Wild Salmon in British Columbia

UPDATE ON PROVINCIAL ACTIONS



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A Shared Vision for the Future

Wild salmon are iconic for this province, linking us to our history and holding promise for future generations. Woven into the culture, histories and economies of communities throughout B.C. – and for the Indigenous peoples of B.C. since time immemorial – wild salmon are integral to our ecosystems and communities. However, wild salmon and their habitats are in decline and require support. Recognizing this, the B.C. government appointed the 14-member Wild Salmon Advisory Council (WSAC) during the summer of 2018 to develop recommendations on *made-in-B.C.* solutions for supporting wild salmon.

Following extensive discussions and a period of public engagement, the WSAC provided several strategic recommendations to the Province in the spring of 2019. These recommendations focused on increasing the abundance of wild salmon in B.C.; protecting and enhancing economic, social and cultural benefits to B.C. communities from wild salmon and fisheries; and engaging citizens and governments in effective stewardship and management of wild salmon. Overall, the WSAC suggested that a shared vision for wild salmon should focus on improving marine and freshwater ecosystems in B.C. and encouraging benefits to community economies. The Council also recommended that the B.C. government take both immediate action and commit to longer term engagement for wild salmon.

Provincial actions toward this shared vision are summarized below and mirror the integral role that salmon play in B.C.'s ecosystems and communities. Wild salmon represent a shared, cross-agency priority for the Province, and span and link the collaborative efforts of multiple government agencies, stakeholders, Indigenous Nations, non-governmental organizations, and the public. The recommendations of the WSAC have led to new initiatives as well as the enhancement of ongoing actions. Notable highlights include:

- Launch of the B.C. Salmon Restoration and Innovation Fund (BCSRIF), a federal-provincial program focused on ensuring the sustainability of wild Pacific salmon as well as B.C.'s fish and seafood sector;
- Implementation of the Indigenous Monitoring and Inspection Program (IMIP), which will monitor and oversee operations at salmon farms, as well as the health of wild salmon, in the Broughton Archipelago;
- Updates to the Riparian Areas Protection Regulation, including improvements within B.C.'s professional reliance system to ensure assessment reports meet regulatory requirements; and
- Continuation of the Carnation Creek Research Program, a unique research partnership between B.C., Canada, industry, and local First Nations that has examined the effects of forestry practices and climate on watershed processes and salmon populations continuously for the past 50 years.



Goal 1: Increase the Abundance of Wild Salmon in B.C.

WSAC STRATEGIC RECOMMENDATIONS

- **1.1** Protect salmonid habitats, including water, from loss or degradation by actively enforcing existing provincial laws and regulations.
- 1.2 Develop new laws and regulations where existing laws and regulations are shown to be insufficient to adequately protect salmonid habitats, including the assurance of sufficient water quality and quantity to enable successful migration, spawning and rearing of all salmonids.
- **1.3** Increase monitoring and enforcement efforts for salmonid habitats across B.C.'s watershed and nearshore environments.
- **1.4** Invest in the restoration of critical salmonid habitats that have been lost or degraded.
- **1.5** Invest in and support salmon enhancement activities that are strategic and science-based.

Immediate actions: The Province of B.C. is taking immediate action to support increasing the abundance of wild salmon. In spring 2019, the B.C. government made its largest financial commitment to protect wild salmon of the past 20 years, through the B.C. Salmon Restoration and Innovation Fund (BCSRIF), which is investing up to \$142.85 million (70% federal, 30% provincial) over five years to ensure the sustainability of wild Pacific salmon as well as B.C.'s fish and seafood sector. Working together with Fisheries and Oceans Canada (DFO), the Province has focused on addressing important goals for protecting, restoring, and enhancing wild salmon through BCSRIF. Following its launch, BCSRIF funded 23 diverse initiatives, all of which support strategic goals outlined through the WSAC process. For example, recognizing the interactions between land-use activities and salmon habitats, BCSRIF is supporting the Farmland Riparian Interface Stewardship Program as an important step toward improving stewardship of salmon habitats on agricultural lands.

B.C. has a comprehensive system of stewardship and planning initiatives to support fish and aquatic habitats. Examples include modernized land use planning and assessment and reporting through the Cumulative Effects Framework and the Forest and Range Evaluation Program. Collaboration with First Nations on stewardship activities and Indigenous guardianship programs provide for monitoring of cultural and ecological values. Ongoing protection from aquatic invasive species is also occurring through B.C.'s Mussel Defence Program. This work is bolstered by long-term research focusing on the effects of resource practices on salmon habitats, such as the monitoring of fish and forestry interactions at Carnation Creek on the West Coast of Vancouver Island. This unique research program has examined the effects of forestry practices and climate on watershed processes and salmon populations for the past 50 years and continues to inform best management practices.

There have also been recent regulatory improvements that work to protect aquatic habitat systems. For example, there were updates in 2019-20 to the Riparian Areas Protection Regulation, which requires local governments to protect riparian areas during residential, commercial, and industrial development. These updates will instigate improvements within B.C.'s professional reliance system and ensure assessment reports meet regulatory requirements. As part of implementing modernized tools for water protection under the *Water Sustainability Act*, processes for establishing new water objectives – including for aquatic ecosystem health, from stream level to watershed scale – are being tested around the province. Additional regulatory improvements include provincial support for the development and implementation of the renewed federal *Fisheries Act* with enhanced habitat protection provisions.

Further, during its first year BCSRIF funded several community and Indigenous-driven restoration projects across the province (see examples below). These initiatives are taking immediate steps to improve critical salmonid habitats and complement the important habitat work already underway across the province, such as restoration projects occurring through the Habitat Conservation Trust Fund, Fish Passage Program, and Fish and Wildlife Compensation Program. As an example, over the past decade B.C.'s Fish Passage Program has restored more than 780 km of fish habitat.

RESTORING SALMON HABITAT THROUGH BCSRIF: PROJECT EXAMPLES	
Connected Waters: Prioritizing upgrades to flood-control infrastructure in the Lower Fraser River.	Thompson River demonstration: Watershed-scale showcase of innovative habitat restoration methods.
Cowichan water supply: Evaluating new infrastructure options to sustain water flows for salmon.	Elephant hill fire recovery: Restoring critical salmon habitat affected by 2017 wildfire.
Fish passage joint venture: Strategic remediation of barriers to fish passage across multiple sites.	Plateau fire recovery: Replanting riparian areas to restore damaged habitat and improve resiliency to precipitation and storm events.
Elaho River fish passage: Removing rock barriers to fish passage to improve river access for salmon.	Millstream fishway: <i>Urban salmon habitat improvement</i> through culvert replacement and installation of a fishway.
Thompson Steelhead & Chinook critical habitat improvement: Rehabilitation of degraded habitats in tandem with ongoing site watering and monitoring.	Broughton restoration: Assessment and prioritization of restoration of wild salmon habitats within watershed as part of broader Broughton implementation plan.

With the goal of investing in strategic and science-based salmon enhancement activities, BCSRIF has funded the Pacific Salmon Foundation (PSF) to undertake a province wide review of hatchery effectiveness, which will further our understanding of the performance and effectiveness of current genetic and ß tools used in B.C. hatcheries, and produce recommendations on where hatchery production should be modified in B.C. Additional funding to the PSF through a \$5 million investment from the Province of B.C. in 2019 will support the organization in its work to rebuild healthy wild salmon stocks through its conservation, science, habitat restoration, and community hatchery projects. This significant grant was announced on the inaugural B.C. Wild Salmon Day, which was created as a day to recognize the importance of wild Pacific salmon to this Province and its people. This coincided with the focal year of the International Year of the Salmon, a multi-nation initiative that aims to bring people together to build resilience for wild salmon.

Important initiatives are also being undertaken to protect wild salmon through habitat and fisheries monitoring. For example, investments have been made through BCSRIF to support the development of an electronic application to help commercial fishing vessels avoid bycatch, including species of concern such as Chinook salmon. BCSRIF investments have also supported the development and launch of the Indigenous Monitoring and Inspection Program (IMIP), which will monitor and oversee operations at salmon farms, as well as the health of wild salmon, within the Broughton Archipelago. These initiatives are complementary to a variety of other Indigenous guardianship programs across B.C., as well as targeted funding to support enhanced fisheries monitoring during salmon migration. All of this work integrates with ongoing improvements to aquatic monitoring in B.C., such as through the alignment of various tools and indicators at the provincial, regional, watershed, and site-level planning scales.

The effects of climate change on wild salmon and their habitats are also being assessed and monitored. This includes BCSRIF-funded hydrologic modelling to better understand salmon-related climate risks and monitoring to assess the effects of rising sea levels on estuaries, which will be followed by targeted estuary restoration to enhance resiliency. Further, under the Marine Plan Partnership (MaPP), the Province and 16 First Nations partners are undertaking comprehensive ecosystem-based monitoring supportive of wild salmon, including assessments of climate change vulnerability, and measuring vital juvenile salmon habitat in coastal kelp ecosystems. This work has been connected to the restoration of key salmonid habitats and the designation of 'protection management zones'. It is also situated alongside broader climate action in the province through CleanBC.

Mid-term actions: WSAC strategic recommendations have guided the priorities that are the foundation of BCSRIF and will continue to inform project funding. For example, new approved BCSRIF projects that will be launched in 2020-21 will continue to focus on salmon habitat restoration and community stewardship and enhancement opportunities. Further, the next intake of applications to the fund will prioritize initiatives in important areas related to *Strategic Goal 1*, including rebuilding species of concern such as Interior Fraser Steelhead and Upper Fraser Chinook through science collaborations, incorporating Indigenous Knowledge into rebuilding strategies, and assessing and remediating riparian areas.

In addition, during its next intake BCSRIF will focus on facilitating environmentally-friendly upgrades to existing salmon enhancement infrastructure and complementing other provincial initiatives being undertaken to improve the efficiency and sustainability of community-based salmon hatcheries. These initiatives include reclassifying hatchery operations under "farm status" to reduce electrical utility costs and identifying opportunities with DFO for meeting hatchery fish-feed requirements. The Province is also working closely with DFO to explore areas for a heightened provincial role in the support of salmon hatchery programs, including mass marking and the codedwire tag program resulting from the Pacific Salmon Treaty (PST).

Additional upcoming work that will contribute to protecting aquatic habitats includes further amendments to the *Forest and Range Practices Act* and completion of permit modernization for fish processing effluent along the B.C. coast. Insights from recent engagement with coastal communities on abandoned vessels, marine debris, and marine-sourced plastics will also inform recommendations to government on how to better protect our marine environments from pollution.

Longer-term planning: Increasing the health of wild salmon stocks in B.C. will require cooperative planning and action, over the long-term, and particularly in the context of our changing climate. By 2021, the B.C. government will initiate an internal policy review to take stock of existing regulations and programs to protect and restore wild salmon habitat. Recognizing the importance of joint prioritization, this would be combined with a collaborative approach to forward-looking habitat protection and restoration planning. It would also be linked to mitigation strategies to address current and future climate change impacts to wild salmon and aquatic habitats.

The Province also recognizes the social and cultural relationship of Indigenous governments and communities to wild salmon, the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP), and Indigenous Peoples' Section 35 Constitutional Rights and interest to participate in the management and use of resources. Through programming such as Collaborative Stewardship Forums and the Environmental Stewardship Initiative, government has and will continue to work collaboratively to support and identify further opportunities for Indigenous monitoring and guardianship in the Province. This will continue to include a focus on building a coordinated approach between initiatives.

The Province is also committed to working on other initiatives to improve wild salmon abundance in B.C. For example, government awaits the results of the BCSRIF-funded province-wide hatchery review that will help to inform future actions related to salmon enhancement. Further, B.C. will continue to refer to science and knowledge on the effects of predation on wild salmon populations, including information gathered through DFO-led science symposiums. Overall, the abovementioned steps will help inform future action taken by the B.C. government, Indigenous and federal governments, and community partners to develop suitable interventions for supporting wild salmon abundance in B.C.

Goal 2: Protect and Enhance Economic, Social and Cultural Benefits to B.C. Communities from Wild Salmon and Fisheries

WSAC STRATEGIC RECOMMENDATIONS

- **2.1** Elevate discussions and decisions about using strategic enhancement opportunities to stabilize the commercial and recreational fishing industries in B.C.
- **2.2** Develop and implement a strategic employment plan to include training, mentoring and job creation.
- **2.3** Enhance local social, cultural and economic benefits from B.C. fisheries for adjacent communities and their active commercial and recreational fishers, including both tidal and freshwater anglers.
- **2.4** Encourage economic activity adjacent to fishing grounds to benefit coastal and rural fishing communities, Indigenous peoples, shore workers and ancillary businesses.
- **2.5** Leverage the weight of existing marketing and branding programs in B.C. and Canada to raise the value and profile of wild salmon and seafood products from B.C.
- **2.6** Support fisheries-related eco-tourism opportunities in B.C.

Immediate actions: In addition to their ecosystem values, wild salmon provide an array of economic, social, and cultural benefits to communities in this province. For example, food, social, and ceremonial (FSC) fisheries are integral to Indigenous communities, and B.C.'s commercial and recreational fisheries and seafood sector provide important jobs and revenue, especially in rural areas. The Province strives to support these important benefits and to foster shared sustainable prosperity in B.C. in cooperation with community and industry partners, First Nations, the federal government, and others. For example, we are continuing to support the next generation of fish harvesters, including by providing funding to this year's B.C. Young Fishermen's Gathering, an event supporting young fishers with business, policy, and leadership training. Further, through regional food innovation hubs, including pilot projects focused on seafood processing in coastal communities, we are working to provide supports to and advance innovation in B.C.'s food processing sector. Additional opportunities to grow new markets for local seafood in B.C. institutions are being explored through the Feed BC program. The Province also helps to raise the profile and value of wild salmon and seafood products from B.C. through a variety of marketing and branding programs, such as Buy BC, which champions B.C. seafood in partnership with local businesses, and the federal-provincial Canadian Fish and Seafood Opportunities Fund (CFSOF), which focuses on optimizing the value of our seafood.

The Province has also invested in supporting fisheries-related eco-tourism opportunities in B.C. For example, BCSRIF is funding the Sport Fishing Institute to develop the Fishing B.C. mobile app, an online information and catch monitoring tool that will provide recreational anglers with real-time information about regulations, catch and possession limits, safety notices and species identification, all within an easily accessible mobile platform. BCSRIF has also funded a study to improve the sustainability of catch and release salmon fisheries. This work aligns with ongoing provincial programming to support recreational fishing in this province, such as "Go Fish BC" promotional efforts by the Freshwater Fisheries Society of BC.

Mid-term actions: New approved BCSRIF projects that will be launched in 2020-21 will focus on supporting innovation in B.C. fisheries and seafood. For example, BCSRIF will support research to optimize recirculating aquaculture systems (RAS) in order to reduce the time that farmed salmon spend in the ocean, while also enhancing productivity. Additionally, BCSRIF will support improvement of a spot prawn management model that uses an innovative simulation approach to evaluate different possible management procedures and their outcomes. The results from this project will ensure B.C.'s spot prawn fishery is positioned for long-term economic sustainability and support sustainable management of the fishery. Further, the next BCSRIF intake will prioritize actions that support innovation and sustainability in the sector. This could include advancing technology for sustainable aquaculture, promoting boat-to-plate traceability, supporting selective fishing methods that minimize bycatch of threatened species in B.C.'s commercial and recreational fisheries, and developing strategies to expand value-added fish processing and recapture benefits from processing in adjacent communities.

The Province will also continue working to enhance the sustainability of B.C.'s fisheries and seafood sector through other avenues, including the federal-provincial Fisheries and Aquaculture Clean Technology Adoption Program (FACTAP), which aims to improve environmental performance within Canada's fisheries and aquaculture industries. FACTAP-funded projects have already contributed directly to addressing WSAC goals – for example by reducing marine pollution by retrofitting floats at shellfish farms, and minimizing fuel consumption, habitat impacts, and bycatch with gear and engine upgrades on fishing vessels – and will continue to do so through upcoming projects. Overall, these types of improvements help to position our seafood industries for success, providing economic opportunity for rural, coastal communities into the future, a key focus of *Strategic Goal 2*.

Longer-term planning: The Province of B.C. is committed to supporting an innovative and resilient fisheries and seafood sector that benefits B.C. communities. Over the next year we will build an updated collaborative vision to guide provincial support for the sector. This may include a focus on labour force participation and strategic employment opportunities; new possibilities for value-adding and marketing B.C. seafood; and exploring mechanisms related to seafood enterprise viability, such as innovative financing mechanisms and climate change resiliency planning, among other important topics.

Community economic development is a policy priority for government, and the Province recognizes the importance of ensuring that communities benefit from the resources in their regions and territories. It is noted that some of the WSAC recommendations under *Strategic Goal 2* were also highlighted in a recent report from the federal Standing Committee on Fisheries and Oceans (FOPO). Over the next year, the Province will consider how different concepts outlined in the FOPO report might be advanced within the unique context of B.C.'s fisheries and seafood industry, including through further engagement in this discussion with DFO, and through discussions with industry and community members. Overall, the B.C. government is committed to working with our federal partners in policy areas related to the socio-economic dynamics of our province's fisheries and seafood sector.

Goal 3: Engage Citizens and Governments in Effective Stewardship and Management of Wild Salmon

WSAC STRATEGIC RECOMMENDATIONS

- **3.1** Develop focused and co-ordinated leadership capacity in government to champion and deliver on the wild salmon and economic development recovery efforts.
- **3.2** Actively engage existing community stewardship groups and Indigenous governments.

Immediate actions: The WSAC process highlighted the crucial work that B.C. citizens and multiple levels of government undertake every day to protect and restore wild salmon and their habitats. Since its launch, BCSRIF has been deeply focused on supporting community- and Indigenous-driven wild salmon stewardship initiatives. These have included habitat restoration projects (see page 3), as well as other important areas of work, such as new science partnerships aimed at better understanding and stewarding wild salmon into the future. For example, survey expeditions are working to examine the abundance and composition of Pacific salmon in offshore areas, while forage fish mapping closer to home will contribute directly to our knowledge of important food sources for salmon. These research projects can be used to inform fisheries management decisions to conserve wild salmon. Additional work includes BCSRIF funding for the establishment of a "wet lab" facility on Vancouver Island that will examine fish health threats and interactions between farmed and wild stocks. This project is relevant to the implementation of the Broughton process recommendations, as it will increase knowledge around risks of salmon farming to fish health.

The Province is also growing its internal capacity in the areas of salmon and fisheries and continues to align work on these important files across Ministries. B.C. also collaborates closely with DFO on important fisheries and conservation issues, such as through the establishment of the Canada-BC Interior Fraser Steelhead Joint Action Plan, which aims to advance ecological outcomes for at-risk steelhead populations through watershed and fisheries management measures. Provincial interests are also represented in international fora such as

Pacific Salmon Treaty (PST) negotiations. The PST is a Canada-US agreement focused on cooperative research, management, and enhancement of Pacific salmon, which establishes conservation and harvest objectives for these highly migratory stocks. B.C. has engaged in the renegotiation of all PST chapters, and continues to support implementation of this important treaty, including through nomination of a new provincial commissioner to sit at the bilateral tables and represent the interests of British Columbians related to salmon.

B.C. is also partnering with First Nations on a range of wild salmon, fisheries, and seafood-related initiatives. For example, the First Nations Fisheries Council (FNFC) and National Indigenous Fisheries Institute are leading engagement with Tribal Councils and Indigenous organizations to identify priority areas of funding for BCSRIF. Further, working with the Namgis, Kwikwasut'inuxw Haxwa'mis, and Mamalilikulla First Nations, a transition plan for open-pen finfish is being implemented in the Broughton Archipelago, including sequenced decommissioning of sites and the establishment of an independent First Nations genomics lab focused on fish health sampling. This corresponds with provincial regulatory changes that will change the tenuring process for salmon aquaculture in BC; specifically, Land Act tenures will only be granted to fish farm operators who have negotiated agreements with the First Nation(s) in whose territory they propose to operate, and who have satisfied DFO that their operations will not adversely impact wild salmon stocks. Additional work such as the Marine Plan Partnership (MaPP) has significantly advanced Provincial-First Nations governance and shared decision making, relationship building, and strategic thinking in our coastal waterways, while collaborative governance frameworks for water sustainability planning are being piloted as part of ongoing implementation of B.C.'s Water Sustainability Act.

The Province recognizes the integral cultural value of wild salmon in B.C., especially to Indigenous Peoples. B.C. will continue to raise public awareness about the critical importance of wild salmon, including through establishment with the Pacific Salmon Foundation (PSF) of the first ever Wild Salmon Day on the B.C. Legislature grounds on May 16, 2019. The establishment of this day will continue to highlight the importance of salmon species for all citizens of B.C. Educational programs that foster stewardship and appreciation for aquatic environments will also be of ongoing importance, such as the "Learn to Fish" program that teaches fish identification and biology, and responsible freshwater fishing practices, to youth and their families.

Mid-term actions: Upcoming BCSRIF investments will focus on collaborative science initiatives to support wild salmon stewardship and governance. For example, these initiatives include a joint First Nations-led enumeration program to better understand and manage Skeena River sockeye, coho, and Chinook populations. They also include supporting science partnerships such as a University of British Columbia, University of Washington, and DFO project to investigate food-source drivers of salmon survival in the Salish Sea. BCSRIF will also continue to invest in First Nations leadership on salmon conservation and fisheries, such as through a Nuu-chah-nulth-led herring initiative on the West Coast of Vancouver Island that will evaluate impacts of predation and develop new analytical frameworks for evaluating management options to better reflect traditional and ecosystem-based management approaches. Additionally, BCSRIF continues to foster action toward *Strategic Goal 3* by providing a platform for collaboration on wild salmon between provincial ministries, DFO, Indigenous Nations, and stakeholder and community organizations.

B.C.'s Declaration on the Rights of Indigenous Peoples Act was introduced in fall 2019 and brought the internationally recognized standards of UNDRIP into provincial law. Around the same time, the Province signed a memorandum of understanding (MOU) with the First Nations Fisheries Council (FNFC), and over the coming year will focus on actioning this MOU through an inaugural joint work plan focused on shared priorities related to fisheries, aquatic habitat, and other important areas. This work will be complementary to ongoing joint initiatives with the FNFC, such as engaging Nations on habitat restoration prioritization, Interior Fraser Steelhead management recommendations, and *Water Sustainability Act* implementation.

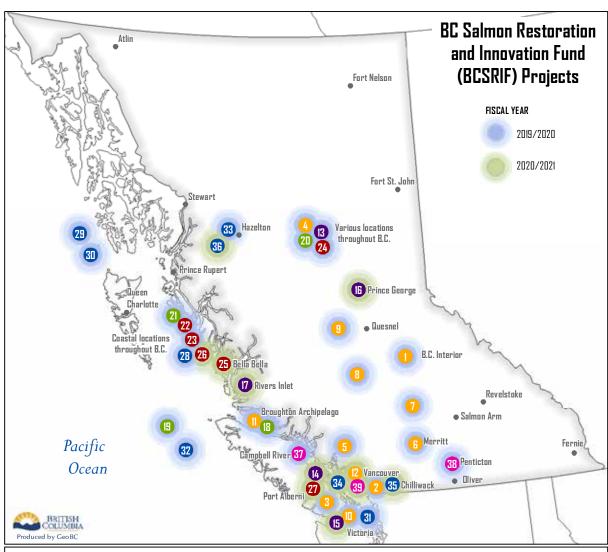
Longer term planning: Multiple levels of government hold responsibilities related to the management of BC's marine and aquatic resources. Within the provincial government, salmon, fisheries, and aquatic habitats are important responsibilities of several agencies, including the Ministry of Agriculture; the Ministry of Forests, Lands, Natural Resource Operations, and Rural Development; and the Ministry of Environment and Climate Change Strategy, among others. Recognizing the complexity of this governance structure, it is important that provincial organizational capacity related to wild salmon is well-coordinated. Over the next year, an executive level committee will be established to complement working-level collaborations and to enhance internal alignment and cross-agency strategic direction. This will help to ensure focused and coordinated leadership capacity in the Province to champion and deliver on wild salmon, habitat, and fisheries issues.

The B.C. government also recognizes the importance of strong working relationships with First Nations, industry, and the public when it comes to rebuilding wild salmon. Over the next year, we will continue to engage with other governments – Indigenous, federal, municipal, and international – as well as working to identify areas for service delivery improvements to non-government partners and the public. This includes ongoing work to align provincial actions with DFO's Wild Salmon Policy Implementation Plan. It could also include investigation of developing a 'single portal' to government on wild salmon and fisheries issues, as well as exploring new partnership opportunities and structures. Overall, the Province of B.C. is committed to supporting the protection and restoration of wild salmon as a leader and strategic investor and will continue to evaluate how best to position our organizational structures to achieve this goal.

Moving Forward Together

Wild salmon are integral to our ecosystems and communities but will require sustained collaboration and energy to secure their futures. The WSAC provided key recommendations for stewarding wild salmon, increasing their health and abundance, and protecting community values related to these iconic species for future generations. The Province is working with the federal government, First Nations, communities, and stakeholders on immediate actions toward reaching these goals, as well as planning how our shared work on *made-in-B.C.* solutions will continue into the future. The complex task of restoring wild salmon and their habitats and optimizing their values to British Columbians simply cannot be achieved without a provincewide effort.





Habitat Protection and Restoration

- Farmland Riparian Interface Stewardship Program
- Lower Fraser flood control infrastructure upgrades
- Cowichan River salmon restoration
- Joint venture for fish passage remediation Elaho River fish passage restoration
- Thompson Steelhead and Chinook critical habitat rehabilitation
- Innovative habitat restoration demonstration
- Elephant Hill fire riparian recovery
- Plateau fire riparian recovery
- Millstream fishway installation
- Broughton wild salmon restoration
- Seymour Watershed restoration

Salmon Enhancement

- 13 Science-based hatchery review
- 14 East Coast Vancouver Island hatchery optimization

- Salmon conservation facility development
- Upper Fraser Chinook strategic enhancement
- 16 17 Percy Walkus hatchery upgrade

Monitoring

- Implementation of Indigenous Monitoring and Inspection
- Electronic application for selective fishing and bycatch
- Hydrologic modeling of salmon-related climate risks
- 21 Enhancing estuary resiliency in a changing climate

Fishing and Communities

- 22 Fishing B.C. mobile app
- 23 Vision 2021 for B.C. sport fishing sector
- 24 25 Indigenous engagement project
- Improving sustainability of spot prawn fishery

- Innovation for community-run terminal fisheries
- Pacific herring assessment and management partnership

Science Partnerships

- New tools for enhancing sustainability of catch and release fisheries
- Gulf of Alaska winter salmon survey
- International Year of the Salmon high seas survey
- 31 Forage fish habitat mapping to support salmon
- 32 Enhancing rockfish recovery through citizen science, and field experiments
- 33 Implementation of Kitwanga River Sockeye Recovery
- 34 Drivers of inter-annual variability in zooplankton feeding
- Lower Fraser coho PIT tagging
- Bear River autonomous salmon enumeration

Sustainable Aquaculture

- 37 Wet lab facility development
- 38 39 Independent First Nations genomics lab
- Optimizing recirculating aquaculture systems

