

THE MARINE PROTECTED AREA PLANNING PROCESS IN WASHINGTON STATE: RECOMMENDATIONS FOR INCREASED EFFECTIVENESS

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Introduction

In Washington State, the Department of Natural Resources (WA DNR) is responsible for managing state-owned aquatic lands. Aquatic reserves are one of many Marine Protected Area (MPA) designations in WA State that aim to protect sensitive aquatic and ecological habitat. We analyzed the designation and early planning processes of WA State aquatic reserves, identified gaps in the processes, and recommend action to improve the WA State aquatic reserve early planning approach.

Methods

This study is based on a comparative analysis of the four aquatic reserves in Washington State - Maury Island, Cypress Island, Fidalgo Bay, and Cherry Point. All four of the reserves are designated as Environmental Reserves. Additionally, all are located within the usual and accustomed (UAA) fishing areas of multiple tribal nations. In three of the reserves, bordering shoreline is zoned for industrial use, creating the risk for competitive interests.

Our analysis draws from publicly accessible documents, including management plans and public comments, as well as personal communication with DNR staff. To consistently evaluate these four aquatic reserves, established criteria for success in the early planning stages of Marine Protected Areas (MPAs) are applied to each reserve. Criteria for success are drawn from the following documents: *Conservation Biology's* Implementation and Management of Marine Protected Areas (Davis 2005, Lundquist and Granek 2005) and a more recent document of the same subject (Klein et al 2008), Oregon Marine Reserves Work Plan (2009), and Marine Protected Area Process Review (Kessler 2003). While there are various criteria for successful marine conservation implementation, the following were chosen as they have been shown to be significant for MPAs along the west coast of the US: transparency, presence of marine conservation alternatives, use of social science data, early stakeholder involvement, and conflict resolution.

Transparency during the Planning Process

Minimal transparency exists in the publicly available documents concerning specific stakeholder interests and participation in the reserve early planning process. After review of comprehensive management plans (CMPs) for the four aquatic reserves, only Cherry Point specifically highlighted elements of the planning process.

Prior to reserve designation, an external Technical Advisory Committee unanimously recommended Cherry Point as an Environmental Reserve [15]. It was designated an aquatic reserve in 2000 [16], but it was not until 2001 that interim management guidance was provided. In 2003, preparation of scientific documents began to provide background to uses and ecosystem threats at Cherry Point. At this time, public outreach efforts began and public meetings were held to gather input into the planning process. In 2004, the planning process was put on hold due to differences in opinion amongst community members regarding the direction of Aquatic Reserve management.

DNR is currently facilitating the development of a management plan to protect Cherry Point's resources and acknowledge the sustained presence of industries along the Cherry Point shoreline. The first management plan was drafted in 2008, and based on comments from a multi-stakeholder workgroup and other concerned citizens, was amended in 2009, with similar concerns voiced in each draft.

Other than Cherry Point, the lack of transparency in the planning process makes it difficult to discern the level of involvement of affected user groups as well as what attempts, if any, were made to engage stakeholders during the pre-designation and early planning stages.

Presence of Marine Conservation Alternatives

According to publicly available documents, little to no thought was given to alternatives for marine conservation outside of MPA designation, with the exception of Cherry Point. We define alternatives to marine conservation as attempts to manage aquatic lands and habitat using a different conservation tool than an Aquatic Reserve; inaction does not suffice as an alternative.

In 2006, DNR partnered with Whatcom County Shoreline planners to jointly consider management of aquatic and shoreline resources for a broader area coined the Cherry Point Management Area. The new management area was meant to provide an alternative approach to enforcing an Aquatic Reserve, under the condition that resources were protected to the same or higher degree that a reserve would ensure.

For Maury Island, alternatives to marine conservation, as defined above, were not considered. However, three reserve management alternatives were clearly documented in the final Environmental Impact Statement: (1) retain reserve designation and develop a management plan, (2) repeal reserve, (3) retain reserve designation and do not develop a management plan [11].

Use of Social-Science Data

Designations for the aquatic reserves were primarily based on environmental criteria with minimal attention to stakeholder perceptions, attitudes, and acceptance of the designation decision-making process.

Common threads present in the justification for environmental reserves included protection and enhancement of habitat for threatened and endangered species, conservation of habitat least impacted by human development, ecosystem connectivity, conservation of native habitats, protection and restoration of ecosystem function and maintenance of critical habitat near shore for migratory and resident species [12, 13, 15, 18]. In addition, education and outreach appears in multiple management plans.

While we support the environmental criteria used in reserve designation, criteria based on social willingness to accept new regulations that would be imposed by the reserve designation did not appear to be considered.

Pre-designation of Stakeholder Involvement

Minimal stakeholder consultation and outreach occurred prior to Reserve designation of the four current reserves.

An important aspect of WA State Aquatic Reserves is the presence of tribes in all four of the designated Reserves. Additionally, Fidalgo Bay, Maury Island, and Cherry Point have private interest stakeholders. Most of the Fidalgo Bay reserve is within the city limits of Anacortes, containing residential and commercial development as well as two oil refineries. The management plan notes that the DNR plans to work with stakeholders through consultation and education efforts, but consultation with stakeholders prior to reserve designation is not mentioned [18].

Conflict Resolution

Inclusion of stakeholders earlier in the planning process would likely have helped to avoid later conflict in reserve management, such as in Cherry Point. Twenty-two stakeholder groups comprise the Cherry Point Workgroup, a group tasked with recommending actions for the long-term, sustainable management of the Cherry Point Resource Area [14]. Among others, the group contains a number of local environmental NGOs, Whatcom County agencies, Washington State agencies, Lummi Nation and Nooksack Tribe representatives and industrial companies, the latter two are concerned with the establishment and management of an aquatic reserve [17].

Maury Island Aquatic Reserve represents the most public case of conflict in the dispute between Glacier Northwest and the residents of Maury Island over the construction of a loading dock in the Reserve's tidelands. Inclusion of conflict resolution in the planning process could have helped prevent this case from going to court.

Conclusion

In conclusion, effective MPA designation and early planning requires a collaborative and transparent process, incorporating interested and diverse stakeholders and fully considering alternatives to MPA designation. Based on

this study's conclusions of the WA State Aquatic Reserve planning process, the following recommendations are proposed:

- Scientific studies that support the social acceptance of an aquatic reserve should be conducted prior to reserve establishment.
- Consultative processes with directly affected and representative stakeholders should be initiated prior to establishment of an aquatic reserve¹.
- Justification for reserve establishment should include a thorough review of alternative conservation management approaches and a compelling rationale for choosing to establish a reserve over the alternatives.
- A conflict resolution plan along with goals for a consultation process (i.e. stakeholder consensus or stakeholder feedback) is necessary.
- Adaptive management principles need to be more prominent in the early planning process; monitoring and evaluation principles in particular would help justify the establishment of the reserve.
- Making stakeholder comments and concerns, as well as corresponding DNR actions, publicly available, can achieve improved transparency in the planning process.

This paper provides an evaluation of WA DNR's designation and early planning for aquatic reserves based on documented processes and outcomes. However, the contextual challenges of early implementation of aquatic reserves must also be considered when proposing future action. There are clear barriers to implementation, such as lack of funding and support staff in WA DNR, which affect ultimate process success, but are not considered in this study.

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¹ DNR now has a process in place for including stakeholders early on in the designation process of proposed reserves.

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