



Fisheries and Oceans Canada (DFO) Shellfish (SF) Aquaculture Management Advisory Committee (AMAC) Meeting notes	
Meeting Date:	November 22, 2021, 9:00 a.m. - 3:30 p.m.
Location:	MS Teams
OBJECTIVES	<ul style="list-style-type: none"> • Advice on shellfish Aquaculture management

Participants:

Facilitator: Saul Milne

Shellfish AMAC members:

Industry Licence-Holders

Alex Munro, Taylor Shellfish Canada (Fanny Bay Oysters) and Raincoast Sea Farms Inc.

Industry Associations

Nico Prins, British Columbia (BC) Shellfish Growers Association

Marguerite Parker, Aboriginal Aquaculture Association

First Nations

Jennifer Woodland, Nuu-Chah-Nulth Seafood LP

Grace Adams, Tla'amin Nation, Tla'amin Management Services LP

Daniel Rabu, We Wai Kai Nation, Pacific Coastal Shellfish Ltd.

Conservation and Environmental Non-Governmental Organizations (ENGOS)

Bill Heath, Watershed Society of Comox Valley

Capt Josh Temple, Coastal Restoration Society

Local Government

Daniel Arbour, Union of British Columbia Municipalities, Association of Vancouver Island and Coastal Communities, South Coast Delegate, Electoral Area A, Baynes Sound / Denman & Hornby Islands, Comox Valley Regional District

Dannielle Alan, North Central Local Government Association, North Coast Delegate, Area H
Director Regional District of Fraser Fort George

Guests:

Jim Russell, BC Shellfish Growers Association (BCSGA)

Malcolm Cowan, BCSGA

Ex-officio:

DFO

Brenda McCorquodale, Director, Aquaculture Management Division

Reagan Newcomb, Manager, Aquaculture Resource Management

Gabrielle Kosmider, Senior Coordinator, Aquaculture Resource Management, Canadian Shellfish Sanitation Program (CSSP)

Melinda Scott, Senior Coordinator, Aquaculture Resource Management, Shellfish

Chris Marrie, Senior Biologist, Aquaculture Environmental Operations, Shellfish
Janice Mattu, Coordinator, Aquaculture Resource Management, Shellfish
Jennifer Perry, Project Officer, Aquaculture Resource Management, Engagement
Rebecca Nagar, Coordinator, Aquaculture Transition Plan, Engagement
Johanna Jenkins, Senior Compliance Program Officer, Conservation & Protection (C&P)
Greg Plummer, Senior Compliance Program Officer, C&P, CSSP
Amber Neuman, Senior Coordinator, Area Based Aquaculture Management
Chris Pearce, Research Scientist, Nearshore Ecosystems Section
Jay Parsons, Director, Aquaculture, Biotechnology and Aquatic Animal Health Branch for
Fisheries and Oceans Canada
Alannah Biega, Acting Recovery Planner, Species at Risk

Province of BC

Myron Roth, Ministry of Agriculture, Food and Fisheries
Alex Clancy, Ministry of Agriculture, Food and Fisheries
Amber MacDonald, Ministry of Forests, Lands, Natural Resource Operations & Rural
Development (FLNRORD)

Transport Canada

Jennifer Wurz, Navigation Protection Officer

Regrets/Absentees:

Keith Reid, Odyssey Shellfish Ltd.
J.P. Haste, Nova Harvest Ltd.
Joe Tarnowski, Baynes Sound Oysters
Ken Hanuse, Cortes Island Shellfish Growers
Kathleen Nicholls, Limberis Seafood Processing Ltd.
Noah Plonka – Toquaht First Nation, Barkley Sound Shellfish
Ken Thomas – Penelakut Tribe, Designated Alternate: Josh James
Frank Dragon – Kyuquot First Nation
Trevor Gray, Chief, Aquaculture Unit, Conservation and Protection
Monica Ficker, Manager Fisheries and Aquaculture Management
Kerra Shaw, Manager Fish Health and Area Based Aquaculture Management
Jessica Outhwaite, BC Ministry of Forests, Lands, Natural Resource Operations & Rural
Development
John Morra, First Nations Fisheries Council of BC
Barbara Mills (Observer) - Alternative Aquaculture Practices committee for the Baynes Sound
/ Lambert Channel Ecosystem Forum, and a director on the board of the Association for
Denman Island Marine Stewards

Materials distributed:

Distributed via Dropbox:

<https://www.dropbox.com/sh/c0ovj5vsh86qyg4/AABrbkStoY3gSN1hanFm94wDa?dl=0>

- 1) Agenda, Terms of Reference and Meeting Minutes
 - a) Shellfish AMAC Meeting Agenda
 - b) Terms of Reference (ToR)
 - c) Shellfish AMAC Meeting Summary, April 14, 2021
- 2) Shellfish AMAC Response Log and Action Items, dated November 2, 2011
- 3) Regional National Update
 - a) Upcoming Opportunities

- 4) DFO Aquaculture Organizational Chart
- 5) Pacific Aquaculture Regulations (PAR) Infographics
 - a) Foam Floatation
 - b) Gear Marking
 - c) Seafloor Cleanup
- 6) Canadian Science Advisory Secretariat (CSAS) Science Response Approved Pre-Publication
- 7) Area Based Aquaculture Management (ABAM)
 - a) ABAM Infographic
 - b) ABAM PowerPoint Presentation
- 8) Other Presentations
 - a) Aquaculture Science
 - b) Conservation and Protection Update
 - c) Species at Risk Act Update

Link to Science Advisory Report 2021/036: [Modelling and Monitoring Methods Approach to Evaluate Ecological Bivalve Carrying Capacity in Baynes Sound, British Columbia](#)

Meeting proceedings:

Welcome, Introductions and Overview of Agenda (Saul Milne)

- Brenda McCorquodale was introduced as the new Director, Aquaculture Management, DFO.
- Nico Prins was announced as the new Executive Director, BCSGA.
- Johanna Jenkins was attending on behalf of Trevor Gray for C&P.
- Amber MacDonald was attending on behalf of Jessica Outhwaite for FLNRORD.

Review Notes and Action Items from last meeting (Melinda Scott)

- The last meeting's minutes were reviewed with no corrections requested.
- The action item log was reviewed.

DFO Regional and National Update (Brenda McCorquodale)

Staffing update

- The Honourable Joyce Murray is the new Minister of Fisheries, Oceans and the Canadian Coast Guard.
- Neil Davis has been permanently appointed as the Regional Director, Fisheries Management.
- Area Based Aquaculture Management and Aquaculture Transition Plan are new teams in Aquaculture Management led by Kerra Shaw and Amy Mar, respectively. An updated organizational chart from DFO was made available through the Dropbox.

New science reports

- A new Science Advisory Report, "Modelling and Monitoring Methods Approach to Evaluate Ecological Bivalve Carrying Capacity in Baynes Sound", is available [here](#).
- An approved pre-published version of the CSAS Science Response paper, "Hydrodynamic Connectivity Between Marine Finfish Aquaculture Facilities in British Columbia: In Support of an Area Based Management Approach" was made available in the Dropbox.
- The 2019 Shellfish Annual Report will be published in the near future, and made available to the Shellfish AMAC.

Upcoming deadlines

- Fisheries and Aquaculture Clean Technology Adoption Program (FACTAP):
 - This program has been extended for an additional two years, until 2023. Applications received by September 27, 2021 were included in the first round of funding reviews.
 - For more information, visit the FACTAP website (<http://www.dfo-mpo.gc.ca/cleantech/>) or contact Aimee McGowan, FACTAP coordinator, at DFO.PAC.FACTAP-PATPPA.PAC.MPO@dfo-mpo.gc.ca.

- Pacific Integrated Commercial Fisheries Initiative (PICFI):
 - The submission deadline for PICFI is December 31, 2021.
 - For more information, visit the PICFI website: <https://www.pac.dfo-mpo.gc.ca/fm-gp/picfi-ipcip/index-eng.html>

- British Columbia Salmon Restoration and Innovation Fund (BCSRIF):
 - Note that funding has been used previously to support shellfish aquaculture activities, and more information can be found on their website (www.BCSRIF.ca).
 - Currently BCSRIF renewal is under development as part of the Pacific Salmon Strategy Initiative and in cooperation with our Provincial partners.
 - Engagement with indigenous groups and stakeholders will be an important component in the next stage of BCSRIF strategic funding opportunities.

- Aquaculture Collaborative Research and Development Program (ACRDP):
 - The Call for Proposals for research funding for the 2022-2023 fiscal year has now been issued, and the deadline for submissions is December 20, 2021.
 - For more information, visit the website: <https://www.dfo-mpo.gc.ca/aquaculture/acrdp-pcrda/index-eng.htm>.

- Area Based Aquaculture Management (ABAM):
 - An expression of interest for a pilot area was distributed in August, and applications are due December 31, 2021.
 - Note there are funding opportunities here. Please contact the ABAM team for more information (Amber Neuman, Sr. Coordinator, at Amber.neuman@dfo-mpo.gc.ca, 250-754-0406, or general inquiries to AreaBasedAquacultureManagement@dfo-mpo.gc.ca).

- DFO will share more information on various departmental initiatives as it becomes available, and once the new Minister is briefed and has received her mandate.

Emerging species

- The development of the emerging species framework is still ongoing.
- Staffing processes are taking place in order to advance this file again in the winter.

Transfer of seed from the West Coast

- The Introductions and Transfers Committee is working to review the request to revisit the prohibition on transfer of seed from the West Coast to other areas in the Province.
- The Committee is assessing whether the activity could be considered low risk, taking into consideration Aquatic Invasive Species concerns, and commits to following up with interested applicants as soon as clarification is available regarding the potential for application to move seed from Zone 5 (the West Coast).

Net Pen Transition Plan

- Preliminary public engagement was conducted by Parliamentary Secretary Terry Beech in early 2021, which resulted in an “As-was-heard” report, available here: <https://www.dfo-mpo.gc.ca/aquaculture/publications/open-nets-filets-ouverts-eng.htm>
- Phase 1 engagement sessions are being planned for this winter. Contact AquacultureEngagement.XPAC@dfo-mpo.gc.ca for more information.
- AMAC Member Discussion:
 - A member asked whether if only salmon open net sites would be targeted for the transition plan. DFO shared a link to the [Open-net pen transition plan: initial engagement process \(dfo-mpo.gc.ca\)](#).
 - Question: How does the Net Pen Transition Program address Aboriginal rights and title and the United Nations Declaration of the Rights of Indigenous Peoples (UNDRIP)?
Response: DFO has an obligation to consult with First Nations where there is a potential of rights infringement, and also intends to engage with First Nations and other partners and stakeholders more broadly who may have information and perspectives to share.

BC Update (Myron Roth, Amber MacDonald)

Ministry of Agriculture, Food and Fisheries (MAFF)

- The Ministry is working to address the impact of recent disasters in the province, including flooding and damage to agriculture, all following a record fire season.
- The situation is dynamic. If anyone has anything to report (aquaculture losses, damages etc.), please contact the Ministry or Myron Roth at Myron.Roth@gov.bc.ca. A situation report is being provided daily to the Minister.
- The B.C. Fisheries and Aquaculture Ocean Acidification and Hypoxia (OAH) Action Plan was initiated this year and is on schedule. The first workshops were held at the beginning of November, and a summary with action items is ongoing. A second series of workshops, titled BC Seafood Harvester and Producer Perspectives on OAH, will be held December 7 and 8, 2021. To receive a notification when registration is open for this workshop, people can visit <https://quadracentre.org/meetings/bc-fisheries-oah/harvesters-and-producers-2> or contact Alex Clancy at Alex.Clancy@gov.bc.ca for more details.
- Pacific Economic Development Canada (PacifiCan) is a new agency replacing, in part, Western Economic Diversification Canada. It has a couple financial programs and provides loan programs for businesses. If interested, please contact Myron Roth.
- Aquaculture Collaborative Research and Development Program (ACRDP) proposals may now be submitted, and seafood producers are within scope of the program. The deadline for submissions is December 20, 2021.

Ministry of Forests, Lands, Natural Resources Operations and Rural Development (FLNRORD)

- FLNRORD has had staffing challenges, and is trying to fill all vacancies by the New Year. The aim is to have 11 full time positions, including two dedicated to aquatic plants. An updated organizational chart can be expected in January.
- There is a plan to address and prioritize the backlog of shellfish tenures. New staff will be dedicated to file review, diligent use, debris, and compliance.
- There is a new general inbox for aquaculture inquiries: Aquaculture.Program@gov.bc.ca.
- The general inbox for Aquatic Plant (wild or cultured) related questions is AquaticPlants.Courtenay@gov.bc.ca.

ACTION: MAFF to provide updated org charts for SF AMAC members - COMPLETE

ACTION: FLNRORD to provide updated org charts for SF AMAC members in January 2022.

Sector Check-Ins

First Nations:

- The Wei Wai Kai Nation noted there is currently a lot of aquaculture development activity for First Nations on Vancouver Island. However, there are still challenges in the length of time it takes for new site applications, and water classification in remote areas.

Local Government

Director of Area A of the Comox Valley Regional District and AVICC representative to the SF AMAC

- Recent events have prompted discussion about food security, and the shellfish sector posits well in that conversation.
- There have been discussions with elected officials about new Shellfish Conditions of Licence recently introduced, such as the tracking of gear. This is well received at the local government level, and helps with support for the sector.
- Partnership with First Nations and reconciliation is at the top of the agenda for local government. The shellfish sector is at the leading edge of that work.

Industry Associations

BC Shellfish Growers Association (BCSGA)

- Nico Prins has replaced Jim Russell as the new Executive Director of the BCSGA. Jim is currently staying on as a Program Advisor.
- The BCSRIF program started in July, and will have three different legs. The first is to fund innovative projects and assist with the changing labour market, such as supporting infrastructure changes. Successful projects are anticipated to be rolled out in the new fiscal year. Applications will open in January for the second leg, focusing on ways to improve the shellfish industry's compliance on traceability. A workshop will be held to share information. The third leg will focus on communication and awareness, especially for non-English speaking members. This will include workshops with translation services, education on regulations, and traceability awareness.
- Coming to a close are Ghost Gear Fund cleanup efforts, with a few more expected before the end of the fiscal year, and two more outstanding items for FACTAP.

Industry Licence Holders

Taylor Shellfish Canada (Fanny Bay Oysters) and Raincoast Sea Farms Inc.

- Noted that the current weather continues to pose challenges.

Environmental Non-Governmental Organizations (ENGO):

The Coastal Restoration Society

- Thanks to the provincial Clean Coast Clean Waters (CCCW) Initiative Fund, over 5000 pounds of debris was removed in partnership with First Nations and Environment and Climate Change Canada (ECCC).
- Ghost Gear retrieval took place in abandoned sites in Clayoquot, Barkley and Sooke.
- Also in Clayoquot and Sooke, there was a trapping project for the invasive European Green crab. DFO aquaculture invasive species workers and First Nations are helping with this project. There are plans to move forward other similar industrial targeted trapping projects as well.
- A Marine NAV ROV has been purchased to help guide fulsome surveys of sub-tidal work.
- The support of host First Nations, the Government of BC, the Government of Canada, and

partners in the aquaculture industry was acknowledged.

- Please contact Josh for any questions at: josh@coastrestore.com.

The Watershed Society of Comox Valley's Project Watershed

- A major cleanup effort was conducted in Baynes Sound, with a total of 38 tonnes of debris collected from various partners. Of the 38 tonnes, eight tonnes recyclable.

ACTION: DFO to provide links and contact information for the various initiatives within the meeting minutes – COMPLETE

Shellfish Science Priorities (Jay Parsons)

- Jay Parsons presented on science priorities and how science is working to support regulatory and policy decisions for sustainable management of aquaculture in Canada. The presentation is available in the Dropbox.
- This work includes researching and writing risk assessments related to aquaculture stressors, facilitating the delivery of targeted science advice, monitoring far-field effects of aquaculture, research funding programs, and communicating information on aquaculture science, research needs and advice within and outside DFO.
- Funding opportunities for science research such as Aquaculture Collaborative Research and Developmental Program (ACRDP) and Competitive Science Research Fund (CSRF) were presented. These funding sources have specific application criteria and timelines for submission.
- DFO science provides peer-reviewed science advice to its management clients to help inform policy and regulatory decisions. This advice is available on the Canadian Science Advisory Secretariat (CSAS) website: [Canadian Science Advisory Secretariat \(CSAS\) \(dfo-mpo.gc.ca\)](http://Canadian Science Advisory Secretariat (CSAS) (dfo-mpo.gc.ca)).
- AMAC Member Discussion:
 - Comment: Further research on septic impacts and e-coli would be useful to industry. There are frustrations that this continues to be an issue which does not seem to be receiving adequate attention or response. Response: The challenge with this issue is the jurisdiction is shared between multiple agencies. For more information or questions, people may contact the DFO National CSSP Manager, [Monica Ficker](#). The Director of Area A of the Comox Valley Regional District (CVRD) also responded to this comment with an update on municipal waste actions proposed and already under way in the CVRD.

ACTION: DFO Aquaculture to facilitate connecting industry members with appropriate agencies that have jurisdiction over sewage.

- Comment: There should be a dedicated funding stream to address green crab and aquatic invasive species (AIS). Response: DFO Science continues to conduct this research using Competitive Science Research Fund (CSRF) funding. Aquaculture Management will continue to engage with DFO Science and the Aquatic Invasive Species (AIS) regulations group to incorporate the most recent science advice before making changes to conditions when shellfish licences are reissued in 2025.
- Question: Could current science research funding be used to study emerging species and those species not currently licensed in BC? Response: Science research funding is primarily directed towards providing information to decisions makers to assist them in making decisions relating to regulations or policy. However, where a sustainability or regulatory element exists which is oriented toward minimizing impacts to ecosystems or fish health, such funding requests may be considered.

- Comment: While science is obviously used in making policy decisions, it is frustrating when that does not happen.
- The science work done to study norovirus to understand and address how such a virus impacts the ability to harvest product exemplifies the importance of this work.
- Chris Pearce, DFO Research Scientist, noted that he is seeing interest from the salmon aquaculture sector in co-farming and exploring what other species (i.e. shellfish or aquatic plants) can be cultured along with salmon. This may be a focus toward growing research in the near future.

Conservation & Protection (C&P) Update (Johanna Jenkins)

- Johanna introduced herself as the A/Senior Compliance Program officer, and presented British Columbia Aquaculture Regulatory Program Conservation and Protection (BCARP C&P) updates for 2021. The presentation is accessible in the Dropbox. Johanna can be reached at johanna.jenkins@dfo-mpo.gc.ca.
- Greg Plummer was also introduced. His contact information is: Greg.Plummer@dfo-mpo.gc.ca.
- Work is ongoing to address Annual Aquaculture Statistical Report (AASR) violations.
- There is a continued need to educate on conditions of licence.
- C&P is working to address staffing gaps.
- C&P conducted site inspections in the Baynes Sound area in July.
- There is a new ticketing regime for aquaculture. Tickets provide an effective deterrent and are a faster alternative to court prosecutions.
- AMAC Member Discussion:
 - Question: What techniques are most effective for educating licence holders on the new conditions of licence? Response: The use of translation apps and translated infographics tend to be useful and effective.
 - Comment: Face-to-face workshops for small communities would be useful as well. Response: This approach has been successful in the past, although challenging due to the volume of shellfish licence holders.
 - The protocol around ticket warnings is discretionary, with no specific requirement of when to ticket or not, and no strict flow chart for how and when a warning is appropriate.
 - Comment (Jim Russell): A large part of BCSGA BCSRIF funding is dedicated to increasing education and awareness of traceability obligations.

ACTION: BCSGA Executive Director (Nico Prins) to provide an update on the BCSGA's progress at the next SF AMAC meeting.

BCSGA Shellfish Farm Environmental Plan (SHEP) (Nico Prins)

- The SHEP program was initiated in March 2021, with the aim to improve the environmental performance of BCSGA membership.
- There are longstanding debris issues within the industry, an important focus of the BCSGA. The BCSGA has an environmental code of practice, and asks all members to complete a SHEP self-assessment identifying any non-conformance with respect to non-seabed debris, exposed foam floatation, and wildlife protection measures.
- All BCSGA members have submitted their SHEP self-assessments, with membership covering 276 Land Files. Out of these Land Files, 40 (or 14.49%) of the sites indicated some form of non-conformance to SHEP standards.
- In terms of floatation, 31 Land Files indicated non-conformance or 11.23%.

- In terms of debris, 23 Land Files indicated non-conformance or 8.3%.
- In terms of predator control, 4 Land Files indicated non-conformance or 1.45%.
- The next phase is to focus on members who identify any non-compliance, and have them submit an improvement plan. The BCSGA will work with them to bring them into compliance.
- The BCSGA would like to update its environmental code of practice. It plans engage with eNGOs and stakeholders, with the goal of setting a bar over and above the conditions of licence.
- AMAC Member Discussion:
 - BCSGA members have two years from completing the self-assessment to become compliant at which point an independent site audit is conducted. A board decision would be required if non-compliance is still evident.

ACTION: BCSGA to provide SHEP statistics for the meeting minutes – COMPLETE

Canadian Shellfish Sanitation Program (CSSP) Update (Gabrielle Kosmider)

- Gabrielle introduced Greg Plummer, Senior Compliance Program Officer with C&P. Greg is the C&P lead for CSSP and represents the CSSP Nationally and Regionally.
- Nationally:
 - A horizontal evaluation of the whole program is being conducted, involving all three agencies (DFO, Canadian Food Inspection Agency and Environment and Climate Change Canada) and led by the DFO evaluation directorate. Information gathering and interviews with subject matter experts are complete, and recommendations are being prepared. A full report is expected in June 2022, and will be posted publicly.
 - CSSP has been proposed to be included in a federal budget request led by DFO for the Blue Economy Strategy, pending interdepartmental review.
 - Senior management perspectives on CSSP renewal and priorities for program delivery are being sought.
- Regionally:
 - The Pacific Region Interdepartmental Shellfish Committee (PRISC) met in October. Only three recommendations arose from the meeting, none involving aquaculture.
 - The first recommendations for declassification under the National declassification process were invoked by CSSP partners. It is very expensive to maintain monitoring in areas where harvest and diligent use cannot be demonstrated. Decisions to declassify two aquaculture use areas were made. These are in Pacific Fishery Management Area (PFMA) 4-2 (licensed inactive facility) and 18-2 (unlicensed aquaculture facility). More declassification recommendations are anticipated at upcoming PRISC meetings.
 - As herring season approaches, the DFO PRISC secretariat will be reaching out to the vessel discharge working group to remind everyone of their elements of the action plan. DFO will be tasking the aerial surveillance program and the herring spawn overflights to document vessel accumulations in shellfish growing areas. Standard wording on requirements for handling waste and avoidance of shellfish aquaculture facilities will be provided for daily radio announcements and fishery notices.
- Bivalve Traceability Initiative:
 - This continues to be a regional priority, and a Senior Executive Task Team meeting was held in September.
 - Priority actions include engagement and outreach on new conditions of licence, and collaborating with the BCSGA to support their traceability work.

- AMAC Member Discussion:
 - Gabrielle clarified that the herring vessel discharge working group was developed in 2018, and includes Canadian Food Inspection Agency (CFIA), Environment and Climate Change Canada (ECCC), the Province of BC, Transport Canada, the herring industry, and the shellfish industry. An action plan was developed in the first year and has been maintained and updated each year since, despite the working group no longer meeting formally.
 - A question was brought forward regarding the cost to the CSSP program of having to monitor and mitigate human sourced fecal coliform impacts to water quality. It was clarified that this is the purview of ECCC.
 - A discussion developed regarding how CSSP is connected to the effort of dealing with fecal coliform and associated monitoring and tracing. It was noted that many area closures are related to failing sewage treatments, and this results in a large cost to the industry. DFO agreed with SF AMAC members that linkages should be made to the appropriate health authorities and municipalities to address the core problem. It was noted that closure information has previously been used as a rationale for changing communities from septic to sewer, for example in Port Hardy where a food, social and ceremonial (FSC) area was impacted.
 - Daniel Arbour provided the following link to a Sewer Extension South project in the Comox Valley: <https://www.comoxvalleyrd.ca/sewerextension#overlay-context=use>.
 - Comment: Municipal sewage treatment regulations do not address viruses, which can have a direct impact on shellfish aquaculture.
 - Daniel Arbour invited the aquaculture sector to present to the Comox Valley Regional District (CVRD) on this issue. He also provided a link to a [November septic report](#) which examines possible options for Regional District regulations.

ACTION: Daniel Arbour to present on recent septic changes in the CVRD at the next SF AMAC meeting.

CSSP Subcommittee Report (Subcommittee)

- The SF AMAC CSSP Subcommittee convened meetings on August 5, September 13 and October 12, 2021, with the objective of providing recommendations back to the SF AMAC for discussion and adoption.
- Recommendations were submitted on behalf of the BCSGA, and were circulated to the Subcommittee, but have not been fully endorsed by the Subcommittee.
- Jim Russell thanked the partners who had been involved in the Subcommittee meetings, and spoke to the following recommendations submitted on behalf of the BCSGA:
 - More resources are needed to help deliver the program, especially in remote areas;
 - More cost-effective ways of delivering the program are possible through new technologies;
 - DFO, ECCC, and CFIA authorities should be leverages toward supporting water remediation efforts;
 - Differences in administration between the National Shellfish Sanitation Program (NSSP) and the CSSP should be explored during the next audit of the CSSP. Furthermore, BC MAFF should be encouraged to attend PRISC and take on the role of industry advocate, similarly to that of state officials in the United States.
- Recommendations from the Shellfish AMAC CSSP Subcommittee were received on December 6, 2021 and were circulated with the November meeting minutes.

ACTION: Shellfish AMAC members to review, comment and approve CSSP recommendations prior to January 14, 2021.

Species At Risk Update (Alannah Biega)

- A presentation was provided on the DFO Pacific Region Species at Risk Program, focusing on two upcoming consultations for Grey Whale and Fin Whale. The presentation can be accessed in the Dropbox.
- The role of the Species at Risk Program is to implement the Species at Risk Act (SARA).
- Many components are considered when listing a species for the Act, including Indigenous cultural significance of the species as it relates to listing process and input from public consultation. This is used to inform the regional listing recommendation that goes to the Governor in Council for a listing decision.
- For the Grey Whale SARA listing process:
 - Consultation is anticipated to begin in winter 2022 on the decision to list either or both endangered populations of Grey Whale (Pacific Coast Feeding Group and Western Pacific) under SARA. For information on the consultation process, or to indicate your interest in being consulted, please email Rhona.govender@dfo-mpo.gc.ca.
 - The latest status report by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) for Grey Whale and information on the whale's feeding grounds can be found [here](#).
- For the Fin Whale SARA listing process:
 - Fin Whale is currently listed as Threatened under SARA but was reassessed by COSWEIC as special concern in 2019. In alignment with the Grey Whale consultations, DFO anticipates beginning consultations on whether or not to reclassify Fin Whale under SARA in Winter 2022.
 - For both the Grey Whale and Fin Whale processes, DFO will be seeking formal input on a listing decision, including the impact of a decision to list or not list and the level of support for either decision.
- AMAC Member Discussion:
 - Critical habitat would only be identified if a decision is made to list either or both the endangered Pacific Coast Feeding Group or the Western Pacific Grey Whale populations under SARA.
 - Question: What aquaculture activities will be impacted by the listing decision? Response: That consultation has not started yet, any impacts of a decision to list or not list will be communicated during the consultation period.
 - Comment: First Nations will want to have a say in the designation of these critical habitat areas in their traditional territories.

ACTION: DFO to share copies of all presentations with the SF AMAC – COMPLETE

Area Based Aquaculture Management (ABAM) (Amber Neuman)

- A presentation on ABAM was provided and is available in the Dropbox.
- ABAM is looking to establish a pilot area, and has sent out an Expression of Interest. The deadline for this application is December 31, 2021. Capacity funding is available.
- At the Provincial level, a BC-wide Regional Coordination Committee will be established. The Integrated Management of Aquaculture Plan (IMAP) will be updated to include principles of ABAM, specifically for marine finfish at this stage. Depending on the area selected for the pilot, other IMAPs such as shellfish could be updated as well.
- At the Area level, a Pilot Aquaculture Management Area (AMA) will be identified, and a

- collaborative governance committee will be built to co-create an Area Management Plan.
- At the Zone level, Aquaculture Management Zones (AMZ) will be created.
- Currently input is being collected, and a pilot area will hopefully be identified early next year alongside the regional and pilot area committees.
- Engagement is occurring with partners and stakeholders, including Indigenous Communities and industry, to clarify involvement with ABAM.
- At present, due to the current timeline, a successful application would include a defined geospatial area, existing aquaculture activities with planned continuation, potential for aquaculture growth or innovative ideas and technology, and existing partnerships or opportunities for partnerships.
- AMAC Member Discussion:
 - Question: What will this process ultimately produce? Response: The deliverables were described in the presentation, but from a regional perspective, it would be the revising of the IMAP to incorporate the principles of ABAM.
 - Comment: First Nations may see this as an “offloading” of responsibilities by DFO. Response: ABAM was triggered by the desire to have a management approach that explores the interaction of aquaculture with the local environment, and an opportunity to provide governance at the appropriate scale for meaningful participation. DFO recognizes that Indigenous communities want the implementation of UNDRIP in aquaculture management, and welcome Indigenous leaders to share their ideas for the program.
 - Comment: First Nations’ individual autonomy may be infringed upon if these areas are inclusive of territorial claims, and consultation is conducted with certain proponents and not others. Response: DFO acknowledges that it is up to First Nations to resolve these conflicts. Local government also acknowledged that this point had been raised in previous consultations, but the overall concept was still of interest to First Nations.
 - For questions, please contact Amber Neuman at Amber.neuman@dfo-mpo.gc.ca, 250-754-0406. Generic ABAM inquiries can be sent to AreaBasedAquacultureManagement@dfo-mpo.gc.ca.

Summary Roundtable and next meeting date (Saul Milne)

- Attendees spoke of their appreciation of the meeting and presenters.
- First Nations indicated that maintaining capacity has been an ongoing challenge for aquaculture, and it was difficult to think toward future years after such a difficult year.
- Saul reiterated that there was a need for secure, stable funding for Indigenous communities, and that this was good feedback for the Government agencies.
- Staffing challenges at FLNRORD continue to be a frustration for shellfish applicants, particularly with the invigorated interest in aquaculture development among First Nations. FLNRORD acknowledged this frustration, and reiterated the Ministry’s intention to address staffing gaps and the backlog of shellfish aquaculture applications.
- Members are interested in seeing the new Minister’s mandate letter, including further development of the Blue Economy Strategy.
- The week of April 11-14, 2022 was agreed as an appropriate time to schedule the next SF AMAC meeting.

Summary of action items:

1. MAFF to provide updated org charts for SF AMAC members - COMPLETE
2. FLNRORD to provide updated org charts for SF AMAC members in January 2022.

3. DFO to provide links and contact information for the various initiatives within the meeting minutes – COMPLETE
4. DFO Aquaculture to facilitate connecting industry members with appropriate agencies that have jurisdiction over sewage.
5. BCSGA Executive Director (Nico Prins) to provide an update on the BCSGA's progress at the next SF AMAC meeting.
6. BCSGA to provide SHEP statistics for the meeting minutes – COMPLETE
7. Daniel Arbour to present on recent septic changes in the CVRD at the next SF AMAC meeting.
8. Shellfish AMAC members to review, comment and approve CSSP recommendations prior to January 14, 2021.
9. DFO to share copies of all presentations with the SF AMAC – COMPLETE

Summary of recommendations:

No formal recommendations were brought forward from the SF AMAC body as a whole, but a number of actions were noted in the minutes.