

COLLABORATIVE SCIENCE FOR ESTUARIES

WEBINAR SERIES



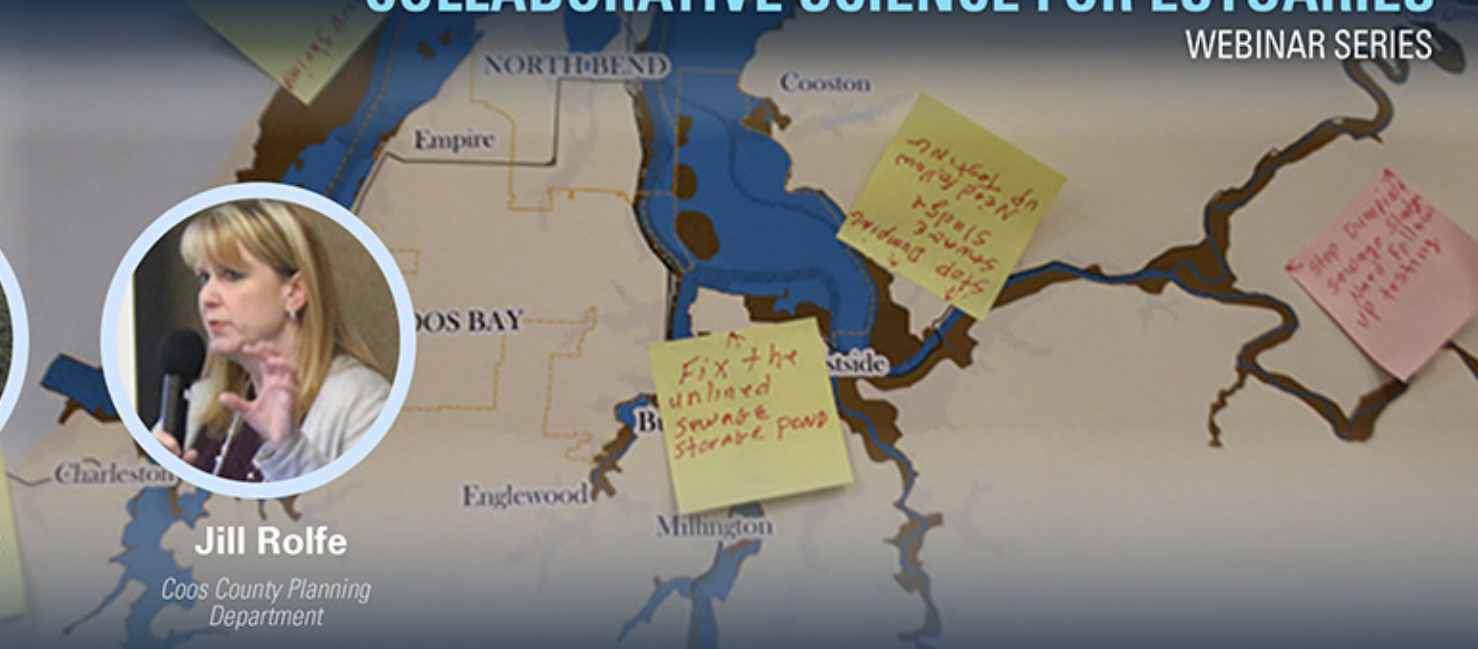
Jenni Schmitt

South Slough NERR



Jill Rolfe

Coos County Planning
Department



Community Collaboration: A Locally Driven Approach to Estuarine Management



National Estuarine
Research Reserve System
Science Collaborative

Date: Monday, November 4, 2019

Time: 3.00 - 4.00 PM ET

Summary Points:

How do you modernize coastal land use planning in a way that balances responsible economic development, social interests, and the protection of natural resources? This is a common question for many coastal states including Oregon, where the management of the state's estuaries and surrounding shorelands is currently based on the economic and social drivers of the 1970s, when local land use plans were developed.

A diverse group of local stakeholders is collaborating to tackle this question for one Oregon estuary by: 1) compiling existing data to show current conditions and land uses within the estuary; 2) gathering stakeholder input and land use and planning recommendations from a diverse collection of interest groups; and 3) developing management options and detailed road maps for officials to use to update their land use plans.

This webinar highlighted the collaborative stakeholder engagement process driving the integrated assessment, and provided a snapshot of the products and recommendations developed through the process.

Terminology:

- **Integrated Assessment:** An interdisciplinary approach to assessment based on combining, interpreting and communicating knowledge from diverse scientific disciplines to policy such that cause-effect chains can be evaluated.

Community Collaboration: A Locally-Driven Approach to Estuarine Management



Jill Rolfe – Coos County Planning Director

Jenni Schmitt – South Slough NERR, Watershed Monitoring Coordinator

Summary Points:

Jenni Schmitt leads the planning and implementation of wetlands-related projects at the South Slough NERR in Oregon. As part of her work, Jenni has been coordinating collaborative projects with a community-based group of concerned citizens called the [Partnership for Coastal Watersheds](#). Members of the group collaborate to develop locally-driven approaches to responsible development, and to help prepare for climate-related changes on Oregon's south coast. [Learn more about project.](#)

Jill Rolfe has worked for the Coos County Planning Department for 18 years and has been the director since 2012. She regularly coordinates research and updates to the County Comprehensive plan with local, state and federal agencies. She has been a member of the Partnership for Coastal Watersheds for six years and played a large advisory role for environmental and socio-economic aspects of multiple projects. Jill is also coordinating updates to several Estuary Management Plans.



Oregon Estuary Planning History

1973 – Oregon Land Use Planning Act (SB 100)

- Estuaries specifically called out in SB 100 for special consideration in writing Goals.

1975 – Statewide Planning Goals developed

1977 – Coastal Goals

- Goals 16 Estuarine Resources
- Goal 17 Coastal Shorelines

Early to mid 1980s – local comprehensive plans completed and approved

Summary Points:

19 statewide planning goals make up the land use planning system in Oregon. Goal 16 is concerned with the water area. Goal 17 is concerned with upland zoning of shorelands.

A task force consisting of personnel from the cities of Coos Bay and North Bend completed and approved the first local comprehensive plan in the mid-1980s. Though the plan started in the late 1970s, it was not acknowledged until 1984, and did not go into effect until 1986.



Oregon's Framework for Estuary Planning

Summary Points:

Goal 16 specifies three types of areas it calls management units:

- Natural areas, which are protected areas with little-to-no development;
- Conservation areas, which have some protections, but still allow some other uses within the zoning areas; and
- Development areas, which are areas for shipping, commerce, or other uses.

Goal 17 complements goal 16 where the management unit type dictates how coastal uplands for each are addressed.

Goal 16 Estuarine Resources

- Establishes framework for individual estuary plans
- Sets priorities for conservation and development
- Applies system-wide spatial planning approach



Goal 17 Coastal Shorelands

- Protects habitat and other resources
- Reserved for unique shoreland uses
- Recognizes natural hazards
- Protects public access





Summary Points:

The Coos Bay Estuary Management Plan covers three jurisdictions - Coos County, the city of Coos Bay, and the city of North Bend. It is therefore crucial to work with partners to make sure changes are made consistently throughout the plan so that all jurisdictions involved are represented.

Estuary Management Plans

- Elements of local (city/county) Comprehensive Plans
- Decisions made in advance system wide
- Plans divide estuary into individual “management units” — discrete geographic areas based on resource, habitat and use characteristics, and specify permissible levels of development:
 - Natural
 - Conservation
 - Development

Summary Points:

Management Unit Identification

Natural

Such areas shall include, at a minimum, all major tracts of:

- Tidal marsh;
- Intertidal flats; and
- Seagrass and algae beds.





Summary Points:

Management Unit Identification

Conservation

Such areas shall include:

- Tracts of significant habitat smaller or of less biological importance than natural units;
- Recreational or commercial oyster and clam beds not already included; and
- Areas that are partially altered and adjacent to existing development of moderate intensity which do not possess the resource characteristics of natural or development units.

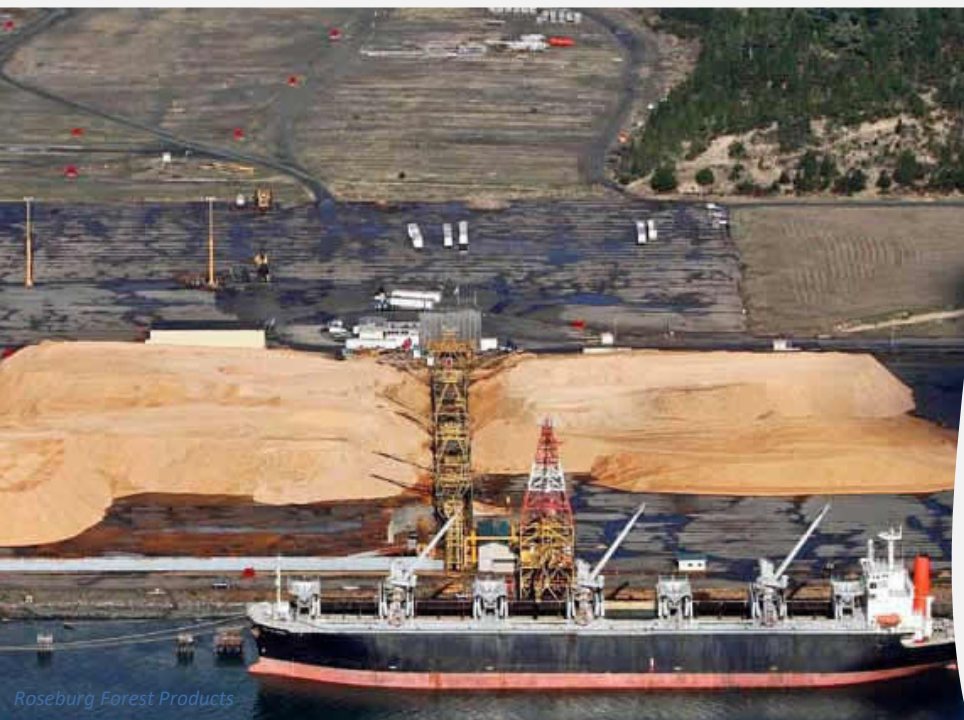
Summary Points:

Management Unit Identification

Development

Such areas shall include:

- Deep-water areas adjacent or in proximity to the shoreline;
- Navigation channels;
- Subtidal areas for in-water disposal of dredged material; and
- Areas of minimal biological significance needed for uses requiring alterations of the estuary not considered Natural or Conservation areas.



Oregon Estuary Planning Resulted In:

- Coast-wide resource-based estuary management;
- Decisions on conservation and development being made in advance, system-wide; and
- Plans emphasizing maintaining natural functions, protecting habitat, and focusing development into existing developed areas.



Summary Points:

When Coos County, the city of Coos Bay, and the city of North Bend put the estuary management plans together, they identified areas that were already developed and tried to keep development in those areas rather than extending into new areas.



Summary Points:

Issues

1. Most plans are now 30+ years old
2. Much of the development anticipated has not occurred.
3. Plans do not incorporate resource data and mapping technology.

To elaborate:

Issue 1: The Estuary Management Plan has only been through one major revision - in the late 1990s. The goal of that revision was to ensure compliance with legal aspects, but it did not adopt any new inventories.

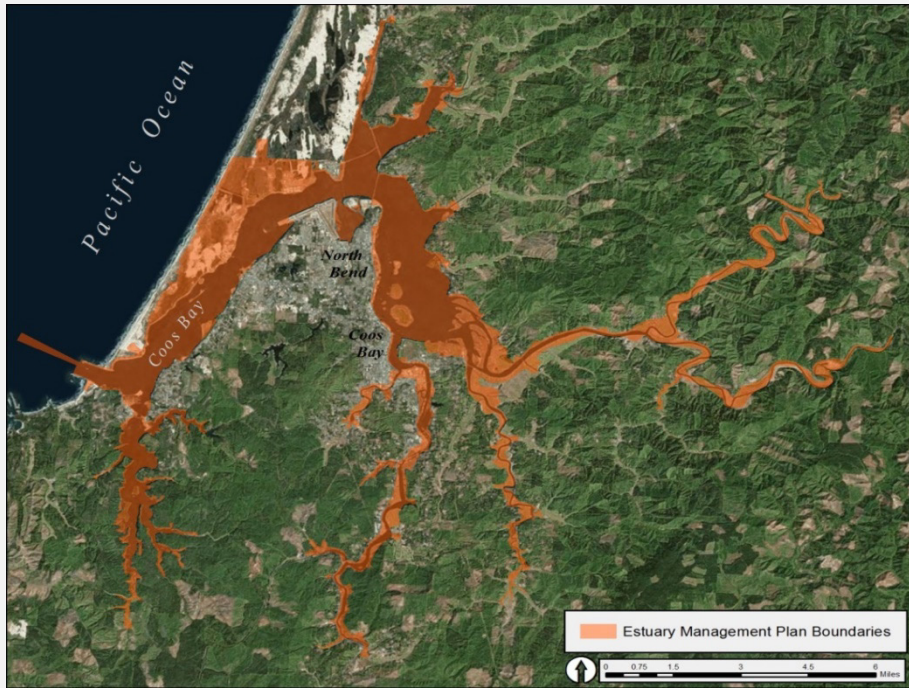
Issue 3: New mapping technologies have emerged over the years. South Slough reserve, the Oregon Institute of Marine Biology, several watersheds, and the Oregon Department of Fish and Wildlife are all collecting data as well. Part of the current plan moving forward was to incorporate these new resources into the revised plans.

Terminology:

- **Inventories:** Maps and scientific data that are incorporated into the estuary management plan.

Issues

1. Most plans are now 30+ years old
2. Much of the development anticipated has not occurred
3. Plans do not incorporate current resource data and mapping technology

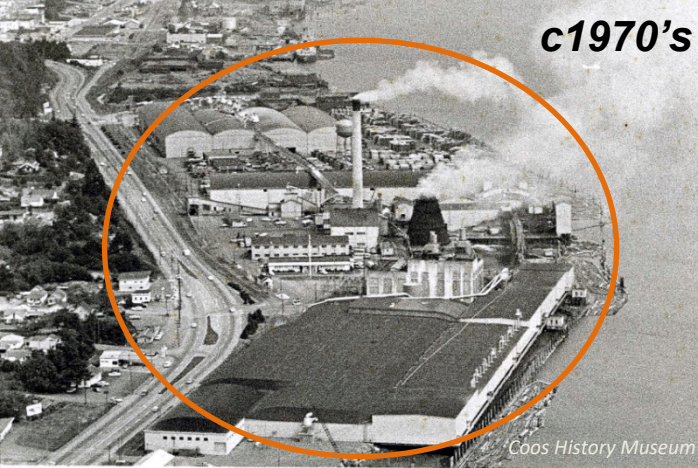


Summary Points:

Coos Bay Estuary Management Plan

What is it?

- Written plan, maps and data used in current decision making
- Includes procedures to review proposed estuarine development



c1970's

Coos History Museum

Changed Conditions

Summary Points:

The photos on the left show how a site that previously held a mill is now home to a casino and recreational vehicle park. Factors that drove development 40 years ago are not the same as the ones that exist today, and revisions to the plan are meant to reflect modern drivers. Social considerations, such as how people buy goods and spend recreational time, have also changed since the 1970s.



2016

Mill Casino

Why a revised plan?

- Developed 40 years ago, only minor updates since
- Modern decisions based on 1970's information

Main drivers from 40 years ago:

- Timber, fishing, agricultural

Drivers not considered:

- Tourism, recreational uses (e.g., kayaking), social considerations



Port Coos Bay

A lumber mill site in the 1970's (top) now holds a casino and RV park (middle).

While the timber industry has shrunk in past decades, ships can still be seen loading raw timber products (bottom).



Summary Points:

Beginning Steps for Revision

Plan ahead

- Research how plans were originally developed
- Budget planning

Assemble a team

- Technical assistance
- Stakeholder steering committee



Finding People Who Care

- Natural resource managers
- Business and industry interests
- Land use planners and coastal managers
- Researchers and educators
- Recreational interests

Summary Points:

Jill noted that the team experienced unexpected challenges finding representatives from different sectors, which they partially attributed to conflicts between work and volunteer time.



Partnership for Coastal Watersheds (PCW)



A local group of civic-minded community members with ties to cultural interests, economic development, natural resource protection, and government agencies in the local Coos Bay area.

Mission: *Collaborate to understand local watershed conditions and address their capacity and resiliency to serve ecological, economic, and social needs for present and future generations.*

Coos Estuary Land Use Project Committee (Past and present)

Anne Farrell Matthews, Southwestern Oregon
Community College
Bree Yednock, South Slough NERR
Bryan Duggan, Or. Dept. Env. Quality
Chelsea Schnabel, North Bend Planning
Chris Claire, Or. Dept. Fish & Wildlife
Chris Hood, Stuntzner Engineering
Connie Stopher, South Coast Dev. Council
Craig Cornu, Institute for Applied Ecology
Debbie Erler, Coos Bay Planning
Don Ivy, Coquille Indian Tribe
Ed Hughes, Coos Watershed Assoc.
Fred Jacquot, Port of Coos Bay

Haley Lutz, Coos Watershed Assoc.
Jeff Stump, Conf. Tribes Coos, Lower Umpqua,
& Siuslaw Indians
Jenni Schmitt, South Slough NERR
Jill Rolfe, Coos County Planning
Jon Barton, citizen at large
Ed Hughes, Coos Watershed Association
Madeleine Vander Heyden, US Fish & Wildlife
Margaret Corvi, Conf. Tribes Coos, Lower
Umpqua & Siuslaw Indians
Matt Spangler, Dept. Land Cons. & Dev.
Shaun Gibbs, South Coast Dev. Council
Tom Dixon, City of Coos Bay

Summary Points:

Stakeholder committees can include citizen advisors and planning commissioners, but they should not be the only voices represented in a planning project. Diverse backgrounds and interests in advisory committees provide necessary feedback depth. This recommendation comes with the understanding that, while not everyone is well-versed in estuary policies or land use processes, diversity of stakeholders is still needed to inform revisions.

The [Partnership for Coastal Watersheds](#) is the stakeholder group that largely led the revision process in the Coos Estuary.



The Partnership for Coastal Watersheds Process

Summary Points:

Intent: Help ensure an updated plan reflects current economic, environmental, and socio-cultural needs of the broader community through:

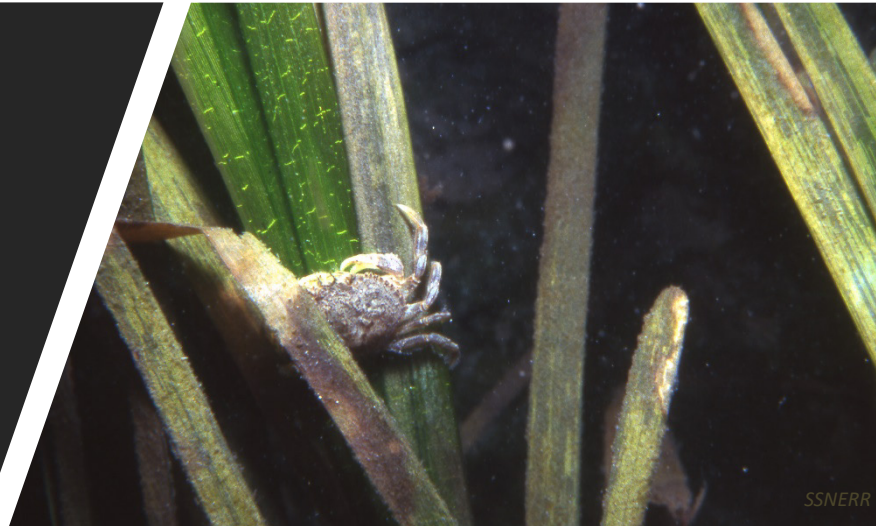
1. Assessing the existing plan;
2. Amassing current information;
3. Engaging the broader community; and
4. Evaluating options and recommendations.



CBEMP Audit - 2016

Key Recommendations:

1. Develop user guide for plan
2. Simplify language
3. Explicitly state policy hierarchies, ordinances, goals, and criteria
4. Include permit application diagram
5. Integrate digital GIS-based maps
6. Digitize plan



Summary Points:

The first step was an audit of the existing Coos Bay Estuary Management Plan. The team interviewed planners who use the plan regularly to evaluate where the legal framework may have changed since the plan was created, and to understand the implications of any legal decisions that have occurred since the plan was adopted. Finally, the auditors gave feedback on the general usability of the plan. The final report that came out of this audit gave key recommendations for how the plan could be improved, which are shown on the slide.



The Partnership for Coastal Watersheds Process

Summary Points:

The team developed two primary information sources that county and other local jurisdictions could use to update inventories: The [Community, Lands & Waterways Data Source](#); and the [Coos Estuary and Shoreland Atlas](#).



Intent: Help ensure an updated plan reflects current economic, environmental, and socio-cultural needs of the broader community through:

1. Assess existing plan
2. **Amass current information**
3. Engage broader community
4. Evaluate options and recommendations

Community, Lands & Waterways: Data Source

Encyclopedic compilation of all available data describing socioeconomic and environmental conditions in the area

18 chapters assessing biological, physical and socio-economic systems



Summary Points:

The current inventories used in decisions were created and compiled in the 1970s, so the Partnership for Coastal Watersheds directed the development of the Community, Lands & Waterways data source. The chapters describe present-day statuses and trends of resources and profiles in the surrounding community.

Each chapter has a data summary with a description of the data origin, level of confidence in the data, any gaps that exist in the data, and how climate change may affect each attribute.

The data source consists of 18 chapters in all, assessing attributes such as weather, water quality, land site hazards, endangered species status, invasive species status, jobs and employment trends, and education.

Coos Estuary Map Atlas

Series of maps/tables analyzing current natural resource, hazards, and socio-economic data

Includes:

- Socio-economic data
- Designated land uses
- Ecological features
- Regulatory policies
- Hazards
- Districts
- Species of concern
- Infrastructure
- Restoration areas
- Recreation and estuary access



Summary Points:

The second step to updating information was the development of the Coos Estuary and Shoreland Atlas.

Most of the data in this resource were collected after the existing plan was adopted; for example, tsunami inundation zones were not a high concern in the 1970s. Mapping technologies have made remarkable improvements since the 1980s, but the existing plan contains hand-drawn maps which were still used by the County in their decisions 40 years later. The map atlas was intended to replace outdated maps by providing modern, larger-scale dimensional paper maps and a geodatabase containing spatial data.

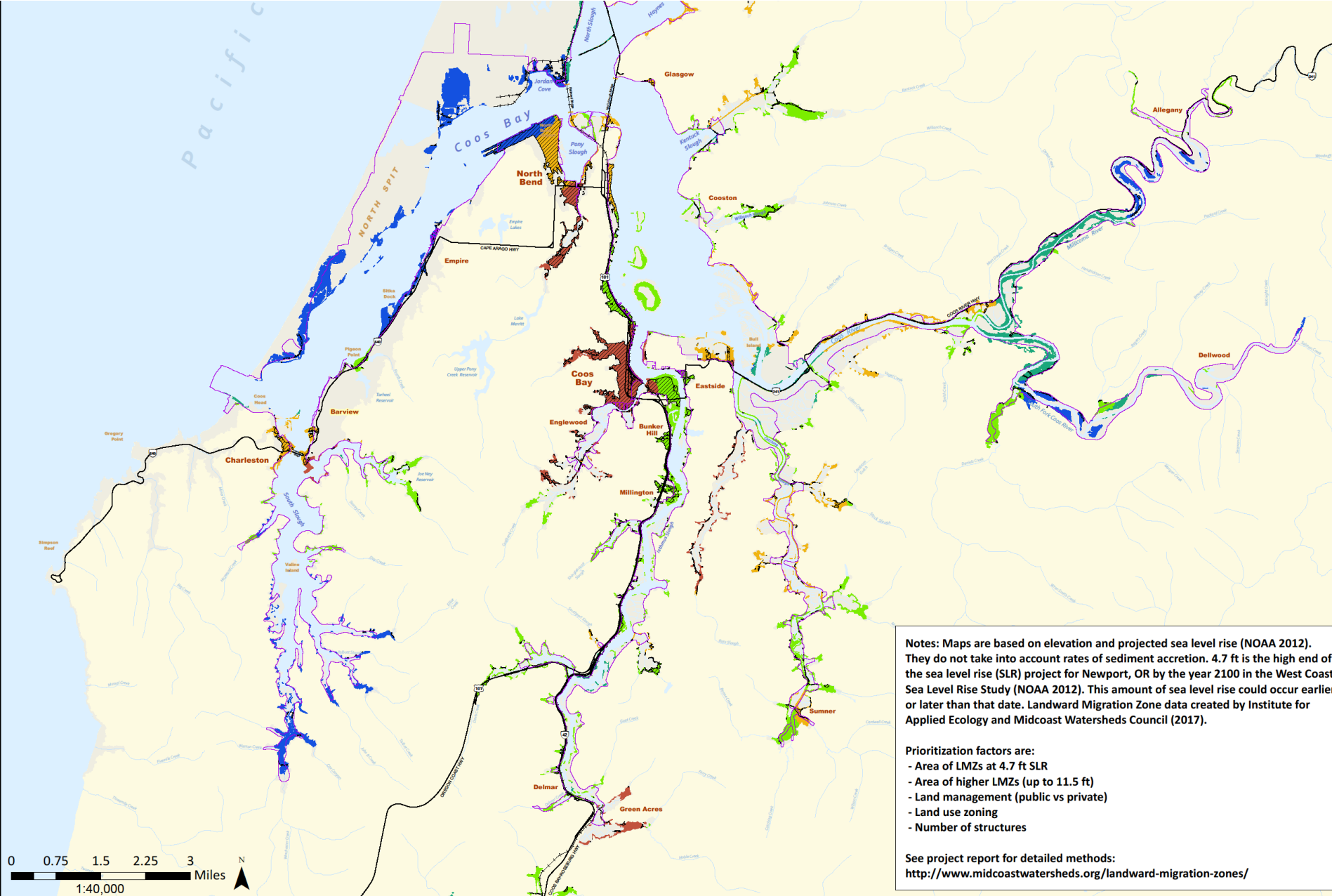
Summary Points:

The slide shows an example of a large-scale paper map provided by the map atlas. This map shows tidal wetland landward migration zone areas in the Coos Estuary. Other maps included:

- Physical features such as tsunami inundation or sea level rise zones;
- Biological features such as eelgrass or oyster beds; and
- Socioeconomic attributes such as zoning and management units, mitigation sites, and improvement status.

Terminology

- **Tidal Wetland Landward Migration Zone:** Where marshes have the ability to migrate in a 4.7-foot sea level rise scenario.



Tidal Wetland LMZ Prioritization (4.7 ft SLR)



The Partnership for Coastal Watersheds Process

Summary Points:

The Partnership for Coastal Watersheds gave feedback throughout the project and drove the process. Once the team had amassed all the information described above, they wanted to engage the broader community to assess sentiment toward the ongoing revision process.



Intent: Help ensure an updated plan reflects current economic, environmental, and socio-cultural needs of the broader community through:

1. Assess existing plan
2. Amass current information
3. **Engage broader community**
4. Evaluate options and recommendations

Stakeholder Focus Groups

Intent: Engage local community members with expertise in one of three categories:

- Economic Development
- Natural Resource Protection/Restoration
- Socio-cultural Interests

Example recommendation:

“Encourage the maintenance or rehabilitation of existing derelict infrastructure to either preserve its use for future development needs or for when it has habitat significance. Otherwise promote removal.”



Summary Points:

The team hosted a series of workshops resulting in recommendations from each focus group, which ensured the updated plan would reflect the present day economic, environmental, and sociocultural needs of the broader community.

Public Open House

Intent: Solicit feedback from community

Survey to understand participants:

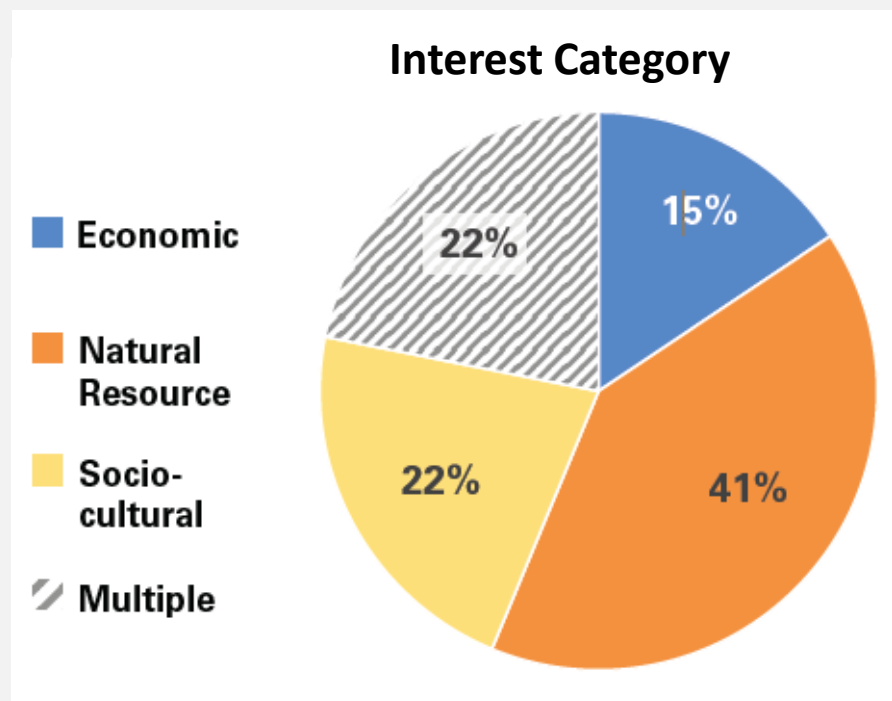
- Experience using plan
- Which interest groups they associate with How well they agree with focus group recommendations



Summary Points:

The group also sought a broader community perspective by hosting a public open house, which included presentations on the Partnership for Coastal Watersheds steering committee, statewide planning goals, and Coos Bay Estuary Management Plan.

Information stations around the room gave in-depth reviews of the Community, Lands & Waterways data source, the Coos Estuary Map Atlas, the Coos Bay Estuarine Management Plan audit, and recommendations from the focus groups.



Engagement Activity

Poll Question:

- Which interest group do you associate MOST with?

Summary Points:

Which interest group do you associate most with?

- Natural resource protection interests: 93.48%
- Socio-cultural interests: 6.52%
- Economic development interests: 0.00%



National Estuarine
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Technical Review

Intent: Solicit feedback from regional experts in economic development, natural resource protection, sociocultural needs, and statewide planning goals

[The current plan] clearly needs to be brought into the 21st century where we can use technology to make it transparent.

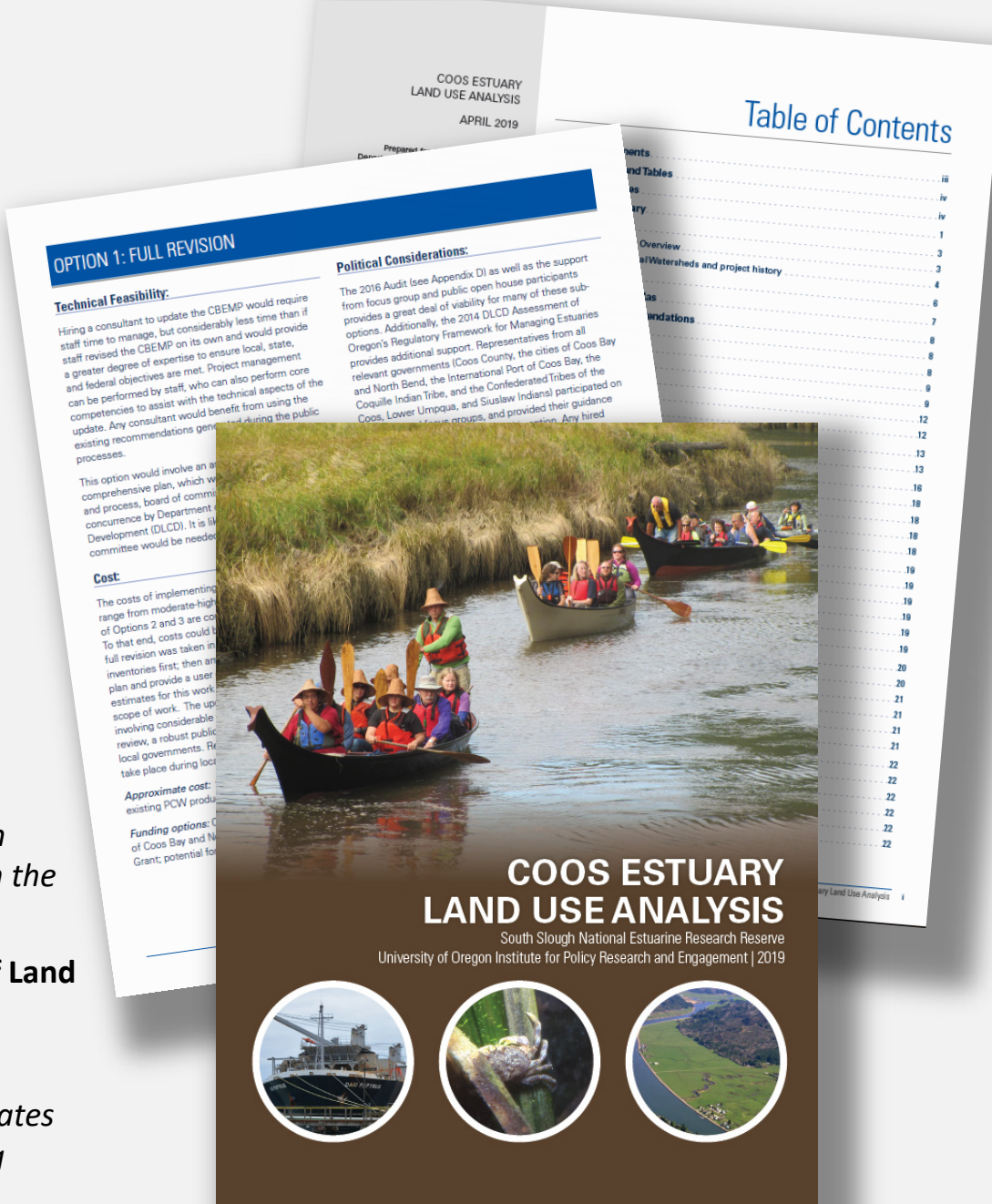
– Alex Campbell, Regional Solutions Coordinator, Governor’s Office

The report is thorough, and I believe provides an excellent foundation to support the next steps in the modernization of the CBEMP.

– Matt Spangler, Policy Analyst, Department of Land Conservation and Development

The Coos Estuary Land Use Analysis 2018 communicates effectively about the project and processes engaging staff, consultants, and the public.

– Dr. Stephen Beckham, American historian, retired



Summary Points:

The third way the team engaged broader communities was by soliciting technical review on their process. The team aimed to confirm that the process utilized a balanced approach, which they did by soliciting feedback from regional experts from 1 of 4 categories: economic development; natural resource protection; sociocultural needs; and statewide planning goals. The team took care to ensure that the technical reviewers were experts in their field, but had no vested interest in the process. The final Coos Estuary Land Use Analysis report incorporates feedback from these experts as much as possible.



The Partnership for Coastal Watersheds Process

Summary Points:

Intent: Help ensure an updated plan reflects current economic, environmental, and socio-cultural needs of the broader community through:

1. Assess existing plan
2. Amass current information
3. Engage broader community
4. **Evaluate options and recommendations**



Evaluating Options and Recommendations

Intent: Analysis of options, including trade-offs such as costs, staff time, political viability and technical feasibility for implementation

Options:

- Full plan revision
- Partial plan revision
- No-change option

CRITERIA	FULL REVISION	PARTIAL REVISION	NO-CHANGE
Technical Feasibility	Hiring a consultant to update the CBEMP would require additional staff time to manage but would provide a much greater degree of expertise to ensure local, state, and federal objectives are met. Any hired consultant would benefit from utilizing the existing PCW products, including recommendations generated during the public processes.	Incorporating the <i>Map Atlas</i> , <i>Data Source</i> , and incorporating the easier to implement recommendations into the CBEMP is possible with the existing information available.	The CBEMP has been implemented since 1984. Technically and legally the plan is still goal compliant (it is adopted and acknowledged). Digitizing the plan would make it searchable and easier to navigate.
Cost (Economic and Financial Possibility)	High cost (\$100k to \$400k or more if existing PCW products are not used)	Moderate cost (\$20k to \$50k)	Low cost (\$5k to \$10k or more)
Political Viability	The 2016 Audit as well as the support from focus group and public open house participants provides a great deal of viability for many of these sub-options. Additionally, the 2014 DLCD <i>Assessment of Oregon's Regulatory Framework for Managing Estuaries</i> provides additional support. Any hired consultant should heed the recommendations to maintain public and political support.	General support for this option from members of all focus groups, the public, and the County and cities.	Very little need for political support toward this option, however, this option does not adequately meet the needs of the community.
Administrative Ease	Capabilities exist with the County and cities to move these recommendations forward. Time and resources would need to be allocated. Outside consultants would likely be needed. This option would involve the most time and resources.	Capabilities exists at the County and cities to move these recommendations forward. Time and resources would need to be allocated. Outside consultants would likely be needed.	Process of digitization would include hiring an outside professional and staff time.
Efficacy (Numbers reference Table 1)	Plan rectified according to all audit recommendations (1-18)	Usability: 8, 9, 10 Document Structure: 14, 15,	Document Structure:14

Table 2: Decision-making matrix weighing each option by evaluation criteria

Summary Points:

- No-change option:** Keep the plan as is, or at least digitize the plan to make it more user-friendly. Least cost, but lowest impact.
- Partial plan revision:** County could adopt small plan amendments, such as the inventories portion, using the Communities, Lands & Waterways data source or the Coos Estuary Map Atlas to update the information.
- Full plan revision:** Review individual zonings and potentially make changes. Highest cost, but greatest impact.
- Following a joint-jurisdictional meeting in June 2019, during which the team presented the project findings, decision-makers gave verbal consent to move forward with a partial revision now, followed by a full revision in the future.



Summary Points:

As of November 2019, no jurisdiction in Oregon has done a major revision to their estuary management plan. To this end, the team wanted to catalyze the process by developing a framework that would allow integration of new information into existing plans.

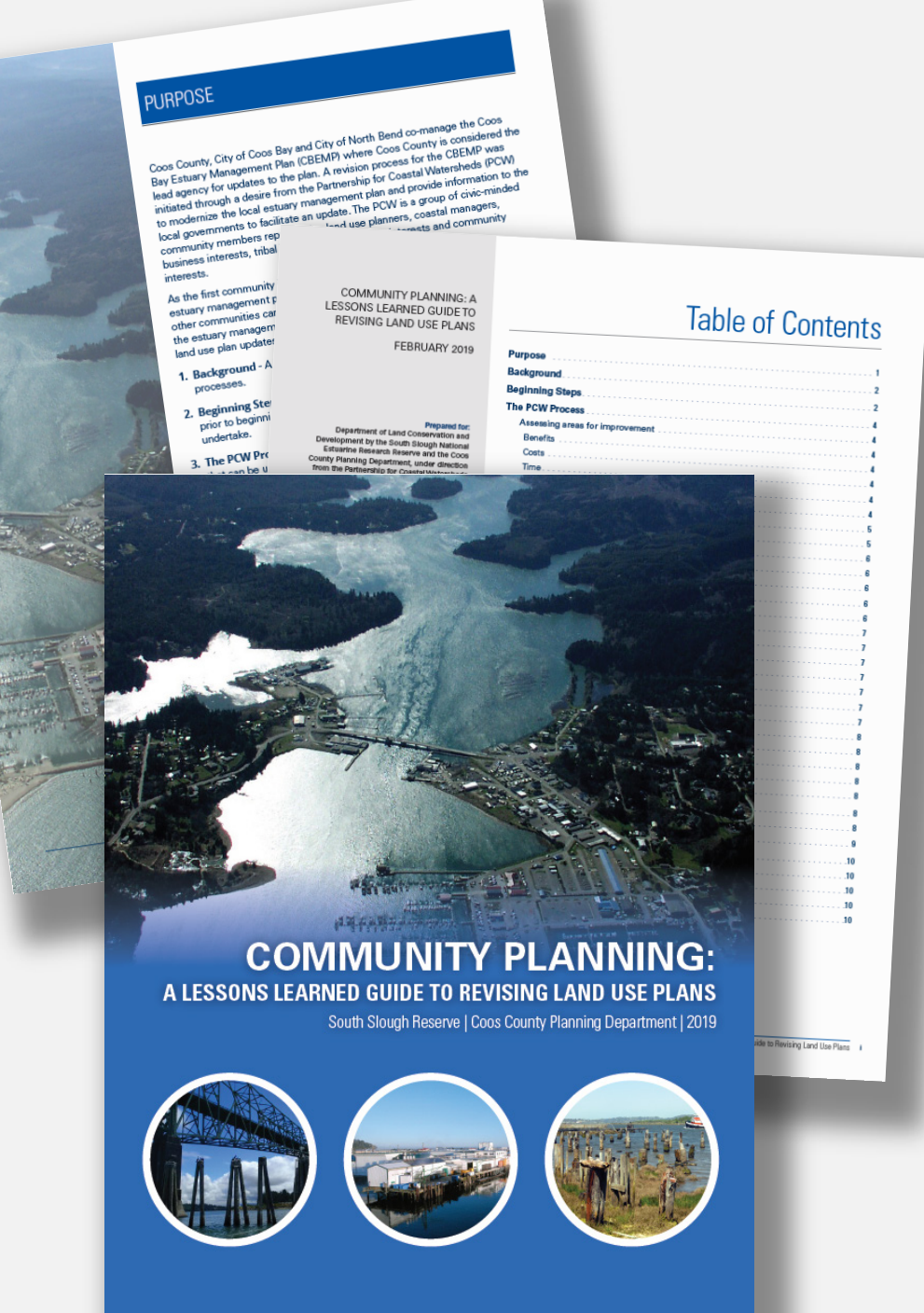
As previously noted, three jurisdictions are affected by the Estuary Management Plan, with Coos County as the lead jurisdiction. The team wanted to ensure that all three jurisdictions would agree with and adopt a revised plan. The partial revision to the Coos Bay Estuary Management Plan is a three-month process with its own public review period.

Intent: Develop a framework for local governments to incorporate new information

Consultants:

Laying the groundwork

- Analyzed inconsistencies between the adopted plan and ordinances;
- Made recommendations on integrating newly compiled info into the plan;
- Made recommendations on making the plan more user friendly; and
- Laid the groundwork for cross-jurisdictional coordination and collaboration.



Lessons Learned

Summary Points:

The team developed a [Lessons Learned](#) guide that provides the background, beginning steps, Partnership for Coastal Watershed process, general considerations, and resources.

Background - Brief overview of Oregon land use plan and update processes

Beginning Steps – Considerations and first steps when beginning or updating a plan

The PCW Process –Broken into cumulative steps, each can be a distinct phase. Steps have:

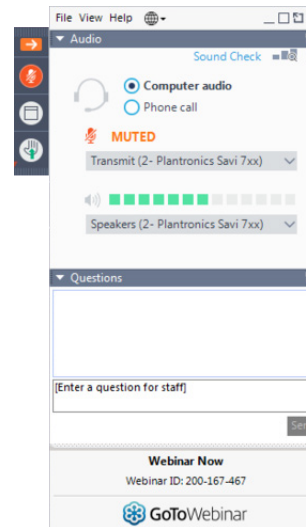
- A brief overview
- Breakdowns of benefits and costs
- Other considerations

General Considerations – Best practices and circumstances to be careful of

Resources – Products described in this webinar, contact info, subcontractors, grant funding options

Question and Answer

- Submit your questions through the “Questions” box



Questions:

Q: What will be the largest challenges moving forward regarding the implementation of the newly revised plan?

- **Jill:** The major challenge is that all three jurisdictions have to actually adopt the plan. Even though we have the buy-in, that final last step is still crucial. That is probably the most challenging, because you're going to have different views from different jurisdictions; the plan to divide one estuary into jurisdictional boundaries might make sense for jurisdictions, but not necessarily for the estuary. In addition, funding will be a consideration as we move toward the full revision.

Q: What surprised you during this project?

- **Jenni:** We thought it was interesting when we had the three focus groups. We expected more conflict among the recommendations, but a lot of it flowed really well together and there were no conflicts.

Q: Did you identify and consider protection of pathways for tidal wetlands to migrate?

- **Jenni:** The map we showed is an example of one way we plan to provide such inventories as part of the revised plan. Once adopted, that becomes information that the County and other local jurisdictions can use when making decisions. The specific language for the parcels themselves would be part of the full revision. The language isn't currently in there, but as we move forward and maps are adopted, these policies will be incorporated into the final plan.



Thank you

Questions:

Q: Do the revisions involve any land acquisitions, or were most revisions limited to what category of management the land would be listed under (e.g., natural, conserved, developed)?

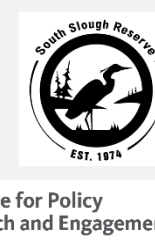
- **Jill:** There are no land acquisitions as part of this plan, and I can't see that there would be, but it's not off the table if needed in the future.

Q: Can you share a bit more about how this project came to be?

- **Jenni:** This came out of a citizens' group that wanted to see an update to the plan just because of the age of the data that was being used to make policy decisions. I think there were a couple of large projects that came in that were very controversial that were still going on, which sparked discussions of modernizing the plan. The PCW has evolved over time depending on the project. With this specific project, a lot of people were concerned from many different perspectives and were having issues with the fact that the current plan was so outdated and that decisions were still being made using outdated information. Everyone agreed that the plan needed to be revised, which helped solidify the direction the group wanted to go. The project would not have been possible without broad support from the community, and funding to move the project forward.

www.partnershipforcoastalwatersheds.org

This work was sponsored in part by the National Estuarine Research Reserve System Science Collaborative, which is funded by the National Oceanic and Atmospheric Administration. Funding for this project also came from the Oregon Department of Land Conservation and Development.



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Thank you

Questions:

Q: Are you feeling optimistic about the community getting more ready as the climate changes?

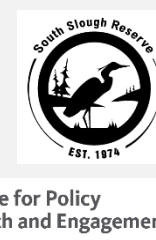
- **Jenni:** Yes, we're feeling optimistic. There are some steps that need to be taken before the full revision can happen, including a climate change vulnerability assessment and hazards risk assessment, but that represents a solid next step toward that full revision.

Q: Anything else you can share about next steps?

- **Jill:** We're moving forward with the adoption of the partial revision in the county, and then the cities will follow suit. We'll need to keep monthly meetings going to maintain momentum, keep the project on track, and explore different funding ideas. In the bigger picture, the PCW has been talking about the climate change vulnerability assessment, and has also identified data gaps through this process that need to be filled. For example, mitigation lands need to be reassessed and generally reclassified as restoration opportunities to account for areas that have either passively restored or have no ecological uplift.

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