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**Sent:** Thursday, June 3, 2021 10:40 AM  
**To:** Islands2050; Clare Frater; Dorrance` Woodward  
**Cc:** David Critchley; Laura Busheikin  
**Subject:** ADIMS Comments on draft policy re Marine Stewardship  
**Attachments:** Comments on Trust draft policy re Marine Stewardship June 3 2021.docx

Please accept the Association for Denman Island Marine Stewards' comments regarding the Marine Stewardship portion of the Trust's draft policy.

If you wish to clarify or follow-up on this submission, please contact me, as in the email above, or call [REDACTED].

Dorrie Woodward  
Chair, ADIMS

Comments on Coastal and Marine Stewardship Policies  
Re Draft Policy Statement, Bylaw V1.0 of the Islands Trust  
Submitted by the Association for Denman Island Marine Stewards  
June 3, 2021

### General Comments:

- ADIMS appreciates the thoughtful respect for the ecosystem expressed in this section and the wide survey of concerns that will help with future interpretation of the policy.
- The comments below are based on our 25 years of experience as a marine conservation advocacy group in Baynes Sound, which is used intensively for shellfish aquaculture, and is the home of the last commercially harvested stock of Pacific herring. There are 29 separate plans governing the various species and activities impacting these waters.

### General Concerns:

- There is no mention of the importance of using ecosystem-based management (EBM) to guide marine management decisions in the Trust area. Instead, wording like “should be...regenerative...” or in other places “sustainable” are employed. Without assessing an activity based on an EBM plan for the area, it is not logically possible to know whether some practice is regenerative or sustainable. A more holistic and scientific approach and rigorous process are required. As we know, anyone can say something is “sustainable”.
- EBM is in the Minister of Fisheries and Oceans’ mandate and is the basis of the Ocean Act. All new integrated fisheries management plans must be based on EBM. It is named as the key component of the Marine Planning Partnership (MaPP) for the Central and Northern coasts, it’s in the K’ómoks First Nation’s Marine Use Plan (Sec 2.1.3 p. 25), and probably most other marine use plans written by First Nations in the Salish Sea. In other words, **EBM is the standard for marine management decision making/planning and should be stated as the prerequisite for marine management planning in the Trust area.**
- **In section 4.6.17 the policy should state that the Trust supports, and would participate in, the development of EBM plan(s) for specific areas within its jurisdiction, in cooperation with First Nations and other jurisdictions to address all the concerns outlined in Section 4.6. Also, “guidelines for sustainable coastal zone management” are mentioned. Perhaps these guidelines should be stated as requirements, which must meet the same standards as those on the Central and Northern coasts, First Nation treaty settlements, and First Nation marine use plans (i.e., EBM planning).**
- We suggest adding specifics to this section because in our experience general categories like “sensitive areas” or general goals like “sustainability” invite a general/vague response from decision-makers, and damage from a thousand cuts tends to follow. Specificity alerts decision-makers to the reality of a particular place, and a more careful evaluation of how the ecosystem functions in that place. Also, potential project developers are forewarned if some concern/requirement is specifically named. For example, in Baynes Sound fin fish farms are prohibited but fin fish hatcheries are not, so with the installation of a hatchery that processes eggs from fin fish farms, protection from pathogens was not fully realized because the zoning

lacked specificity. (Not that objections were not made by various jurisdictions when a referral for this hatchery was circulated.)

### Specific Concerns

- 4.6.7 **Bottom -trawling** should not be permitted within the Trust area. It is one of the most notoriously destructive forms of fishing, and the alternative approach of trapping invertebrates that is not destructive to the marine ecosystem.
- 4.6.10 Include “**estuaries**” or “estuaries of salmonid-bearing streams” and “forage fish spawning habitat” and “Pacific sandlance (PSL) burying habitat”, since PSL spend 50-60% of their lives buried in certain sandy bottomed areas close to their inshore spawning zones. See: <https://www.sciencedirect.com/science/article/abs/pii/S0079661113000803> Further, viable intertidal areas for foraging clams for overwintering water birds, like surf scoters, must also be protected. This is where a thorough EBM plan is critical to ensuring basic food security for all members of the ecosystem. See: [https://www.researchgate.net/publication/225161732\\_Application\\_of\\_aerial\\_photography\\_in\\_combination\\_with\\_GIS\\_for\\_coastal\\_management\\_at\\_small\\_spatial\\_scales\\_A\\_case\\_study\\_of\\_shellfish\\_aquaculture](https://www.researchgate.net/publication/225161732_Application_of_aerial_photography_in_combination_with_GIS_for_coastal_management_at_small_spatial_scales_A_case_study_of_shellfish_aquaculture)
- 4.6.7 and 4.6.10 In addition to the general term “sensitive coastal and marine ecosystems”, if the Trust is concerning itself with **structures** in these areas, then it can address channelizing of streams with gabions (wire mesh containers filled with rocks) or rock pile borders and covering of alluvial fans/clam beds with anti-predator netting.
- In the new Fisheries Act, Section 35 Harmful Alteration, Disruption or Destruction of fish habitat includes a new subsection 35.2(1) **Ecologically Significant Area** (ESA), which may be useful to name specifically in the new Trust policy, as it has some definition and importance in the Fisheries Act. ESAs are what were defined as Ecologically and Biologically Significant Areas (EBSAs) in the recent past, and the Trust area has many of them. See: [https://www.dfo-mpo.gc.ca/csas-sccs/Publications/ResDocs-DocRech/2014/2014\\_100-eng.html](https://www.dfo-mpo.gc.ca/csas-sccs/Publications/ResDocs-DocRech/2014/2014_100-eng.html)

These areas can be useful for the Trust mapping and defining the marine ecosystem values in the Trust area. **DFO has stated that all MPAs must first be ESAs.** Also, these ESAs will be essential when Trustees are considering zoning for “**harvest refugia.**”

- Perhaps it is important to use the term “**critical habitat**” since many species in the Trust area are threatened or at risk, including salmonids. Much of the coastal marine ecosystem can be categorized as “sensitive”, however, some areas, like estuaries, are critical to the survival of multiple species. Critical habitat has a legal definition with DFO. See: <https://www.dfo-mpo.gc.ca/species-especies/sara-lep/act-loi/habitat-eng.html>

Here is a quick definition: Critical habitat is the specific areas within the geographic area, occupied by the species at the time it was listed, that contain the physical or biological features that are essential to the conservation of endangered and threatened species and that may need special management or protection.

- 4.6.10 “Sea grass meadows” is too limited, and other terms should be included such as: eelgrass meadows, tidal salt marshes, mud flats, and/or coastal wetlands. All of these ecosystems should be specifically mentioned because they provide key wildlife habitat and sequester carbon. (On Denman Island, they are damaged by shellfish growers driving through them, and need protection.)

Here are a few quotes, which illustrate their significance: "These intertidal habitats are essential for healthy fisheries, coastlines, and communities - and are an integral part of our economy and culture. They also provide essential food, refuge or nursery habitat for more that 75% of fisheries species including shrimp, finfish and crab.”

“Salt marshes also protect shoreline from erosion by buffering wave action and trapping sediments. They reduce flooding by slowing and absorbing rainwater and protect water quality by filtering runoff, and by metabolizing excess nutrients.”

Salt marshes also sequester carbon dioxide in greater amounts than forests, among other things. Their role as a carbon sink, helping to regulate Earth’s atmosphere, must be promoted.

See: <https://oceanservice.noaa.gov/ecosystems/coastal-blue-carbon/>

<https://jecoenv.biomedcentral.com/articles/10.1186/s41610-019-0106>

- 4.6.7 and 4.6.17 “**Hatcheries** for fin fish aquaculture” must also be rejected, along with fin fish farms. We have such a hatchery (United Hatchery, owned by Marine Harvest) on Rosewall Creek, a salmonid-bearing creek that flows into Baynes Sound. Since some of the pathogens that harm wild salmon are carried in the salmon eggs, this is just makes sense.
- 4.6.10 Could add “heron rookeries, eagle nests”, which are sometimes located in estuarine marshes. Sea Lion haul-outs and rookeries, seabird nesting grounds, biological fronts..., the list goes on.
- 4.6.8 and 4.6.10 **Industrial uses** on oceanfront lots, under the jurisdiction of small ocean-side towns on the Salish Sea, needs reviewing under the broader planning effort to protect the marine ecosystem. What may have been used for industrial purposes several generations ago may be utilized once more, to the detriment of the local ecosystem.
- 4.6.10 **Storm drains** must be controlled and runoff treated or captured to prevent pollutants such as microplastics from tires reaching the ocean. Such runoff shuts down the shellfish industry regularly, and now there is new research showing a chemical from tires kills salmon. See: <https://www.hakaimagazine.com/features/when-rubber-hits-the-road-and-washes-away/>

### Other Comments

- We cannot overstate the importance of developing the key principle of **food security for all animals** in the marine ecosystem within the Trust area and implementing **EBM planning** to ensure that food security comes ahead of human resource use.

Here are some useful quotes by Wuikinuxv Nation stewardship director Danielle Shaw, which give concrete meaning to “sustainability,” and perhaps equality between nonhuman animals and people when it comes to planning:

“By looking at what other species need to ensure their own sustenance, we are progressing towards a more ecosystem-based approach to conservation and management.”

“We have a responsibility to ensure all other species are fed before we fill our own bellies.”

Note: Danielle Shaw has collaborated with University of Victoria researcher Megan Adams and others on the Central Coast Bear Working Group. For more details see - <https://thenarwhal.ca/fishy-bears-are-fitter-bears-says-study-maps-vital-connection-between-bears-and-salmon/>