaminants.

• Section 4 shifts from the local impacts of urbanization to the locally realized impacts of global climate change, including ocean acidification and sea level rise, followed by evidence of climate change in the ecosystem, ranging from phytoplankton and kelp, to wetlands, salmon, and marine birds.

• Section 5 introduces cumulative effects and brings in brief case discussions focused on herring, salmon, and orcas. Understanding the layers of stressors the ecosystem faces is integral to gaining a full picture of declines in ecosystem function.

• Section 6 offers a list of science-based needs and opportunities brought to light by the report and various existing efforts within the Salish Sea science community, representing opportunities for greater collaboration across geographic and jurisdictional boundaries.

• Section 7 provides perspective from the Salish Sea Institute, acknowledging that science alone will not resolve continuing problems or emerging issues. Stronger policies along with education, leadership, and collaboration are needed.

• Vignettes are placed throughout the report to offer diverse perspectives on several of the key topics. Written by specialists and other invited contributors, the vignettes are brief and intended to spur curiosity, conversation, and optimism about the many research and management efforts underway by people and organizations that care about the Salish Sea and its future.

• References cited in this report are in and of themselves an impressive resource, with scores of studies and sources listed in support of this report and to help fulfill the objective of providing an up-to-date compendium of information that readers can use to further explore specific topics of interest.