



AQUACULTURE MANAGEMENT

**Fisheries and Oceans Canada (DFO)
Shellfish (SF) Aquaculture Management Advisory Committee (AMAC)
Meeting notes**

Meeting Date:	April 27 th , 2023, 8:30am-4:00pm.
Location:	Crown Isle, Copper Room
OBJECTIVE	<ul style="list-style-type: none"> • Discuss and seek advice from committee members on shellfish aquaculture management, initiatives and issues

Attendees:

Mediator: Saul Milne

AMAC members:

Industry Licence-Holders (7 seats)

Keith Reid, Odyssey Shellfish Ltd.

J.P. Hastey, Nova Harvest Ltd.

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

Dan Dyble, Kilo Sea Farms

Gordon McLellan, Macs Oysters Ltd.

Industry Associations (2 seats)

Nico Prins, BC Shellfish Growers Association (BCSGA)

First Nations (7 seats)

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

Conservation and Environmental Non-Governmental Organizations (ENGOS) (3 seats)

Mikaila Lironi, Island Trust – Denman Island

Local Government (2 seats)

Dannielle Alan, North Central Local Government Association (NCLGA)

Ex-officio:

DFO

Brenda McCorquodale, Director, Aquaculture Management Division (AMD)

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

Grace Runciman, Coordinator, Area-Based Aquaculture Management

Greg Plummer, Senior Compliance Program Officer – Conservation & Protection (C&P) CSSP Coordinator

Trevor Gray, Chief, Aquaculture Unit, C&P

Tarah Sullivan, Engagement Coordinator, Aquaculture Management Division

Government of British Columbia

Lesley Chapman, Ministry of Agriculture and Food

Amber MacDonald, Ministry of Forests

Ross McElroy, Ministry of Forests

Observers:

Malcolm Cowan, BC Shellfish Growers Association (BCSGA)

Regrets:

David Critchley, Island Trust – Denman Island

Josh Temple, Coastal Restoration Society

Ed Bereziak, Aphrodite's Garden Oyster Company

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

Absent:

Marguerite Parker, Aboriginal Aquaculture Association (AAA)

Bill Heath, Comox Valley Project Watershed Society

Daniel Arbour, Union of British Columbia Municipalities (UBCM)

Materials distributed:

Distributed via Dropbox:

<https://www.dropbox.com/sh/b8zjy1zj4hji2gh/AACW9LCM8V9eeDdZNZSCfx2ka?dl=0>

- 1) SF AMAC Meeting Agenda
- 2) SF AMAC Meeting Notes
- 3) SF AMAC Response Log
- 4) Supplementary Documents
 - a) Aquaculture Management Division Shellfish General Organizational Chart
 - b) Terms of Reference, SAIAP Debris Working Group
- 5) Presentations
 - a) Shellfish Aquaculture Authorizations- Amber MacDonald, Ministry of Forests
 - b) BC Applied Shellfish Research Collaborative, Malcolm Cowen, BCSGA
 - c) Baynes Sound Lambert Channel Eco Forum, Carl Butterworth
 - d) PRISC Norovirus Update 2022

Meeting Proceedings:

Welcome, Introductions, and Overview of Agenda (Saul Milne)

- Saul reviewed the Agenda; three points were discussed then adopted:
 - A change in BCSGA presenter from Nico Prins to Malcolm Cowan.
 - Reminder as per the terms of reference, meeting materials including presentations are submitted to the planning team well in advance.
 - Vacant Industry seat for which DFO will initiate a nomination process soon.

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

- The last meeting's minutes were reviewed with no corrections requested.
- The action item log was reviewed with a motion to remove the action item related to the Zero Plastic Initiative. DFO will provide an update in future if something new arises.
- The action log was accepted.

DFO Regional and National Update (Brenda McCorquodale)

Staffing Update

- There is an impending announcement on the new Director General of Aquaculture in Ottawa.
- DFO Shellfish aquaculture organizational chart is included in the meeting's materials.

Net- Pen Update

- There are some potential crossovers between the SF AMAC and the net-pen transition. With a move away from open net-pens, there may be a larger focus on Shellfish and Land Based aquaculture. The Director of AMD encourages the committee to review the [discussion framework for a BC aquaculture open-net pen transition plan](#).

- The What We Heard report is now available on the [Government of Canada website](#).
- DFO is in the last phase of consultation. The final plan may be released this summer.
- It was clarified that the net-pen transition is not specifically for salmon and may impact other marine finfish species.

Pacific Wild Oyster Spat

- Pendrell Sound – Phase 3 clean-up concluded in March 2023. Thirty-one tonnes of plastic gear was removed, but not all surveyed gear was successfully removed.
- DFO acknowledges that there is interest in spat collection. The Aquaculture Policy team will meet with interested members of the industry and the BCSGA to further understand any impacts and will report out to the Shellfish Aquaculture Industry Advisory Panel (SAIAP).
- The oyster spat closure has been extended another year. It is not permanently closed at this time, but guidance will come following the engagement sessions.

New or Amendment requirements for Harmonized Shellfish Aquaculture Licence Applications

- AMD, BC Ministry of Forests (FOR), and Transport Canada (TC) are currently updating the harmonized aquaculture application templates and guidance documents for both the shellfish and land-based sectors.
- Updates will provide guidance on when additional information is required. The intent is to make reasonable changes which align with agency decision making needs and management of other shellfish aquaculture jurisdictions across Canada, and reflect the restored *Fisheries Act* and current Departmental fish and fish habitat protection policies. This could include the need for additional habitat impact assessment information. The updated guidance will provide clear, how-to type instructions to meet the new information requirements.

AMAC Member Discussion

- It was clarified that a tenure holder with an expiring tenure should rarely have to apply with a new application unless there have been significant changes, such as a change to tenure size or infrastructure.
- First Nations are not part of the harmonization decision-making process, however the harmonization partners do conduct respective consultations with First Nations during the process. Further to that, Area Based Aquaculture Management (ABAM) is being considered as a way to create an area plan collaboratively with First Nations in a given area, and is currently being piloted in K'omoks territory. For its part, the Province of BC has plans to include First Nation partners in BC Coastal Marine Plans.

ACTION: BC Ministry Water, Land and Resource Stewardship (WLRS) to share more information on the Coastal Marine Strategy at the next AMAC meeting.

AMAC Member Discussion

- Industry would appreciate being more involved in the process to better have their perspectives considered.
- It was suggested that industry would benefit from First Nations being involved in the harmonized decision-making process, however one First Nation can not represent the entire BC coast, as First Nations share different views. ABAM, however, may be a potential solution to this.
- There may be benefit to defining standard equipment that would be accepted by DFO, BC, TC and First Nations. Most First Nations are not against shellfish aquaculture but want to ensure it is done in a way that it is not contributing to debris and pollution issues.

BC Update

Ministry of Agriculture and Food Update - Aquaculture and Marine Fisheries Team

- 1) BC Fisheries & Aquaculture Ocean Acidification & Hypoxia Action Plan (Action Plan) and accompanying Scientific Assessment are now complete. It was developed through four workshops to understand the current state of the science, aquaculture and commercial fisheries perspectives, community perspectives and policy. In total, 172 individuals from 88 institution/groups attended workshops contributing to the plan. It contains five goals, 15 objectives and 62 action items and has been endorsed by the United

Nations as an Ocean Decade Project. Alex Munro was acknowledged for his participation and input into the Action Plan. Both the Action Plan and Scientific Assessment should be released shortly.

- 2) Climate Ready BC Seafood – BC is funding this \$2.0 million initiative (until March 31, 2026) to support a soft launch of the Action Plan by fall 2023 and target high priority projects. It will be delivered by the Ocean Decade Collaborative Centre of the Pacific Northwest (ODCC). For more information contact rebecca.martone@tula.org, Executive Director of the ODCC.
- 3) Seafood Processing Capacity Assessment – BC recently completed a Seafood Processing Capacity Assessment study to assess the current state, key challenges, and opportunities in the processing sector, and make recommendations to support capacity building. A decision on when the report will be made available to the public is pending. Inquires may be directed to tiffany.guan@gov.bc.ca, Seafood Processing Specialist with the Ministry’s Food and Beverage Branch.
- 4) Applications for the Food Processing Growth Fund will be reviewed on June 6, 2023. The Fund provides support for established processors’ to scale up, supporting new equipment and innovation needs, with projects benefitting from \$50K to \$1M in funding for qualifying projects. Established businesses with a minimum of two years of operation or \$500k gross annual revenues, established shared-use commercial food processing facilities or industry associations are invited to apply, or seek more information from the Investment Agriculture Foundation Website: <https://iafbc.ca/fpg/>.
- 5) The Ministry’s Centre for Seafood Innovation recently launched a Seafood Business Accelerator (SBA) to support innovation, profitability, and sustainability for small scale seafood entrepreneurs through training, coaching, business advice, and one-on-one support from food industry experts. An event to showcase the program will be held at Vancouver Island University (VIU) in Nanaimo on Thursday, May 4. For further information contact Debra.Hellbach@viu.ca
- 6) Tim Green from VIU has been extended to continue his research on selective breeding in oysters and scallops using genetic tools to provide access to superior seed for local growers, as has Wiley Evans from the Hakai Institute, to continue his work on Ocean Acidification monitoring around Vancouver Island, and understanding the role of kelp on carbon dioxide atmospheric exchange and sequestration.
- 7) The Aquaculture Canada Conference, hosted by the Aquaculture Association of Canada, will take place May 7-10, 2023, in Victoria. For further details: www.aquaculturecanada.ca.
- 8) The Ministry of Agriculture and Food is working with the BCSGA and other government partners on the development of an Extreme Weather Preparedness Program to support Shellfish Farmers in mitigating the impacts of marine heatwaves on shellfish stock. For further information contact: Lesley.Chapman@gov.bc.ca.

Ministry of Forests

- Presentation by Amber MacDonald on Shellfish Aquaculture Authorizations. Materials were provided.

AMAC Member Discussion

- BC shared that when a licence expires but has not been renewed, operators can continue as previously authorised, however they should review the language in their tenure agreement for clarity. Tenures that do not have the month-to-month extension language are being prioritized.
- Industry would like to propose emerging technology in their application plans but the lengthy approval timeline does not provide enough certainty to enable this. BC acknowledged this and shared their aim to find a balance between supporting industry endeavours and a responsibility to engage with First Nations and the public.

Sector Check-In

First Nations

- First Nations are actively engaged in expanding and introducing new aquaculture projects, including a ten hectare geoduck facility waiting for completion of a one-time commercial harvest, and two First Nations

formalizing partnerships with the sablefish aquaculture industry. First Nations continue to be concerned with aquaculture related debris in their territory.

Local Government

- Local Government is continuing its focus on respectful relationships with First Nations, as well as encouraging growth in aquaculture along the north central BC area.

Industry Associations (BCSGA)

- The BCSGA went to Ottawa to lobby for greater funding to expansion of the Canadian Shellfish Sanitation Program (CSSP).
- They have been invited by BC to reapply for provincial funding for projects aimed at preventing sewage from contaminating the marine environment in Baynes Sound and will be reaching out to industry and local governments to support the application.
- Busy with the British Columbia Salmon Restoration and Innovation Fund (BCSRIF) project.
- 70% of gear is expected to be branded. There are some applications still waiting to receive their tags. The tag suppliers are backlogged and it will take time for all gear to be labelled. We hope that there will be a discretionary period for compliance. Concern over using plastic tags to reduce plastic pollution.
- At the Pacific Regional Interdepartmental Shellfish Committee (PRISC) meeting they shared concerns over new requirements for floating bags. BCSGA requested a working group at PRISC to address this.

Industry

- Freshwater/land-based licences are expiring next year. With updates to licence conditions being drafted, there is concern that new requirements may be burdensome to shellfish hatchery operations, which are very different than land-based finfish facilities. DFO clarified that there has not been any firm decision licence conditions updates, and that there will be opportunities to engage on this prior to licence renewal.
- DFO responded to an industry question clarifying that shellfish licences are currently up to nine years in duration, but may be amended during that term for conservation and protection reasons.

Islands Trust

- There are major concerns with plastic pollution debris. There is also an interest in seeing some representation on the AMAC from smaller farmers.

ACTION: Island Trust to provide a plastic reduction update at a future SF AMAC meeting.

AMAC Member Discussion

- Islands Trust will look into a request from the Committee about whether they have done any research on alternatives to plastics.
- There is currently a vacant AMAC seat in the Industry category. A nomination call-out will be issued soon.
- Industry asserted that a multi-year licence provides licence holders a greater sense of certainty, and noted that the recent two-year licences issued for marine finfish do not provide that. DFO acknowledged this and shared that licence duration is decided by the Minister or her delegate, and also takes into consideration the need to periodically refresh conditions of licence.

ACTION: DFO to provide details how licence holders can provide input on the Net Pen Transition Plan.

Area Based Aquaculture Management (ABAM)

- DFO, K'ómoks First Nation, We Wai Kai, Tla'amin and Qualicum First Nations participated in the first Area Management Committee meeting on April 21, 2023, with a focus on developing a work plan for the remainder of the pilot period and continuing to have monthly meetings thereafter.
- After the pilot is complete, DFO will reflect on the success of the pilot, and consider applying for more funding.
- ABAM currently involves First Nations, DFO and BC, as an observer. Industry is not involved, but DFO is looking for ways that industry can be.

- The pilot will be flexible with regards to environment and specific needs, and while exemption of certain species is not being discussed at this time, ABAM could be a forum to discuss this in the future.
- DFO will provide further updates to SF AMAC on ABAM in the future.
- DFO engaged with First Nations to seek application for, and identify pilot areas. The current pilot was applied for by the K'ómoks Nation and K'ómoks will remain the lead First Nation for the group with other First Nations playing a support role.

ACTION: ABAM updates to remain as a standing item with meeting notes to be provided, when possible.

Presentations

BCSGA

- Presentation delivered by Malcolm Cowan on BC Applied Shellfish Research Collaborative. Materials were provided.
- Purpose: To enhance the shellfish industry by fostering collaboration between farmers, research, and government to identify and address knowledge gaps that impede the sustainable growth of the shellfish industry in BC.
- An unintended outcome was that gaining a better understanding on science can really help to inform regulatory practices.
- Many expressed the benefit they saw from what was gleaned through the initiative, and it generated a number of ideas from the AMAC including that: science research could enable and improve the processing efficiency and development of the industry (i.e. alternative species, climate response, innovation, ITC, defining impact, norovirus depuration); science could lead to recommendations for alternative gear i.e.: plastic replacement; there should be SAIAP subcommittee established to discuss these topics, and perhaps have discussions that include the AMD Science Liaison and CSSP partners; and communication to the public needs to be clear and in plain language.
- Industry expressed frustration that decisions are often imposed upon them, and the science behind them is not always clear. DFO acknowledged this and stated that we seek to address this by ensuring we have the appropriate authorities attending AMAC meeting who can speak to these topics.

ACTION: BCSGA to present outcomes of the BCSGA Shellfish Research Collaborative Meeting at the next SAIAP meeting to confirm SAIAP would support the creation of a shellfish research Sub Working Group (SWG).

Baynes Sound Ecological Forum

- Presentation delivered by Carl Butterworth on the Baynes Sound Lambert Channel Eco Forum. Materials were provided.
- The purpose of the forum is to bring together Baynes Sound stakeholders to foster discussions. The next meeting is in April/May and the topic will be regarding human sewage in Baynes Sound. Other future topics could include Area-based management. Meetings are open to anyone wishing to observe.
- The forum does not represent First Nations' interests, but it helps connect people from different groups together and has heard positive feedback on the forum from First Nations. The forum has also served to improve connection and conversation flow between all parties.

ACTION: Baynes Sound Ecological Forum to share a copy of the Forums organizational structure.

Shellfish Aquaculture Industry Advisory Panel Technical Working Group (SAIAP)

- Presentation delivered by Chris Marrie. SAIAP Terms of Reference (TOR) were provided.
- Purpose of SAIAP Technical Working Group (TWG) is to bring together industry and partners to discuss conditions of licence and debris mitigation.

- The TWG is chaired by Chris Marrie and C&P Johanna Jenkins. Membership is listed in the TOR. More industry members may join if interested.
- Debris is classified as human made; something that has been used by aquaculture and left behind, or lost and is a risk to the environment.
- Objectives of the TWG are to: Gather insight from industry to inform 2025 licence renewal for shellfish aquaculture; improve the social licence of the industry; identify Science needs; and identify measures, documents, and products that can be provided to the industry to support their compliance.
- The TWG will continue to provide updates to SF AMAC.

AMAC Member Discussion

- Industry is interested in being engaged on changes to licence conditions. DFO indicated that it will be looking to start engagement in the summer, with the intent that all partners and stakeholders who are interested will have the opportunity to provide input.
- DFO acknowledged the concern from industry that a one-size-fits-all approach is not always best, but there is also a desire to not become too prescriptive with site specific conditions. DFO wants to avoid being too prescriptive though there is occasionally a need to tailor a licence for certain reasons, such as specifics of the geographical area.
- Industry expressed that the process associated with signing authorities is onerous. DFO suggested that it could have its Licensing Unit walk through the process at a future meeting.

ACTION: DFO Licensing Unit provide a review of the process for Signing Authorities at next SF AMAC.

Conservation & Protection Enforcement Update

- Staffing update: Detachment manager Jim Claire starts this week.
- C&P shared how it works closely with AMD staff and gets direction from senior management on enforcement issues.
- Enforcement priorities for this year include: Marine finfish site inspections, enforcement of new licence conditions, addressing debris complaints, and following up on annual statistical reporting, which is an ongoing challenge, despite being a condition of licence.
- C&P has been having challenges with inconsistencies in licence holders' contact information.

AMAC Member Discussion

- Industry was interested in whether there can be leniency in enforcement, particularly where the violations are clerical in nature or misinterpretations of licence conditions. C&P noted that education on licence conditions is always a priority. C&P typically relies on compliance history and subject matter experts, but judges will take due diligence into consideration.
- C&P clarified for industry that court summons are decided at the officer's discretion with support of their supervisor.
- Industry was interested in the timeline DFO allows for decommissioning of finfish sites. DFO shared that there is no stipulated timeline, and that discussions between the Province of BC, industry and First Nations lead to determinations on decommissioning timelines.
- Clean-up of old finfish sites that are decades old and abandoned is overseen by the DFO/BC/TC Harmonization Working Group. Removing infrastructure when ownership is still in place can be considered theft. AMAC members are encouraged to bring forward abandoned sites of which they are aware to DFO for investigation. Some derelict sites may trigger the *Fisheries Act* for potential impacts to marine mammals.
- Gear that is left indefinitely at a site will eventually become the property of the Province of BC. If First Nations are interested in acquiring these assets, they can ask but the process is lengthy.

CSSP Update and Norovirus

- Presentation delivered by Gabrielle Kosmider and Greg Plummer. Materials were provided.

AMAC Member Discussion

- Comox Harbour is not under a Conditional Management Plan (CMP), however there was a precautionary approach implemented due to increased vessel traffic during fishery openings.
- Comox marine pump-out open and closure dates do not fall under DFO authority. These dates are determined by the volume of liveaboard vessels in the location.
- Closure areal extent and duration are implemented, as per the Canadian Shellfish Sanitation Program manual.
- The decision to permit the herring fishery to take place in the most productive shellfish aquaculture area on the coast, causing yearly shellfish closures and impacting industry negatively is made at a Ministerial level, with recommendations coming from all sectors of DFO to inform this decision. Herring fishery Integrated Fisheries Management Plan (IFMP), daily radio announcements and Fishery Notices all remind the herring industry on requirements for waste management and to avoid shellfish growing areas. Industry is encouraged to provide input into the IFMP process. BCSGA is informed when input is open. There is also a herring advisory body similar to this table.

ACTION: DFO to provide the weblink to the IFMPs. **COMPLETE**

- DFO website lists all available IFMPs here: <https://www.pac.dfo-mpo.gc.ca/fm-gp/ifmp-eng.html>
- The US Food and Drug Administration (FDA) conducts periodic audits to determine the safety of imported product. There is continual possibility that the US border can close to Canadian export of product due to norovirus. US closures to Canadian product can geographically range from a specific area, such as Baynes Sound, to all of Canada. Canada works very closely with the US to ensure we are providing them the information they need to make informed decisions.

Roundtable – AMAC members

- There was an interest expressed to identify a forward-looking process to mitigate for, or avoid the possibility of closures, with the suggestion of a subcommittee to be created for industry to connect with DFO and CSSP partners and management.
- There was consensus that Saul Milne's facilitation continues to be beneficial, and there is support for his continued involvement in the AMAC.
- There was a request for additional resource materials on acronyms, organizational (flow) charts and a 'common mistakes made in licencing applications' hand-out.
- Members wonder if the process for consultation with First Nations could be less onerous, as they feel it is having harmful impacts on industry.
- There was a request for more information on expired tenures and licences.
- Members expressed appreciation for DFO and BC's willingness to address difficult questions.
- There was a request that DFO and BC remain focused on accelerating the decommissioning and reassignment processes to support growth in the industry, and a comment that site clean-up is of highest priority to First Nations.
- There is continued interest in having face-to-face meetings over virtual, however providing a virtual link would support attendance for those unable to travel.
- There was a request to accelerate the use of expired tenure, however, BC governance under the *Land Act* offers little flexibility.
- Industry would like to see more staff hired to process applications. BC acknowledged the challenge that lack of staff has had in advancing their applications in the past, that they have hired more people over the past year, largely in response to a call from the industry.
- There was a comment that governments need to foster an environment that is conducive to investment, and not wait to respond reactively after tenures are expired, instead listening to the needs of the industry now and supporting the sector as it exists presently.

ACTION: DFO and industry AMAC members consider establishing a subcommittee (possibly within SAIAP) that could focus on norovirus mitigation measures.

ACTION: BC FOR to compile and share with AMAC members a list outlining how industry could improve the quality of applications.

Round Table – Government

- Government expressed appreciation to AMAC members for coming with good questions, and also challenging them to bring solutions/ideas.
- Government agreed with the benefits of the in-person meeting.
- Government acknowledged industry frustrations with convoluted jurisdictional environment, and view that decisions should not be made by government entities in silos.
- There was recognition of what continues to be achieved by these discussions, and appreciation of people's patience and understanding, noting the lighter agenda allowed for more conversation time, and that it was helpful to have two Director-level representation from both DFO and BC, and the wide variety of member perspectives in the room.

Summary of Action Items

1. BC Ministry Water, Land and Resource Stewardship (WLRS) to share more information on the Coastal Marine Strategy at the next AMAC meeting.
2. Island Trust to provide a plastic reduction update at a future SF AMAC meeting.
3. DFO to provide details how licence holders can provide input on the Net Pen Transition Plan.
4. ABAM updates to remain as a standing item with meeting notes to be provided, when possible.
5. BCSGA to present outcomes of the BCSGA Shellfish Research Collaborative Meeting at the next SAIAP meeting to confirm SAIAP would support the creation of a shellfish research Sub Working Group (SWG).
6. Baynes Sound Ecological Forum to share a copy of the Forums organizational structure.
7. DFO Licensing Unit provide a review of the process for Signing Authorities at next SF AMAC.
8. DFO to provide the weblink to the IFMPs. -- COMPLETE
9. DFO and industry AMAC members consider establishing a subcommittee (possibly within SAIAP) that could focus on norovirus mitigation measures.
10. BC FOR to compile and share with AMAC members a list outlining how industry could improve the quality of applications.

Summary of Recommendations

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