

DRAFT

Prepared by
Howe Sound Biosphere Region
Initiative Society (HSBRIS)

September 2023
Version 1.2



howesoundbri.org



PREFACE

Becoming Canada's 19th UNESCO Biosphere Region is a prestigious honour and a great responsibility. As the Howe Sound Biosphere Region Initiative Society, we manage the biosphere region designation. Our mandate is to support biodiversity conservation; facilitate education, research and monitoring; and work with our broader community to foster sustainable development and reconciliation with Indigenous communities. UNESCO will assess our progress every ten years. To ensure continuity of success, we need a comprehensive and unified plan to guide the future. We refer to our management plan as the Nchu'ú7mut/Unity Plan, a holistic land and marine use plan for this watershed region.

Our community engagement process has informed planning—planning for today's realities and anticipating tomorrow's needs knowing that climate change and biodiversity loss will significantly influence our collective future. UNESCO Biosphere Regions strive to strike a balance between the environment and people, hence our use of the United Nations Sustainable Development Goals lens to guide our planning. UNESCO's Technical Guidelines inform the plan contents.

It is a living document, reflecting the changing environment of policies, plans, development and the environment. The plan focuses on the functions of a UNESCO Biosphere Region: biodiversity conservation, sustainable development, reconciliation, equity and inclusion and logistic support.

The Howe Sound Biosphere Region Initiative Society acknowledgements:

Writers, editors and graphic design: Bill Henwood, Ruth Simons, Diane Mitchell and Substrate Studios.

Financial support received from Sitka Foundation, the Squamish River Watershed Society and the Squamish Lillooet Regional District.

Many "in-kind" hours from contributors to this plan.

ACKNOWLEDGEMENTS

"The Squamish Nation has existed and prospered within our traditional territory since time immemorial. Our society is, and always has been, organized and sophisticated, with complex laws and rules governing all forms of social relations, economic rights, and relations with other First Nations. We have never ceded or surrendered our title to our lands, rights to our resources, or the power to make decisions in our territory." (Squamish Nation, 1993).

Over the past 150 years however, the Skwxwú7mesh Stélmexw (Squamish People) have sustained tremendous economic, political and social damage due to the intrusion of massive numbers of people into their territory and the accompanying exercise of power by the Federal and Provincial governments. Energized by nature's recovery, reconciliation between people and nature now forms a basis for relationship-building and reconciliation between local settler culture and First Nations.



Credit: Kieran Brownie

ACRONYMS

AHSUBR	Átl'ka7tsem/Howe Sound UNESCO Biosphere Region	IPCA	Indigenous Protected and Conserved Area
AT	Alpine Tundra	IUCN	International Union for the Conservation of Nature
BC	British Columbia	KBA	Key Biodiversity Areas
BR	Biosphere Region	MAB	Man and the Biosphere Programme (UNESCO)
CCUNESCO	Canadian Commission for United Nations Educational, Scientific and Cultural Organization	MH	Mountain Hemlock
CDFCP	Coastal Douglas-fir and Associated Ecosystems Conservation Partnership	MLSS	Marine Life Sanctuaries Society
CEPA	Canadian Environmental Protection Act	MPA	Marine Protected Area
CPCAD	Canadian Protected and Conserved Areas Database	NGO	Non-government Organization
CWH	Coastal Western Hemlock	OECD	Other Effective area-based Conservation Measures
CWHxm1	Coastal Western Hemlock – very dry maritime subzone variant	RAR	Riparian Areas Regulations
DFO	Department of Fisheries and Oceans (Fisheries and Oceans Canada)	SDG	Sustainable Development Goals
DRIPA	Declaration on the Rights of Indigenous Peoples Act	SWOT	Strengths, Weaknesses, Opportunities and Threats
ECCC	Environment and Climate Change Canada	THLB	Timber Harvesting Land Base
HSBRIS	Howe Sound Biosphere Region Initiative Society	WMA	Wildlife Management Area
IBA	Important Bird Area	UBCM	Union of BC Municipalities
		UN	United Nations
		UN SDG	United Nations Sustainable Development Goals
		UNDRIP	United Nations Declaration on the Rights of Indigenous Peoples
		UNESCO	United Nations Educational, Scientific and Cultural Organization

CONTENTS

EXECUTIVE SUMMARY	1
INTRODUCTION	
1.1 Background	3
1.2 Location of Átl'ka7tsem/Howe Sound	4
1.3 Past and Current Conditions in Átl'ka7tsem/Howe Sound	6
1.4 About UNESCO Biosphere Reserves	7
1.5 Building on the Success of the UNESCO Nomination Process	8
1.6 Ten Year Periodic Review	8
1.7 Toward a Holistic and Integrated Plan for the Lands and Waters of Átl'ka7tsem/Howe Sound	9
1.8 New Opportunities	9
1.9 Purpose, Scope and Timeframe of the Management Plan	11
LEGAL AND JURISDICTIONAL CONTEXT OF AHSUBR	
2.1 Legal and Jurisdictional Context	12
2.2 Implementation of UNDRIP and DRIPA	12
FUNCTIONS AND APPROVED ZONING FOR AHSUBR	
3.1 Functions of Átl'ka7tsem/Howe Sound Biosphere Region	13
3.2 Approved Core Areas, Buffer Zones and Transition Areas	14
3.2.1 Terrestrial Core Areas	15
3.2.2 Marine Core Areas	16
3.2.3 Terrestrial Buffer Zones	18
3.2.4 Marine Buffer Zones	20
3.2.5 Terrestrial Transition Area	20
3.2.6 Marine Transition Area	20
STRENGTHS, WEAKNESSES, OPPORTUNITIES AND THREATS ANALYSIS	
4.1 Processes for Community Engagement and Consultation	22
4.2 The SWOT Process	23
4.3 Highlights of Ongoing Consultation	24
BIOSPHERE REGION GOVERNANCE, STRUCTURE AND COORDINATION	
5.1 UNESCO Governance Expectations	28
5.2 Collaborative Management and the Basis for Cooperation	28
5.3 Guiding Principles for HSBRS and the AHSUBR Roundtable	30
5.4 A Governance and Coordination Structure for AHSUBR	30
VISION, GOALS AND STRATEGIC PRIORITIES FOR AHSUBR	
6.1 Vision: Defining the Desired State for Átl'ka7tsem/Howe Sound	32
6.2 Goals and Strategic Priorities for Biodiversity Conservation	32
6.3 Goals and Strategic Priorities for Sustainable Development	36
6.4 Goals and Strategic Priorities for Reconciliation, Equity and Inclusion	39
6.5 Goals and Strategic Priorities for Logistical Support	41
ACTION PLAN: PRIORITY PROJECTS AND MANAGEMENT PROGRAMS	
7.1 TBD	45
REFERENCES	47
APPENDIX A: LIST OF MANAGEMENT PLANS AND STRATEGIES	49
APPENDIX B: AHSUBR ROUNDTABLE TERMS OF REFERENCE	53
APPENDIX C: SUMMARY OF AHSUBR GOALS	55

INTRODUCTION

This Nchu'ú7mut/Unity Plan strives for the effective management of the Átl'ka7tsem/Howe Sound UNESCO Biosphere Region (AHSUBR), designated in 2021 and recognized by UNESCO as an area of global ecological significance, specifically for its marine glass sponge reefs. The plan is required to enable continued UNESCO designation beyond a ten-year review. It prescribes the care deemed necessary to bring a desirable future to this outstanding and internationally significant region. The non-profit Howe Sound Biosphere Region Initiative Society (HSBRIS), co-chaired with the Skwxwú7mesh Úxwumixw (Squamish Nation), manages the UNESCO designation. The territory of the Skwxwú7mesh Úxwumixw encompasses the entire AHSUBR.

The region is home to around 46,000 people and is neighbour to Metro Vancouver. It has large expanses of front- and back-country and a marine habitat rejuvenated following decades of industrial activities. Jurisdictional authority lies with a collaboration of many, including the Skwxwú7mesh Úxwumixw, local, municipal and regional governments, the Islands Trust, and both federal and provincial governments. All support the ongoing management of the UNESCO designation.

Biosphere regions have no legal authority but are places of learning, developing solutions, testing approaches and resolving conflicts. They aim for communities living in harmony with biodiversity, achieved through collaboration to advance conservation, sustainable development and reconciliation. To aspire to this, the plan supports and is supported by provincial and federal frameworks and strategies aimed at reversing biodiversity loss and protecting at least 25% of land, freshwater and oceans by 2025 and 30% by 2030.

FUNCTIONS AND ZONING

There are three UNESCO-defined functions of a biosphere region: biodiversity conservation, sustainable development and logistical support.

HSBRIS adopts goals and strategic priorities for each function over ten years, with the addition of reconciliation, equity and inclusion as a fourth set to recognize the requirements of the *United Nations Declaration on the Rights of Indigenous Peoples* (UNDRIP) and BC's *Declaration on the Rights of Indigenous Peoples Act* (DRIPA). A biosphere region's zoning framework includes core areas, buffer zones and transition areas.

Of the total AHSUBR area, 19% was defined as Terrestrial Core Areas (all current legally protected areas) at designation in 2021. The Marine Core Areas are fishery area closures protecting hexactinellid glass sponge reefs. Terrestrial Buffer Zones cover 16% of total land; most are adjacent to Core Areas. They are largely high elevation or highly constrained lands for forest management purposes. Other Buffer Zones include ecological reserves and provincial parks. Marine Buffer Zones, at ~12% of the marine area, provide a 150 metre buffer around the Glass Sponge Reef Closure Areas, Rockfish Conservation Areas and provincial marine parks.

The Terrestrial Transition Area, at 62% of the land area, combines public lands, private lands and First Nations Reserves, and falls largely under Provincial authority. This includes the Timber Harvesting Land Base (THLB), managed sustainably for multiple values including forestry, wildlife habitat and outdoor recreation. This area also includes an array of smaller protected areas and conservation lands.

The Marine Transition Area (the remaining marine area) is where commercial and recreational activities occur. Conservation and sustainable use measures protect cetaceans and pinnipeds, manage limited commercial and sports fisheries, and facilitate the recovery of depleted species such as rockfish and lingcod. Federal acts also support or manage recreational activities and shipping routes. Building on increased protection efforts over the past decade and the slow recovery of the marine ecosystem, further conservation and enforcement measures are needed that go beyond the glass sponge reefs to include representation of all marine environments.

COMMUNITY ENGAGEMENT

Through 2022, HSBRIS engaged community on the vision, values, strengths, weaknesses, opportunities and threats relating to the region, under the lens of the United Nations Sustainable Development Goals (UN SDGs). Feedback was sought through various means, including a Future of Howe Sound Forum hosted in November. Feedback was also sought on the proposed AHSUBR Roundtable, an assembled group of around thirty representatives of various sectors who would report to HSBRIS to steer the management of the biosphere region.

The feedback largely fell into the categories of people, governance, natural assets/biodiversity, economy, infrastructure, and climate action.

GOVERNANCE

UNESCO requires structures and processes to determine decision-making and stakeholder engagement but does not prescribe governance structure or style. The AHSUBR Roundtable, convened by HSBRIS, will adopt a collaborative, inclusive model. HSBRIS honours the Skwxwú7mesh Úxwumixw's relationship with lands and waters, a relationship that permeates the operation of HSBRIS and the forums and networks that the Society convenes or facilitates.

HSBRIS acknowledges and respects the strategic plans of the authorities and Skwxwú7mesh Úxwumixw in the region. It is through recognizing the common ground that we strive toward a common vision for AHSUBR.

HSBRIS, as a Society, has its own vision, mission and purpose.

HSBRIS aspires to facilitate and support the collaborations, projects and work required to overcome key systemic challenges for the region: sustainable development; biodiversity conservation; and reconciliation, equity and inclusion.

Strategic guidance to HSBRIS comes from the AHSUBR Roundtable, with its geographically and sectorally balanced representation of First Nations, federal, provincial and local governments, commercial sectors and civil society. The Roundtable will set priorities to implement AHSUBR's Vision and Goals.

VISION, GOALS AND PRIORITIES

The desired state for Átl'ka7tsem/Howe Sound is for the ocean and watershed, and the marine and terrestrial realms to function properly through integrated ecosystems. This foundation will support an inclusive, equitable society and resilient economy where humanity and nature thrive.

A series of goals (summarized in Appendix C) and strategic priorities have been identified under the categories of biodiversity conservation, sustainable development, reconciliation, equity and inclusion, and logistical support. Collectively, these goals support wider frameworks and strategies designed to tackle the biggest challenges to the region including biodiversity loss, climate change and extreme weather, while balancing the needs of a growing population.

With the breadth and depth of the challenges/threats, governance, regulations and strategies in the region, this Nchu'ú7mut/Unity Plan serves as a reference document that assembles, in one place, the approaches of the other key planning processes as a means to aid cooperation, collaboration and tracking of progress as we aspire to bring the governments and organizations together for the benefit of the biosphere region. The execution of the actions to move forward in addressing the priorities will be guided by the AHSUBR Roundtable and reported on annually.

1.1 Background

In September 2021, the United Nations Educational, Scientific and Cultural Organization (UNESCO) approved Canada's application for designation of the Átl'ka7tsem/Howe Sound Biosphere Region. The designation followed guidance and support from the Canadian Commission for United Nations Educational, Scientific and Cultural Organization. It is a great honour for British Columbia (BC) and for the people of the Átl'ka7tsem / Howe Sound region to be Canada's 19th UNESCO designated biosphere region. This designation can be maintained forever through effective management provided the collective challenge of restoring and maintaining the region's biological diversity and sustainable economy into the future is actioned upon by us all.

This first management plan prescribes the care of this outstanding and internationally significant place we call Átl'ka7tsem/Howe Sound, with the goal to ensure a “bright and shining future.” The region is home to almost 46,000 people and is a neighbour to another 2.6 million in Metro Vancouver. Its wildness is remarkable, but it was not always that way. Many worked and fought hard to bring Átl'ka7tsem/Howe Sound back from the precipice of industrial degradation in the 1970s and 1980s to a recovery and renewal in the 1990s and 2000s. The effort and momentum continue today, and we cannot afford to lose it.

This plan is called the “Unity Plan” in response to UNESCO's acknowledgement that the main objectives of the proposed biosphere reserve are to establish and manage an overarching holistic land and marine use plan for the Átl'ka7tsem/Howe Sound region that is mutually recognized and respected by First Nations, civil society, stakeholders and all levels of government, to protect and conserve biodiversity in the region and to be a model for best practices and a place where people live in harmony with nature by bringing together First Nations, NGOs, academia, industry and civil society.

UNESCO recognizes the challenge of achieving unification due to the fragmented nature of regional governance. With no single jurisdictional authority, there is a cooperation of many, including the Skwxwú7mesh Úxwumixw (Squamish Nation), eight local and municipal governments, three regional governments, the Islands Trust, and both federal and provincial governments with their host of agencies. The Howe Sound Community Forum has facilitated governmental cooperation since 2000 with repeated calls for a unified vision and holistic plan that integrates regional terrestrial and marine ecosystems. In 2013, the Union of BC Municipalities (UBCM) passed a resolution to urge the provincial government to support the development of a comprehensive plan for Átl'ka7tsem/Howe Sound. This management plan answers that call for unity.

The development and ongoing implementation of this plan is central to the emerging reconciliation between the Skwxwú7mesh Úxwumixw and settler culture and is mandated under the *United Nations Declaration on the Rights of Indigenous Peoples* (UNDRIP) and affirmed in British Columbia law through the *Declaration on the Rights of Indigenous Peoples Act* (DRIPA). For more information on UNDRIP and DRIPA, see section 2.2. This management plan acknowledges and respects the ongoing work between governments and First Nations to implement the objectives of UNDRIP. This plan's success relies on the cooperation of the community of communities in Átl'ka7tsem/Howe Sound to move forward in unity, together.

1.2 Location of Átl'ka7tsem/Howe Sound

The Átl'ka7tsem/Howe Sound UNESCO Biosphere Region (AHSUBR) is located in southwestern British Columbia, Canada, on the eastern shores of the Salish Sea between Metro Vancouver and Whistler. AHSUBR encompasses 2,187 km². It includes the magnificent Átl'ka7tsem/Howe Sound inlet and most of its drainage system watersheds, including the Squamish River.

Terrestrial ecosystems cover 84% / 1,833 km² and marine waters 16% / 349 km² of AHSUBR. Travellers along Highway 99 enjoy “Sea to Sky Country” with its iconic coastal communities, rugged shorelines, forested islands, rich estuaries, cascading waterfalls, dormant volcanoes, alpine lakes and peaks, and tumbling glaciers. Altitudinal range varies from Mount Garibaldi's summit at 2,678 metres to 325 metres below sea level, with a correspondingly astonishing diversity of life. For a map of the region, see Figure 1.



Southern Átl'ka7tsem/Howe Sound showing Gibsons (foreground), Keats and Bowen islands with West Vancouver, North Vancouver and downtown Vancouver (background). Credit Overstock.com

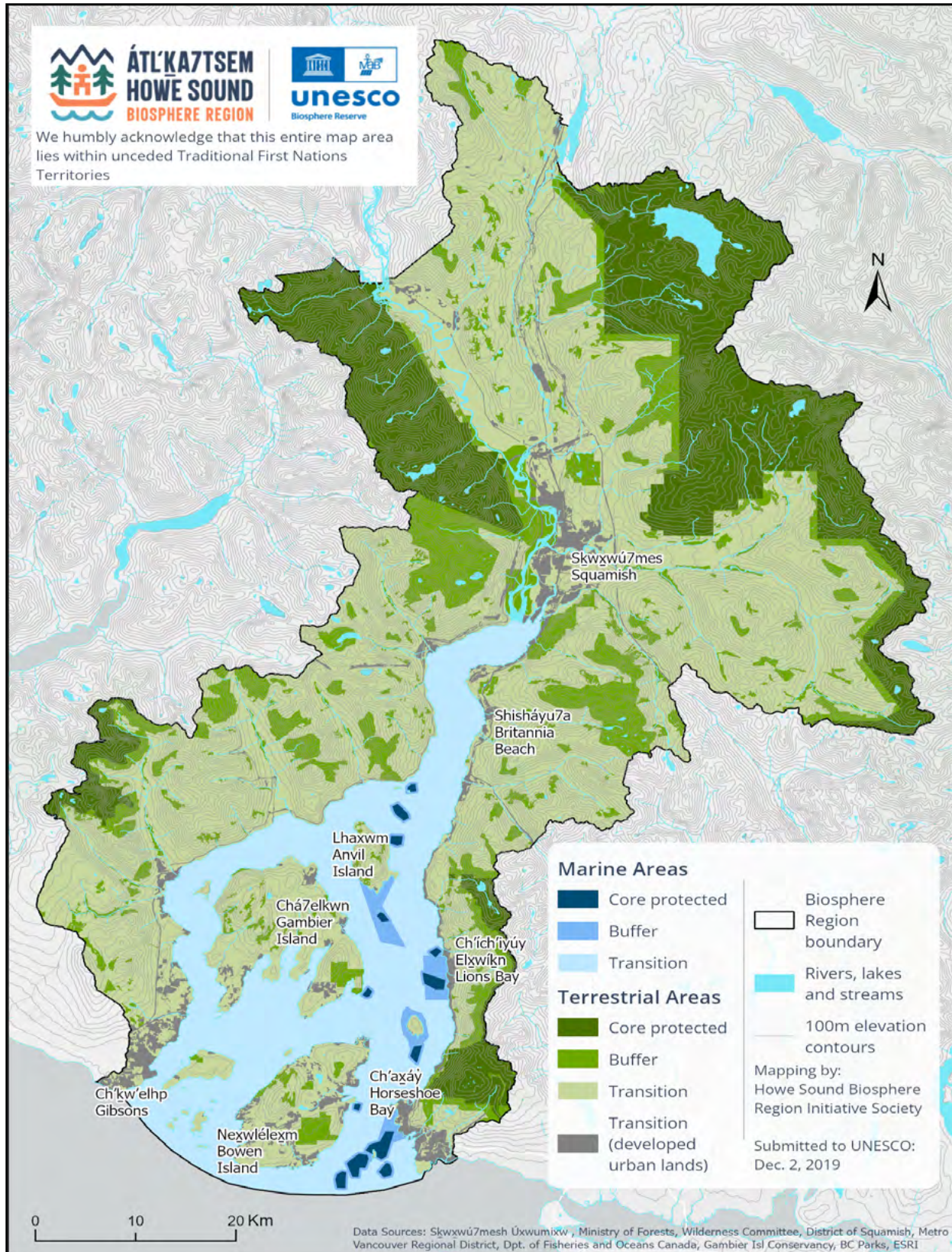


Figure 1: Map of the UNESCO Átl'ka7tsem/Howe Sound Biosphere Region, as submitted to UNESCO for nomination in 2019.

1.3 Past and Current Conditions in Átl'ka7tsem/Howe Sound

For over 10,000 years, Átl'ka7tsem/Howe Sound has been settled by what is today known as the Skwxwú7mesh Úxwumixw. Their livelihoods and cultural identity were supported by the lands and waters. Before European contact, regional population estimates were in the 'thousands' where lands and waters were used and occupied either exclusively by the Skwxwú7mesh Úxwumixw or jointly with First Nations neighbours.

Following European arrival in the late 1700s, First Nations' populations declined to perhaps ten percent of their number prior to contact (Morin, 2015). Today, the Skwxwú7mesh Úxwumixw consists of 23 villages encompassing 28.3 km² from Vancouver to Gibsons Landing to Squamish and farther north. Over 60% of its 3,600 members reside on-reserve in the Squamish area, Gibsons Landing and Metro Vancouver (Squamish Nation, 2019a).

The development of southern BC by settlers accelerated rapidly from the mid-1800s in response to the Cariboo gold rush (1860-1863) and burgeoning local sawmill activity. Átl'ka7tsem/Howe Sound remained relatively quiet until the 1880s when steamships opened up the area to settlement and resource-based development. The regional logging industry accelerated in response to rapid industrial growth in Burrard Inlet.

The region's growing forest industry saw the transportation of logs and wood products by water, railway, and road. The strategic position of the sheltered waters was essential for transport, sorting, booming and storage of logs harvested along the coast and destined for mills locally and in the Vancouver area. Squamish has served as a tidewater portal for interior forest product exports for nearly a century.

The arrival of the railway in Squamish in 1915 stimulated the local economy, connecting Squamish with the BC interior. The eventual railway extension to northern BC and the expansion of wood industries and pulp production capacity at various provincial locations created the opportunity for a deep-

water port close to Vancouver. In 1971, a deep-water, break-bulk terminal was developed on the Squamish waterfront. The first ship arrived in 1972 and since then the port has handled more than 22 million tons of local cargo.

Átl'ka7tsem/Howe Sound has long supported subsistence and commercial fishing, with commercial whaling beginning in 1868 and shrimp and prawn fishing from 1914. However, intensive timber harvesting, the movement and storage of logs and the onset of heavy industry in pulp mills and mining dumping waste into the marine environment resulted in the fishery only lasting three decades before stocks were depleted and pollution forced its demise. By the 1970s, the cumulative effects on water quality, marine biota and habitat were devastating to the marine ecosystem; by the early 1980s, much of Átl'ka7tsem/Howe Sound was thought to be dead or dying. Halibut was no longer fished, lingcod populations had declined to the point where recreational restrictions were necessary, and the commercial salmon fishery closed in 1971 due to declining stocks and mercury contamination. Additional industrial pressures resulted in the almost complete collapse of a major herring spawning area in the Squamish Estuary as well as several shellfish closures. Lower Átl'ka7tsem/Howe Sound was closed to commercial fishing in 1989 and shellfish harvesting was further restricted.

The mid-1970s brought increased resource protection with new laws, regulations and policies to improve natural resource use management. This was most evident in the Squamish River estuary, the largest and most productive estuary in Átl'ka7tsem/Howe Sound and its greatest conservation success story over recent decades. With the 1980s came a broader awareness of the need to restore and protect the marine environment throughout Átl'ka7tsem/Howe Sound. New regulations and remediation efforts beginning in the late 1980s had a remarkably positive effect on marine health and environmental quality, greatly facilitated by the closure of the Britannia Mine in 1974 and its eventual remediation in the 2000s as well as the

closure of the Woodfibre pulp mill in 2006. The recovery of marine ecosystems in Átl'ka7tsem/Howe Sound has been spectacular, with increasing populations of forage fish, especially herring and anchovy, supporting revived populations of whales, dolphins and pinnipeds.

From a First Nations subsistence economy to a period of resource extraction and industrial processing, the human use of Átl'ka7tsem/Howe Sound has transformed into a service orientation. Local entrepreneurs capitalize on natural assets for the spectacular scenery, recreation and tourism values, both land and marine.

The marine environmental recovery has led to a significant increase in recreational activities. Boating, kayaking, sports fishing and many children's summer camps have long histories in west Howe Sound, and now with ecological recovery well underway, these activities are recognized as significant growth opportunities to enhance and diversify the region's economy. Adventure recreation and tourism are among the fastest-growing outdoor activity markets in western Canada and Átl'ka7tsem/Howe Sound is well-positioned to take advantage of this growth while striking the ever-important balance of environment and economy.

1.4 About UNESCO Biosphere Reserves

The designation of Átl'ka7tsem/Howe Sound as a UNESCO Biosphere Region in 2021 recognizes it as an area of global ecological significance. This region joins the World Network of Biosphere Reserves, numbering 748 reserves or regions in 134 countries (August 2023), with nineteen in Canada. In UNESCO's words, "Biosphere reserves promote solutions reconciling the conservation of biodiversity with its sustainable use. They are learning areas for sustainable development under diverse ecological, social and economic contexts, touching the lives of more than 250 million people" (UNESCO, 2021). In addition, "they are sites for testing interdisciplinary approaches to understanding and managing changes and interactions between social and ecological systems, including conflict prevention and management of biodiversity" (UNESCO, 2021).

Biosphere reserves or regions are places of learning, developing solutions, testing approaches and resolving conflicts. The emphasis in these descriptions reflects on their lack of legal status in the traditional sense of governance and their subsequent reliance on cooperation and collaboration among involved parties to develop and implement sustainable solutions. A biosphere region is not a park

and has no legal authority; there are no rules or regulations (see Section 2.0). Rather, it is an international designation to bring people and interests together toward a common purpose and is recognition of an internationally significant place for its biodiversity values and its demonstration of communities living in harmony with that biodiversity.

However, the expectations of UNESCO are that involved parties will collaborate to advance conservation and sustainable development. Designation also recognizes that challenges and issues need to be addressed and that current conditions can be improved upon with lessons learned that can be shared. The application of best practices and innovative approaches to resolving issues and achieving goals is fundamental to biosphere region management.

Though Biosphere Reserve is the official UNESCO title, Biosphere Region is used in some cases, including Átl'ka7tsem/Howe Sound. This deliberate choice of terminology reflects the respect to our Indigenous communities and the colonial impact of the 1876 Indian Act reserve system.

1.5 Building on the Success of the UNESCO Nomination Process

The effort to seek designation of the Átl'ka7tsem/Howe Sound Biosphere Region was led by the Howe Sound Biosphere Region Initiative Society (HSBRIS) since its inception in 2017. The formation of HSBRIS builds on two decades of collaboration through the Howe Sound Community Forum, established in 2000, and other forums, to facilitate conversations about maintaining and enhancing the economic, environmental and social wellbeing of the entire Átl'ka7tsem/Howe Sound ecosystem for the benefit of present and future generations.

In 2017, the decision was made to advance conversations and apply for UNESCO Biosphere Reserve designation. The journey, which culminated with a designation announcement in September 2021, is outlined on the [HSBRIS website](#).

Completing the UNESCO nomination was a complex undertaking. It was comprehensive in scope and compelling in its ability to entice people from many places, cultures and backgrounds into a common fold to produce a document truly representative of the diverse social and economic fabrics of Átl'ka7tsem/Howe Sound communities.

But the work continues. The benefits of having done the research, consultation and writing, allowed HSBRIS to proceed directly into management planning. The plan incorporates many ideas presented during and prior to nomination, to present a way forward that meets the expectations of the many and varied voices of the region.

1.6 Ten Year Periodic Review

The ten-year periodic review process is a quality control measure to ensure all three functions of a biosphere region are integrated and balanced. The process, guided by UNESCO's *Technical Guidelines for Biosphere Reserves* (UNESCO, 2021b), is a requirement of the MAB programme. It is a time to take stock of progress made, particularly with regard to the updating of knowledge, skills and expertise in resource and ecosystem management. This involves in-depth reporting on significant changes in the biosphere region during the past ten years related to:

- Ecosystem services
- Conservation function
- Development function
- Logistic function
- Governance, biosphere region management and coordination
- Criteria and progress made

Following a self-study by HSBRIS as the managing organization for the UNESCO designation, external reviewers (appointed by CCUNESCO) will conduct a site visit. When satisfied, the reviewers submit their own report along with a copy of the study to UNESCO's Coordinating Committee for the MAB programme. The committee will conduct its review of the recommendations and deliberate. If approved, their final approval and report is submitted to MAB in Paris. If not approved, the committee will issue conditions by which the biosphere region must comply within the year.

1.7 Toward a Holistic and Integrated Plan for the Lands and Waters of Átl'ka7tsem/Howe Sound

In recommending the approval of Átl'ka7tsem/Howe Sound as Canada's 19th Biosphere Region, UNESCO's International Advisory Committee made a deliberate point of stating that it:

"...welcomed the fact that the designation would help to develop a comprehensive plan/policy for land and marine management/cooperation that would strategically guide the management of all land and waters in the Howe Sound area and create a unified vision and plan for the region and avoid fragmented planning."

What does a "holistic and integrated land and marine use plan" actually mean and look like? 'Holistic' is an understanding "...of the parts of something as intimately interconnected and explicable only by reference to the whole." An 'integrated' plan combines elements "to form a whole." The term 'comprehensive', as used by UNESCO above, means "...including all or nearly all elements of something" (Google Dictionary, 2021). A holistic, integrated and comprehensive plan is all-encompassing, unifying and enables all collaborating parties to come together and move forward under a common Vision (see section 5.0). Above all else, this management plan strives to meet this aspiration.

While the coastline is a physical dividing line between marine and terrestrial realms, the constant interaction between them by both nature and humans (whether for recreation, industry or compelled by nature's life cycles) defines our relationship with nature in Átl'ka7tsem/Howe Sound. These two realms are inseparable and should be treated as a single ecosystem while respecting their differences. Practicing 'ecosystem-based management' in land and marine use planning recognizes this relationship and is adopted in this plan. This has been practiced by coastal First Nations for countless generations; it is actively practiced today, for example, on BC's North Pacific Coast (MaPP, 2021).

Ecosystems are place-based. To build a foundation for ecosystem-based management rooted in place, considerable progress has been made toward developing spatial planning tools within local governments. In addition, spatial planning tools such as the [Cumulative Effects Framework](#), the [Stewardship Baseline Objectives Tool](#), the [Átl'ka7tsem/Howe Sound Marine Reference Guide](#) and the [Marine Conservation Database](#). This management plan aims to utilize these tools, and others, to enable an ecosystem-based management approach, grounded in science and Indigenous knowledge. See Appendix A for a list of planning tools available.

1.8 New Opportunities

The timing of this plan and its ten-year time horizon is fortuitous as it parallels with the federal government announcements of *Canada's Nature Legacy* and the *Canada Nature Fund*. This new legacy commits Canada to dedicating \$938 million from 2021-2030 to conserving 25% of land, freshwater and oceans by 2025 and to work toward 30% of each by 2030. Canada also pledges to work collaboratively with the country's provinces, territories, Indigenous peoples and other partners, and to secure 'bilateral nature agreements' with the provinces and territories,

with a focus on enhancing the integrity and connectivity of protected and conserved areas and establishing new *Indigenous Protected and Conserved Areas* (IPCAs) (Government of Canada, 2021).

The Prime Minister's mandate letters for each cabinet minister in late 2021 fully support the *Nature Legacy Fund* and place the reversal of biodiversity loss prominently on the federal government's agenda. These include supporting new Indigenous Guardians programs and

establishing IPCAs while recognizing the need to better integrate traditional knowledge into planning and policy-making. The implementation of funds such as the *Natural Climate Solutions Fund* and the *Old Growth Nature Fund* for BC were also prioritized, while investments in other areas such as urban parks/greenspaces and natural environments that absorb and store carbon such as wetlands or seagrass meadows were notable. In addition, the “right to a healthy environment” is also to be recognized in Canadian law.

This federal commitment is supported by the *Kunming-Montreal Global Biodiversity Framework* agreement, ratified at the 2022 UN Biodiversity Conference in Montreal, otherwise known as COP15. Goals include protecting 30% of the world’s land, water and marine areas, and funding at least \$200 billion US annually for biodiversity protection, by 2030.

PRIORITY SPECIES AND HABITATS

This investment in nature through Canada’s Nature Legacy also includes funding for the *Pan-Canadian Approach to Transforming Species at Risk* (Government of Canada, 2020), a new set of principles to help protect and enable the recovery of priority species, places and sectors. Among the eleven priority spaces identified, one is “Southwestern British Columbia” which encompasses all of AHSUBR. The Province of BC’s *Together for Wildlife Strategy* (2020) is a commitment to making significant new investments and developing new partnerships to collaboratively deliver wildlife stewardship. The Province of BC’s Nature Agreement with the federal government will be announcing new protections for species at risk of extinction in 2023. These investments in priority species and habitats bring new opportunities for conservation efforts in the region.

Further, improved guidance on where to place additional protection measures to improve effectiveness and resilience continues to unfold through the identification of Key Biodiversity Areas (KBAs) in accordance with

the internationally recognized KBA Standard. To date within AHSUBR, the only area listed as a KBA includes the Squamish Estuary and the lower reaches of the Squamish, Mamquam and Cheakamus rivers. This area is recognized for its concentration of bald eagles and is also designated an Important Bird Area (IBA).

The timeframe to implement *Canada’s Nature Legacy* (2021-2030) corresponds well with the timeframe of this management plan. This plan will therefore focus on those elements of terrestrial and marine biodiversity conservation mandated by UNESCO and/or supported by the Nature Legacy program.

TRANSFORMATIONAL CHANGE

With a provincial lens, incoming Premier David Eby issued mandate letters in December 2022 to his Minister of Water, Land and Resource Stewardship and Minister of Forests to specify the goal to protect 30% of BC’s land by 2030 including IPCAs, accelerate old growth management strategy implementation, and a variety of other goals to protect, strengthen and better manage the province’s lands and waters and to do so in collaboration and co-governance with Indigenous governments.

As 2023 progresses, advances are underway on the *Watershed Security Strategy and Fund* and the *Coastal Marine Strategy* that underwent their engagement phases in 2022 and 2023 respectively. In advancing old growth forest management strategies, the Province of BC is following the *A New Future for Old Forests: A Strategic Review of How British Columbia Manages Old Forests within its Ancient Ecosystems* report, submitted to the Province in 2020. Report authors engaged with First Nations, stakeholders from the forest, tourism and recreation sectors, academia, professional associations, environmental NGOs, and local communities to explore different perspectives on old growth management.

In early 2023 it was revealed that all fourteen recommendations from the report are being accepted. Perhaps more important and notable is the paradigm shift being implemented that is taking a new, holistic approach to protecting old growth forests and through co-governance with First Nations. The Ministry of Forests and the Ministry of Water, Land and Resource Stewardship are developing an action plan in response to recommendation #2, which called for the “conservation and management of

ecosystem health and biodiversity of British Columbia’s forests” to be an overarching priority in provincial legislation and for this priority to apply to all sectors and therefore other ecosystem types. The answer to this call will be a *BC Declaration on Ecosystem Health and Biodiversity* that will provide a framework to develop management practices not just for old growth forests but for BC’s other lands, and waters.

1.9 Purpose, Scope and Timeframe of the Management Plan

As a requirement of UNESCO’s Statutory Framework (Article 4, Paragraph 7), this management plan has been prepared in accordance with UNESCO’s *Technical Guidelines for Biosphere Reserves* (UNESCO, 1996; UNESCO, 2021b). The plan provides “an overall framework for all stakeholders to collaborate toward achieving the goals defined for the biosphere reserve and to address emerging challenges” (UNESCO, 2021b) and has been written as a possible model for other biosphere regions to emulate, notwithstanding their diversity across Canada.

This plan incorporates the principles of adaptive management and will be reviewed and amended annually. Considering CCUNESCO’s ten-year periodic review (see section 1.6), this plan has been written for the same time frame, 2022-2032, with an informal review in 2026.

The zoning framework for UNESCO biosphere regions is fundamental to their management. The core areas, buffer zones and transition areas, and potential subzones are defined based on the levels of management and protection within each zone. The plan addresses existing and emerging issues, ranging from impacts of climate change to the conservation of biodiversity to sustainable land use.

Development of the management plan is a key opportunity to engage with the Skwxwú7mesh Úxwumixw, governments, NGOs and stakeholders on the plan’s content and their role in its implementation. The ten-year periodic review will use the management plan as the basis for evaluating the effectiveness of its administration, the degree to which it achieved its stated vision, goals and priorities, and in particular, how well it integrated into regional governance structure.



Squamish Estuary. Credit: Erasmus Dong

2.1 Legal and Jurisdictional Context

A biosphere region is not a legal entity in Canadian law, but is a United Nations (UN) designation endorsed by local and regional partners. The UN's principal role globally is to develop and uphold international law, and fully respects Canada's sovereign jurisdiction. The UN cannot exercise any jurisdictional or legal authority over the biosphere region, its member governments, agencies, or private landowners.

As such, HSBRIS has no statutory, legal or jurisdictional authority, but works collaboratively with First Nations, and local, regional, provincial and federal authorities who enact their respective legislations; including the provincial *Community Charter*, the *Local Government Act*, the *Forest and Range Practices Act* and the federal *Fisheries Act*. All policies and programs administered by government agencies and First Nations apply in a biosphere region. HSBRIS, however, will work with authorities and rightsholders to seek legislation or policy changes, or to influence their regional application to further the goals of the biosphere region.

A biosphere region's goals and objectives should be achieved for the designation to remain in good standing. This management plan defines

these goals and strategic priorities. HSBRIS assumes responsibility for the administration and coordination of the UNESCO designation. HSBRIS is a registered non-profit organization co-chaired with an appointed member of the Skwxwú7mesh Úxwumixw. It is autonomous from all levels of government and agencies, but acts in an advisory capacity. HSBRIS develops the strategic direction and long-term planning and reporting of the Nchu'ú7mut/Unity Plan (see section 6).

HSBRIS will also convene the Átl'ka7tsem/Howe Sound UNESCO Biosphere Region Roundtable, that will approve and support the Nchu'ú7mut/Unity plan. It is an advisory body with a balanced representation of First Nations, federal, provincial and local governments, various private sectors, academia and civil society (see section 5.4). The AHSUBR Roundtable will provide advice and strategic guidance twice a year to HSBRIS on biodiversity conservation in the region's marine and terrestrial ecosystems, on sustainable development practices, including the UN's Sustainable Development Goals (UN SDGs), and on advancing reconciliation with First Nations and the implementation of UNDRIP.

2.2 Implementation of UNDRIP and DRIPA

In passing the Declaration on the *Rights of Indigenous Peoples Act* (DRIPA) in 2019, BC affirmed that the *United Nations Declaration on the Rights of Indigenous Peoples* (UNDRIP) will be observed and applied to all provincial laws and federal laws applied in the province. Governments are required to "take all measures necessary," in "consultation and cooperation with Indigenous peoples," to ensure that their laws are consistent with, and actions are taken to achieve, the objectives of UNDRIP (BC Government, 2021). The development and implementation of this plan are central to the emerging reconciliation between the Skwxwú7mesh Úxwumixw and settler culture.

DRIPA "...respects the human rights of Indigenous Peoples while introducing better transparency and predictability in the work we do together" (BC Government, 2021). HSBRIS demonstrates these value and accordingly, this plan supports the *Squamish Nation Strategic Plan 2020-2023* (Squamish Nation, 2020).

HSBRIS recognizes the rights of the First Nations to assert their title on the lands and waters that constitute their traditional territory, their rights to the resources of the traditional lands and waters, and their inherent right to self-determination.

3.1 Functions of Átl'ka7tsem/Howe Sound Biosphere Region

UNESCO's Statutory Framework and *Technical Guidelines* outline three functions of a biosphere region and the zoning framework that guides their realization (UNESCO, 1996; UNESCO, 2021b). Those functions are complementary and mutually reinforcing:

- **Biodiversity Conservation** through contributing "...to the conservation of landscapes, ecosystems, species and genetic variation"
- **Sustainable Development** through fostering "...economic and human development which is socio-culturally and ecologically sustainable"
- **Logistical Support** through providing "...support for demonstration projects, environmental education and training, research and monitoring related to local, regional, national and global issues of conservation and sustainable development"

Realizing the vision, goals and strategic priorities stated in this Nchu'ú7mut/Unity Plan, and carrying out the priority actions will fulfill the requirements of each function. A full strategic review will be undertaken in 2026 to ensure the success of UNESCO's Periodic Review in 2032.

By virtue of approving the designation of AHSUBR, UNESCO has also approved the zoning plan (see Figure 1). This zoning plan was agreed by all parties endorsing the nomination document, including Sk̓wx̓wú7mesh Úxwumixw, all levels of government, partners and stakeholders. Refer to the [Nomination document \(pages 46-51 for more information\)](#).

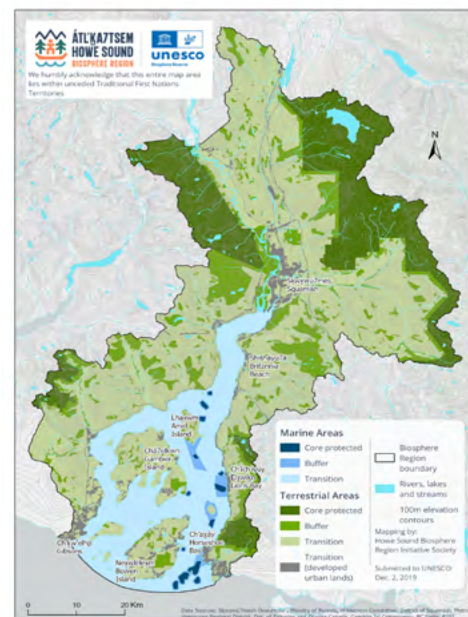
In re-emphasizing section 2.1, these zones have no legal authority. Zoning schemes under the jurisdictions of local and regional governments will apply as before. They include Official Community Plans and Zoning Bylaws, the provincial government's *Sea-to-Sky Land and Resource Management Plan* (LRMP), the Sk̓wx̓wú7mesh Úxwumixw's *Ḳay Temíxw Land Use Plan* and any by the federal government, for example, the Sponge Reef Refuges and Rockfish Conservation Areas in Átl'ka7tsem/Howe Sound.

AHSUBR's zoning plan reflects the aspirations of UNESCO and HSBRS in seeking the desired level of harmony between man and nature and has been designed to complement the zoning schemes currently in place.

The zoning framework presented in Figure 1 reflects the approved zoning plan in the nomination document. Going forward over the next decade, HSBRS and its partners will continue to review the zonation and anticipate amendments that reflect an increase in core areas and buffer zones.

The management plan looks at all opportunities to improve the size and management of long-term protection of biodiversity that support the biodiversity conservation goals as described in section 6.

Sk̓wx̓wú7mesh Úxwumixw's *Ḳay Temíxw Land Use Plan* (Squamish Nation, 2023) considers as "all forested areas within the traditional territory, outside of settlement areas, existing Parks and proposed Wild Spirit Places identifies resource management objectives and strategies that apply to a wide range of values and uses including wildlife, timber, fish/aquatic habitat and access management as examples."



See Figure 1 on page 5 for larger map of Core Areas, Buffer Zones and Transition Areas.

3.2 Approved Core Areas, Buffer Zones and Transition Areas

UNESCO's Statutory Framework and *Technical Guidelines* (UNESCO, 2021b) require that every biosphere region be comprised of three zones:

- “A legally constituted **core area or areas** devoted to long-term protection of biodiversity, according to the conservation objectives of the biosphere reserve, and of sufficient size to meet these objectives”
- “A **buffer zone or zones** clearly identified as fulfilling buffering functions, surrounding or contiguous to the core area or areas, where only activities compatible with the conservation objectives can take place”
- “An outer **transition area** where sustainable resource management practices are promoted and developed” (UNESCO, 1986; UNESCO, 2021)

Within AHSUBR, the zones occupy 100% of the total terrestrial and marine area of 21,87.23 km². The spatial proportions of the zoning framework between marine and terrestrial areas at the time of nomination, are listed in Table 1.

Note: [The Canadian Protected and Conserved Areas Database \(CPCAD\)](#) is compiled and managed by Environment and Climate Change Canada (ECCC), in collaboration with federal, provincial, territorial jurisdictions, and other data providers. It is Canada's national reporting on protected areas through numerous reports on Federal Sustainability targets and international reporting on Canada's commitments under the UN Convention on Biological Diversity and provides baseline information for decision making. CPCAD is a tool HSBRS can use to measure progress and changes to zonation in the region.

ZONE	TERRESTRIAL AREA (KM ² / %)	MARINE AREA (KM ² / %)	TOTAL AREA (KM ²)	PROPORTION OF BIOSPHERE
Core	422.18 – 23%	1.6 – 0.475%	423.78	19%
Buffer	284.61 – 16%	19.1 – 5.46%	331.92	15%
Transition	1,130.56 – 62%	329.18 – 94%	1,459.74	66%
Total	1,837.35 – 84%	349.88 – 16%	2,187.23	100%

Table 1: Areas of Core, Buffer and Transition in AHSUBR, at time of UNESCO nomination, 2021.

3.2.1 Terrestrial Core Areas

Core Areas are “legally protected sites for conserving biological diversity, monitoring minimally disturbed ecosystems and undertaking non-destructive research and other low impact uses” (UNESCO, 2021). The AHSUBR terrestrial Core Areas are all legally protected areas. They are comprised of all or part of five provincial parks (Cypress, Garibaldi, Pinecone-Burke, Tantalus and Tetrahedron) and the Esté-Tiwilh/Sigurd Creek Conservancy, all established and managed under BC’s *Park Act* (Table 2). The Conservancy is part of the Esté-tiwilh Kwékwayex Kwelháynexw ta Skw̓xwú7mesh Temíxw Wild Spirit Place, as recognized through the *Xay Temíxw Land Use Plan*.

It is worth noting, however, that the Skw̓xwú7mesh Úxwumixw “was never adequately consulted with regard to the establishment of these parks, and while these parks protect some wilderness and wildlife values that are important to the Squamish Nation...they may not adequately meet the cultural needs and other values of the Nation.

Among other issues, designation as provincial Park under the *Park Act* does not guarantee Squamish Nation access to areas within the park for traditional activities nor prevent other uses inconsistent with these practices in these areas.” (Squamish Nation, 2022).

Collectively, these protected areas encompass over 422 km² of high elevation forests and alpine areas with multiple lakes and streams that cover 23% of AHSUBR’s terrestrial area. Four parks (Garibaldi, Pinecone-Burke, Tetrahedron and Tantalus) extend well beyond AHSUBR boundaries to include another 2,120 km² of protected areas contiguous with AHSUBR’s Core Areas. All Core Areas meet the criteria of IUCN Category II (Day et al., 2019), and either have a management plan in place or in development. Rugged terrain and high elevation keep these parks largely remote from human activities, offering isolation and a wilderness recreation experience. BC Parks has a Collaborative Management Agreement with Skw̓xwú7mesh Úxwumixw for most of the parks, with both parties working collaboratively.

CORE AREA	PROTECTED AREA (KM ²)	TOTAL PARK AREA (KM ²)	IUCN CATEGORY	MANAGEMENT PLAN
Garibaldi Provincial Park	230.18	1,946.76	II	1990
Tetrahedron Provincial Park	20.35	60.00	II	1997
Cypress Provincial Park	26.05	30.12	II	1997
Tantalus Provincial Park	108.09	113.51	II	2012
Esté-Tiwilh/Sigurd Creek Conservancy	11.12	11.12	II	2012
Pinecone Burke Provincial Park	26.12	380.00	II	In development
Total	422.18	2,541.51	- -	- -

Table 2: Terrestrial Core Areas in AHSUBR.

3.2.2 Marine Core Areas

The highest priority for marine biodiversity conservation in AHSUBR is to protect the very rare and globally significant hexactinellid glass sponge reefs that have been present for thousands of years. Present in the fossil record, they were believed extinct until their discovery in BC and USA waters in the 1980s. The reefs are a globally unique ecosystem found in only a few locations off the Pacific Northwest coast. In BC waters, they have been found in Hecate Strait, Queen Charlotte Sound, the Salish Sea and Átl'ka7tsem/Howe Sound.

In the Salish Sea and Átl'ka7tsem/Howe Sound, the reefs grow in relatively shallow water from 90 to 300 metres, or as shallow as 22 metres in Átl'ka7tsem/Howe Sound. The sponge complex at Halkett Point, for example, is the only known location on Canada's west coast where a sponge reef is found adjacent to a sponge garden ([see DFO for definition of each](#)); and being at only 30 metres deep, is one of the few air-diveable glass sponge reefs in the world. There are two species of reef-forming sponges, the cloud sponge (*Aphrocallistes vastus*) and the vase sponge (*Heterochone calyx*). These reefs also provide important habitats for many marine species, including spot prawns, rockfish, herring and sharks (DFO, 2021a).

A total of seventeen marine refuges and five fisheries area closures were established in 2015, 2019 and 2022 within the Strait of Georgia and Átl'ka7tsem/Howe Sound to protect glass sponge reefs from bottom-contact fishing gear. These protections are a result of the efforts of Fisheries and Oceans Canada's (DFO) *Glass Sponge Reef Conservation Initiative*, and the mapping and volunteer protection by the Marine Life Sanctuaries Society (MLSS) since the 1980s. The protections fall under the federal *Fisheries Act* (Table 3). Five of the 22 protected areas are fisheries area closures, announced by DFO in January 2022, that restrict bottom-contact commercial and recreational fishing activity to protect additional, and more recently discovered, glass sponge reefs. DFO is working towards establishing the remaining five sites as marine refuges. The five sites include portions of Alberta

Bay near Lions Bay, Carmello Point off south Gambier Island, Langdale near the ferry terminal, Mariners Rest on the west side of Gambier Island and Collingwood Channel between Keats and Bowen islands, covering a total of 5.2 km² (Table 3) (DFO, 2022).

In all seventeen marine refuges, fishing activities that pose a risk to the glass sponge reefs are restricted, including "...commercial, recreational and Indigenous Food, Social and Ceremonial bottom-contact fishing activities...", including fishing for prawn and crab by trap, shrimp and groundfish by trawl, and groundfish, including halibut, by hook and line (DFO, 2021a). In addition, eight marine refuges carry a prohibition on the use of downrigger gear for recreational salmon trolling due to the potential risk of damage to shallow reefs (DFO, 2021a). Furthermore, the marine refuge and fisheries area closure boundaries include a 150-metre buffer from the reefs' edges as an additional precautionary measure (DFO, 2021a).

Formally, all 22 of the Glass Sponge Reef marine refuges and fisheries area closures are considered "fishery area closures" under the *Fisheries Act* and do not constitute Marine Protected Areas (MPAs) under the federal *Oceans Act*. They are not permanent closures and can be removed at any time. However, they are considered a long-term "protection tool" and can offer "targeted protection for species and their habitats from the impacts of fishing."

Fisheries area closures can be considered Other Effective Area-Based Conservation Measures (OECMs) if they meet all of the criteria outlined in [Canada's 2022 OECM Guidance](#). As a result, a closure considered to be an OECM helps to contribute to the Government of Canada's commitment of protecting 25% of Canadian marine waters by 2025, working towards 30% by 2030. At this time, 17 of DFO's 22 glass sponge reef closures are considered OECMs and contribute to Canada's International conservation targets.

GLASS SPONGE REEF REFUGES AND AREA CLOSURES	YEAR REFUGE ESTABLISHED	TOTAL AREA (KM ²)	% OF TOTAL MARINE AREA IN BIOSPHERE
Refuges: Bottom-Contact Fisheries and Downrigger Restrictions			
East Defence Islands	2019	3.5	
Anvil Island			
Lost Reef			
Brunswick Point			
Lions Bay/Kelvin Grove			
Halkett Point			
Bowyer Island			
Dorman Point			
Refuges: Bottom-Contact Fisheries Restrictions			
Howe Sound & Defence Islands	2015	5.15	
Queen Charlotte Channel 1-4			
Area Closures: Commercial and Recreational Bottom-Contact Fisheries Restrictions			
Alberta Bay	2022	5.25	
Carmello Point			
Mariners Rest			
Langdale			
Collingwood Channel			
Total Area (Core + 150 m Buffer)		13.90	2.5%
Total Area (Core)		1.60	0.475%

Table 3: Marine Core Areas in AHSUBR.

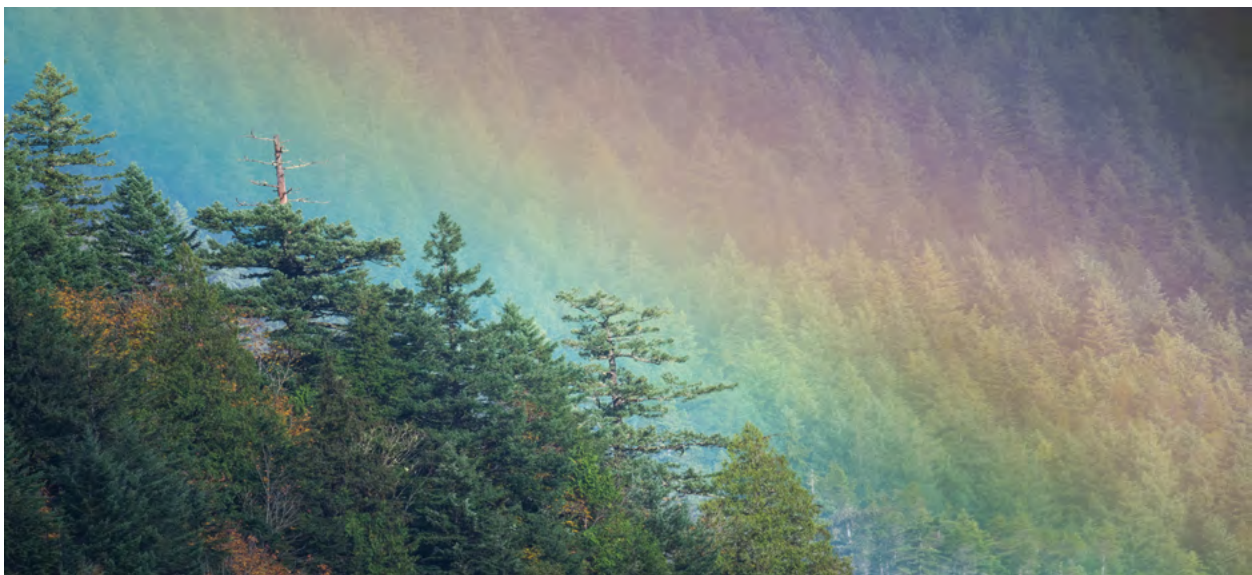
3.2.3 Terrestrial Buffer Zones

AHSUBR's terrestrial Buffer Zones of approximately 284 km², or 16% of AHSUBR's total terrestrial area, are comprised of either public land or other conservation lands, some being privately owned (Table 4). Most (88%) are situated immediately adjacent to and contiguous with AHSUBR's Core Areas. Much of these high elevation lands are either unforested alpine or subalpine forest or are highly constrained for forest management purposes. They are managed through various legal designations collectively identified as "Protected Areas" and "Resource Exclusion Areas" created under the *Park Act*, the *Forest and Range Practices Act*, the *Land Act* or the *Environment and Land Use Act*. These designations include conservancies, culturally significant areas, Wildlands, Wildlife Habitat Areas, Ungulate Winter Ranges, Old Growth Management Areas, Mineral Reserves or areas with visual quality objectives under the Government Actions Regulation. As a general rule, these designations do not constitute permanent protection and can be altered by local or regional government directives.

The second largest category of Buffer Zones is comprised of several types of protected area, including a Migratory Bird Sanctuary under the *Canada Wildlife Act*; provincial parks and a conservancy under the *Park Act*; ecological

reserves under the *Ecological Reserves Act*; a wildlife management area under the *Wildlife Act*; municipal parks, nature reserves and regional parks under the *Local Government Act* or the *Islands Trust Act*; and a small BC Protected Area at Stawamus Chief, created under the *Environment and Land Use Act*. In contrast to the large and isolated protected areas in AHSUBR's Core Area, these sites are relatively small and community oriented. Several also play a very important role in biodiversity conservation.

Of special significance is the Skwelwil'em/Squamish Estuary Wildlife Management Area (WMA), a long-standing conservation priority and success story, encompassing 6.73 km² of the largest and most productive estuarine ecosystem in Átl'ka7tsem/Howe Sound. This estuary provides wintering, migration, feeding and breeding habitats for myriad species of waterfowl and shorebirds, as well as raptors and passerines. Together with Brackendale Eagles Provincial Park and Baynes Island Ecological Reserve, the area attracts a globally significant congregation of bald eagles ranked among the largest in the world. This area is designated as an Important Bird Area (IBA) by Birds Canada and declared a Key Biodiversity Area (KBA) by the International Union for the Conservation of Nature (IUCN).



Sea to Sky Forest. Credit: Brian Aikens

BUFFER ZONE DESIGNATIONS	HABITAT FEATURES	AREA (KM ²)	IUCN CATEGORY	MANAGEMENT PLAN
BC Provincial Parks				
Alice Lake	Lakes, forest	4.12	II	2003
Brackendale Eagles	River, riparian forests, eagles, salmon habitat	7.64	IV	2012
Stawamus Chief	Granitic monolith, rock bluffs, forest	5.30	III	1997
Shannon Falls	Streams, falls, riparian forest	0.91	III	1985
Murrin	Lake, rock bluffs	0.32	II	1981
Apodaca	Rock bluff, rare plant communities, tidal	0.08	II	1954
Plumper Cove	Beach, forest	0.33	II	1960
Porteau Cove	Beach, forest	0.06	II	1981
Halkett Bay Marine	Rock bluff, coastline, forest	2.93	II	1988
BC Ecological Reserves				
Bowen Island	Flora, fauna, forest	4.00	II	1973
Baynes Island	River, islands, eagles	0.45	II	2012
Wildlife Management Areas				
Skwelwil'em Squamish Estuary	Estuary	6.23	IV	2007
Municipal Parks				
Nelson Canyon	Old-growth forest, creek	0.92		2014
Whyte Lake	Wetlands, lakes, old-growth forest	0.65		2014
Buffer – BC Protected Area				
Stawamus Chief	Rock bluffs, forest	0.02		2012
Sub-total of all Protected Areas		33.96		
Adjacent to Core Areas				
High elevation areas lacking commercial forest	Alpine, subalpine forest	42.67		
Resource Exclusion Areas				
Wildlands		46.85		
Wildlife Habitat Areas		19.95		
Ungulate Winter Ranges		72.72		
Old Growth Management Areas		64.14		
Mineral Reserve		4.32		
Sub-total of area in Resource Exclusion Areas		207.98		
Total Area		284.61		

Table 4: Designations and Management in the Terrestrial Buffer Zone

3.2.4 Marine Buffer Zones

The highest priorities for marine biodiversity conservation after the Core Areas in Átl'ka7tsem/Howe Sound are: 1) providing an effective buffer around the protected glass sponge reefs; and 2) the recovery of diminished populations of the fourteen species of rockfish found locally, as well as lingcod and other species that typically associate with them in the same habitat. Eleven

Rockfish Conservation Areas (RCAs) were created in 2007 throughout central and southern Átl'ka7tsem/Howe Sound, covering 39.18 km² of rocky reef marine habitat. AHSUBR's marine Buffer Zone is comprised of the Rockfish Conservation Areas (RCAs) and the 150-metre buffer around the Glass Sponge Reefs (see section 3.2.2).

3.2.5 Terrestrial Transition Area

AHSUBR's terrestrial Transition Area of 1,130.56 km² or 62% is comprised of a combination of public lands, private lands and First Nations Reserves. By far the largest land area is under the authority of the provincial government.

All settlements lie adjacent to the shoreline of the fjord, below the high elevation Core Areas and mid-elevation Buffer Zones. This lowland fringe also accommodates the transportation infrastructure and hence the vast majority of the social and economic activities.

All islands in Átl'ka7tsem/Howe Sound fall within the land use planning authority of the Islands Trust, a unique government created to “preserve and protect” the islands. The *Islands Trust Act* states that “The object of the Trust is to preserve and protect the Trust Area and its unique amenities and environment for the benefit of the residents of the Trust Area and of British Columbia generally...” (Islands Trust, 1996). All Official Community Plans must meet this objective. As a result, the density of development allowed is lower and environmental standards are higher than comparable mainland areas.

3.2.6 Marine Transition Area

Marine water comprises almost 350 km² or about 16% of the total area of AHSUBR. Of this, 86% is within the marine Transition Area, encompassing 301 km², where various commercial and recreational activities occur. Unlike on land, the implementation of sustainable resource management practices here is primarily a federal government responsibility through fisheries management, marine transportation and environmental protection. The seabed, however, falls under provincial jurisdiction.

Conservation and sustainable use measures are in place, including *Fisheries Act* regulations and programs to protect eight species of cetaceans

and pinnipeds, manage the limited commercial and sports fisheries, and facilitate the recovery of depleted species of fish and invertebrates, such as the prohibition on recreational fishing for rockfish and lingcod. Of increasing importance is the creation and enforcement of the Glass Sponge Reef Refuges and Area Closures. The *Fisheries Act* also administers the *Pulp and Paper Effluent Regulations* that have played such an important role in mitigating environmental impacts at the Port Mellon and former Woodfibre pulp mills.

The federal *Canadian Environmental Protection Act* (CEPA) is the cornerstone legislation for protecting Canada's environment. The Act is designed to prevent and control air and water pollution and protect from the environmental and health impacts of sources including chemicals, hazardous wastes, plastics and environmental emergencies.

Átl'ka7tsem/Howe Sound also supports a variety of recreational activities and shipping routes for ferries and commercial vessels, all managed under the *Canada Shipping Act* and its regulations with respect to navigation, ship-source pollution, ballast water control, environmental response and enforcement.

The ultimate success of the ongoing ecological recovery of Átl'ka7tsem/Howe Sound will depend to a large degree on the health of these marine transition waters, on what and where human activities take place, how sustainably they are practiced and how effective the administration and enforcement of the legislative framework is.

The diminished biodiversity from a century and a half of industrialization has shown hopeful signs of recovery. While increased protection efforts over the past decade have heralded a new beginning for Átl'ka7tsem/Howe Sound, further conservation measures are needed that go beyond the glass sponges and rocky reefs to a more holistic approach that includes full representation of all its marine environments, from estuaries to deep pelagic zones. Such an approach would require full integration with a suite of prescribed sustainable management practices for the ongoing and potential future activities in AHSUBR, including a limited commercial fishery, coastal industry, a variety of recreational activities and shipping for ferries and commercial vessels.

This desired holistic approach can be facilitated by recent research that mapped the distribution of a wide range of marine species and habitats, the locations and nature of various human activities and identified biodiversity hotspots that warrant special protection and management in Átl'ka7tsem/Howe Sound in the future (David Suzuki Foundation, 2022; MRG Átl'ka7tsem/Howe Sound, 2022).



Rockfish on sponge. Credit: Adam Taylor

4.1 Processes for Community Engagement and Consultation

HSBRIS engaged and consulted community for plan development in several ways:

- Nchu'ú7mut/Unity Plan discussion paper
- Targeted email and in-person communications
- Research and phone interviews
- Webinars and workshops
- Meetings and forums
- Online and social media

NCHU'Ú7MUT/UNITY PLAN DISCUSSION PAPER

In February 2022, HSBRIS published the *Nchu'ú7mut/Unity Plan Discussion Paper* to engage various sectors, First Nations and stakeholder groups. The paper was hosted on the [HSBRIS website](#), referred to in communications and made available in printed form at the elected officials' community forums. Questions in the paper focused on values, connection with Indigenous Peoples, the UN Sustainable Development Goals and AHSUBR governance.

This discussion paper formed the basis for engagement from March to November 2022. Generally, time and scope limited engagement for many overwhelmed by the volume of information. The paper did, however, generate dialogue about issues of importance to people in the region. Conditions beyond our control included turnover within the Ministry of Forest Lands and Natural Resource District and the 2022 municipal elections.

TARGETED EMAIL AND IN-PERSON COMMUNICATIONS

HSBRIS is building sector directories as resources allow, with student research assistants conducting outreach to organizations around the region to make connections and engage in dialogue.

In total, over 100 organizations were invited to participate. Organizations were asked to engage members/staff by inviting us to host a

dialogue session; with several NGOs and private organizations inviting HSBRIS to speak at AGMs and special meetings.

RESEARCH AND PHONE INTERVIEWS

Working with Capilano University, we commissioned student research projects to engage the forest and outdoor recreation/tourism sectors on the SDGs and identify the SWOTs facing these sectors.

WEBINARS AND WORKSHOPS

Webinars were held in fall 2022 to engage elected officials, local government staff and other key stakeholders, particularly around aspects of governance with the AHSUBR Roundtable. Open discussion solicited input on the recruitment and governance structure of the Roundtable as well as explored other initiatives and plans that feed into this management plan. Typically, the questions and conversation focused on a particular area of interest allowing for more discussion on issues of concern.

MEETINGS AND FORUMS

HSBRIS was invited to present on the plan to a range of groups throughout 2022. Information was also shared at the Howe Sound Community Forum in April 2022. Reference to the plan was embedded in Memorandums of Understandings between HSBRIS and local governments throughout the spring/summer of 2022.

A Future of Howe Sound in-person forum was held on November 5, 2022, to engage people in the management plan. The event followed the October 2022 municipal elections and numerous newly elected officials attended. During a three-hour Saturday morning event, 75 people from around the region representing various sectors participated. Their engagement generated good feedback on vision, values and a snapshot of the region's SWOT.

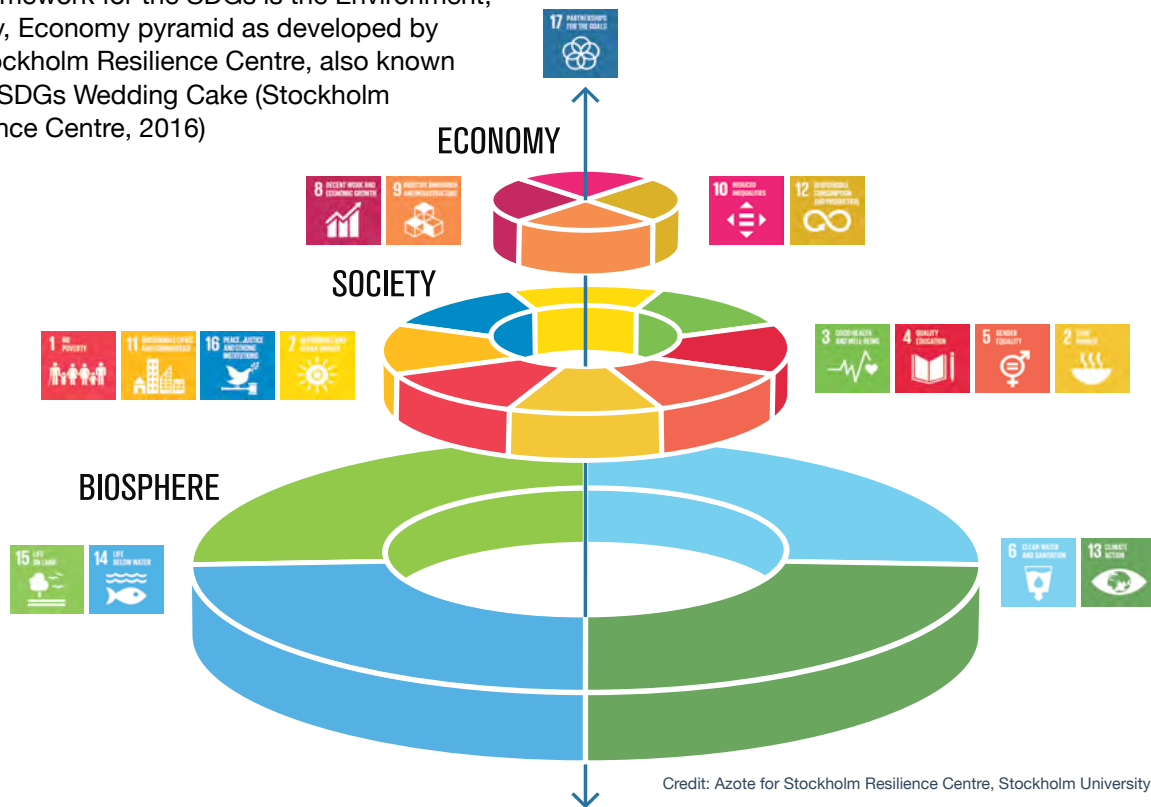
Key themes are summarized on our [website](#) and will be updated as new information is gathered.

ONLINE AND SOCIAL MEDIA

A [management plan web page](#), including discussion paper and feedback form, is hosted on the HSBRI website. This was shared on social media channels (Facebook, Instagram, Twitter and LinkedIn).

Supporting web pages explore the SDGs and are updated as new information becomes available. The framework for the SDGs is the Environment, Society, Economy pyramid as developed by the Stockholm Resilience Centre, also known as the SDGs Wedding Cake (Stockholm Resilience Centre, 2016)

Skwxwumixw members have been invited to participate throughout. Early in the process, the Discussion Paper was submitted through the Nation's Squamish Connect portal. Comments from the Nation's staff in the Rights and Titles department were incorporated. Invitations to attend the Future of Howe Sound forum were shared with members on social media. We continue efforts to engage with the Skwxwumixw.



4.2 The SWOT Process

In addition to the many resources available to us, we have drawn upon a variety of regional reports and strategic plans, published by local, regional, provincial and federal governments (see appendix A). These reports incorporate, in one form or another, strengths, weaknesses, opportunities and threats. This includes the *Vital Signs* reports developed

for regional communities and [collectively compiled for the Sea to Sky Region](#). Rooted in the SDGs, these reports offer a review of the vitality of a community and identify areas where there are concerns or issues. The last collective report came out in 2020, i.e., earlier in the COVID pandemic. Issues across all communities included concerns around housing,

transportation, affordability, and environment. In the more recent reports of two AHSUBR communities ([Squamish](#) and [West Vancouver](#)), these concerns are only becoming more challenging.

The runup to the October 2022 municipal elections was well-timed for the development of the management plan as the dialogue that occurs then is an opportune time to gauge the main issues on the minds of residents and property owners.

Each year, HSBRS convenes various forums such as the Howe Sound Community Forum, the Ocean Watch Action Committee, and the Howe Sound Conservation Network. We participate on advisory committees and engage in public consultation sessions for specific commercial

developments as they go through environmental reviews or rezoning applications. We participate on Climate Action committees at the local level and provide a region-wide perspective while learning about trends and staying current with development and planning activities.

Our [web pages on the UN SDGs](#) inform on the global goal, Canada's commitment to the goal and provide examples of issues affecting the region and how certain organizations contribute toward the goal. The public is invited to provide feedback.

Through our work conducting and hosting forums and engaging people around the region in a dialogue on the goals, the information is updated when information becomes available through special events or circumstances.

4.3 Highlights of Ongoing Consultation

Given the diversity of the communities, organizations and sectors in the region along with their activities, combined with the seventeen UN SDGs and their individual targets, summarizing the strengths, weaknesses, opportunities and threats is a sizable undertaking. However, in compiling the SWOT feedback, five overarching categories emerged (natural assets/biodiversity, infrastructure, governance, people, economy) with climate change impacts as a sixth that was pervasive throughout owing to realities faced across the region.

For context, at the time of writing in 2022, there were and continue to be ongoing consequences of COVID-19 impacting people, organizations and communities. This includes environmental pressures from increasing numbers of people enjoying the outdoors. Staffing shortages continue, due in part to housing affordability and restructuring of organizations.

Climate change impacts over the year included severe water shortages and prolonged drought, and power outages from windstorms and tree damage. In short, both global and regional issues were reflected in the feedback. A [SWOT report is hosted on our website](#), with a brief summary on the following pages.





CLIMATE ACTION

STRENGTHS: all local governments declared a Climate Emergency and most have climate action targets and actions underway.

WEAKNESSES: Improvements and upgrades to water/sanitation upgrades, improved public transportation and retrofitting buildings.

OPPORTUNITIES: financial incentives for building retrofits; enhanced advocacy, outreach and community involvement with shared goals particularly in opposition to new fossil fuel infrastructure.

THREATS: extreme weather events resulting in damage to foreshore structure, drought and wildfire risks.



NATURAL ASSETS/LAND/BIODIVERSITY

STRENGTHS: appreciation for and understanding natural assets value; restoration projects and community involvement in cleanups; many regulations for environmental protections in place; and regional growth strategies and smart growth planning.

WEAKNESSES: lack of resources for enforcement; lack of data on species at risk; and community opposition to social changes at the required pace to meet challenges.

OPPORTUNITIES: enhanced education, improved tourism management; understanding cumulative effects; improved use/storage of water; and natural assets for climate mitigation and greener economy.

THREATS: extreme weather events resulting in erosion; planning and actions not keeping pace with environmental changes; lack of enforcement and management of overpopulated recreation sites; industrial activities impacting aquifer recharge areas and intertidal areas; and continued logging of old growth trees.



INFRASTRUCTURE

STRENGTHS: financial incentives for local governments; alternative solutions for addressing water shortages; and densification planning.

WEAKNESSES: lack of good Sea to Sky transportation management plan; and continued traffic volume increases on highways.

OPPORTUNITIES: improve monitoring and knowledge of sanitary, sewer and effluent management and drinking water to improve water.

THREATS: new fossil fuel infrastructure; inadequate stormwater infrastructure; and lack of affordable housing and emergency response coordination across the region.



GOVERNANCE

STRENGTHS: Skwxwú7mesh Úxwumixw leadership and renewal of their land use plan; UNESCO biosphere designation and co-governance; ecosystem-grounded watershed focus transcending boundaries and jurisdictions; and a generally supportive political climate.

WEAKNESSES: polarization within communities and resistance to necessary changes keeping pace with climate change impacts.

OPPORTUNITIES: enhance science and prioritize environmental goals in permitting and approvals; enhance jurisdictional and ministerial collaboration for watershed and recharge protection; improve marine policy management; improve economic investment aligned with SDGs; improve transportation management; and better align with Indigenous ways of knowing, re-Indigenization and reconciliation.

THREATS: lack of government funding, enforcement and ineffective decision-making threatens Species at Risk and sensitive ecosystems; and extensive wildfire, particularly in rural areas.



PEOPLE

STRENGTHS: passionate and committed people; good access to research (e.g., Marine Reference Guide and the Cumulative Effects reports) and academic resources; and many organizations, partnerships and collaborations.

WEAKNESSES: lack of understanding of importance of biodiversity conservation; and increased numbers of people in the outdoors.

OPPORTUNITIES: capacity for mapping and data collection and education, including on biosphere region and work on biodiversity conservation; continue building knowledge base and improving cumulative effects framework; utilize Indigenous consultants and research projects to be strategic with development plans; and increase industry engagement and facilitate cross-governmental problem solving.

THREATS: increased human pressure on lands and waters; tension between rural landowners and urban users; mental health and wellness impacts; and loss of Indigenous knowledge.



ECONOMY

STRENGTHS: strong and diversified regional economy.

WEAKNESSES: housing shortages and cost of living make it hard on employers to attract and retain staff.

OPPORTUNITIES: regional growth targets and population increase creating new developments; and desirable place to live, work and play.

THREATS: continued lack of affordable housing and transportation.

The full SWOT report is [hosted on the HSBRIS website](#).

5.1 UNESCO Governance Expectations

UNESCO's Technical Guidelines for biosphere regions require effective governance that provides "...the structures and processes that determine how decisions about a biosphere reserve [or region] are taken and how stakeholders are included. Effective governance is key to implementing and coordinating all activities in a biosphere reserve [or region]" (UNESCO, 2021). UNESCO does not, however, prescribe a particular governance structure but emphasizes the importance of designing a structure that is appropriate to the region, encouraging 'institutional innovation' that

"...creates opportunities to involve various stakeholders, notably the people who live and work in the transition areas and/or buffer zones, and to promote sustainable socio-economic development, thereby creating the wealth of the [biosphere region]" (UNESCO, 2021). Further, the global experience with biosphere regions demonstrates that "stakeholder engagement is crucial to gain community acceptance, foster intersectoral cooperation and provide management with more legitimacy" (Heddon-Dunkhorst and Schmitt, 2020).

5.2 Collaborative Management and the Basis for Cooperation

HSBRIS has adopted a collaborative approach since its inception in 2017. Consultation forums including the Howe Sound Community Forum and the AHSUBR Roundtable also adopt an inclusive model. HSBRIS has adopted the following statement of Vision, Mission, Purpose and Values in its Strategic Plan (2021-2026) as a foundation for implementing this collaborative approach to governance (HSBRIS, 2021).

HSBRIS recognizes that the Skwxwú7mesh Úxwumixw have lived in the territory encompassed by AHSUBR since time immemorial. HSBRIS honours the unique relationship of the Skwxwú7mesh Úxwumixw with these lands and waters and the deep-rooted, spiritual connection to nature that has informed their culture and way of life for thousands of years. This essential relationship permeates all aspects of the design and operation of HSBRIS, the AHSUBR Roundtable, the Howe Sound Community Forum and other advisory groups and mechanisms.



Black Tusk. Credit: Steve Quane

OUR VISION

An Átl'ka7tsem/Howe Sound where humanity and nature thrive.

OUR MISSION

HSBRIS will facilitate and support the organizing and planning of complex activities that bring allegiance to balancing development, conservation and equity in the Átl'ka7tsem/Howe Sound region.

OUR PURPOSE

To strengthen collaboration in Átl'ka7tsem/Howe Sound Biosphere Region. We do so in pursuit of three outcomes to key systemic challenges for the region:

SUSTAINABLE DEVELOPMENT: An overarching, holistic land and marine use plan, mutually recognized and respected by First Nations, civil society, multi-sector stakeholders, and all levels of government.

BIODIVERSITY CONSERVATION: Needs are understood and defined, and measures are in place to ensure the conservation of critical ecological values.

RECONCILIATION, EQUITY & INCLUSION: Needs and meaning for the Skwxwú7mesh Úxwumixw and all nations and communities in the region are learned and defined collaboratively, and plans for advancement are mutually supported.

OUR VALUES

In fulfilling our Mission, we are guided by the following principles:

APPRECIATION: We seek to recognize the best in people and places that surround us, to honour the history, stories and culture of those that came before us, and to value, protect, and celebrate those things that give us life.

MUTUAL RESPECT: We are open and adaptive in our interactions across cultural differences, acknowledging that all knowledge systems are validated and equally respected – that no worldview is above another.

COLLABORATION: We are unwavering in our desire to strengthen relationships and trust among people and communities, working together transparently and with care, to build our collective capacity for the benefit of the entire region.

CREATIVITY: We see the strengths and possibilities in diversity and encourage the sharing of knowledge, ideas, and responsibility to co-create the innovative solutions required to solve our challenges, together (HSBRIS, 2021).

5.3 Guiding Principles for HSBRIS and the AHSUBR Roundtable

The following Guiding Principles will direct the work of HSBRIS and the AHSUBR Roundtable, based on an underlying commitment to work collaboratively and nurture respectful relationships that:

1. **Inspire connection** with Átl'ka7tsem/Howe Sound and each other
2. **Establish respectful processes** that include First Nations perspectives, methods of decision-making, cultural values and historical connections to the land
3. **Develop trusting relationships** with AHSUBR partners and support appropriate collaborative projects with all sectors within the region
4. **Ensure First Nations perspectives are used** in framing discussions about the AHSUBR
5. **Value traditional knowledge** on an equal footing with other forms of expertise while protecting the confidentiality of culturally sensitive information
6. **Promote the UNESCO mandate** and the goals of the AHSUBR while recognizing and honouring the First Nations unique relationship with AHSUBR lands
7. **Explore and develop ways to enhance HSBRIS's role** within the region while being thoughtful and respectful of all interests
8. **Identify community engagement possibilities** as well as associated research and education that support the mandate of the UNESCO-designated AHSUBR
9. **Collaboratively identify funding sources** to undertake AHSUBR-related initiatives, particularly those of interest to First Nations
10. **Co-Create opportunities to engage, inform and educate** on topics such as Reconciliation, Indigenization and Decolonization, Conservation, Biodiversity and Sustainable Development

5.4 A Governance and Coordination Structure for AHSUBR

HSBRIS has assumed responsibility for the administration and coordination of the designation of AHSUBR. HSBRIS was incorporated on July 6, 2017, as a registered non-profit organization, established to seek the UNESCO designation and, upon success, to advance and support AHSUBR's Vision, Goals and Strategic Priorities (see Section 6.0).

Guided by HSBRIS' Strategic Plan (2021-2026) and this management plan, HSBRIS's primary role will be to develop strategic direction and long-term planning for the biosphere region (HSBRIS, 2021). HSBRIS is autonomous from the authorities of local, regional, provincial and federal governments and agencies.

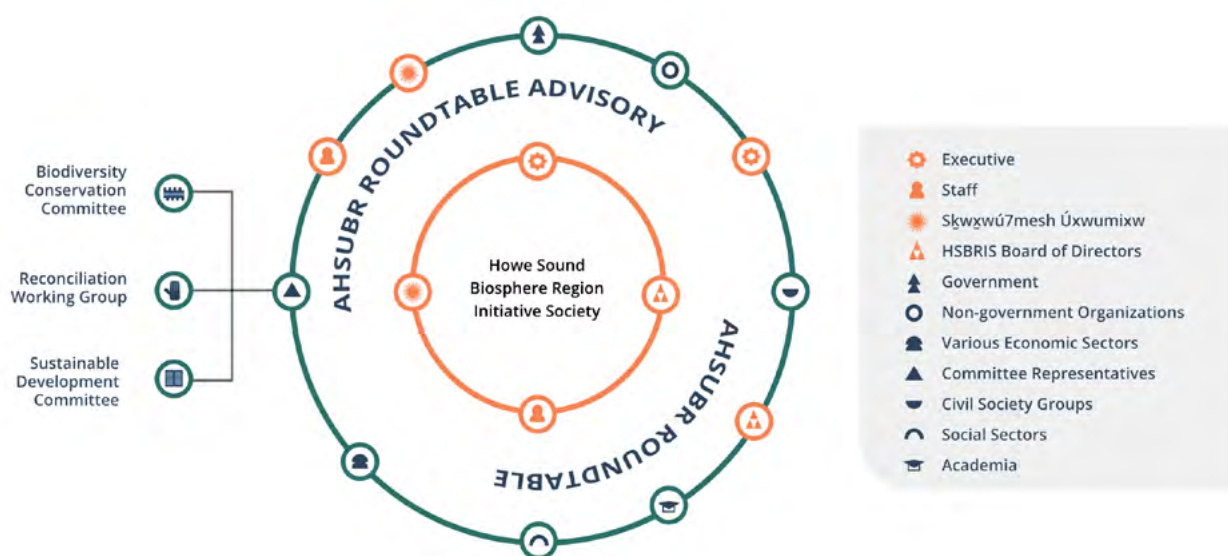
In accordance with its Terms of Reference (see Appendix x), HSBRIS will have a small complement of staff, the HSBRIS Board of Directors and the AHSUBR Roundtable. The Board of Directors is a body of eight to ten people with diverse expertise and a balanced representation of interests within the region.

Volunteer Board Directors will work with the HSBRIS Executive Director on governance, fundraising, strategic planning, direction and accountability, while focused on guiding the AHSUBR toward achieving its Vision, Goals and Strategic Priorities.

HSBRIS will also convene the AHSUBR Roundtable whose purpose is to provide advice and strategic guidance to HSBRIS. The Roundtable will be an inclusive advisory body of invited participants that will assemble a geographically and sectorally balanced representation of First Nations, federal, provincial and local governments, various commercial sectors and civil society (see Terms of Reference in Appendix B). Participants are considered to be ‘ambassadors’ for AHSUBR and, while representing the interests of AHSUBR, possess a degree of independence in that they do not speak for HSBRIS and vice versa.

The Roundtable will be instrumental to the pursuit of collaboration by building strong connections and consensus across sectors in the region and setting priorities for activities and projects to implement the Vision and Goals for the biosphere region. The advice and guidance of the Roundtable participants will focus on 1) biodiversity conservation in marine and terrestrial ecosystems; 2) sustainable development in line with the UNESCO’s Man and the Biosphere Program and the UN SDGs; and 3) reconciliation with Skwxwú7mesh Úxwumixw in recognition of UNDRIP. The Roundtable will be convened twice a year. Additional working groups or committees may be formed to address specific topics or issues.

HSBRIS will have a small complement of professional and administrative staff, supplemented by volunteers as necessary, to manage its operations and make the necessary preparations for the bi-annual Roundtable meetings, materials, communications and reports.



6.1 Vision: Defining the Desired State for Átl'ka7tsem/Howe Sound

At the November 2022 Future of Howe Sound forum (see section 4.1), a visioning exercise led to the following vision statement.

In the future desired state for the Átl'ka7tsem/ Howe Sound ocean and watershed, the marine and terrestrial realms will function properly through integrated ecosystems. This foundation will support an inclusive, equitable society and resilient economy where humanity and nature thrive.

Such ideal environmental conditions will, in turn, enable the development of a vibrant economy based on sustainable resource development, tourism, marine-based transportation, technical innovation and the burgeoning service industry. AHSUBR will demonstrate the benefits of collaboration by designing and facilitating a future of ecological and economic sustainability by encouraging community dialogue in the development of realistic and achievable solutions

with long-term impact, integrity and resilience. A strong employment base will support vibrant, sustainable communities, creating a society that functions in an atmosphere of mutual respect and understanding. AHSUBR/HSBRIS will demonstrate the leadership needed to unify the region and its agents of governance to ensure a holistic, integrated and ecosystem-based approach to conservation and sustainable development.

The emerging reconciliation between the Skwxwú7mesh Úxwumixw and settler culture will strengthen the enduring partnership that is already working to secure this future for Átl'ka7tsem/Howe Sound. Relationship-building through collaboration is essential to achieving this desired state. The realization of this is demonstrated through the HSBRIS organizational framework, with Skwxwú7mesh Úxwumixw as integral partners, including at the AHSUBR Roundtable, the Howe Sound Community Forum and various working committees.

6.2 Goals and Strategic Priorities for Biodiversity Conservation

Conservation of biodiversity is a central function of a biosphere region, with a view to making a significant contribution to the conservation of landscapes, ecosystems, species and genetic variation, both within the biosphere region and beyond its boundaries. As stated in the UNESCO nomination document:

“The AHSUBR initiative is motivated by the need to protect and conserve biodiversity in the region and support Canada’s commitment to the Aichi targets. Current and future protected areas are to be safeguarded from the pressures of human activities that could erode their values to biodiversity. Strengthening protection for species’ habitats starts with educating about the ecosystem values and working together to protect those values. Strengthening effective management of the protected areas is a

goal for preserving these spaces for future generations. HSBRIS supports projects that...stem further loss of biodiversity and help fill in the gaps where more work needs to be done.” (HSBRIS, 2020).

The Aichi targets mentioned above were established in 2011 under the UN Convention on Biological Diversity (CBD) and expired in 2020 but were recently supplanted by Canada’s Nature Legacy and its new conservation targets. This federal commitment is further supported by the Kunming-Montreal Global Biodiversity Framework agreement, ratified at the 2022 UN Biodiversity Conference in Montreal, otherwise known as COP15.

A summary of all AHSUBR goals can be found in Appendix C.



BIODIVERSITY CONSERVATION GOALS

- GOAL 1** Átl'ka7tsem/Howe Sound Biosphere Region Roundtable provides strategic guidance, and facilitates collaboration among stakeholders and rightsholders, to halt and reverse biodiversity loss in Átl'ka7tsem/Howe Sound and facilitate the ongoing renewal and recovery of its marine and terrestrial ecosystems.
- GOAL 2** Pursue the conservation of biological diversity throughout Átl'ka7tsem/Howe Sound, with priority given to the conservation of 1) representative ecosystems – the full range of marine, terrestrial and freshwater biodiversity; 2) species of national and international significance; and 3) species documented as rare, endangered, at-risk or culturally significant.
- GOAL 3** Implement the Canada Nature Legacy targets in Átl'ka7tsem/Howe Sound to protect at least 25% of land, freshwater and ocean ecosystems by 2025 and 30% by 2030.
- GOAL 4** Find innovative ways to balance the needs of man and nature and explore the application of the concept “Nature Needs Half” throughout Átl'ka7tsem/Howe Sound.
- GOAL 5** Develop ways and means of increasing the involvement of a collaborative force of federal and provincial government enforcement staff, First Nations staff and a volunteer corps from a range of organizations and civil society to improve monitoring and enforcement capability throughout AHSUBR.

BIODIVERSITY CONSERVATION STRATEGIC PRIORITIES



GOAL 1

Átl'ka7tsem/Howe Sound Biosphere Region Roundtable provides strategic guidance, and facilitates collaboration among stakeholders and rightsholders, to halt and reverse biodiversity loss in Átl'ka7tsem/Howe Sound and facilitate the ongoing renewal and recovery of its marine and terrestrial ecosystems.

1. In collaboration with the Skwxwú7mesh Úxwumixw, integrate Indigenous knowledge into decision-making.
2. Identify and publicize high priority species and sensitive habitats for key terrestrial and marine environments.
3. Collaborate with land and marine management agencies at the federal and provincial levels to elevate the importance of these key species and habitats in land and marine use planning.
4. Encourage the Government of Canada to complete assessments of federally listed species, such as the grizzly bear and salmon, to enable the development of recovery strategies that resource managers can use to incorporate solutions into their short- and long-term planning.
5. Collaborate with local and regional governments in their community planning and bylaw development to place priority on mitigating impacts on key species from community and infrastructure development.



GOAL 2

Pursue the conservation of biological diversity throughout Átl'ka7tsem/Howe Sound, with priority given to the conservation of 1) representative ecosystems – the full range of marine, terrestrial and freshwater biodiversity; 2) species of national and international significance; and 3) species documented as rare, endangered, at-risk or culturally significant.

1. Assess the extent to which the existing system of protected areas in AHSUBR is representative of the biogeoclimatic zones that characterize the heavily forested slopes of the Coast Mountains, including the Mountain Hemlock (MH) and Coastal Western Hemlock (CWH) zones and also including the Alpine Tundra (AT) zone.
2. Identify and map the remaining areas in the Very Dry Maritime subzone of the CWH forest (CWHxm1), a recognized conservation priority in the Coastal Douglas-fir and Associated Ecosystems Conservation Partnership (CDFCP), and assess the potential for its increased protection, as has recently occurred at Cape Roger Curtis on Bowen Island.
3. Ensure that species of national and international interest, such as the hexactinellid/glass sponges and the bald eagle congregations by the Squamish River, receive the necessary level of recognition and habitat protection to ensure their long-term survival.
4. Ensure the species documented as rare, endangered and at-risk receive the necessary level of recognition and habitat protection to ensure their long-term survival.
5. Ensure a focus on species whose life cycles span the terrestrial and marine environments, such as the Marbled Murrelet, and facilitate the required multi-jurisdictional collaboration and special considerations in development and recovery planning.
6. Ensure a focus on culturally significant species which are often also foundation species that are key in structuring the biodiversity of ecosystems in the region.



Pink Salmon. Credit: Bob Turner



GOAL 3

Implement the Canada Nature Legacy targets in Átl'ka7tsem/Howe Sound to protect 25% of land, freshwater and ocean ecosystems by 2025 and 30% by 2030.

1. Conduct a Gap Analysis of existing marine and terrestrial protected area systems to identify gaps in the area, extent and level of protection for all representative ecosystems, species and habitats.
2. Participate in the Government of Canada's Ocean Management Contribution Program, part of Canada's Nature Legacy, to improve management effectiveness, establish new Marine Protected Areas (MPAs) and Other Effective Conservation Measures (OECMs), improve collaboration among all agents of governance, advance marine spatial planning and take a leadership role in international advocacy.
3. Assess the range of non-protected area land and marine resource use categories that contribute to conservation, restoration and connectivity, and their ability to meet the international guidance and standards needed to qualify as OECMs.
4. In collaboration with the Skwxwú7mesh Úxwumixw, assess Indigenous Protected and Conserved Areas (IPCAs) as a modern tool for creating new Indigenous-led protected areas within and adjacent to AHSUBR.
5. Identify and map candidate areas for OECMs and IPCAs and facilitate collaboration among the agents of governance and stewardship groups to meaningfully contribute to conservation within candidate areas.
6. Participate in the Old Growth Nature Fund for BC to identify and work with the Skwxwú7mesh Úxwumixw and the provincial government to protect the remaining stands of older and old growth forests, especially in the CWH and in particular, the CWHxm1.
7. Support Natural Climate Solutions Funded projects helping to reverse nature loss and fight climate change.



GOAL 4

Find innovative ways to balance the needs of humans and nature, and explore the application of the concept "Nature Needs Half" throughout Átl'ka7tsem/Howe Sound.

1. Assess the internationally recognized "Nature Needs Half" concept and consider the potential of AHSUBR to be considered among the few candidates globally to aspire to this idea.
2. Apply conservation science to determine what nature's needs are in AHSUBR, given that 33%* of AHSUBR lands and approximately 3%* of its marine environments are in protected and conserved areas within the Biosphere Region's Core Areas and Buffer Zones.

* Percentages acquired from [CPCAD](#)



GOAL 5

Develop ways and means of increasing involvement from a collaborative force of federal and provincial government enforcement staff, First Nations staff and a volunteer corps from a range of organizations and civil society to improve monitoring and enforcement capability throughout AHSUBR.

1. Support the establishment of the “Átl’ka7tsem/Howe Sound Guardian Watchmen”, a corps of First Nations’ volunteers and/or paid staff, supported by HSBRS and the Coastal Guardian Watchmen of BC, to monitor resource use, activity and health; conduct ecological research; mentor youth; and protect cultural sites, among other roles, throughout their traditional territory in AHSUBR.
2. Facilitate and support the collaboration of the appropriate government agencies and non-government organizations with the Coastal Guardian Watchmen of BC program for an integrated approach to improved enforcement and monitoring and fight climate change.

6.3 Goals and Strategic Priorities for Sustainable Development

Balancing the biodiversity conservation agenda is the equally important role of AHSUBR and HSBRS in “fostering economic and human development which is socio-culturally and ecologically sustainable” (HSBRS, 2020). Realizing the potential of AHSUBR and its communities to collectively become a model for sustainable development is made all the more possible by the agreement of all agents

of governance, and most particularly, local and regional governments, with the biosphere region designation and with this plan. Implicit in this agreement is their commitment to effectively manage growth, to follow best practices and to invest in the necessary infrastructure to adapt to growing tourism and recreation demands, as well as the necessary adaptation to climate change.



View of Squamish estuary and Stawamus Chief. Credit: Chris Christie



SUSTAINABLE DEVELOPMENT GOALS

- GOAL 1** Aspire for AHSUBR and its communities to be a model for sustainable development by demonstrating the integration of the core elements of sustainable development: economic growth, social inclusiveness and environmental protection.
- GOAL 2** Confirm and publicize the value of the ecological goods and services provided by Átl'ka7tsem/Howe Sound, estimated at \$4.7 billion annually (David Suzuki, 2015), as an indispensable source of food, clean water, a stable climate, protection from natural disasters and a place to recreate and reconnect with nature.
- GOAL 3** Contribute to community resilience through adopting and promoting the UN's Sustainable Development Goals.
- GOAL 4** In collaboration with local and regional universities, develop projects that attract new resources to the region, in particular, new funding initiatives, education programs and research capacity.
- GOAL 5** Champion "Nature-based Solutions" in developing strategies and programs for biodiversity conservation, sustainable development and the delivery of ecological goods and services.
- GOAL 6** Have a measurable, positive impact on the environment, economy and communities of Átl'ka7tsem/Howe Sound focussed on improving the quality of life for residents and visitors.

SUSTAINABLE DEVELOPMENT STRATEGIC PRIORITIES



GOAL 1

Aspire for AHSUBR and its communities to be a model for sustainable development by demonstrating the integration of the three core elements of sustainable development: economic growth, social inclusiveness and environmental protection.

1. Provide clarity about what being "a model for sustainable development" actually means in the context of the existing social, economic and environmental fabric of the AHSUBR and its communities.
2. Review the *Sea-to-Sky Land and Resource Management Plan* (LRMP); the *Xay Temíxw* Land Use Plan; the official community plans for all local and regional governments, including the Islands Trust; regional growth strategies; and the resource development and protection plans for the provincial and federal land and marine management agencies, to evaluate their contributions to guiding AHSUBR toward becoming a model for sustainable development.
3. Recognize contributions from existing regional plans but also the gaps in existing programs and policies that would need to be filled or altered to guide AHSUBR toward becoming a model region.
4. Exemplify leadership toward the recognition of UNDRIP and the application of DRIPA to provincial and federal laws toward fulfilling AHSUBR's Vision and Strategic Priorities.



GOAL 2

Confirm and publicize the value of the ecological goods and services provided by Átl'ka7tsem/Howe Sound, estimated at \$4.7 billion annually (David Suzuki, 2015), as an indispensable source of food, clean water, a stable climate, protection from natural disasters and a place to recreate and reconnect with nature.

1. Provide regular updates through reporting directly to the AHSUBR communities about the biosphere region as a capital asset and the true economic value of the ecosystem services provided by the terrestrial and marine ecosystems.
2. Regularly reassess the value of the ecological goods and services provided by AHSUBR ecosystems in a way that tracks the connections between environment and economy, and that monitors trends on how ecosystem values change over time.



GOAL 3

Contribute to community resilience through adopting and promoting the UN's Sustainable Development Goals.

1. Provide leadership in building awareness of the Sustainable Development Goals (SDGs) and support in developing activities and programs to address a range of sustainable development issues in the AHSUBR communities.



GOAL 4

In collaboration with local and regional universities develop projects that attract new resources to the region, in particular new funding initiatives, education programs and research capacity.

1. Collaborate with education institutions, in particular, local and regional universities and colleges, to develop courses and curriculum materials about the ecological, cultural and economic sustainability of AHSUBR that utilize the close proximity of the region to these institutions and capitalize on its wealth of history and natural and cultural assets.
2. Identify research priorities that address the Unity Plan's Vision and Strategic Priorities and target funding sources accordingly that align with them.



GOAL 5

Champion “Nature-based Solutions” in developing strategies and programs for biodiversity conservation, sustainable development and the delivery of ecological goods and services.

1. Provide leadership in the development of innovative solutions that work with nature to guide the ongoing restoration and recovery of Átl'ka7tsem/Howe Sound in both the marine and terrestrial realms and to help mitigate the impacts of climate change.
2. Develop education materials for the public and all agents of governance to increase awareness of nature-based solutions and of the value and benefits of this approach in contrast to more conventional approaches to project development and issue resolution.



GOAL 6

Have a measurable, positive impact on the environment, economy and communities of Átl'ka7tsem/Howe Sound focussed on improving the quality of life for residents and visitors.

1. Work with responsible authorities and the Skwxwú7mesh Úxwumixw to demonstrate nature-based solutions to sustainable development-related problems or issues that have an immediately perceptible change that improves the quality of life for people in AHSUBR communities.
2. Work with stakeholders and community partners to demonstrate and engage in practical measures with short-term measurable results, such as invasive plant removal, improving air and noise pollution, providing greater protection for endangered species and stimulating new job opportunities.
3. Facilitate the tracking of trends in biodiversity conservation and sustainable development initiatives, from small to large projects.

6.4 Goals and Strategic Priorities for Reconciliation, Equity and Inclusion

Indigenous sovereignty is honoured; where people's unique identities, experiences, and voices are valued, celebrated, and

protected; and where all have the resources and social capital to ensure their wellbeing and prosperity - leaving no one behind.



RECONCILIATION EQUITY AND INCLUSION GOALS

- GOAL 1** Aspire for the AHSUBR region to be a model for reconciliation with Indigenous communities, actualizing the vision and principles of UNDRIP and DRIPA through collaboration and a collective commitment.
- GOAL 2** Have a measurable and positive impact on the communities of local First Nations by integrating their values and goals into all areas of our work and through facilitating reconciliation with the land.
- GOAL 3** Ensure HSBRSIS staffing and Board operations, as well as partnerships with external stakeholders, strive to meet the goals of the UN SDGs regarding reconciliation, equity and inclusion.
- GOAL 4** For all municipalities and authorities to adopt the policies against racism, discrimination, exclusion and intolerance and together, undertake initiatives to eliminate all forms of discrimination with a view to building open and inclusive societies.

RECONCILIATION
EQUITY AND
INCLUSION
STRATEGIC
PRIORITIES



GOAL 1

Aspire for the AHSUBR region to be a model for reconciliation with Indigenous communities, actualizing the vision and principles of UNDRIP and DRIPA through collaboration and a collective commitment.

1. Incorporate First Nations' languages into external stakeholder and community communications and publications and encourage recognition of Skwxwú7mesh Úxwumixw place names at community meetings.
2. Encourage, implement or facilitate educational products (e.g., interpretive signage, workshops, publications, online resources) that incorporate the worldviews, perspectives, place names and languages of local First Nations.



GOAL 2

Have a measurable and positive impact on the communities of local First Nations by integrating their values and goals into all areas of our work and through facilitating reconciliation with the land.

1. Collaborate with local First Nations to support or create job opportunities for youth and other First Nations individuals.
2. Support the Skwxwú7mesh Úxwumixw in achieving their strategic plan and their Xay Temíxw land and marine use plan, including monitoring, protection and enforcement goals through facilitating stakeholder engagement, and research, monitoring and conservation projects.



GOAL 3

Ensure HSBRS staffing and Board operations, as well as partnerships with external stakeholders, strive to meet the goals of the UN SDGs regarding reconciliation, equity and inclusion.

1. Integrate Indigenous perspectives into our operations and communications, including building ethical spaces into meetings, workshops and the AHSUBR Roundtable.



GOAL 4

For all municipalities and authorities to adopt the policies against racism, discrimination, exclusion and intolerance and together, undertake initiatives to eliminate all forms of discrimination with a view to building open and inclusive societies.

1. All Howe Sound communities to be members of the Coalition of Inclusive Communities that improves their practices to promote social inclusion, eradicates all forms of racism and discrimination, promotes human rights and commits to respecting, protecting and promoting human rights and diversity.
2. All Howe Sound communities to consider the UN SDGs and the community Vital Signs reports for recommendations for building more inclusive communities, paying particular attention to the community surveys indicating target areas for improvement.

6.5 Goals and Strategic Priorities for Logistical Support

The role of providing logistical support is the primary purpose of HSBRIS, to ensure that “people, culture and humanity in the region thrive in harmony with nature.” HSBRIS will strive to foster the collective allegiance among communities, the Skwxwú7mesh Úxwumixw, stakeholders and agents of governance to embrace the importance of balancing conservation and sustainable development throughout AHSUBR. In so doing, HSBRIS will support demonstration projects, environmental education, training, research and monitoring related to local, regional, national and global issues of conservation and sustainable development (UNESCO, 1996).

HSBRIS will build bridges across geographic and socio-political divides, among the many groups and jurisdictions by utilizing its expertise in coordination through, for example, the Howe Sound Community Forum; in convening groups of disparate interests to generate consensus; by balancing perspectives during decision-making; and by ensuring Indigenous perspectives and worldviews are upheld, respected and actively included in all activities.



LOGISTICAL SUPPORT GOALS

- GOAL 1** Howe Sound Biosphere Region Initiative Society to be the central operating hub of AHSUBR as its ‘ambassador and champion’, and coordinate all activities related to education, communications, marketing, engagement, research and monitoring and strategic planning functions.
- GOAL 2** Provide logistical support, capacity building, training and coordination for stakeholder groups and organizations.
- GOAL 3** Be a catalyst for positive change in AHSUBR by mobilizing stakeholders and partners to design and implement demonstration projects and activities that promote sustainable solutions for biodiversity conservation and sustainable development.
- GOAL 4** Exemplify leadership in advancing reconciliation with the Skwxwú7mesh Úxwumixw and promote the conservation of cultural diversity throughout AHSUBR.
- GOAL 5** Ensure that sustainable financing is available through various fundraising initiatives and in-kind support to enable the continuation of HSBRIS’s operations and range of activities and projects undertaken by HSBRIS and its stakeholder groups and organizations.
- GOAL 6** Maintain consistent relations with the MAB programme and CCUNESCO and represent AHSUBR/HSBRIS in national and global forums, including the Canadian Biosphere Reserve Network Association and appropriate World Biosphere networks.

LOGISTICAL
SUPPORT
STRATEGIC
PRIORITIES



GOAL 1

Howe Sound Biosphere Region Initiative Society to be the central operating hub of AHSUBR as its ‘ambassador and champion’, and coordinate all activities related to education, communications, marketing, engagement, research and monitoring and strategic planning functions.

1. Continue to develop and/or support the development of terrestrial and marine environmental education materials and curricula from K-12 that are nature- and culture-based and designed for local schools, outdoor schools and summer camps as well as for environmental programs and commercial ecotourism.
2. Enter into arrangements with secondary institutions such as Capilano University and Simon Fraser University to use Átl'ka7tsem/Howe Sound as an outdoor classroom for field studies, environmental learning and research.
3. Develop a comprehensive research and monitoring plan and encourage cumulative impact assessments where necessary, in conjunction with governments, organizations and academic institutions, to inform science-based decision-making.
4. Maintain the HSBRS/AHSUBR website and social media sites, ensure regular newsletter communications and develop a marketing strategy to ensure consistent messaging throughout all forms of communication.
5. Continue to make presentations to local government Councils, the Skwxwú7mesh Úxwumixw, provincial government agencies and stakeholders on the goals and strategic priorities of AHSUBR and progress toward meeting them.
6. Incorporate the aspirations of youth into HSBRS activities to generate a succession plan for stewards of the region and to keep in focus the need to ensure a healthy environment for future generations.
7. Develop a strategic plan to guide all future activities, incorporating regular reviews and updates, with the view to implementing this management plan.



GOAL 2

Provide logistical support, capacity building, training and coordination for stakeholder groups and organizations.

1. Continue to enhance logistical support to existing groups and organizations to help build their capacity to facilitate better integration of conservation and development by increasing cooperation among all stakeholders.
2. Engage with partners in government, industry and business to encourage their alignment with, and to assess the effectiveness of their management practices on, the vision and values of AHSUBR



GOAL 3

Be a catalyst for positive change in AHSUBR by mobilizing stakeholders and partners to design and implement demonstration projects and activities that promote sustainable solutions for biodiversity conservation and sustainable development.

1. Engage all governments and businesses through the AHSUBR Roundtable, the Howe Sound Community Forum and other fora to encourage new investments at the community level for local projects such as greenspace initiatives, the clean-up of contaminated sites, the improvement of air and water quality and other issues that directly affect the health of communities.
2. Conduct workshops, forums, networking events and presentations in collaboration with the Skwxwú7mesh Úxwumixw, all agents of governance, academic institutions and other partners, focusing on sustainable solutions to the challenges AHSUBR faces.
3. Continue to build awareness and appreciation among the public and stakeholders for Átl'ka7tsem/Howe Sound and its multitude of exceptional natural and cultural values and business opportunities.



GOAL 4

Exemplify leadership in advancing reconciliation with the Skwxwú7mesh Úxwumixw and promote the conservation of cultural diversity throughout AHSUBR.

1. Support the implementation of the First Nations curriculum and its course offerings in Aboriginal languages.
2. Work with the Skwxwú7mesh Úxwumixw and all agents of governance to readily advance UNDRIP and DRIPA in the operations of HSBRIIS and the management of AHSUBR.
3. Support the implementation of correcting the narrative about First Nations in educational materials.
4. Continue to work with museums, managers of historic places and cultural organizations to better understand and promote the breadth of Indigenous and non-Indigenous history of Átl'ka7tsem/Howe Sound



GOAL 5

Ensure that sustainable financing is available through various fundraising initiatives and in-kind support to enable the continuation of HSBRIIS's operations and range of activities and projects undertaken by HSBRIIS and its stakeholder groups and organizations.

1. Develop an operating budget to present to potential donors in the near term in anticipation of building longer term relationships to sustain HSBRIIS over time.
2. Prepare a sustainable finance plan and long-term finance strategy to guide the operations of HSBRIIS into the future, taking environmental, social and governance factors, and ethical investing into consideration whenever possible.



GOAL 6

Maintain consistent relations with the MAB programme and CCUNESCO and represent AHSUBR/HSBRIS in national and global forums, including the Canadian Biosphere Reserve Network Association and appropriate World Biosphere networks.

1. Continue to attend and represent AHSUBR/HSBRIS at national and international events such as EuroMAB, UNESCO AGMs and the gatherings of the Canadian Biosphere Reserve Network and effectively contribute to these networks by sharing best practices.
2. Invite members of the Canadian Biosphere Reserve Network to visit Átl'ka7tsem/Howe Sound and host one of the Network's gatherings in AHSUBR within the coming decade.
3. Participate in the themed World Network of Biosphere reserves, both transboundary and Internationally.



Ruth Simons hosts the Howe Sound Conservation Network Gathering. Credit: Erik, Cillema Productions

IN DEVELOPMENT



IN DEVELOPMENT

REFERENCES

- B.C. Conservation Data Centre. 2021. Conservation Status Report: *Arbutus menziesii*/ *Arctostaphylos columbiana*. B.C. Ministry of Environment. Available at: <https://a100.gov.bc.ca/pub/eswp/>
- British Columbia Council for International Cooperation, 2019. Movement Map. Available at: <https://map.bccic.ca/>
- BC Government, 2021. Declaration of the Rights of Indigenous Peoples Act. Available at: <https://www2.gov.bc.ca/gov/content/governments/indigenous-people/new-relationship/united-nations-declaration-on-the-rights-of-indigenous-peoples>
- BirdLife International, 2021. Important Bird Areas factsheet: Squamish River Area. Available at: <http://www.birdlife.org>
- CCUNESCO, 2020. DEEP DIVE: Building back better with Canadian biosphere reserves. Available: <https://ipolitics.ca/2020/08/24/deep-dive-building-back-better-with-canadian-biosphere-reserves/>
- David Suzuki Foundation, 2015. Sound Investment: Measuring the Return on Howe Sound's Ecosystem Assets. Available at: <https://david Suzuki.org/science-learning-centre-article/sound-investment-measuring-return-howe-sounds-ecosystem-assets/>
- David Suzuki Foundation, 2022. UNESCO Biosphere Reserve Átl'ka7tsem/Howe Sound. Available at: <https://david Suzuki.org/project/howe-sound/>
- Day, J., Dudley, N., Hockings, M., Holmes, G., Laffoley, D., Stolton, S., Wells, S. and Wenzel, L. (eds.) (2019). Guidelines for applying the IUCN protected area management categories to marine protected areas. Second edition. Gland, Switzerland: IUCN. Available at: <https://portals.iucn.org/library/sites/library/files/documents/pag-021.pdf>
- DFO, 2021a. Strait of Georgia and Howe Sound Glass Sponge Reef Conservation Initiative. Available at: <https://www.dfo-mpo.gc.ca/oceans/oecm-amcepz/refuges/georgia-georgie-eng.html>
- DFO, 2021b. Strait of Georgia and Howe Sound Glass Sponge Reef Conservation Initiative. Available at: <https://www.dfo-mpo.gc.ca/oceans/ceccsr-cerceef/closures-fermetures-eng.html>
- DFO, 2022. Strait of Georgia and Howe Sound Glass Sponge Reef Conservation Initiative. Available at: <https://www.dfo-mpo.gc.ca/oceans/ceccsr-cerceef/closures-fermetures-eng.html>
- Ecojustice Canada, 2013. Guardian Watchmen Programs in Canada. Available: <https://wahkohtowin.com/wp-content/uploads/2017/10/Aboriginal-Guardian-and-Watchmen-Programs-in-Canada-2013-with-recommendations.pdf>
- (Google Dictionary, 2021). Google Dictionary.
- Government of Canada, 2021. Canada's Nature Legacy: Protecting our nature. Available at: <https://www.canada.ca/en/services/environment/conservation/nature-legacy.html>
- Government of Canada, 2020. Overview of the Pan-Canadian approach to transforming species at risk conservation in Canada. Available at: <https://www.canada.ca/en/services/environment/wildlife-plants-species/species-risk/pan-canadian-approach.html>
- Heddon-Dunkhorst, Bettina and Florian Schmitt, 2020. Exploring the Potential and Contribution of UNESCO Biosphere Reserves for Landscape Governance and Management in Africa. Land, 9, 237, 27pp. Available at: <https://www.mdpi.com/2073-445X/9/8/237>

REFERENCES (CONT.)

HSBRIS, 2021. HSBRIS Strategic Plan 2021-2026. Available at: <https://www.howesoundbri.org/who-we-are>

Islands Trust, 1996. Islands Trust Act. Available at: https://www.bclaws.gov.bc.ca/civix/document/id/complete/statreg/96239_01

Key Biodiversity Areas Partnership, 2020. Key Biodiversity Areas factsheet: Squamish River Area. Extracted from the World Database of Key Biodiversity Areas. Available from: www.keybiodiversityareas.org/

MaPP, 2021. Marine Plan Partnership for the North Coast. Available at: <http://mappocean.org>

Morin, 2015. Tsleil-Waututh Nation's History, Culture and Aboriginal Interests in Eastern Burrard Inlet (Redacted Version). Available at: <https://twnsacredtrust.ca/wp-content/uploads/2015/05/Morin-Expert-Report-PUBLIC-VERSION-sm.pdf>

MRG Átl'ka7tsem/Howe Sound, 2022. Howe Sound/Átl'ka7tsem Marine Stewardship Initiative and Marine Reference Guide. Available at: <https://howesoundguide.ca>

Nature Canada, 2021. Trudeau's mandate letters are a win for nature. Available at: <https://naturecanada.ca/news/the-latest-nature-news/>

Ocean Watch, 2022. Rockfish. Available at: <https://oceanwatch.ca/howesound-community/species-habitats/rockfish/>

Squamish Nation, "Statement of Intent filed with BC Treaty Commission", (1993). Available at: <http://www.bctreaty.ca/squamish-nation>

Squamish Nation, 2019a. Skwxwú7mesh Úxwumixw Squamish Nation. Available at: <http://squamish.net/>

Squamish Nation, 2020, Squamish Nation Strategic Plan 2020–2023. Available at: https://www.squamish.net/wp-content/uploads/2021/09/Squamish_Nation_Strategic_Plan_2020_WebRez.pdf

Squamish Nation, 2023, Xay Temíxw Land Use Plan. Available at: <https://www.squamish.net/wp-content/uploads/2023/05/Land-Use-Plan-2023-Rebrand.pdf>

Stockholm Resilience Centre, 2016. The SDGs Wedding Cake. Available at: <https://www.stockholmresilience.org/research/research-news/2016-06-14-the-sdgs-wedding-cake.html>

UNESCO, 1996. Biosphere Reserves: The Seville Strategy and the Statutory Framework of the World Network. Available at: <http://www.mab.cas.cn/ryswqjh/swqbhq/201411/W020141113678526165131.pdf>

UNESCO, 2021. Biosphere Reserves. Available at: <https://en.unesco.org/biosphere>

UNESCO, 2021b. Technical Guidelines for Biosphere Reserves. UNESCO Secretariat of the Man and Biosphere Programme, Paris, France. 125pp. Available at: https://en.unesco.org/sites/default/files/tgbr_en.pdf

FEDERAL & PROVINCIAL

BIODIVERSITY & HABITAT

Kunming-Montreal Global Biodiversity Framework

<https://www.cbd.int/doc/c/e6d3/cd1d/daf663719a03902a9b116c34/cop-15-l-25-en.pdf>

Canada's Nature Legacy

<https://www.canada.ca/en/services/environment/conservation/nature-legacy.html>

Together for Wildlife Strategy

<https://www2.gov.bc.ca/gov/content/environment/plants-animals-ecosystems/wildlife/together-for-wildlife>

Coastal Marine Strategy

<https://engage.gov.bc.ca/govtogetherbc/engagement/coastal-marine-strategy/>

Howe Sound Cumulative Effects Project

<https://www2.gov.bc.ca/gov/content/environment/natural-resource-stewardship/cumulative-effects-framework/regional-assessments/south-coast/howe-sound-cumulative-effects-project>

A New Future for Old Forests: A Strategic Review of How British Columbia Manages Old Forests within its Ancient Ecosystems

<https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/forestry/stewardship/old-growth-forests/strategic-review-20200430.pdf>

Species at Risk Management Plans

- **Coastal Tailed Frog (*Ascaphus truei*)**

<https://a100.gov.bc.ca/pub/eirs/finishDownloadDocument.do?sessionId=672A87606BD05CD52C726FF32E17E888?subdocumentId=10303>

<https://species-registry.canada.ca/index-en.html#/documents/2959>

- **Marbled Murrelet**

<https://a100.gov.bc.ca/pub/eirs/finishDownloadDocument.do?subdocumentId=10692>

<https://species-registry.canada.ca/index-en.html#/documents/1290>

CLIMATE

Watershed Security Strategy and Fund Survey

<https://engage.gov.bc.ca/watershedsecurity/>

Clean BC: Roadmap to 2030

https://www2.gov.bc.ca/assets/gov/environment/climate-change/action/cleanbc/cleanbc_roadmap_2030.pdf

Clean BC: Climate Preparedness and Adaptation Strategy Actions for 2022-2025

<https://www2.gov.bc.ca/assets/gov/environment/climate-change/adaptation/cpas.pdf>

APPENDIX A: LIST OF PLANNING TOOLS (CONT.)

Park Management Plans

- Terrestrial Provincial Parks
- Alice Lake
- Bowen Island Ecological Reserve
- Cypress Provincial Park
- Esté-Tiwilh/Sigurd Creek Conservancy
- Garibaldi
- Murrin
- Shannon Falls
- Stawamus Chief
- Tantalus
- Tetrahedron

Marine Provincial Parks

- Apodaca
- Halkett Bay
- [BC Parks Marine Recreation Action Plan](#)
- Plumper Cove
- Porteau Cove

SK̓W̓X̓W̓Ú7MESH ÚXWUMIXW

Squamish Nation, 2023, X̓ay Temíxw Land Use Plan

<https://www.squamish.net/wp-content/uploads/2023/05/Land-Use-Plan-2023-Rebrand.pdf>

Squamish Nation Strategic Plan, 2022-2026

https://reports.squamish.net/wp-content/uploads/2022/08/Strategic-Plan-2022-2026_web-1.pdf

REGIONAL

VITAL SIGNS

A Vital Exploration 2020, Greater Sea to Sky and Howe Sound Community Foundations

https://communityfoundations.ca/wp-content/uploads/2020/11/CF3577_SeatoSkyReport_HR-web-single-3.pdf

Vital Signs 2023 Report, Squamish

https://www.squamishfoundation.com/wp-content/uploads/2023/07/SQCF5740_VitalSignsReport-2023-Digital-Spreads.pdf

Vital Signs 2022, West Vancouver

https://westvanfoundation.ca/wp-content/uploads/2022/11/VitalSigns2022_WEB.pdf

APPENDIX A: LIST OF PLANNING TOOLS (CONT.)

LAND USE & CONSERVATION

Skwelwil'em Squamish Estuary Wildlife Management Area Plan

<https://squamish.ca/assets/LDA/6471022cdf/Skwelwil'em-WMA-Management-Plan-Final.pdf>

Ocean Watch: Howe Sound/ Atl'ka7tsem Strategic Plan 2019 - 2021

https://assets.ctfassets.net/fsquhe7zbn68/35qzo0mjdczkcfHbZeWMTV/b80b29d633a9ae1bd5275b3acf0f82f1/OWTF-Strategic-Plan_updated_.pdf

Sea to Sky Land & Resource Management Plan

<https://www2.gov.bc.ca/gov/content/industry/crown-land-water/land-use-planning/regions/south-coast-region-plans/seatosky-lrmp>

Sea-to-Sky Corridor Destination Development Strategy

https://www.destinationbc.ca/content/uploads/2019/09/Sea-to-Sky-Corridor-Destination-Development-Strategy_Final.pdf

Shannon Basin Visitor Use Management Plan (DRAFT)

REGIONAL GROWTH STRATEGIES

SLRD

<https://www.slrd.bc.ca/planning-building/planning-development-services/regional-growth-strategy>

SCRD

<https://letstalk.scrd.ca/growth>

Metro Vancouver

<https://metrovancouver.org/services/regional-planning/Documents/metro-2050.pdf>

OFFICIAL COMMUNITY PLANS

Bowen Island Municipality

<https://bowenisland.civicweb.net/document/89453/>

Gambier Island (Islands Trust)

<https://islandstrust.bc.ca/document/gambier-island-ocp-bylaw-no-73/>

Town of Gibsons

<https://gibsons.ca/wp-content/uploads/2019/01/Official-Community-Plan-Bylaw-No.-985-2015-current.pdf>

Village of Lions Bay

https://www.lionsbay.ca/sites/2/files/docs/bylaws/bylaw_408_-_ocp_designation-revised.pdf

District of Squamish

<https://squamish.ca/yourgovernment/ocp/>

APPENDIX A: LIST OF PLANNING TOOLS (CONT.)

West Howe Sound

<https://www.scrd.ca/wp-content/uploads/2022/12/Bylaw-640-West-Howe-Sound-OCP-Consolidated-2018-Sep-27.docx.pdf>

District of West Vancouver

<https://westvancouver.ca/sites/default/files/media/documents/OCP%20Bylaw%204985%2C%202018%20-%20Full%20-%20Updated%20Copy%20-%20Aug%2C%202023.pdf>

CLIMATE ACTION

Bowen Island Municipality

<https://bowenisland.civicweb.net/document/227335/#:~:text=The%20strategies%20and%20actions%20are,climate%2Drelated%20impacts%20and%20events.>

Metro Vancouver

<https://metrovancover.org/services/air-quality-climate-action/climate-2050/regional-priorities>

District of Squamish

<https://squamish.ca/climate-action/#:~:text=In%202019%2C%20the%20District%20of,emissions%20by%2045%25%20by%202030.>

District of West Vancouver

<https://westvancouver.ca/sites/default/files/Climate%20Action%20Working%20Group%20Final%20Report.pdf>

Town of Gibsons Natural Asset Management Strategy

<https://gibsons.ca/sustainability/natural-assets/gibsons-natural-asset-management-journey/>



Átl'ka7tsem / Howe Sound UNESCO Biosphere Region Roundtable (AHSUBR)

Terms of Reference

Purpose: To provide advice and strategic guidance to the Howe Sound Biosphere Region Initiative Society (HSBRIS) in order to: advance biodiversity conservation in the region's marine and terrestrial ecosystems; advance sustainable development in line with UNESCO's Man and the Biosphere Program and the UN's Sustainable Development Goals; and advance reconciliation.

Role: To advise and support development and implementation of the Átl'ka7tsem /Howe Sound UNESCO Biosphere Region Nchu'ú7mut/Unity Plan strategic objectives and projects that support those overarching objectives by prioritizing initiatives, strategizing solutions to major issues the biosphere region faces, advancing collaborations between sectors and more.

Core Values for guiding the Roundtable:

1. We value a culture of “appreciative inquiry”
2. We value a culture of mutual respect, diversity, and learning
3. We value a culture of transparency and trust

Participants in the AHSUBR Roundtable agree to:

- a) Be familiar with and inspired by the foundational documents of UNESCO Biosphere Reserves, Átl'ka7tsem / Howe Sound Biosphere Region and the Howe Sound Biosphere Region Initiative Society.
- b) Respect the Culture of Engagement, Guiding Principles and AHSUBR Terms of Reference.
- c) Make best efforts to plan and prepare for full participation in the Roundtable meetings that take place at locations around the region and require some travel to attend.
- d) Make best efforts to plan and prepare for full engagement in meetings, working groups, and committees.
- e) Recommend an ‘alternate’ to represent them if/when they are unable to fulfill their commitment to AHSUBR meeting(s). Alternates must be approved by HSBRIS. If a participant must miss a meeting and no alternate is available to attend, the participants will communicate this in advance with the AHSUBR Coordinator.
- f) Respond to requests for feedback from Roundtable Coordinators and other committee leads.
- g) Be considered ambassadors for the UNESCO Átl'ka7tsem / Howe Sound Biosphere Region. Roundtable and/or committee participants do not speak for their organization or HSBRIS, and HSBRIS does not speak for Roundtable or committee participants.

- h) Actively seek to build consensus with AHSUBR Roundtable Participants.
- i) Commit to a minimum of two-year terms.
- j) Leave personal agendas at the door.
- k) Be photographed for external HSBRS/AHSUBR publications and have their names published.

HSBRIS agrees to:

- a) Be respectful of personal information.
- b) Be respectful of people's time and effort.
- c) **Prepare, plan and communicate effectively.**

Roundtable participant recruitment:

- a) The Howe Sound Biosphere Region Initiative Society (HSBRIS) will strive for balanced and diverse representation on the AHSUBR Roundtable from around the region. (See AHSUBR recruitment Principles)
- b) Participation in the AHSUBR Roundtable is by invitation from the Board of HSBRS. Invitations and recruitment will be the responsibility of the HSBRS Roundtable Selection Committee (refer to terms of reference for this committee).

Remuneration and costs:

Participants will serve on the Roundtable without remuneration and will cover their own expenses to attend and participate. HSBRS aims to remove barriers to participation and may offer grants-in-aid to cover costs incurred to participate in meetings.

Meeting schedule:

- a) The Roundtable will meet from 10:00 a.m. to 3:00 p.m. at least twice a year.
- b) HSBRS will provide all logistical/administrative support and facilitation, record keeping and preparation of documents, presentations and invitations for the Roundtable meetings.

This document is a living, evolving document that will be reviewed annually and updated as needed.

Revised May 2022 V3 and August 2023, V4

GOALS FOR BIODIVERSITY CONSERVATION

- GOAL 1** Átl'ka7tsem/Howe Sound Biosphere Region Roundtable provides strategic guidance, and facilitates collaboration among stakeholders and rightsholders, to halt and reverse biodiversity loss in Átl'ka7tsem/Howe Sound and facilitate the ongoing renewal and recovery of its marine and terrestrial ecosystems.
- GOAL 2** Pursue the conservation of biological diversity throughout Átl'ka7tsem/Howe Sound, with priority given to the conservation of 1) representative ecosystems – the full range of marine, terrestrial and freshwater biodiversity; 2) species of national and international significance; and 3) species documented as rare, endangered, at-risk or culturally significant.
- GOAL 3** Implement the Canada Nature Legacy targets in Átl'ka7tsem/Howe Sound to protect at least 25% of land, freshwater and ocean ecosystems by 2025 and 30% by 2030.
- GOAL 4** Find innovative ways to balance the needs of man and nature and explore the application of the concept “Nature Needs Half” throughout Átl'ka7tsem/Howe Sound.
- GOAL 5** Develop ways and means of increasing the involvement of a collaborative force of federal and provincial government enforcement staff, First Nations staff and a volunteer corps from a range of organizations and civil society to improve monitoring and enforcement capability throughout AHSUBR.

GOALS FOR SUSTAINABLE DEVELOPMENT

- GOAL 1** Aspire for AHSUBR and its communities to be a model for sustainable development by demonstrating the integration of the core elements of sustainable development: economic growth, social inclusiveness and environmental protection.
- GOAL 2** Confirm and publicize the value of the ecological goods and services provided by Átl'ka7tsem/Howe Sound, estimated at \$4.7 billion annually (David Suzuki, 2015), as an indispensable source of food, clean water, a stable climate, protection from natural disasters and a place to recreate and reconnect with nature.
- GOAL 3** Contribute to community resilience through adopting and promoting the UN's Sustainable Development Goals.
- GOAL 4** In collaboration with local and regional universities, develop projects that attract new resources to the region, in particular, new funding initiatives, education programs and research capacity.
- GOAL 5** Champion “Nature-based Solutions” in developing strategies and programs for biodiversity conservation, sustainable development and the delivery of ecological goods and services.
- GOAL 6** Have a measurable, positive impact on the environment, economy and communities of Átl'ka7tsem/Howe Sound focussed on improving the quality of life for residents and visitors.

GOALS FOR RECONCILIATION, EQUITY AND INCLUSION

- GOAL 1** Aspire for the AHSUBR region to be a model for reconciliation with Indigenous communities, actualizing the vision and principles of UNDRIP and DRIPA through collaboration and a collective commitment.
- GOAL 2** Have a measurable and positive impact on the communities of local First Nations by integrating their values and goals into all areas of our work and through facilitating reconciliation with the land.
- GOAL 3** Ensure HSBRS staffing and Board operations, as well as partnerships with external stakeholders, strive to meet the goals of the UN SDGs regarding reconciliation, equity and inclusion.
- GOAL 4** For all municipalities and authorities to adopt the policies against racism, discrimination, exclusion and intolerance and together, undertake initiatives to eliminate all forms of discrimination with a view to building open and inclusive societies.

GOALS FOR LOGISTICAL SUPPORT

- GOAL 1** Howe Sound Biosphere Region Initiative Society to be the central operating hub of AHSUBR as its 'ambassador and champion', and coordinate all activities related to education, communications, marketing, engagement, research and monitoring and strategic planning functions.
- GOAL 2** Provide logistical support, capacity building, training and coordination for stakeholder groups and organizations.
- GOAL 3** Be a catalyst for positive change in AHSUBR by mobilizing stakeholders and partners to design and implement demonstration projects and activities that promote sustainable solutions for biodiversity conservation and sustainable development.
- GOAL 4** Exemplify leadership in advancing reconciliation with the Skwxwú7mesh Úxwumixw and promote the conservation of cultural diversity throughout AHSUBR.
- GOAL 5** Ensure that sustainable financing is available through various fundraising initiatives and in-kind support to enable the continuation of HSBRS's operations and range of activities and projects undertaken by HSBRS and its stakeholder groups and organizations.
- GOAL 6** Maintain consistent relations with the MAB programme and CCUNESCO and represent AHSUBR/ HSBRS in national and global forums, including the Canadian Biosphere Reserve Network Association and appropriate World Biosphere networks.