Recommendations Regarding CSSP for SF-AMAC BC Ministry of Agriculture and Food, Aquaculture & Marine Fisheries (AMF) Team

As currently administered the Canadian Shellfish Sanitation Program (CSSP) is impeding the growth of shellfish aquaculture in BC. Originally developed to ensure the wholesomeness of wild captured shellfish, the program has not been updated and properly funded to provide for a dynamic and growing shellfish aquaculture industry. Indeed, our understanding is that the CSSP has not received a significant increase in funding in twenty years! As a result of this the CSSP would also appear to be an impediment to moving forward with other important federal initiatives like the Blue Economy Strategy and Indigenous Reconciliation.

Service to New Industry Entrants

The current level of CSSP funding allows ECCC, CFIA and DFO to provide growing water classification services only to the <u>existing</u> industry operating in long established growing areas. Funding is insufficient to allow ECCC, CFIA and DFO to offer growing water classification services to new entrants in more remote areas. These new entrants, the majority of which are Indigenous, are expected to pay for all associated growing water classification costs under an Alternative Service Delivery model.

Recommendations:

• Significantly increase the resources available to ECCC, CFIA and DFO to allow their programs to expand to include new growing waters in remote areas.

Need to Explore Innovative Technology and Methods

Several new genetic and electronic technologies have been developed in recent years which offer the promise to improve service delivery and reduce cost of the CSSP. Adoption of these innovative technologies appear not to have been explored or adopted by CSSP delivery agencies in any significant way.

Recommendations:

• Consideration of new technology and processes should be explored for more cost-effective administration of the CSSP (e.g., drones for sample collection or environmental DNA for monitoring for harmful algae).

Greater Focus on Growing Water Remediation

It appears that the CSSP program as currently administered devotes very little effort to remediate growing waters once declining water quality results in areas being closed. DFO, ECCC and CFIA have considerable statutory authority that presumably could be used to help remediate closed areas.

Recommendations:

• Use ECCC, CFIA and DFO's authority to force local governments and others with a more direct role in declining role declining water quality to act to remediate growing waters and obvious pollution sources (e.g., illegal float homes).

Apparent Discrepancies Between Administration of the CSSP and NSSP

Although the CSSP and the NSSP are supposed to be equivalent, a growing amount of anecdotal evidence suggests that shellfish farmers in the USA enjoy more flexibility when it comes to administration of NSSP than BC farmers do with the CSSP. For example, in contrast to in BC, US shellfish farmers appear to commonly operate in areas with significant residential development on the upland.. This suggests that either the programs are administered differently, or the US does a much better job of pollution prevention than BC does. It would be very useful to determine why these differences exist. DFO could investigate these differences when next auditing the NSSP program of the USA.

As well, in the USA officials at the state level act as advocates in under the NSSP to protect industry and state interests when weighing risk to public safety with industry impacts. There appears to be no agency in BC with an equivalent mandate. BC MAFF could perhaps file such a role if it regularly participated in PRISC.

Recommendations:

- DFO should explore differences in administration between the NSSP and CSSP during the next audit of the NSSP to see how and why these apparent differences exist.
- BC MAFF should be encouraged to attend PRISC and take on the role of industry advocate like that of state officials in the USA.

Response:

From a Sector Development perspective, the AMF team will focus on Food Security and Sector Capacity through the delivery of financial support programs such as BC Salmon Restoration and Innovation Fund, Fisheries and Aquaculture Clean Technologies Access Program and Canadian Fish and Seafood Opportunities Fund, all of which support BC shellfish aquaculture capacity, development and market access.

Specific projects we have supported include:

- 1. Unified Pathogen Control One Health Approach Specifically Targeting Vibrio (UPCOAST-V), in collaboration with GenomeBC, UBC and CFIA
- 2. Unified Pathogen Control One Health Approach Specifically Targeting Norovirus (UPCOAST-N), in collaboration with GenomeBC, BC CDC and CFIA
- 3. New Tools to Forecast and Prevent Norovirus Contamination of Farmed Oysters, in collaboration with GenomeBC and VIU.
- 4. Scallop Productivity and Adaptation Research for Climate Change, in collaboration with GenomeBC, VIU and several First Nations.

The first three projects were funded as part of the BC oyster recovery program, which also provided funding for reseeding and public education and food literacy on the consumption of raw oysters.

Results from the third project have culminated in a publication that has been accepted by a peer reviewed publication. The most recent project (#4) was developed to assess scallop genetics in BC and develop selective breeding tools for scallop aquaculture development in BC and is ongoing.

In addition we continue to work on the BC Fisheries & Aquaculture Ocean Acidification and Hypoxia Action plan, which will directly support shellfish aquaculture from a mitigation and adaptation to climate change perspective.