

Yaquina Bay Estuary Management Plan Needs and Gaps Assessment

DRAFT

Version 2 - September 08, 2022

Authors: Lincoln County, Willamette Partnership, and University of Oregon (IPRE)

Table of Contents

Executive Summary	4
Introduction to the Needs and Gaps Assessment	6
Background on Goal 16: Estuarine Resources	6
How the Yaquina Bay Estuary Management Plan Functions	7
Plan Uses and Limitations	7
Purpose of Assessing the Yaquina Bay EMP	8
Process and Methodology	9
Gaps and Differences in Estuary Management Plans	9
Plan Modernization Objectives	9
Preliminary Review	10
Plan User Feedback	10
Final Review and Recommended Actions	10
Assign Priorities	10
Preliminary Review of Yaquina Bay and Other Oregon Estuary Management Plans	11
Recommendations	11
Recommendation 1: Revise the Organizational Structure of the Plan	12
Recommendation 2: Update Maps	12
YBEMP Modernization Needs Assessment: Plan Parts I- X	13
This section reviews each Yaquina Bay Estuary Management Plan part in order, identifies modernization needs, and makes recommendations to update the plan part.	13
Plan Part I—Introduction	13
Recommendation 3: Revise Part I - Introduction	14
Part II—Overall Management Policies	14
Recommendation 4: Revise Part II Overall Management Policies	15
Part III—Sub-Area Policies	15
Recommendation 5: Revise Part III Sub-Areas	16
Part IV—Management Classifications and Permitted Use Definitions	17
Recommendation 6: Revise Part IV Permitted Use Definitions	18
Part V—Estuarine Use Standards	18

Recommendation 7: Revise Part V Estuarine Use Standards	20
Part VI—Management Units	20
Recommendation 8: Revise Part VI Management Units	23
Part VII—Mitigation and Restoration	23
Recommendation 9: Revise Part VII Restoration and Mitigation Sites	24
Part VIII—Log Storage and Transportation	25
Recommendation 10: Remove Part VIII Log Storage and Transportation	26
Part IX—Future Development Sites	27
Recommendation 11: Revise Part IX Future Development Sites	28
Part X—Plan Implementation	28
Recommendation 12: Revise Part X Plan Implementation	30
Issues Not Addressed by the Current Plan	30
Climate Change	31
Sea Level Rise	31
Ocean Acidification	31
Community Health & Equity	32
Recommendation 13: Develop State-Wide Estuarine Climate Change Guidance	33
Recommendation 14: Develop Policy to Support Aquaculture Industry	33
Recommendation 15: Revise Plan to Incorporate Climate Change Impacts	34
Recommendation 16: Revise Plan to Consider Equity and Health	34

Executive Summary

Yaquina Bay sits at the mouth of the Yaquina River on the central coast of Oregon. Located in Lincoln County, Yaquina Bay has the City of Newport at the entrance to the bay, and Toledo further upriver. The Yaquina Bay Estuary Management Plan (YBEMP or Plan) regulates estuarine resource conservation and development decisions in compliance with Statewide Planning Goal 16: Estuarine Resources. The YBEMP was adopted by Lincoln County in 1982 and is in need of modernization and updating.

A *Needs and Gaps Assessment* was conducted in order to identify the components of the Yaquina Bay Estuary Management Plan that need to be modernized to reflect current conditions and improve plan usability and implementation. A modernized plan will facilitate the protection of the Yaquina Bay's natural resources and habitat for years to come and guide development activities to ensure the Bay's communities and residents thrive.

The Needs and Gaps Assessment was conducted by comparing other Oregon estuary management plans as well as an analysis of each of the ten parts of the YBEMP by Lincoln County, Willamette Partnership, and University of Oregon's Institute for Policy and Research Engagement (IPRE). A review of issues not addressed in the current plan, such as climate change, was also completed. The review of each plan part and the development of recommendations for modernizing each part focus on identifying needs and actions that will achieve or advance one or more of the following modernization objectives:

- **Update:** Actions that replace or eliminate text or information that is out of date or no longer valid, or actions that add or incorporate relevant new information.
- **Improve usability and/or accessibility of the plan:** Actions that improve the understanding and usability of the plan for plan users and the public.
- **Improve plan implementation:** Actions that improve and/or clarify standards and processes applicable to plan implementation.
- **Further Goal 16 or local policy objectives:** Actions that revise or add to substantive content of the plan needed to fulfill Goal 16 requirements or local policy objectives.

Each modernization need and corresponding recommended action was assigned a priority based on user feedback and the final analysis. Some of the specific updates of the YBEMP have constraints (e.g. time and capacity) that make some of the recommended actions infeasible for completion within this planning process.

The priority categories are:

- **Tier 1:** Actions that can and should be accomplished through the current update process. Tier 1 actions achieve one or more modernization objectives and further the plan's overall purpose of conserving estuarine resources and providing for appropriate development.

- **Tier 2:** Actions that would accomplish desirable modernization objectives but which, due to their scope and/or complexity, would be impracticable to complete within the limits of resources and/or time constraints of the current update process.
- **Tier 3:** Actions that cannot be practicably achieved through local planning processes without additional policy support and/or technical assistance from outside agencies.

Below is a summary of recommendations to update and modernize the Yaquina Bay Estuary Management Plan.

Recommendations			Modernization Objectives			
	Description	Priority Tier	Update	Improve Usability / Accessibility	Improve Implementation	Further Goal 16 or Local Policy
1	Revise Organizational Structure	1	X	X		
2	Update Maps	1	X	X	X	
3	Revise Part I Introduction	1	X	X		
4	Revise Part II Overall Management Policies	1				X
5	Revise Part III Sub-Areas	1	X	X		
6	Revise Part IV Permitted Use Definitions	1	X	X		
7	Revise Part V Estuarine Use Standards	2			X	
8	Revise Part VI Management Units	1	X	X	X	X
9	Revise Part VII Restoration and Mitigation Sites	1	X			X
10	Remove Part VIII Log Storage and Transportation	1	X			
11	Revise Part IX Future Development Sites	2	X			
12	Revise Part X Plan Implementation	1	X	X	X	
13	Develop State-Wide Estuarine Climate Change Policy	3				X
14	Develop Policy to Support Aquaculture Industry	2				X
15	Revise Plan to Incorporate Climate Change Impacts	1	X			X
16	Revise Plan to Consider Equity and Public Health	1				X

1. Introduction to the Needs and Gaps Assessment

Yaquina Bay sits at the mouth of the Yaquina River on the central coast of Oregon. Located in Lincoln County, Yaquina Bay has the City of Newport at the entrance to the bay, and the City of Toledo further upriver. The Yaquina Bay Estuary Management Plan (YBEMP or Plan) regulates estuarine resource conservation and development decisions in compliance with Statewide Planning Goal 16: Estuarine Resources. The YBEMP was adopted by Lincoln County in 1982 and is in need of modernization and updating.

Background on Goal 16: Estuarine Resources

Oregon's Department of Land Conservation and Development (DLCD) has a system of 19 statewide land use planning goals that guide comprehensive planning and land use planning throughout the state. [Goal 16: Estuarine Resources](#) guides estuary management and Estuary Management Plan (EMP) development. All of the Statewide Planning Goals, including Goal 16, are incorporated into the federally approved Oregon Coastal Management Program (OCMP). The OCMP is administered by DLCD.

Goal 16 sets forth the requirements for local estuary management planning and implementation. Estuary management planning functions similarly to zoning and land use planning but in an aquatic setting, with certain uses allowed in different management units. The EMP is just one of many regulatory documents used in Yaquina Bay's management efforts. It only applies to the bay's estuarine areas, or the aquatic areas that are tidally affected and have a mix of salt and freshwater.

Goal 16 requirements include:

- Identifying estuarine areas
- Describing important environmental, economic, and social features
- Classifying management units
- Establishing policies and allowable uses for each unit
- Considering cumulative impacts of development in the estuary.

Yaquina Bay's EMP is a part of Lincoln County's overall estuary management plan, which also includes Salmon River, Siletz Bay, and Alsea Bay, and several smaller estuaries. While the existing plan includes the entire county, the scope of this report and the YBEMP update focuses exclusively on the Yaquina Bay estuary.

How the Yaquina Bay Estuary Management Plan Functions

The YBEMP is a regulatory document that applies a spatial approach to estuarine resource conservation and development decisions in Yaquina Bay. This is accomplished primarily through the implementation of the Goal 16 requirement to divide the estuary into geographically discrete management units; each estuary management unit (EMU) is then classified according to Goal 16 requirements as *natural*, *conservation* or *development*. These classifications establish the limits of permissible development and alteration that may occur within the management unit. The overall plan is based on an inventory that includes informational sections about industry, recreation, mitigation and restoration, resources and habitats, and geographic data visualized through maps. The most common application of the YBEMP by local officials is in reviewing proposed uses and activities within each management unit.

Plan Uses and Limitations

As a land use planning tool, the YBEMP is limited to guiding activities and uses within the estuary. The landward boundary of the estuary is defined by the Mean Higher High Water (MHHW) mark, which is the average elevation of the higher of the two daily high tides over a 19 year period, or inland to the line of non-aquatic vegetation, whichever is further landward. The upstream extent of the estuary is the head of tide, which is the upstream limit of tidal influence. The Yaquina Bay Estuary Management Plan has been adopted into respective comprehensive plans by Lincoln County, the City of Newport, and the City of Toledo.

The Pacific Ocean shoreline north and south of the Bay's entrance is regulated by statewide Goal 17: Coastal Shorelands. Lincoln County's Coastal Shorelands Overlay Zone manages uses and activities of the estuary and coasts' shorelands¹. The City of Newport administers Goal 16 and 17 through an Ocean Shorelands Overlay Zone and within the City's zoning code pertaining to the Yaquina Bay Estuary and Shorelands.² The City of Toledo describes estuarine and shoreline land uses within articles 16 and 17 of the City's comprehensive plan³.

¹ Office of Lincoln County Legal Counsel. (2018). *Lincoln County Code*. Chapter 1: Land Use Code Planning. 1.1381 Coastal Shorelands (CS) Overlay Zone.

² City of Newport. (Accessed May 2022). *Newport Municipal Code*. Chapter 14.38 Ocean Shorelands Overlay Zone.

³ City of Toledo. (Accessed August 2022). 2020 Vision for Toledo, Oregon. Articles 16-17.

The YBEMP regulates where buildings or structures can and cannot be located. Certain in-water structures and activities are required to meet performance related design standards. However, the plan does not regulate how buildings look or what features they must include. That purview falls under the jurisdiction of the municipality or county.

The YBEMP also works in conjunction with other planning documents like the Natural Hazard Mitigation Plan, the City of Newport and City of Toledo Comprehensive Plans, the Port of Newport and Toledo's Port Plans, and other acts and laws like the Clean Water Act. A more robust description of other regulations that guide activities and uses within the estuary is included in the YBEMP Part X Plan Implementation.

Purpose of Assessing the Yaquina Bay EMP

The original EMP was adopted in 1982 and was based on the economic, demographic, and environmental conditions at the time. A lot has changed since 1982; not just in the bay and its functions, but in related policies and regulations. The YBEMP's hand-drawn paper maps are in need of digitization so that the administering communities of Lincoln County, City of Newport, and City of Toledo can utilize accurate and accessible digital maps through Geographic Information Systems (GIS). GIS can accurately map estuarine resources and provide updated information to local officials, decision-makers, and the public at large. Another major aspect of the update would be to incorporate new information and issues either not applicable or known in 1982 such as impacts from climate change. Coastal communities and environments are very susceptible to impacts from changes in the climate and need to understand, prepare for, and mitigate these impacts. Both of these are included in the update process.

The purpose of the Needs and Gaps Assessment is to identify the components of the Yaquina Bay Estuary Management Plan that need to be modernized to reflect current conditions and improve plan usability and implementation. A modernized plan will facilitate the protection of the Yaquina Bay's natural resources and habitat for years to come and guide development activities to ensure the Bay's communities and residents thrive.

2. Process and Methodology

The Needs and Gaps Assessment to modernize the Yaquina Bay Estuary Management Plan was conducted by comparing other Oregon estuary management plans as well as an analysis of each of the ten parts of the YBEMP by Lincoln County, Willamette Partnership, and University of Oregon's Institute for Policy and Research Engagement (IPRE). The analysis consisted of the following steps:

- Conduct research to better understand gaps and compare estuary management plans;
- Develop plan modernization objectives;
- Perform preliminary review of each plan part;
- Solicit feedback from primary plan users;
- Develop recommended modernization actions for each plan part; and
- Assign a priority to each recommended modernization action.

Gaps and Differences in Estuary Management Plans

Four other estuary management plans, analogous to Yaquina Bay, were reviewed and compared to Lincoln County's Estuary Management Plan which houses the YBEMP. The review and recommendations can be found in Section III. Preliminary Review of Yaquina Bay and Other Oregon Estuary Management Plans.

Plan Modernization Objectives

The review of each plan part and the development of recommendations for modernizing each part focus on identifying needs and actions that will achieve or advance one or more of the following objectives:

- **Update:** Actions that replace or eliminate text or information that is out of date or no longer valid, or actions that add or incorporate relevant new information.
- **Improve usability and/or accessibility of the plan:** Actions that improve the understanding and usability of the plan for plan users and the public.
- **Improve plan implementation:** Actions that improve and/or clarify standards and processes applicable to plan implementation.
- **Further Goal 16 or local policy objectives:** Actions that revise or add to substantive content of the plan needed to fulfill Goal 16 requirements or local policy objectives.

Preliminary Review

A detailed review of each plan part was conducted in order to identify needs and gaps that would further the modernization objectives.

Plan User Feedback

The preliminary suite of modernization needs was discussed with planning staff from relevant local jurisdictions. Feedback was solicited on the preliminary analysis and input on additional topics and issues was gathered.

Final Review and Recommended Actions

Based on the preliminary review and user feedback, the final modernization needs and recommended actions were developed. The modernization objectives that would be addressed by each recommended action were then identified.

Assign Priorities

Each modernization need and corresponding recommended action was assigned a priority based on user feedback and the final analysis. Some specific updates to the YBEMP have constraints (e.g. time and capacity) that make recommended actions infeasible for completion within this planning process.

The priority categories are:

- **Tier 1:** Actions that can and should be accomplished through the current update process. Tier 1 actions achieve one or more modernization objectives and further the plan's overall purpose of conserving estuarine resources and providing for appropriate development.
- **Tier 2:** Actions that would accomplish desirable modernization objectives but which, due to their scope and/or complexity, would be impracticable to complete within the limits of resources and/or time constraints of the current update process.
- **Tier 3:** Actions that cannot be practicably achieved through local planning processes without additional policy support and/or technical assistance from outside agencies.

3. Preliminary Review of Yaquina Bay and Other Oregon Estuary Management Plans

The purpose of this section is to review how Oregon Goal 16 has been implemented in estuaries throughout the state. It reviews Oregon estuary management plans for estuaries classified for development under the statewide estuary classification rule (OAR 660-017) to learn lessons from other estuary management plans and apply them to the YBEMP update. These EMPs were compared to the Yaquina Bay Estuary Management Plan, and key recommendations and takeaways are summarized. The estuary management plans reviewed include: Coos Bay Estuary Management Plan, Columbia River Estuary Land and Water Use Plan, Tillamook Estuary Management Plan, and Coastal Resources Plan for Douglas County.

Recommendations

The full review and comparison of estuary management plans is located in Appendix A. Based on the review of comparable estuary management plans, we recommend the following considerations for the Yaquina Bay Estuary Management Plan.

1. **Plan Organization** (See below for Modernization Recommendation)
 - a. Provide a clear structure and table of contents with bookmarks for straightforward document navigation.
 - b. Include clear and descriptive titles for sections and arrange to provide foundational information prior to any land use designation or permitted uses for good plan usability.
 - c. Include maps within the body of the document to orient the reader and provide necessary visual context to accompany plan language.
 - d. If referencing other plan sections from the original YBEMP, include a section to describe how the YBEMP update aligns with the past sections.
2. **Organization of Allowable Uses** (See Part VI Estuarine Use Standards for Recommendations)
 - a. Consolidate allowable uses for management units into one allowable use matrix for each type of management unit.
 - b. Consider testing different formats (i.e.: matrix, list, narrative, etc.) for conveying the permitted uses information.
3. **Sub-areas** (See Part V Sub-Areas for Recommendations)
 - a. Digitize sub-areas and align boundaries with EMU boundaries when possible.
 - b. Include sub-area(s) designation in EMU descriptions.

- c. Improve alignment of sub-area policies with special policies of EMUs therein.

Modernization Needs

The overall organization of the YBEMP can be revised to improve usability. Furthermore, creating and modernizing maps will support the accessibility and implementation of the plan. County and municipal staff have indicated that updating the sub area map and creating individual maps for each estuary management unit would support the local review process. In addition to these planning maps, updating the inventories as well as the restoration and mitigation lists with digitized maps improves the accessibility and usability of the plan.

Recommendation 1: Revise the Organizational Structure of the Plan

Recommended Actions:

- Provide a clear structure and table of contents with bookmarks for straightforward document navigation.
- Include clear and descriptive titles for sections and arrange to provide foundational information prior to any land use designation or permitted uses for good plan usability.
- If referencing other plan sections from the original YBEMP, include a section to describe how the YBEMP update aligns with the past sections.

Modernization Objectives Addressed:

- Update
- Improve usability and/or accessibility of the plan

Priority: Tier 1

Rationale: The YBEMP would benefit from these organizational and surface-level changes to improve plan usability. Revising the Plan to incorporate these changes is within the project timeframe and project team capacity.

Recommendation 2: Update Maps

Recommended Actions:

- Review, update, and create digital maps of sub-areas, estuary management units, restoration sites, mitigation sites, and inventories.

- Include maps within the body of the document to orient the reader and provide necessary visual context to accompany plan language.
- Create a policy that addresses the evaluation of new information for the purpose of periodic updates to the plan inventory.

Modernization Objectives Addressed:

- Update
- Improve usability and/or accessibility of the plan
- Improve plan implementation

Priority: Tier 1

Rationale: The YBEMP would benefit from modernized maps to support implementation of specific plan parts as well as inform inventory updates. Updated maps have been identified by local staff as one of the most valued outcomes of the YBEMP update.

4. YBEMP Modernization Needs Assessment: Plan Parts I- X

This section reviews each Yaquina Bay Estuary Management Plan part in order, identifies modernization needs, and makes recommendations to update the plan part.

Plan Part I—Introduction

Overview

Part I of the Yaquina Bay Estuary Management Plan serves as an introduction to the purpose, scope and structure of the YBEMP. It provides a brief description of the process of developing the plan, a summary of guidance on the use of the document, and what is essentially an executive summary of each of the plan’s nine parts, and of the companion Dredged Material disposal Plan and Resource Inventory.

Modernization Needs

While Part I is not essential to achieving the substantive objectives of the plan, it serves an important function in enhancing the overall accessibility and usability of the plan. Because the text is more than forty years old, some portions are substantially dated in terms of both content and basic terminology. In addition, because other parts of the plan may undergo substantial revision,

Part I will need to be updated to correspond with and accurately describe these revised sections. The inclusion of a glossary of terms, while avoiding redundancy with definitions in parts IV and V, located in the Introduction may improve plan usability and accessibility.

Recommendation 3: Revise Part I - Introduction

Recommended Actions:

- Technical re-write of Part I to modernize content and terminology and to align with other parts of the plan that have undergone revision.
- Include a glossary of terms and crosswalks of out-dated terms from the original YBEMP to modern terminology.

Modernization Objectives Addressed:

- Update
- Improve usability and/or accessibility of the plan

Priority: Tier 1

Rationale: Part I should be updated in the current YBEMP update process to help improve usability and maintain consistency with other parts of the plan that undergo revision in the current process.

Part II—Overall Management Policies

Overview

Part II of the YBEMP plan sets forth the overall policy foundation for the plan and its implementing measures. These policies represent the highest, most general level of policy in the three-level hierarchy of policy established in the plan. The policies of Part II essentially paraphrase policy statements and priorities of use provided for in Statewide Planning Goal 16 (Estuarine Resources), and the Goal's implementation requirements (requirements 1 and 2) for which local governments are primarily responsible. This high level of policy is intended to guide the development of more specific plan and implementation measures. These policies apply county-wide, to all estuaries and all management units, however classified.

Modernization Needs

As the policy foundation that guides the overall content of the estuary management plan, Part II is fundamentally grounded in the policy expressions of Goal 16. Goal 16 has been only nominally amended since the original development of the YBEMP (including Part II); these amendments are technical in nature and have not changed overall policy as reflected in Part II. The lone exception to this is the amendment to Goal 16, Implementation Requirement 2 that was adopted in 1984. This specific amendment to Goal 16 has not been incorporated into Policy 4 of Part II; therefore Policy 4 should be amended to reflect the current language of Implementation Requirement 2. Otherwise, Part II remains sound as a policy foundation for the plan and is not in need of further modernization.

Recommendation 4: Revise Part II Overall Management Policies

Recommended Actions:

- Amend Policy 4 of Part II to conform to Goal 16, Implementation Requirement 2.

Modernization Objectives Addressed:

- Further Goal 16 objectives

Priority: Tier 1

Rationale: Policy 4 of Part II needs to be revised to maintain consistency with Goal 16.

Part III—Sub-Area Policies

Overview

Part III establishes the Sub-Area policies, the second level of policy in the three-tier policy structure of the YBEMP. It provides policy guidance for management unit designations, special policies, and implementation measures for each of seven sub-areas of the estuary. The sub-areas encompass reaches of the estuary that are identified based on cohesive geophysical, habitat and cultural features. Each sub-area is described in terms of existing character, major committed uses, and existing and potential conflicts. An analysis of existing and potential conflicts in relation to existing character and committed uses forms the basis for sub-area policies. These policies set priorities for the management and conservation of natural resources and for the appropriate types and intensity of development within each sub-area.

Modernization Needs

The sub-area policies in Part III represent an intermediate level of policy specificity between the overall management policies and the management unit designations and policies. While not required by Goal 16, the analysis and sub-area policies of Part III serve several important purposes. Part III documents for each sub area, relative to Goal 16 and local policy choices, the rationale for the more specific management unit designation decisions. In addition, each set of sub-area policies establishes priorities for conservation and development over a larger geographic area than the management unit level, and thereby provides important context for future planning decisions. Finally, the sub-area policies identify potential future conflicting uses and thus provide guidance for adapting the plan in ways that the more specific management unit designations do not.

Because the analysis contained in Part III is based on existing character, committed uses and existing and potential conflicts *known at the time*, it is by design subject to obsolescence. Not surprisingly, at several decades old, many of the descriptions and analyses reflect conditions that have changed substantially. For example, at least some of the identified committed uses are no longer present and, in some cases, identified existing and potential conflicts no longer exist, but others have emerged. While the essential structure and function of Part III remains sound, to fulfill its purpose within the plan, it needs to be fully updated. This update should include an analysis based on current conditions and factors for each sub-area. This is also an opportunity to better align the sub-areas with the estuary management units. Sub-area policies do not necessarily overlap perfectly with the estuary management units located within. Aligning sub-area and EMU policies or providing clarifying language as to how the two interact would improve plan usability. Moreover, listing which estuary management units are within each sub-area would help connect the sub-area policies to the EMU(s) when use and activities are considered.

The update should be an edit of the existing Part III instead of a full redraft, eliminating language which is no longer relevant or applicable, and adding new language to reflect the changed current conditions and corresponding Sub-Area Policies. To improve usability, Part III would also benefit from the addition of a high-quality digital map that depicts the seven sub-area locations and boundaries, with sub-area boundaries aligned with EMUs when applicable.

Recommendation 5: Revise Part III Sub-Areas

Recommended Actions:

- Technical re-write of Part III to update the analysis in order to reflect current conditions, connect sub-area policies to EMU special policies, and to modernize content and terminology.
- Creation of a digital sub-area map suitable for inclusion in the plan document.

Modernization Objectives Addressed:

- Update
- Improve plan usability/accessibility

Priority: Tier 1

Rationale: Part III needs to be fully updated to fulfill its function of establishing intermediate policy direction and help guide future plan adaptation decisions in addition to reflecting current conditions.

Part IV—Management Classifications and Permitted Use Definitions

Overview

Part IV consists of two components: the first is a description and basic definition of each of the three management classifications (*natural, conservation and development*) assigned to individual management units. The second is a set of definitions for the three categories of regulation specified for uses and activities through the permitted use matrix: *P (permitted with standards), C (conditional)* and *N (not allowed)*. The management classification descriptions are largely a recitation of the management unit requirements of Goal 16. The permitted use definitions are a locally developed adaptation of Goal 16 permitted use requirements that are designed for use with the individual permitted use matrices developed for each management unit.

Modernization Needs

The descriptions and definitions for the management classifications set forth in Part IV of the plan mirror the corresponding provisions of Goal 16. Because these provisions of Goal 16 have undergone only a few minor changes since the YBEMP was developed, the corresponding Part IV provisions likewise need only minor revisions. These revisions consist of updating the list of permitted uses for natural and conservation management classifications to align with the current Goal 16 language.

The Permitted Use Definitions of Part IV of the plan require more detailed analysis in the context of other modernization actions specific to plan implementation. The current Permitted Use Definitions are problematic in several respects, primarily related to the plan's reliance on state and federal regulatory processes for decisions on the application of some local standards and requirements. Due to significant changes in these state and federal regulatory processes and standards, this basic approach of relying on other agency processes for decision making has a number of both practical and legal flaws. In addition, this process needs to be reevaluated in light of changes to Oregon land use law since adoption of the YBEMP.

Modernization needs for plan implementation are fully analyzed below under Part X - Plan Implementation. The recommended revisions to the permitted use definitions of Part IV are those that are needed to align with modernization actions recommended for Part X.

Recommendation 6: Revise Part IV Permitted Use Definitions

Recommended Actions:

- Technical re-write of the management classification descriptions to align with the current Goal 16 language.
- Revision of the permitted use definitions of Part IV as needed to align with recommended modernization actions for Part X.

Modernization Objectives Addressed:

- Update
- Improve plan implementation

Priority: Tier 1

Rationale: Because the management classification descriptions need to be revised to fully align with current Goal 16 requirements, this revision should occur within the current update process.

Part V—Estuarine Use Standards

Overview

Part V establishes detailed development standards for fourteen categories of estuarine uses and activities such as types of structures, dredging, and aquaculture. The various uses and activities are defined and specific siting, preferences, and performance criteria are set forth in the form of

mandatory standards. These standards are applied by local jurisdictions to review proposed new uses and activities within the estuary.

Modernization Needs

The estuarine use standards of Part V provide considerable substantive content for plan implementation. Modernization needs related to the use standards are therefore closely linked to the modernization needs for plan implementation (Part X) and for the permitted use definitions of Part IV. In particular, the needs for modernization of procedural requirements for the application of the use standards are addressed in the assessment of Part X.

The basic structure and content of the use standards present a number of issues for local plan administration. These can be summarized as follows:

- **Mixing Uses and Activities/Alterations:** The fourteen separate categories of standards include discrete lists for both uses and activities/alterations. This mixing of uses and activities can be confusing, resulting in multiple sets of standards being applicable to a single development proposal. It can also create redundancy or conflict between sets of standards. Reorganization and consolidation of these different sets of standards would help simplify the overall structure of Part V.
- **Discretionary Application:** Many of the estuarine use standards are highly discretionary in nature. Guidance language included in Part V such as “shall be encouraged,” “minimize adverse impacts,” and “shall be preferred” leads to discretionary interpretations and application of regulations. This not only contributes to uncertainty; it also creates additional procedural burdens for local decision-making processes. Due to the discretionary nature of Goal 16 implementation requirements, it is not possible to eliminate all discretion in local decision-making processes related to estuarine development proposals. However, the current estuarine use standards include numerous criteria that go beyond Goal 16 requirements. It is likely that some sets of standards can be simplified to reduce the number of discretionary findings required.
- **Technical Burden:** Many of the standards impose requirements for findings that necessitate a level of technical analysis that is beyond the capacity of local staff and decision makers. This is especially problematic for smaller projects where the resources available for expert technical assistance are limited. Revising standards to reduce the technical complexity of the required findings would help simplify and improve local plan implementation.

Recommendation 7: Revise Part V Estuarine Use Standards

Recommended Actions:

- Review the current structure and organization of Part V to consolidate and simplify the use standards.
- Review and revise Part V standards to reduce the number of discretionary findings required.
- Review and revise Part V standards to reduce the technical complexity of required findings.

Modernization Objectives Addressed:

- Improve plan implementation

Priority: Tier 2

Rationale: Evaluating the structure and organization of Part V Estuarine Use Standards is a complex undertaking. This should involve a robust local process to evaluate and arrive at needed changes or revisions. Because these standards are not required by Goal 16, immediate revision is not required. However, because the use standards are integral to plan implementation, it may be necessary to revise at least some of these standards as a part of the update of Part X (Plan Implementation). This issue should be evaluated during the process of drafting revisions to Part X to determine the necessity of elevating the update of use standards to Tier 1.

Part VI—Management Units

Overview

Part VI establishes the third and most specific policy level of the YBEMP, the individual management unit delineation and classification. Part VI provides a narrative and a permitted use matrix for each of the 34 management units identified in Yaquina Bay.

The narrative for each management unit includes a description of the spatial boundaries of the unit, a summary of the natural resource characteristics, and a description of major uses and

alterations present in the unit. The description also assigns the management classification (*natural, conservation or development*) of the unit and provides a summary rationale for the classification. To address Goal 16 permitted use requirements, each description includes a statement of resource capability and specifies uses that are deemed consistent with the resource capability of the unit, and those uses that will require case-by-case resource capability determinations. Each description sets forth a management objective which provides an overall statement of priorities for management of the unit. Finally, the descriptions set forth special policies specific to each management unit which serve to clarify, or in some cases further limit, the nature and extent of permitted uses identified in the permitted use matrix.

The permitted use matrix for each management unit identifies a list of uses, listed in row fashion, and a corresponding list of activities/alterations, listed in column fashion. Each use is identified as permitted, conditional or not allowed. For each use that is listed as either permitted or conditional, individual activities/alterations are listed as permitted, conditional or not allowed in the intersecting cell for the use and activity.

Modernization Needs

In accordance with the framework of Goal 16, the YBEMP is fundamentally a spatial plan. Part VI is the central element of the spatial planning architecture of the YBEMP: it sets forth the spatial designation and classification for each discrete management unit and establishes permissible uses for each unit based on management unit classification. Therefore, modernization actions amending Part VI have the potential to greatly impact both the substance and the usability of the plan. Additionally, updates to other plan parts such Part III: Sub-Area Policies must be reconciled and aligned with updates to Part VI. Modernization needs for Part VI implicate all of the identified modernization objectives.

Management Unit Narratives

Description: Similar to the sub-area descriptions, the current narrative text for the management unit descriptions was written based on conditions known at the time. As a result, some of this descriptive text is outdated and needs to be reviewed and revised to accurately reflect current conditions. A key element of each management unit description is the narrative description of the spatial extent of the unit. These descriptions should be evaluated to verify their accuracy and completeness in relation to any changes in conditions, such as the creation or expansion of tidal wetlands, and revised as necessary. The usability of the management unit

descriptions would also be greatly enhanced by the inclusion of high-quality digital maps or aerial images that depict the management unit boundaries.

Classification: This review should also include a basic assessment of any change in conditions that may be relevant to the classification of a management unit as prescribed by Goal 16 requirements.

Resource Capability: Resource capability statements for each management unit will be reviewed to ensure that they appropriately reflect current conditions.

Management Objective: Management objectives will be reviewed to ensure alignment with current uses and conditions within the unit.

Special Policies: Management unit special policies should be reviewed in relation to changes in conditions to verify their current accuracy and validity, and revised as necessary. Updates to special policies is an opportunity to implement recommendations described in the last section (Issues Not Addressed by the Current Plan) of the Needs and Gaps Assessment. A review of EMU special policies and applicable sub-area policies should be performed and revisions should improve alignment and eliminate confusion or conflict between the sets of policies.

Permitted Use Matrix

The permitted use matrix was developed as an implementation tool to prescribe permissible uses and activities in individual management units with a fairly high degree of specificity. Over time, however, limitations to the matrix approach have become apparent. The matrix design is somewhat complex and can prove difficult to understand for members of the public, as well as practitioners unfamiliar with its structure. Adding to this confusion, the distinction between uses and activities that is the basis of the matrix structure is not set forth in Goal 16. Instead, Goal 16 mixes uses and activities in the listing of permissible uses for each management unit type. The attempt to implement use/activity distinction through the matrix, while conceptually sound, has left some gaps and therefore is not entirely successful. Finally, working experience suggests that in at least some cases, the higher level of specificity of the matrix does not adequately provide for unanticipated uses or activities otherwise consistent with overall management objectives.

The possibility that the overall plan would benefit from a more uniform approach to prescribing uses in individual management units should be considered. While there would be

some trade-offs in certainty from employing a more general approach, the resultant flexibility would allow the plan to be more adaptive over time. The development of conventional text-based zoning districts for each management classification would provide a tool for comparative evaluation of the two different approaches.

Recommendation 8: Revise Part VI Management Units

Recommended Actions:

- Technical re-write of the management unit narratives to reflect current conditions and to incorporate revised boundary descriptions where needed.
- Review and revise management unit special policies as needed to reflect current conditions and align with applicable sub-area policies.
- Create a digital map of each management unit suitable for inclusion in the plan document.
- Develop conventional text-based zoning districts for each management classification and evaluate the relative merits of replacing the permitted use matrix with such districts.

Modernization Objectives Addressed:

- Update
- Improve plan usability/accessibility
- Improve plan implementation
- Further Goal 16 or local policy objectives

Priority: Tier 1

Rationale: As the primary component of the YBEMP's spatial planning scheme and regulatory system, updating Part VI should be fully addressed in the current update process.

Part VII—Mitigation and Restoration

Overview

Part VII addresses the related topics of mitigation and restoration. It fulfills Goal 16's implementation requirement 5 (identification and protection of mitigation sites) and implementation requirement 8 (identification of areas suitable for restoration). Part VII provides a

general summary of the concepts of and relationship between restoration and mitigation; it sets forth an overall restoration policy; it provides a general summary of restoration needs and opportunities; and it provides an inventory listing of fifteen potential restoration sites. It also provides a general estimate of mitigation needs in Yaquina Bay and identifies seven sites that are reserved for mitigation use. These sites are protected from conflicting uses that would preempt their availability for mitigation use.

Modernization Needs

The overall discussion of restoration and mitigation provided in Part VII is generally sound. However, it is recognized that since the adoption of the YBEMP, considerable work has been done by agencies, tribal governments, and conservation interests in identifying and assigning priorities to restoration opportunities in Yaquina Bay. A review of estuary habitat, restoration priorities, and key organizations that have undertaken restoration in Yaquina Bay can be found in Appendix B. Reports that have been produced from this work have been used to guide various agency and conservation group strategic plans and restoration projects. These reports and strategic plans can be reviewed for potential restoration sites and selected for inclusion in the update of Part VII if they meet Goal 16's requirements.

While it is not within the authority or purpose of the YBEMP to establish priorities or initiatives to accomplish specific restoration projects, the text of Part VII would clearly benefit from incorporating the new information generated from these efforts. In particular, an update of the inventory of potential restoration sites based on currently available research would strengthen the plan's alignment with Goal 16 requirements.

The general estimate of mitigation needs should be revisited given the extensive passage of time since this estimate was originally formulated. Additional sites for mitigation may need to be identified and protected accordingly.

Recommendation 9: Revise Part VII Restoration and Mitigation Sites

Recommended Actions:

- General review and update of the text of Part VII as needed to reflect new information and/or changed conditions.

- Revision of the inventory of potential restoration sites to reflect currently available research and previously identified restoration opportunities in Yaquina Bay.
- Update the estimate of future mitigation needs. Revise the inventory of protected mitigation sites to align with the updated estimate of mitigation needs.

Modernization Need(s) Addressed:

- Update
- Further Goal 16 or local policy objectives

Priority: Tier 1

Rationale: The increased focus on estuarine restoration activities in recent years as well as new research identifying additional restoration sites represents substantial new information which should be incorporated into the current planning process. The current estimate of mitigation needs is more than forty years old and should be likewise reevaluated in the current planning process. This is particularly important for supporting the plan's overall purpose of providing for appropriate water dependent development.

Part VIII—Log Storage and Transportation

Overview

A major issue during the development of the YBEMP was the management of in-water log storage and transportation. As was common in many Oregon estuaries, mills in Yaquina Bay area were sited and designed in reliance on in-water transport and storage of their raw materials. Wood product manufacturing was concentrated in the Toledo area, and several plants were historically dependent on in-water storage and handling of logs to provide a supply of raw material for operation. At the time the plan was developed, at least two of these mills still had major inventories of logs stored and transported in Yaquina Bay, occupying significant surface area within the estuary.

While essential to the operation of economically important wood products facilities, the storage of raw logs in estuarine waters is known to have significant adverse impacts on natural resources, including negative effects on water quality and benthic habitats. Thus, this major use of the estuary became a focal point of conflict in the planning process, with industry advocating for

continued use and possible future expansion, while resource agencies sought to limit the practice to reduce adverse resource impacts.

Resolution of this conflict resulted in the development of this element of the YBEMP. Part VIII provides a discussion of current and anticipated future needs for log storage, evaluates alternatives to in-water storage, details the resource impacts associated with in-water log storage, and specifies the basic spatial allocations for areas within the estuary where storage is permitted. Part VIII also sets forth detailed policies and conditions for in-water log handling within the estuary, both for current use, and for future expansions.

Modernization Needs

In the forty some years since this element of the YBEMP was developed, much has changed in the wood products industry. Of the six mills that were operating on Yaquina Bay in the early 1980s, only one remains in operation, the Georgia-Pacific paper mill in Toledo. The two mills that were still utilizing in-water log storage at that time both ceased operations more than three decades ago. Currently, no in-water log storage or transportation is conducted in Yaquina Bay. Most of the associated infrastructure (pilings and dolphins) is in a deteriorated state. Given current technology and foreseeable market conditions, it is not anticipated that there will be any future demand for the storage or transport of raw logs in the estuary.

Given these factors, it is concluded that Part VIII is no longer relevant to the management of future use of the Yaquina Bay estuary. However, it is possible that decades of log storage use have altered the habitats of these areas and the management of Yaquina Bay may be improved by an evaluation by agencies and researchers as to current conditions of these areas.

Recommendation 10: Remove Part VIII Log Storage and Transportation

Recommended Actions:

- Amend the YBEMP to remove Part VIII in its entirety.
- Amend text throughout the document, including special policies of affected individual management units and estuarine use standards, to reflect the removal of in-water log storage as a priority use.

Modernization Objectives Addressed:

- Update

Priority: Tier 1

Rationale: Part VIII is no longer relevant to current conditions and should be removed from the plan as a part of the current update.

Part IX—Future Development Sites

Overview

Part IX addresses potential future demand for development not accommodated by the current management scheme. It identifies possible future development types and provides an analysis of sites within the estuary that, while not designated for development, could conceivably accommodate such development if they were redesignated.

Modernization Needs

The identification of potential sites for redesignation to accommodate future development needs is not required by Goal 16. This analysis was included in the YBEMP in recognition that areas within the estuary qualifying for development management unit designation were largely fully developed at the time the plan was completed, and that accommodating additional major development could require the redesignation of areas currently designated *natural* or *conservation*. Part IX does not provide binding policy and is thus primarily an attempt to provide general guidance for future deliberations on redesignation.

Because the analysis of future development needs is based on economic and market forecasts from the late 1970s, Part IX is currently obsolete. Adding to that obsolescence are the significant changes in applicable state and federal environmental standards since Part IX was adopted. Given these current standards, the likelihood is remote that a number of the identified potential future development sites could secure necessary regulatory approvals for development. Part IX is therefore of limited utility as presently formulated.

Redesignating *natural* or *conservation* management units to *development* is subject to the Statewide Planning Goal 2 exceptions process. Such an exception would be adopted and implemented through one or more amendments to local (city and/or county) comprehensive plans. An exception

and plan amendment would be required for redesignation irrespective of guidance provided by Part IX.

Given these factors, Part IX should be reevaluated in concept to determine if it continues to fulfill a useful purpose in the YBEMP. Appendix C provides additional information on how current conditions differ from the economic, demographic, and regulatory conditions of when the YBEMP was adopted. Further research will be needed to evaluate Part IX and, if it is determined that Part IX should be retained, it should be reformulated to provide an updated analysis and forecast of potential future development needs, and assess whether accommodating those needs warrants identifying potential future development sites.

Recommendation 11: Revise Part IX Future Development Sites

Recommended Actions:

- Evaluate Part IX to determine its efficacy and purpose within the context of the YBEMP and Goal 16.
- Technical re-write of Part IX, as necessary, based on current economic forecasts and likely future development needs.

Modernization Objectives Addressed:

- Update

Priority: Tier 2

Rationale: Part IX does not represent binding policy and its current dated condition does not compromise other core elements of the YBEMP. Reevaluating Part IX should involve an in-depth analysis of its structure and function in relation to local needs; this would be best accomplished in a future local planning process.

Part X—Plan Implementation

Overview

Part X details the procedures for plan implementation; it primarily focuses on local decision-making processes for proposed new uses and alterations within the estuary. It describes

local review procedures for uses that are listed in the individual permitted use matrices as either *permitted* or *conditional*; it describes the requirements and process for the application of estuarine use standards set forth in Part V; it details a process for the coordination of local review of estuarine development with state and federal agency regulatory programs; and it provides a list of major state and federal regulatory authorities that are applicable to estuarine development.

Modernization Needs

Part X is outdated in a number of respects. The local review procedure set forth in Part X does not align with current procedural requirements of Oregon land use law, and the descriptions of state and federal agency regulatory authorities and programs relied upon for agency coordination are out of date.

As presently comprised, the procedure for review of uses listed as “permitted” prescribes a ministerial process. However, many of the standards and criteria applicable to the review of these uses are discretionary in nature, the application of which requires, at a minimum, notice and opportunity for a hearing. The ministerial procedure spelled out in Part X does not provide for these minimum due process requirements. As a result, the local procedure as described in Part X is, in most cases, effectively preempted by the more rigorous requirements of Oregon statute (ORS 215.416 and ORS 227.175). The local review procedure in Part X needs to be revised to properly align with applicable statutory requirements.

The state and federal agency coordination process described in Part X is similarly problematic. In particular, the provisions that defer to state and federal standards to fulfill certain requirements of Goal 16 are flawed for at least two reasons. First, most of the Goal requirements that are subject to reliance on state and federal authorities are also codified in different locations within the YBEMP. In general, the determination of compliance with such locally codified decision criteria cannot be deferred to another agency or process. Notwithstanding the provisions of Part X, local governments are still obligated to determine compliance with the Goal requirements as expressed in the standards and policies of the YBEMP, and make findings accordingly. As a result, this portion of Part X has no practical effect.

Second, at least some of the referenced agency standards relied upon have undergone revision since adoption of the YBEMP, so the analysis of equivalency is no longer valid. The coordination section of Part X needs to be restructured to reflect current standards and legal requirements.

The list of major state and federal regulatory authorities that are applicable to estuarine development is a helpful addition to Part X in terms of plan usability and should be updated to provide current references and citations.

Recommendation 12: Revise Part X Plan Implementation

Recommended Actions:

- Revise the local review procedure in Part X to conform to current Oregon procedural requirements for land use decisions.
- Restructure the state and federal agency coordination provisions of Part X to clarify obligations for the application of locally adopted standards consistent with Oregon law.
- Update the list of major state and federal authorities and programs to incorporate current references and citations.

Modernization Objectives Addressed:

- Update
- Improve plan implementation
- Improve usability/accessibility

Priority: Tier 1

Rationale: Revision of Part X is needed to bring the plan into compliance with current legal requirements and standards for local land use decisions.

5. Issues Not Addressed by the Current Plan

The preceding analysis of the ten parts of the YBEMP indicate that its basic structure has proved durable, and that it has generally accomplished the objectives of Goal 16. The use of advanced decision making based on spatial planning concepts has proven to be effective in providing a system-wide approach to estuarine management. However, as the analysis also points out, this same basic structure of the plan does not facilitate ready adaptation in response to changes in conditions or other drivers of change. The result is that some issues related to management of the estuary are not addressed in the current plan. Efforts to fully modernize the YBEMP should

consider addressing climate change, community health, and equity. The full analysis of issues not addressed in the current plan can be found in Appendix D.

Climate Change

Foremost among the emerging issues not accounted for in the current plan is climate change. While climate change is not discussed as a term in the existing EMP, there is a significant concern with mitigating adverse impacts on the estuary. The YBEMP seeks to protect and maintain estuarine habitat while allowing development and accompanying uses within reason and strategies to address climate change's impacts on the estuary would further support that goal. While the impacts of climate change will be widespread throughout both natural and human made systems, two specific effects are of particular importance to the maintenance and operation of the YBEMP: sea level rise and ocean acidification.

Sea Level Rise

Rising sea levels are well documented in the scientific literature. Yaquina Bay is expected to experience a potential sea level rise (SLR) between 0.6 and 2.9 ft by 2050.³ Sea level rise has several anticipated negative impacts on Yaquina Bay including exacerbating major flood events. Structures and uses on land adjacent to the bay are at risk of inundation and destruction. Estuary ecosystems are further at risk if estuary adjacent industrial properties are inundated and toxic pollutants are carried back into the bay as waters recede. Sea level rise is expected to have a direct impact on critical estuarine ecosystems such as tidal wetlands and eelgrass habitat.

Beyond impacts to estuarine conditions and uses, the jurisdictional extent of the estuary subject to the regulatory provisions of the plan is defined (in Statewide Planning Goals) as Mean Higher High Water (MHHW) or, in the case of tidal marsh, line of non-aquatic vegetation. Obviously, a significant rise in average sea level will, over time, alter these jurisdictional boundaries.

Ocean Acidification

As with climate change, the impacts of ocean acidification (OA) are widespread, and will have effects on the entire marine ecosystem. Changes in pH are likely to affect shell formation in diverse species of commercial, recreational, and cultural value.³ Of particular concern among the uses governed by the YBEMP, are the prospective effects of OA on aquaculture. Currently, the plan designates a substantial area of the mid-estuary as a priority aquaculture zone, and

economically important aquaculture enterprises operate within this area. While the long-term effects of OA on these operations are unknown, it is conceivable that changes in management unit classifications and/or to permissible uses may be necessary to accommodate changes in industry technology and/or locations of operation in response to OA impacts.

Community Health & Equity

The YBEMP does not include specific sections or descriptions of processes to evaluate the plan's impacts on community resident's health or equity. The Bay is the center of these communities and how it is managed has significant impacts on not just the local economy, but also public health and equitable access to the benefits it provides.

Modernization Needs

It is not possible to precisely forecast either the rate and extent of sea level rise, ocean acidification, or other specific impacts on estuarine features, habitats, and uses as a result of climate change. Incorporating climate change into the host of regulatory requirements administered by the YBEMP or other estuary management plans is currently not feasible due to the MHHW planning boundaries and lack of direction by Goal 16. The establishment of a policy framework that would guide the adaptation of relevant plan provisions in response to sea level rise may be a workable approach, and should be explored. In particular, this guidance should focus on identifying the type and timing of needed changes to the spatial components of the plan. Since this issue affects estuary management statewide, guidance for this type of policy framework would be best developed at the state level through the Oregon Coastal Management Program. Changes to Goal 16 language may need to be considered.

Ocean acidification will have a profound effect on Yaquina Bay's aquaculture and attempts to address it will require engagement, data collection, and planning with aquaculture experts and users within specific sub areas. Local jurisdictions need to develop policy to guide future plan adaptations necessary for the aquaculture industry to respond to OA impacts. This should be accomplished in consultation with the industry, researchers and other stakeholders.

Beyond state-level or sub-area level policy guidance to be completed at a later date, there are opportunities within the current EMP update to address climate change impacts. More

information can be found in Appendix D on strategies which incorporate sea level rise in the permitting review process or use non-binding guidance to ensure regular updates of specific plan components in order to stay up-to-date as projected sea level rise is actualized.

Lastly, public health and equity concerns need to be considered during the preparation of the YBEMP update. While the plan is spatial in nature, there may be opportunities to support local health and equity goals as well as identify opportunities for inclusion in Tier 2 or 3 recommendations.

Recommendation 13: Develop State-Wide Estuarine Climate Change Guidance

Modernization Actions

- Work with the OCMP and other stakeholders to develop statewide guidance and policy on incorporating sea level rise adaptation into local estuary management plans.

Modernization Objectives Addressed:

- Further Goal 16 and/or local policy objectives

Priority: Tier 3

Rationale: Establishing a process for adapting the plan's basic spatial framework to reflect rises in sea level will be critical in the long term. However, this issue requires statewide policy guidance, the development of which will occur outside of the local plan update process.

Recommendation 14: Develop Policy to Support Aquaculture Industry

Modernization Actions

- Work with aquaculture operators, researchers and other stakeholders to develop and incorporate into the YBEMP policy guidance for accommodating industry needs in response to OA impacts.

Modernization Objectives Addressed:

- Further Goal 16 and/or local policy objectives

Priority: Tier 2

Rationale: Establishing a process and policies to accommodate changes in aquaculture operations in response to OA, while not an immediate need, could become critically important in the near future. Developing this policy framework will require local jurisdictions to work closely with the industry and research experts, and this will be best accomplished outside of the current update process.

Recommendation 15: Revise Plan to Incorporate Climate Change Impacts

Modernization Actions

- Work with the Steering Committee, Advisory Group, OCMP and other stakeholders to review strategies to prepare for or adapt to sea level rise and/or ocean acidification in the current EMP update.

Modernization Objectives Addressed:

- Further Goal 16 and/or local policy objectives
- Update

Priority: Tier 1

Rationale: There are discrete ways that the current EMP update can prepare for or address climate change impacts. Broader approaches to incorporating climate change adaptation into the YBEMP will require statewide policy guidance, which will occur outside of the local plan update process.

Recommendation 16: Revise Plan to Consider Equity and Health

Modernization Actions

- Perform inclusive and accessible stakeholder engagement to ensure the breadth of those who use and rely on a thriving and accessible Yaquina Bay inform the YBEMP update.
- Review public health and equity documents and metrics and engage researchers to identify ways to improve public health and equity through the YBEMP update..

Modernization Objectives Addressed:

- Further Goal 16 and/or local policy objectives

Priority: Tier 1

Rationale: This review can be accomplished within the project timeline and should be included to further local policy and planning goals.