



Appendix A – Delegation Presentation Material

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Freshwater and Marine Shoreline

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Elsie Born, Salt Spring Island Poultry Club - Protecting Agricultural Land and Supporting Local Farmers

Addressing the Causes and Problems
Affecting Freshwater and Marine
Shoreline Ecosystems to Rebuild the
Shellfish Industry Without
Depuration



Septic Systems and the impact on the Salish Sea

I am writing to you on behalf of Veins of Life Watershed Society a dedicated environmental organization focused on preserving and restoring British Columbia's precious ecosystems. We are deeply concerned about the ongoing degradation of freshwater and marine shoreline ecosystems within the Islands Trust area, and its consequent impact on the local shellfish industry. Our intent is to highlight the critical issues and advocate for the stringent implementation of existing bylaws and regulations to ensure the sustainable recovery and growth of this vital industry without the need for depuration.

Causes of Degradation in Freshwater and Marine Ecosystems

The ecosystems within the Islands Trust area are uniquely vulnerable to a variety of anthropogenic impacts. These delicate ecosystems are critical for maintaining biodiversity, water quality, and the viability of local fisheries, particularly the shellfish industry. However, several key issues have contributed to their degradation:

1. Improperly Maintained Septic Systems:

- **Leaching of Contaminants:** A significant portion of residential properties in the Islands Trust area rely on septic systems. When these systems are not adequately maintained, they can leak harmful contaminants, including pathogens, nutrients, and chemical substances, into nearby freshwater and marine environments. This leakage can lead to eutrophication, harmful algal blooms (HABs), and the accumulation of pathogens in shellfish beds.
- **Bacterial Contamination:** Poorly functioning septic systems are a primary source of bacterial contamination in freshwater streams and coastal waters, leading to elevated levels of *Escherichia coli* (E. coli) and other harmful bacteria. This contamination is directly responsible for the closure of shellfish beds and the necessity for depuration before shellfish can be deemed safe for consumption.

2. Urban Runoff and Stormwater Discharges:

- **Nutrient Overload:** Urban runoff, often rich in fertilizers, pesticides, and other pollutants, contributes to the nutrient overload in water bodies. This can exacerbate the growth of harmful algal blooms, which deplete oxygen levels in the water and create hypoxic conditions, detrimental to marine life and shellfish populations.
- **Chemical Contaminants:** Runoff from roads, parking lots, and industrial areas often carries oils, heavy metals, and other toxic substances into watercourses and marine environments, further compromising water quality and the health of aquatic organisms.

3. Land Use Changes and Habitat Destruction:

- **Shoreline Development:** The ongoing development along shorelines disrupts natural habitats, leading to increased erosion, sedimentation, and the loss of critical vegetation that supports aquatic life. These changes not only degrade water quality but also diminish the habitat available for shellfish and other marine species.
- **Deforestation and Agricultural Practices:** The removal of vegetation for agriculture or development increases soil erosion, leading to increased sedimentation in water bodies. This sedimentation can smother shellfish beds and reduce the availability of clean substrates necessary for shellfish to thrive.

4. Wastewater Discharges:

- **Untreated or Partially Treated Wastewater:** Discharges from residential, commercial, and industrial sources that are not adequately treated introduce a variety of contaminants into the marine environment. These discharges contribute to the degradation of water quality and pose significant risks to public health and marine life, particularly shellfish.

Problems Impacting the Shellfish Industry

The cumulative impact of these environmental stressors has led to several pressing problems that threaten the viability of the shellfish industry within the Islands Trust area:

1. Closure of Shellfish Harvesting Areas:

- The contamination of shellfish beds due to bacterial and chemical pollutants has led to the closure of numerous harvesting areas. This not only impacts the local economy but also threatens the cultural and traditional practices of Indigenous communities that rely on these resources.

2. Dependency on Depuration:

- The current levels of contamination have necessitated the use of depuration processes to make shellfish safe for consumption. While depuration is effective in reducing bacterial levels, it is a costly and time-consuming process that diminishes the quality and market value of the shellfish.

3. Loss of Biodiversity and Ecosystem Services:

The ongoing degradation of water quality and habitats has led to a decline in biodiversity, affecting not only shellfish populations but also the broader marine and freshwater ecosystems. This loss of biodiversity reduces the resilience of these ecosystems to environmental changes and limits their ability to provide essential services, such as water purification and habitat provision.

Recommendations for Action

To address these critical issues and support the recovery of the shellfish industry without the need for depuration, we strongly recommend the following actions:

1. **Strict Enforcement of Existing Bylaws and Regulations:**

- **Septic System Inspections and Upgrades:** We urge the Islands Trust to rigorously enforce regulations that require regular inspections and maintenance of septic systems. Where necessary, property owners should be mandated to upgrade their systems to prevent leaks and ensure the effective treatment of wastewater.
- **Stormwater Management:** Strengthen and enforce stormwater management regulations to reduce nutrient and contaminant runoff into freshwater and marine environments. This could include the implementation of green infrastructure solutions, such as rain gardens, permeable pavements, and buffer zones along watercourses.
- **Protection of Shoreline Habitats:** Enforce existing land use regulations to protect sensitive shoreline habitats from development. Implement stricter controls on shoreline development and promote the restoration of natural habitats to reduce erosion and sedimentation.

2. Enhanced Monitoring and Research:

- **Water Quality Monitoring:** Increase the frequency and scope of water quality monitoring in critical areas, particularly around shellfish beds. This data should be used to identify sources of contamination and assess the effectiveness of management measures.
- **Research on Sustainable Practices:** Support research into sustainable agricultural, forestry, and development practices that minimize environmental impacts and contribute to the restoration of freshwater and marine ecosystems.

3. Community Engagement and Education:

- **Public Awareness Campaigns:** Launch public awareness campaigns to educate property owners and residents about the importance of maintaining septic systems, reducing pollution, and protecting local water bodies.
- **Collaboration with Indigenous Communities:** Work closely with Indigenous communities to incorporate traditional ecological knowledge into conservation efforts and to support their leadership in restoring shellfish populations and marine ecosystems.

4. Support for Shellfish Industry Recovery:

- **Investment in Restoration Projects:** Provide funding and resources for projects aimed at restoring water quality and shellfish habitats. This could include the restoration of wetlands, the creation of shellfish sanctuaries, and the removal of marine debris and pollutants.
- **Policy and Regulatory Support:** Advocate for provincial and federal policies that support sustainable aquaculture and the recovery of the shellfish industry. This includes ensuring that water quality standards are met and that the industry is supported in adopting practices that reduce the need for depuration.

Conclusion

The shellfish industry in the Islands Trust area is at a critical juncture. The degradation of freshwater and marine shoreline ecosystems has not only impacted the viability of this industry but has also posed significant risks to public health, biodiversity, and the cultural heritage of Indigenous communities. By rigorously implementing existing bylaws and regulations, we have a unique opportunity to reverse these trends, restore our ecosystems, and rebuild a thriving shellfish industry without the need for depuration.

We respectfully urge the Islands Trust to take immediate and decisive action to address the causes of ecosystem degradation and to protect and restore our precious freshwater and marine environments. Your leadership is essential in ensuring a sustainable and prosperous future for all who depend on these vital resources.

Thank you for your attention to this critical issue. We look forward to your positive response and are ready to collaborate in any way necessary to achieve these goals.

Opportunities for Growth in BC

The shellfish industry in the state of Washington is one of the most successful and largest in the United States. It is a significant contributor to the state's economy and provides substantial employment. Here are some key figures:

Economic Impact:

- **Annual Revenue:** The shellfish industry in Washington generates approximately **\$184 million** annually. This figure includes the sales of farmed oysters, clams, mussels, and geoducks.
- **Broader Economic Contribution:** When considering the entire supply chain, including processing, distribution, and related industries, the total economic impact is estimated to be **over \$270 million** annually.

Employment:

- **Jobs:** The industry supports roughly **3,200 direct jobs** in shellfish farming, which includes aquaculture operations, harvesting, processing, and distribution.
- **Additional Employment:** When accounting for indirect and induced jobs (those in supporting industries and services), the total employment impact is estimated to be around **7,000 jobs** statewide.

Key Factors Contributing to Success:

- **Supportive Regulations:** Washington's regulatory framework is designed to support sustainable aquaculture while protecting environmental quality, which has helped the industry thrive.
- **Research and Development:** The state has invested in research and development, particularly through partnerships with universities and research institutions, to improve shellfish farming practices and address challenges such as ocean acidification.
- **Export Market:** Washington is a major exporter of shellfish, with a significant portion of its products shipped to international markets, particularly in Asia.

The success of Washington's shellfish industry can serve as a model for other regions, including British Columbia, in terms of effective regulation, environmental management, and community engagement.

Comparison of the Shellfish Industry: Washington State vs. British Columbia (with a focus on the Salish Sea Region)

Economic Impact

Washington State:

- **Annual Revenue:** Approximately **\$184 million** generated annually by the shellfish industry.
- **Broader Economic Contribution:** The total economic impact is over **\$270 million** annually when considering the entire supply chain.
- **Key Species:** Oysters, clams, mussels, and geoducks.

British Columbia:

- **Annual Revenue:** The shellfish aquaculture industry in British Columbia generates approximately **\$50 million** annually.
- **Broader Economic Contribution:** The overall economic impact, including related industries, is estimated at **\$97 million** annually.
- **Key Species:** Pacific oysters, Manila clams, mussels, and scallops.

Salish Sea Region:

- **Economic Impact within BC:** The Salish Sea region, which includes important areas like Baynes Sound, contributes significantly to British Columbia's shellfish industry, though specific regional figures are less commonly disaggregated. Baynes Sound alone accounts for about **50-60%** of British Columbia's shellfish production.

Employment

Washington State:

- **Direct Jobs:** The shellfish industry supports approximately **3,200 direct jobs**.
- **Total Employment Impact:** Including indirect and induced jobs, the industry supports around **7,000 jobs** statewide.

British Columbia:

- **Direct Jobs:** The shellfish industry in British Columbia supports around **1,000 direct jobs**.
- **Total Employment Impact:** When including indirect jobs in related sectors, the industry supports approximately **2,000 jobs** across the province.

Salish Sea Region:

- **Employment Contribution:** The Salish Sea region is a major hub for shellfish farming in British Columbia, with a significant portion of the province's shellfish-related jobs concentrated here. Approximately **600 jobs** in the Salish Sea region are directly tied to shellfish aquaculture.

Environmental and Regulatory Context

Washington State:

- **Regulatory Environment:** Washington has developed a robust regulatory framework that balances industry growth with environmental protection. Agencies like the Washington Department of Fish and Wildlife (WDFW) and the Department of Ecology work closely with the industry to monitor and manage water quality, shellfish safety, and habitat conservation.
- **Research and Innovation:** Washington has invested heavily in research, particularly around challenges like ocean acidification, to support the industry's sustainability and resilience.

British Columbia:

- **Regulatory Environment:** British Columbia's regulatory framework is also designed to support sustainable aquaculture, with oversight from agencies such as Fisheries and Oceans Canada (DFO) and the provincial Ministry of Agriculture and Food. However, challenges related to water quality and enforcement of existing regulations have hindered the full potential of the industry.
- **Research and Innovation:** While British Columbia engages in research to support the industry, there has been less investment compared to Washington State, particularly in addressing emerging threats like climate change and pollution.

Salish Sea Region:

- **Environmental Challenges:** The Salish Sea region faces significant environmental challenges, including pollution from urban runoff, improperly managed septic systems, and habitat loss, which have impacted water quality and the health of shellfish populations.
- **Regulatory and Management Issues:** Inconsistent enforcement of regulations and the need for more comprehensive water quality monitoring have been barriers to the sustainable growth of the shellfish industry in this region.

Key Takeaways

- **Economic Scale:** Washington State's shellfish industry is substantially larger and more economically impactful than British Columbia's, with higher revenue and employment figures. This is partly due to more developed infrastructure, stronger regulatory support, and greater investment in research.
- **Environmental and Regulatory Management:** While both regions have strong regulatory frameworks, Washington State has been more effective in balancing industry growth with environmental protection, leading to a more resilient shellfish industry. British Columbia, particularly in the Salish Sea region, faces more significant challenges related to environmental degradation and regulatory enforcement, which have limited the industry's growth potential.
- **Opportunities for Growth in BC:** By addressing these challenges, particularly in the Salish Sea region, and by drawing on lessons from Washington State, British Columbia has the potential to expand its shellfish industry significantly. This would involve stricter enforcement of existing regulations, increased investment in research, and enhanced community engagement to protect and restore critical marine and freshwater ecosystems.

The **Islands Trust Act** does contain references related to freshwater and marine ecosystems, particularly in the context of water quality and management. Here are some key points:

1. **Environmental Management Act Compliance:** Section 34.1 highlights the need for local trust committees to adhere to the Environmental Management Act, which involves water quality and contaminated site management.
2. **Islands Trust Conservancy:** The Conservancy is responsible for managing properties to protect environmental values, including aquatic ecosystems, and must create plans that likely involve water management.
3. **Coordination Agreements:** The Act allows for coordination with other governmental bodies, including those responsible for fisheries, to ensure environmental protection in the trust area.

These sections emphasize the importance of protecting water quality and managing the environmental impact of urban runoff and development in relation to freshwater and marine ecosystems.

The **Islands Trust Act** does not directly discuss sewers, septic systems, or urban runoff. However, it emphasizes compliance with the Environmental Management Act, which indirectly relates to these topics, particularly through the regulation of land use and development. This ensures that such infrastructure and urban runoff management do not adversely affect water quality or the environment. Local trust committees have the authority to regulate land use in ways that could include managing the impacts of urban runoff and septic systems, although specific details are not explicitly mentioned in the Act.



From: Elsie B <[REDACTED]>
Sent: Tuesday, September 3, 2024 4:57 PM
To: Executive Admin
Subject: Delegation application
Attachments: delegation-application-form.pdf

Follow Up Flag: Follow up
Flag Status: Completed

Please find attached my application for a delegation for the trust councils quarterly meeting
Thank you
Elsie Born

Elsie Born
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

September 2nd 2024

To:
Chair and Trustees
Islands Trust

****Subject:**** Protecting Agricultural Land and Supporting Local Farmers

Dear Trustees,

I am here today to urge you to protect all land that you have zoned for agriculture. This is land that you have already identified as suitable for farming, reflecting thoughtful consideration of its potential and the needs of our community. It's time to stand behind your zoning choices and ensure these areas are safeguarded against conflicts of purpose, redefinition, and overreach.

****Importance of Agricultural Land****

Agricultural land is vital to our community's food security, economy, tourism, and cultural heritage. Your decisions to zone specific areas for agricultural use were made with careful attention to these factors. By zoning these areas for farming, you have acknowledged their importance and suitability for agricultural activities. Therefore, the land you have zoned for agricultural purposes deserves the same level of protection as land within the Agricultural Land Reserve (ALR), which has built-in safeguards for farming and food production.

****The 'Right to Farm' and Protection for Farmers****

The 'right to farm' legislation within ALR boundaries plays a critical role in supporting farming activities and protecting farmers' rights. On Salt Spring Island, supporting small-scale farming and agricultural production would require developing similar standards and guidelines for non-ALR land. Establishing these guidelines would create a clearer understanding of farming practices on smaller acreages, supporting local farmers, fostering sustainable food production, and preserving the rural character of our islands.

****Challenges from Recent Redefinitions****

Recent actions by the Capital Regional District (CRD) to redefine agricultural areas solely to include ALR land threaten the integrity of your previous zoning decisions. This redefinition would exclude many farms currently zoned "Rural" by the Islands Trust, yet these farms are essential to our community. They contribute significantly to our agricultural activities and are critical to our local food supply.

****Role of Rural-Zoned Farms****

The majority of farms on Salt Spring Island and across the Gulf Islands are not on ALR land but are instead zoned "Rural." These farms play a pivotal role in our food system and local economy. Redefining agricultural production to exclude non-ALR land contradicts your original zoning intentions and risks undermining the livelihoods of many farmers.

****Economic and Cultural Impact****

Agriculture is a major tourist attraction on Salt Spring Island. Visitors come here to experience local farms, enjoy fresh produce, and participate in agritourism activities. Protecting agricultural land supports this unique aspect of our tourism industry, generating economic benefits and fostering a deeper appreciation for sustainable farming practices.

****Call to Action****

We must ensure that all agricultural land, as defined by your zoning, is protected from restrictive redefinitions. This protection is crucial not only for the economic well-being of our farmers but also for maintaining the resilience and sustainability of our local food systems. In times of crisis, having diverse and accessible food sources within our community is invaluable.

I propose the following actions:

1. ****Initiate a Consultation Process:**** Engage with local farmers, landowners, and stakeholders to gather input on the current challenges faced by the agricultural community.
2. ****Develop Guidelines for Non-ALR Land:**** Establish standards similar to those in the ALR to support sustainable farming practices on rural-zoned land.
3. ****Form an Agricultural Advisory Committee:**** Create a committee to advise on policies and initiatives that support sustainable agriculture and food security.

4. ****Review and Revise Policies:**** Examine current regulations to ensure they align with the goal of protecting and promoting farming on all agricultural land.

****Conclusion****

I implore you to uphold and defend your zoning decisions. Protect the land designated for agriculture and support the farmers who rely on it. By doing so, you will affirm the values and priorities that guided your initial zoning decisions and ensure the continued vitality of our agricultural community.

It is time for decisive action to protect small farmers on Salt Spring Island before it's too late.

Thank you for your time and consideration.

Yours sincerely,
Elsie Born